An empirical examination of the three elements (actions, means and purpose) of the Palermo Protocol to establish an offence of human trafficking.

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I, Damask Smith, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

The internationally agreed definition of human trafficking, contained in the Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children (Palermo Protocol), supplementing the United Nations Convention against Transnational Organized Crime is comprised of three elements: action, means and purpose. Empirical exploratory research considers the extent to which the definitional construct of three elements reflects convicted offender method to commit human trafficking. Empirical research was conducted on 972 offenders convicted of human trafficking and the actions and means they used to fulfil different purposes to commit human trafficking. Data was collected and disaggregated from 486 conviction case summaries contained in SHERLOC, the United Nations Office on Drugs & Crime database, related to prosecutions brought by 40 Member States to the Palermo Protocol. Analysis explores academic discord on the extent to which human trafficking is the process of moving a victim to the point of exploitation, but not including exploitation of the victim (Chuang, 2014) (Stoyanova, 2015a) or includes both the process of moving the victim and the static action of end exploitation (Gallagher, 2010). Furthermore, empirical analysis is made of the actual actions and means performed by offenders to further an understanding of problematic terms in the definition and explore other insights from an analysis of the three elements. Finally, empirical analysis through structural equation modelling explores an order and structure to human trafficking and results are presented through a

series of visuals to facilitate the practical translation of findings for investigators.

Impact statement

Transferring knowledge on human trafficking to facilitate the practical application of knowledge to support the investigation and prosecution of human trafficking requires a coherent understanding of what offenders do and how they commit human trafficking. This research was conducted by a financial crime practitioner with an interest in identifying human trafficking related financial transactions in the financial system. It was evident at an early stage of research that there was limited empirical research on offender method to commit human trafficking to facilitate a meaningful translation of knowledge to financial monitoring systems. This thesis begins to fill a gap in academic knowledge on offender method by creating an empirical study that applies the international definition (Dempsey, 2017) and its three constituent elements to offender method. This foundational research conducted in accordance with the structure of the international definition of human trafficking in the Palermo Protocol also facilitates Member State cooperation on other provisions in the United Nations Convention against Transnational Organized Crime. Specifically, having common agreement on what is the crime of human trafficking, determines the ability to conduct transnational investigation and prosecution of offenders and the ability to pursue proceeds from crime across borders. Furthermore, this research identified that offenders who move and conceal victims were also moving and concealing profit and operational finance to support the day-to-day business of human trafficking, an additional process in offender method that has been largely overlooked in academic research. Finally, to support a practical translation of research for investigators, the findings in this thesis, from advanced data modelling, were mapped into visuals telling a data driven story of offender method to commit human trafficking.

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Chapter 1   Introduction

'definitions have served as a mask or proxy for infinitely more complicated debates around issues such as prostitution and migration.' as stated by Gallagher, (2010 p.13)

Since the 1990s, a confluence of political and societal issues: womens rights and prostitution, the control of prostitution markets by organised crime groups, the fear from the HIV/AIDS pandemic, increased female migration following the disintegration of the Soviet Union, all led to the commission of international reports on the trafficking of women and debate on a definition of human trafficking (Lehti, 2006; Gallagher, 2010; Chuang, 2014; Stoyanova, 2015a; Gomez-Mera, 2017). These efforts drew attention to the shortcomings of the international legal framework and that a material deficiency was the lack of agreement on a definition of human trafficking (Gallagher, 2010). From the point at which the 'Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children' (Palermo Protocol), came into force in December 2003 and the international definition of human trafficking was agreed, the focus on human trafficking has not diminished[1]. However, international agreement on the Palermo Protocol has not ended debate on the crime problem.

There has been continuing criticism of the Palermo Protocol and the international community's approach to combat human trafficking. Criticism has been directed at the lack of a monitoring mechanism to enable the scrutiny of States Party and their efforts to combat the crime, (Albanese, 2018) an issue addressed by Resolution 9/1 at the 9th session of the Conference of the Parties in October 2018 (United Nations Resolution 9/1

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[1] United Nations Office on Drugs & Crime (UNODC) Working Party papers and biannual reports on human trafficking and regional treaty bodies: African Union Commission Initiative Against Trafficking (AU.COMMIT); Council of Europe's Group of Experts on Action against Trafficking in Human Beings (GRETA); League of Arab States (Permanent Arab Committee for Human Rights); MERCOSUR Institute of Public Policies on Human Rights.

Mechanism for the Review of the Implementation of the United Nations Convention against Transnational Organized Crime and the Protocols thereto, 2018).   Concern has been raised that the Palermo Protocol placed emphasis upon pursuing offenders rather than protecting victims (Stoyanova, 2015a). There has been considerable disagreement within the academic community on efforts to measure the crime problem through estimating the number of victims affected (Salt, 2000; Lehti, 2006; Weitzer, 2007, 2014, 2015; Zhang, 2009; Brunovskis, 2010; Datta, 2013; UNODC, 2016; Dempsey, 2017; Feingold, 2017; Gallagher, 2017; Patterson, 2018). Importantly, there has also been continuing debate amongst legal scholars related to the international definition of human trafficking itself (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015a).

Article 3 of the Palermo Protocol, supplementing the United Nations Convention against Transnational Organized Crime (UN OCG Convention) contains the international definition of human trafficking. It states:

> '"Trafficking in persons" shall mean the recruitment, transportation, transfer, harbouring or receipt of persons, by means of the threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at a minimum, the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs;'.

Academic legal scholars have focused on the lack of clarity on the meaning of terms within the definition (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015a) and the extent to which the crime is a process crime bringing a victim to exploitation or whether the terms in the definition can be interpreted broadly to include both the process and the static nature of exploitation (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015a).   This continuing disagreement on the international definition led Dempsey (2017, pp. 61-80)

to examine the extent to which academic research was overtly and inadvertently fuelling this debate. Dempsey (2017, pp.61-80) identified that either academic researchers were including a definition in research and the interpretation of the definition was not based in legal analysis or they were ignoring the definition altogether, leaving research vulnerable to bias and the pursuit of pre-determined policy objectives.

The legal academic debate on the continuing uncertainty related to the terms included in the international definition and the extent to which the crime is a process crime or includes the end static exploitation of victims is material (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015). Articles 13 – 22 of the UN OCG Convention seek to address issues that may create difficulty in pursuing transnational crime[2]. Common agreement on what constitutes the crime is fundamental to efforts to investigate, prosecute and prevent transnational human trafficking. Domestic implementation of the international definition has led to variation in approach by Member States to the Palermo Protocol (Gallagher, 2010; UNODC, 2013, 2014, 2015b; Chuang, 2014; Stoyanova, 2015). International cooperation was a significant aim of the UN OCG Convention and disagreement between Member States on the scope of the definition of human trafficking may impact upon that cooperation (Stoyanova, 2015). The ability to pursue offenders transnationally and efforts to prevent the crime and protect victims, are hampered if the activity deemed criminal in one Member State is not criminal in the domestic legislation of another Member State.

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[2] Article 13 the pursuit of financial assets and property across borders; Article 14 the return of property to a requesting state; Article 15 the pursuit of offenders across borders by a State Party if the victim or the offender is a national of the State; Article 16 extradition of offenders; Article 17 the transfer of persons between States Party; Article 18 mutual legal assistance to another State Party; Article 19 joint investigations; Article 20 cross-border special investigation techniques; Article 21 the transfer of criminal proceedings to another state; Article 22 creating a record of an offence in another state (United Nations Convention Against Transnational Organized Crime, 2000).

This thesis explores the extent to which the international definition in the Palermo Protocol and the definitional construct of three elements, accurately reflects offender method to commit human trafficking. This research aim is considered through empirical analysis of the actions, means and purposes performed by 972 offenders convicted of human trafficking, disaggregated from 486 conviction case summaries held on SHERLOC, the UNODC database. The following research objectives arising from scholarly disagreement and debate on the international definition frame this exploration:

1. To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

2. To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

3. To assess if the international definition adequately reflects convicted offender method.

4. To determine whether offender method to commit human trafficking has structure and order to it?

In addition to Dempsey's (2017 pp. 61-80) criticism of academic research on human trafficking and the failure to structure research in accordance with the legal definition, there has been further criticism that where studies have been conducted, findings have not been based on empirical scientific methods and not peer reviewed (Albanese, 2007; Aromaa, 2007; Zhang, 2009; Kleemans, 2011b; Datta, 2013; Weitzer 2014, 2015; Cockbain, 2018, 2019). Lack of quality in empirical research may also relate to the lack of data on human trafficking (Salt, 2000; Lehti, 2006; Kangaspunta, 2007; Brunovskis, 2010; Patterson, 2018). In turn lack of data on human trafficking

offenders may have resulted in an imbalance in academic research towards the study of victims, where data has been more readily available, than the study of offenders (Goodey, 2008; Surtees, 2008; Kleemans, 2011a; Cockbain, 2019).

This thesis provides an empirical analysis of offender method to commit human trafficking, offering the first empirical research on the international definition of human trafficking. Accepting Dempsey's (2017 pp. 61-80) criticism, this thesis is structured in accordance with the international definition's three constituent elements: actions, means and purpose. Empirical analysis in this thesis explores each element in the definition and its capacity to accurately reflect offender method. In keeping with the academic community's criticism of the quality of empirical research on human trafficking, this thesis adopts empirical scientific method (Albanese, 2007; Aromaa, 2007; Zhang, 2009; Kleemans, 2011b; Datta, 2013; Weitzer, 2014, 2015; Cockbain, 2018, 2019). To support empirical analysis and address difficulties related to data on human trafficking (Brunovskis, 2010), an extensive data collection exercise was undertaken, disaggregating data from 486 human trafficking conviction case summaries held on the United Nations Office on Drugs & Crime (UNODC) database, SHERLOC, related to 972 offenders convicted of human trafficking by 40 States Party to the Palermo Protocol. The extensive data collected for this thesis also facilitated a greater depth of statistical analysis through structural equation modelling to better explore the process of human trafficking, the source of considerable debate amongst legal academic scholars.

The remaining chapters in this thesis are structured as follows:

Chapter 2 explores the available literature on human trafficking offender method. The literature review is structured in accordance with the three elements: actions, means and purpose. An additional section in the literature review explores the potential for structural equation modelling to

aid an examination of the process or order to offender method to commit human trafficking.

Chapter 3 explores data related to human trafficking offending and the data chosen and collected for this thesis. An examination is made of:

- the factors considered in sourcing appropriate data for collection,
- the SHERLOC database and case summaries,
- the collection methods applied to the unstructured data,
- results from an audit and inter-rater reliability analysis of the data collected,
- factors related to the quality of the data source impacting the validity and reliability of the data,
- the statistical methods applied to the data to support an analysis of the research questions and
- the data visuals created to aid an understanding of the data results.

In Chapter 4 the actual actions performed by offenders to commit human trafficking and the extent to which those actions reflect the prescribed actions in the first element of the Palermo Protocol definition is explored. Analysis is made of the extent to which offenders performed actions in isolation or with other actions and which of those actions combined. Finally, data analysis is used to identify the extent to which offenders were performing actions together as part of a process of actions.

In Chapter 5 the actual means performed by offenders and the extent to which the means are identifiable with the second element of the Palermo Protocol definition is explored. Analysis is made of the extent to which offenders performed means to further an action and whether means were performed in conjunction with other means. Finally, data analysis is used to identify the extent to which means altered the process of actions identified from analysis in Chapter 4.

In Chapter 6 the actual purposes for which offenders were performing actions and means and the extent to which the purposes reflected the third element of the Palermo Protocol definition is explored. Analysis is made of the variation in actions and means performed by offenders when the context of purpose is added to analysis. Furthermore, analysis of a subset of offenders engaged in Sexual Exploitation is explored to consider actions and means performed specifically to further Sexual Exploitation. Finally, data analysis is used to identify the process of actions and means within Sexual Exploitation and the extent to which Sexual Exploitation as a purpose alters the process of actions and means performed by offenders.

In Chapter 7, findings explored in Chapters 4, 5 and 6 in this thesis are explored through the four research objectives identified through the literature review in Chapter 2. A series of visuals, created through analysis in the preceding Chapters, are presented with a simple narrative of offender method to aid practitioners and investigators. The limitations to the findings arising from the data and the analysis in this thesis are also considered. Finally, a series of Recommendations are made related to the application of the knowledge created from this thesis to human trafficking research and for the direction of future research.

Chapter 2   Literature review

'...no legal definition of trafficking, no matter how carefully
crafted, can ever be expected to respond fully to the shades
and complexities of the real world.' as stated by Gallagher
(2010, p. 52)

Considerable negotiation between Member States of the UN OCG
Convention took place to formulate the international definition on human
trafficking in Article 3 of the Palermo Protocol (Gallagher, 2010; UNODC,
2013, 2014, 2015b; Stoyanova, 2015a). The result of negotiation led to the
structuring of the definition through three elements: 'action'; 'means'; and
'purpose' (Gallagher, 2010; UNODC, 2013, 2014, 2015b; Chuang, 2014;
Stoyanova, 2015, Dempsey, 2017).

The definition is broken down into its constitutent elements as follows:

The first element, actions, refers to:

'recruitment, transportation, transfer, harbouring or receipt of
persons' as stated in Art 3. Palermo Protocol, UN OCG
Convention.

The second element, means, refers to the:

'threat or use of force or other forms of coercion, of abduction,
of fraud, of deception, of the abuse of power or of a position of
vulnerability or of the giving or receiving of payments or
benefits to achieve the consent of a person having control over
another person,' as stated in Art 3. Palermo Protocol, UN OCG
Convention.

The third element, purpose, relates to exploitation:

'... at a minimum, the exploitation of the prostitution of others
or other forms of sexual exploitation, forced labour or services,
slavery or practices similar to slavery, servitude or the removal
of organs;' as stated in Art.3 Palermo Protocol, UN OCG
Convention.

This literature review explores the available literature on the three elements of the definition of the Palermo Protocol and the significance of this knowledge to an understanding of offender method to commit human trafficking. Finally, an examination of available literature on data analysis modelling is considered to support an exploration of human trafficking as a process crime and explore an order to that process.

2.1   The first element: actions

Actions refer to 'recruitment, transportation, transfer, harbouring or receipt of persons' as stated in Art. 3 Palermo Protocol, UN OCG Convention. The absence of definitions for the terms used in Article 3 of the Palermo Protocol has led to variation in interpretation in domestic legislation of Member States to the Palermo Protocol (Gallagher, 2010; UNODC, 2013, 2014, 2015b; Chuang, 2014; Stoyanova, 2015). Article 5(2) of the UN OCG Convention refers to 'attempt', 'participation as an accomplice' and 'organizing or directing other persons to commit trafficking in human beings'. Oversight and ancillary actions and actions that are not complete, are included within the first element of the definition (Lehti, 2006), however, there may be significant variation in actual action (van der Wilt, 2014). Argentina identifies 'exploitation' as an action and not only the purpose for which trafficking is occurring (UNODC, 2014). Australia introduced a broader range of offences in 2013 to capture running a business in which forced labour is occurring, which would also indicate exploitation is treated as an action (UNODC, 2015b). Belarus, Israel, Italy and Serbia identify the 'buying' and 'selling' of people as actions, in addition to those listed in the Palermo Protocol and have added them to their domestic legislation (M and Others v. Italy and Bulgaria, (2012) ECtHR 40020/03; UNODC, 2014; van der Wilt, 2014). The EU generally adopted an enhanced definition of action in the 2002/629/JHA framework decision adding 'exchange or transfer of control over a person' to the existing definition in the Palermo Protocol (Lehti, 2006; Stoyanova, 2015) whilst academic legal analysis indicates that the 'purchase and sale' of people may be attributed to 'transfer' or 'receipt

of persons' (Gallagher, 2010; Stoyanova, 2015) in the first element, the third element, purpose is also relevant as this activity reflects 'slavery and slavery like' conditions (UNODC, 2015b).

Academic research on 'action' is complicated by the practical reality that the crime involves a continuous series of actions, actors, and for transnational activity, jurisdictions (UNODC, 2013; van der Wilt, 2014; Stoyanova, 2015; Weitzer, 2015; Campana, 2016a). The trafficking journey begins in recruitment. There is an expectation that Member States will develop their own definition and application of recruitment in human trafficking, reflecting their local labour market and its practices particularly as recruitment is invariably carried out by offenders on co-national victims (Lehti, 2006; UNODC, 2015a). In addition, recruitment has a noticeable relationship with gender, 30% of offenders convicted of human trafficking are women, as opposed to 10-15% of offenders for other crimes (Broad, 2015; Kangaspunta, 2015). However, women were also more likely to be strategically used by organised crime groups (OCG) to interact with victims rather than men, and when prosecuting human trafficking, who interacts with victims determines who is prosecuted (Kangaspunta, 2015). Furthermore, the preponderance of women as well as solo offenders in recruiting, may have more to do with the difficulty of prosecuting recruitment agencies as corporations, when offending requires the establishment of intent (UNODC, 2015a; Azad, 2016). Additionally, the structuring, registration and operation of a corporation may be deliberately complex and multi-jurisdictional to facilitate offending[3] (Azad, 2016; GRETA, 2017a).

Once recruitment has taken place, transportation is the second action in the order in the Palermo Protocol definition. Transportation is also undertaken

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[3] Belgian prosecutors investigating a Slovak company registered in the EU bringing Romanian workers into Belgium (GRETA, 2017a).

by offenders on co-national victims often with a 'considerable degree of cross border mobility' and where 'domestic and foreign illicit markets are inextricably linked' (Akee, 2014) giving traffickers an opportunity to redirect victims to markets that will maximise profit opportunities (Lehti, 2006; Akee, 2014). The offender engaged in transportation remains separate from offenders involved in exploitation, with high levels of distrust identified in interactions between offenders engaged in the separate processes of trafficking (Campana, 2016a). On the surface, transportation of victims would appear to have a simple focus, namely moving the victim from one place to another. However, in reality, this activity also involves significantly traumatic interaction with victims, in which various means are used to break the will of the victim along the journey (Lehti, 2006). The departure of the victim once recruited is described as 'rapid' with direct transportation to the final market or involving periods of exploitation along the route. An initiation period of a few weeks involves physical and emotional pressure involving rape and physical violence as well as psychological tactics producing submission in the victim (Lehti, 2006).

Academic discourse has focused on the distinction between transportation in human trafficking and in smuggling people (O'Connell Davidson, 2013). Studies debate whether these two crimes are better treated as one criminal activity of transporting people illegally or should remain separate (Salt, 2000; Campana, 2016b). The political reality of the distinction between the two crimes is a material factor in debate (O'Connell Davidson, 2013) and in member state perception of its responsibility to protect citizens:

> 'In trafficking in persons, the objects are treated as victims of crime... In human smuggling, the objects are usually treated as accomplices in crime...' as stated by Lehti (2006, p. 177).

The action of transportation does demonstrate the difficulty with the mens rea[4] of human trafficking; namely establishing that an offender intended to traffic, not smuggle. Although the means used by an offender in conjunction with the action of transportation would provide some insight on the offender's intention. Whilst Kleemans (2011b) analysis of the distinction between the crimes provides an accurate and logical structure to understanding the significant differences between smuggling and trafficking crimes and the origins and motivations of actors, the extent to which the separation of the offences is practical, is reflected in the grim reality that people may pay for smuggling transportation with earnings from adult prostitution or child sex trafficking (Digidki, 2017; Brunovskis, 2019). The 'real world' reality of circumstance does not necessarily or readily translate to distinguishing the crimes (Skilbrei, 2008; O'Connell Davidson, 2013; Brunovskis, 2019).

Literature on the remaining actions, 'transfer, harbouring or receipt of persons…' (as stated in Art. 3 Palermo Protocol, UN OCG Convention), highlight a fundamental disagreement in academic legal analysis. Stoyanova (2015) identifies 'transfer' and 'receipt of persons' as addressing the aspect of buying and selling people but also extending to situating a person in a place prior to their exploitation but falling short of any static action. However, Gallagher asserts that the end process of trafficking is addressed by these actions:

> 'the concept of trafficking in international law does not just refer to the process by which an individual is moved into a situation of exploitation: It extends to include the maintenance of that person in a situation of exploitation.' (2010, p. 47).

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[4] Mens rea (defined as 'the state of mind statutorily required in order to convict a particular defendant of a particular crime' (Cornell Law School, 2019))

and that the 'plain meaning of the text' with respect to the remaining actions would include the 'purchase' of a person as well as 'maintaining a person in a position of exploitation' (Gallagher, 2010 p. 47). Furthermore, Gallagher (2010, pp. 12-53) asserts that the actions of the first element are not limited. The uncertainty over whether trafficking includes the action of exploiting victims was not a factor in the first international convention on trafficking (Gallagher, 2010). However, it became an issue from 1994 with the General Assembly of the United Nations (UN) and the UN Secretary General in the following year issuing different definitions of trafficking:

> 'The Secretary-General's definition tries to reconcile the reality that trafficked persons may have initially consented to some aspect of their "movement" by focusing on the intention of the trafficker. Under this latter formulation, it is the *process* that defines trafficking, not the end result. In contrast, the General Assembly appears to identify the "illegal activities relating to trafficking," that is, the result of the movement, *as trafficking*.' (cited in Gallagher, 2010 p.18, Gallagher's italics)

This position was raised by the Special Rapporteur, Coomaraswamy, in 2000 who argued that exploitation and the purchase of a victim should be part of the process of trafficking:

> 'all persons involved in the trafficking chain: those at the beginning of the chain, who provide or sell the trafficked person and those at the end of the chain, who receive or purchase the trafficked person, hold the trafficked person in forced labour and profit from that labour.' cited in Gallagher, 2010, p. 24)

However, it has been argued that there must be movement of a person into a situation of exploitation for trafficking to be made out (Chuang, 2014; Stoyanova, 2015) and that exploitation of the victim once in situ is not trafficking but the purpose for which trafficking is taking place, an argument that undermines Gallagher's (2010, pp. 12-53) analysis that the prescribed actions are not limited and that they extend beyond movement process to include the exploitation of a victim. Chuang (2014, pp. 609-649) argues that the policy decision by the United States of America in 2006 which

determined that movement is unnecessary to establish trafficking for forced labour, by utilising 'harbouring' to establish the static nature of the offence of trafficking, was not in keeping with the intention of the structure of the definition. Chuang (2014, pp. 609-649) is supported in this view by Stoyanova (2015, pp. 32-73) and Patterson and Zhuo (2018, pp. 407-439). Whilst there is evidence in academic research for the prosecution of offenders engaged in exploitation in addition to recruitment and transportation (Campana, 2016a), in the absence of definitions for the prescribed actions, and the absence of a statement in the wording of the first element that the list of actions is 'at a minimum', Gallagher's (2010, pp. 12-53) argument whilst supported (Parkes, 2015; Dempsey, 2017) and preferred by this author, is not entirely compelling that it leaves no loophole in the structure of the first element. Iniguez de Heredia (2008, pp. 299-316) made such an argument. Too much emphasis was placed upon transportation to guarantee the transnational nature of the crime, avoiding intra-state activity which may include multiple transactions involving the buying and selling of a person without crossing a border (Iniguez de Heredia, 2008). Stoyanova (2015, pp. 32-73) identifies the development of interpretation of the international definition through Article 2 of the Council of Europe Convention on Action Against Trafficking in Human Beings, 2005 (Council of Europe Convention) which enabled the prosecution of trafficking when movement occurs intra-state, but Stoyanova (2015, pp. 32-73) argued that in any event, movement is an essential component of trafficking. The reliance on the action 'transfer' and the means 'the giving or receiving of payments or benefits to achieve the consent of a person' in the definition was considered by Iniguez de Heredia (2008, pp.299-316) as a poor attempt to capture the buying and selling of victims without explicitly referring to this type of criminality. The necessity to have complete clarity in terminology is evidenced by Member States including specific actions such as buying, selling and exploiting, that are not in the first element list of actions (M and Others v. Italy and Bulgaria, (2012) ECtHR 40020/03; UNODC, 2014, 2015b; van der Wilt, 2014. However, whilst there appears to be division in

interpretation of the definition and in particular, actions, there is agreement, with the exception of Stoyanova (2015b, pp. 292–318), that the definition is progress, particularly as the international community had done little to advance the plight of people suffering forced labour and servitude prior to the agreement on the definition in the Palermo Protocol (Iniguez de Heredia, 2008; Chuang, 2014; Gallagher, 2015).

Further interpretation of the Palermo Protocol definition has been given through the Council of Europe Convention in which Member States were encouraged to prosecute the actions of facilitating and arranging travel whether through forged or procured documents (van der Wilt, 2014). However, UN guidance issued to Member States to address the risk of 'exploitation creep' by maintaining the focus on the seriousness of offending may inadvertently lead to missed opportunities to prosecute actors involved in necessary, persistent and essential aspects of trafficking activity (Chuang, 2014; UNODC, 2015b). This may arise due to the absence of awareness about what is required to commit the offence 'operationally' and the perception that facilitating actions are not of the most serious criminality (UNODC, 2015b)[5].

Member States prosecute 'aiding and abetting' trafficking in their domestic legislation (UNODC, 2014, 2015b). However, it may be limited to a particular range of actions to facilitate human trafficking. For example, in Canada, withholding or destroying documents that contain evidence may assist human trafficking crime (UNODC, 2015b). Preparing documents to facilitate travel, moving funds, raising or managing finance for human trafficking operations and the remote orchestration of human trafficking operations through strategic oversight may be facilitating or oversight actions to human

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[5] '...1.2 ... it is important to acknowledge that the Protocol's formulation is designed to address serious forms of criminal conduct and not to encompass less serious forms of conduct or mere technical violations of the law.' stated in UNODC (2015b, p. 118)

trafficking generally falling under Article 5.1(b) of the UN OCG Convention. Article 6 of the UN OCG Convention specifically makes criminal the laundering of proceeds or profit from human trafficking but does not make criminal the facilitation of an operation of human trafficking with legitimate proceeds. Actions necessary to the operation of human trafficking may also fall under Article 5.1.ii.a. or b. of the UN OCG Convention:

> '*Article 5 Criminalization of the participation in an organized criminal group*
>
> 1.Each State Party shall adopt such legislative and other measures as may be necessary to establish as criminal offences, when committed intentionally:…
>
> (ii) Conduct by a person who, with knowledge of either the aim and general criminal activity of an organized criminal group or its intention to commit the crimes in question, takes an active part in:
>
> a. Criminal activities of the organized criminal group;
>
> b. Other activities of the organized criminal group in the knowledge that his or her participation will contribute to the achievement of the above-described criminal aim;…'

There is uncertainty as to whether other actions are included specifically in the Palermo Protocol definition in addition to the prescribed actions (Gallagher, 2010) or whether Article 5 in the UN OCG Convention must be implemented domestically to adequately support a prosecution of offenders engaged in necessary activities that are not specifically referred to in the first element of the Palermo Protocol definition. Domestic implementation of the terms of the UN OCG Convention in total may render this debate meaningless at a domestic level, but there is disagreement between academic legal scholars upon the extent of the definition and what has been agreed internationally (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015). Stoyanova (2015, pp. 32-73) argues that the actions in the first element themselves, when distant from the activity of exploitation in the third

element, may be treated as aiding and abetting human trafficking. Although, this interpretation would relegate the definition of human trafficking to the prosecution of lone traffickers with organised actors receiving a lesser sentence of aiding and abetting when there are multiple players making up a network and where there is isolation between actors.

Academic research on actions, in the first element of the international definition, has focused on legal theory and has not explored the definition empirically. Creating an analysis of the terms in the international definition, through empirical scientific method, would begin to explore the validity of this disagreement, facilitating a better discussion by policy makers and at treaty bodies on commonalities to offender method to commit human trafficking. This gap in knowledge leads to the first research objective of this thesis:

Objective 1

To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

The second general research objective relates to the disagreement in academic legal theory on the extent to which human trafficking is a process crime or encompasses the end static exploitation of victims:

Objective 2

To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

2.2 The second element: means by which action is achieved

The second element of the Palermo Protocol, means, must link to an action (UNODC, 2013, 2014, 2015b). Where children are trafficked, means are irrelevant for prosecution, although this is not always universally applied (C. N. & V. France, 2012, ECtHR, 67724/09; UNODC, 2014; Dempsey, 2017). The means not only establish the method used by the offender to commit the action, but also the extent to which the adult victim consented to be trafficked (UNODC, 2014; Stoyanova, 2015).

Means used by traffickers are divided into overt behaviours such as:

> 'threat or use of force or other forms of coercion, of abduction,' as stated in Art. 3 Palermo Protocol, UN OCG Convention

and subtle methods such as:

> 'fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person,' as stated in Art. 3 Palermo Protocol, UN OCG Convention.

Debate on subtle means centres around the 'abuse of power or of a position of vulnerability' within the definition, whilst there is further uncertainty about the meaning of 'the giving or receiving of payments or benefits to achieve the consent of a person having control over another person,' and as a result, little evidence of the application of this means to prosecutions in practice (Gallagher, 2010; UNODC, 2013; Chuang, 2014; Stoyanova, 2015). Debate between Member States on the subtle means of identifying or achieving a state of vulnerability in the victim has occurred due to the diverse domestic laws, social and cultural differences between States in their acceptance of vulnerability to certain means (Siliadin v. France, 2005, ECtHR, 73316/01), the lack of precedence in previous use of the term 'position of vulnerability' in international law and the political considerations of domestic implementation of such a term (UNODC, 2013; 2014; Chuang,

2014; Esser, 2016). In fact, 'vulnerability' has a close relationship to the capacity of the Member State to address poverty and social inequality but may have a significant connection to female security, poverty and empowerment. This is apparent from diverse victim characteristics from highly educated and single parent female victims originating from former Soviet or Soviet satellite states to, Nigerian female victims who are likely to be uneducated and single (Salt, 2000; Lehti, 2006; Dunkerley, 2017).

The debate in relation to subtle means also extends to the need to limit the purpose for which trafficking is occurring (exploitation). Without evidence of extreme exploitation, subtle means are perceived as 'opening up' 'exploitation creep'. In other words, the liberalising of trafficking law to encompass other forms of inequality so that the purpose of the Palermo Protocol is diluted (C. N. & V. France, 2012, ECtHR, 67724/09; Chuang, 2014; Plant, 2015; Stoyanova, 2015; UNODC, 2015b; Patterson, 2018). The risk of 'exploitation creep' is exacerbated by the understanding that subtle means are more commonly used than more obvious means of force and violence (UNODC, 2014). However, in practice Campana's study of West African human trafficking identified that the exploitation stage of human trafficking necessitated considerable 'monitoring' of victims affecting the 'economies of scale' of an operation. Importantly, means may involve interaction with a victim's family with pressure and violence applied to family members, activity that is coordinated by offenders abroad liaising with offenders in the originating State (Campana, 2016a). The extent to which means are bound into the process of exploitation may in fact undermine Chuang (2014, pp.609-649) and Stoyanova's (2015, pp. 32-73) analysis that human trafficking is a process prior to the exploitation of a victim.

There is an understanding that the 'vulnerability' that is exploited by an offender may pre-exist in the victim or be created by the offender (UNODC, 2013, 2014). Both of the following can be considered a means (a) the identification of a vulnerability and its exploitation by an offender and (b) the creation of a vulnerability by an offender to perpetuate human

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trafficking (UNODC, 2013, 2014). The dual aspect to means is inevitable when dealing with a continuous cycle of action. Brunovskis and Surtees (2019, pp. 73-86) identified such a complexity of vulnerability for "migrant/refugees" moving along the "Balkan route" towards the European Union. The closing of borders to quell the flow of migrants resulted in an estimated 33% increase in the cost of smuggling services, leading to a higher rate of sexual exploitation and forced labour to pay for the journey. In addition, vulnerability from mass migration led to exploitation by not only smugglers but also other "migrant/refugees", local people along the route and family members fleeing (Brunovskis, 2019). Identifying where vulnerability begins and ends and the factors that are pre-existing, rapidly morphing or purposefully created becomes an impossibility when a border can be open and closed within a matter of hours.

The construct of using means to establish the vitiation of consent was added to the definition to resolve the debate related to voluntary prostitution, with criticism that this construct of a second element created confusion (Gallagher, 2010). A difficulty arises when establishing the point at which a victim loses the ability to consent to their situation and whether this lack of autonomy is a continuous state or has been acknowledged by the victim, through self-identification (Skilbrei, 2008; UNODC, 2014). Close relationships between offender and victim create environments where victims may participate in trafficking, further distorting the perception of consent and its importance when means are present (Siegel, 2010; UNODC, 2014). In addition, the revocation of consent at a later stage, where prostitution was voluntary at the outset but that the working conditions and terms become akin to sexual exploitation, would not be trafficking, according to Chuang (2014, pp. 609-649) Stoyanova (2015, pp. 32-73) and Patterson and Zhuo (2018, pp. 407-439). 'Individualist' feminist debate (Stoyanova, 2015) on the conflation of prostitution with trafficking, identifies that women who have chosen sex work but later find themselves experiencing labour exploitation with working conditions akin to trafficking

are not protected by the Palermo Protocol (Wijers, 2015). Means are perceived as requiring 'purity' at the outset and closely linked to the recruitment process with the movement of 'innocent' women into prostitution (Wijers, 2015). Furthermore, in practice, consent has a material impact on the perception of the 'severity' of offending and the ability to persuade a judge or jury through victim testimony that an offender committed the means and is guilty of trafficking (UNODC, 2014; Stoyanova, 2015). Academic analysis (Gallagher, 2010; Dempsey, 2017) that the actions in the first element capture the static end exploitation of victims enabling the second element to be used to vitiate consent, once in a state of exploitation, does undermine Wijers (2015, pp. 56-79) criticisms of means. The victims in Campana's study (2016a, pp. 68-86) of Nigerian human trafficking networks were identified due to a high number of Nigerian women disappearing from Dutch refugee centres and subsequently identified in prostitution in Italy. Campana's case study (2016a, pp. 68-86) undermines Wijers analysis (2015, pp. 56-79).

Academic analysis has focused on redressing the balance of research away from the characteristics of victims towards the characteristics of offenders (Surtees, 2008; Broad, 2018). Study of offender characteristics involved in the more obvious means supports an improved understanding of the cultural and sociodemographic factors to offending, for example Baarda's (2016, pp. 257-273) study on the use of voodoo by Nigerian human trafficking networks operating in Western Europe, highlighting that the significance of belief in voodoo operated to exert an influence not only victims but on other traffickers. However, research appears lacking for understanding the prevalence of the use of certain means, the distribution of means across Member States and an examination of efforts and resources applied to address harm arising from means. Dunkerley's (2017, pp. 83-100) study presented a rare example on the use of voodoo/juju as a means, exploring the implications for evidence gathering during criminal investigations of Nigerian human trafficking in the UK.

The point at which the means by which a victim is made vulnerable and held in a state of vulnerability, may reflect offender intention (the mens rea) to commit human trafficking (C. N. & V. France, 2012, ECtHR, 67724/09; UNODC, 2013; Stoyanova, 2015). Although, Skilbrei and Tveit (2008, pp. 9-30) find that the overlap between smuggling and trafficking, where actions and means are common, may produce an end outcome that is the same but that the intention of the offender was different. For example, debt bondage used as a means by smugglers to repay a debt owed for transportation and for traffickers a mechanism for preventing a victim leaving prostitution, create the same end result for the victim regardless of the intention of the offender (Skilbrei, 2008; O'Connell Davidson, 2013).

Academic legal theorist analysis, case law and UNODC working papers on the use of means, do not generally include empirical analysis following scientific method. Empirical analysis may afford a better understanding of the terms used in the second element, by critiquing the definitional construct of the international definition through an examination of the actual means used by offenders to commit human trafficking. The exploration of literature on means leads to Objective 1 of this thesis:

Objective 1

To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

A further research objective, arising from literature on means, is relevant:

Objective 3

To assess if the international definition adequately reflects convicted offender method.

2.3 The third element: purpose for which action and means are performed

Trafficking is a crime of special intent (Dolus specialis) (UNODC, 2015b; Esser, 2016). The offender must intend to commit trafficking and the focus of that intention is reflected in the outcome or purpose (Gallagher, 2010; UNODC, 2015b). Understanding offender intention, and the choices that offenders make to achieve an outcome, supports an understanding of how human trafficking offenders analyse risk. Loss aversion has more influence on behaviour than potential gain (Kahneman, 2011). Analysis of offender intention in human trafficking may help us to understand mechanisms for increasing the perception of risk for an offender, resulting in an ability to influence behaviours (Eck, 2013). However, the capacity to understand offender intention and in turn influence behaviours presents an obvious difficulty, namely, that whilst the Palermo Protocol provides a minimum set of purposes: sexual exploitation, forced labour, slavery or practices similar to slavery, servitude, the removal of organs (UNODC, 2015b), it is in fact unlimited, enabling Member States to add to the list (UNODC, 2015b). Complications also arise with respect to any common understanding of the terms within the element upon which to form agreement, as they are not defined (Plant, 2015; UNODC, 2015b). Stoyanova (2015, pp. 32-73) highlights the significance that the meaning of the term 'explotiation' itself is not clear and that the debate in relation to 'exploitation creep' has not been resolved, regardless of whether a type of exploitation is understood.

This lack of clarity is present even at regional and international court level. In the case of Rantseva v. Cyprus and Russia (2010, ECtHR, 25965/04), the European Court of Human Rights (ECtHR) distinguished its own judgment in the case of Siliadin v. France (2005, ECtHR, 73316/01) to enable it to align with a decision made in 2002 by the International Criminal Tribunal for the former Yugoslavia (ICTfY) (2002, ICTfY, IT-96-23&IT-96-23/1-A, A. Ch. 12) predating the case of Siliadin in 2005 (2005, ECtHR, 73316/01). The ICTfY had concluded that 'contemporary slavery' does not require a situation of

permanence for the victim (Prosecutor v. Kunarac, Kovac and Vukovic, 2002, ICTfY, IT-96-23&IT-96-23/1-A, A. Ch. 12). Academic discourse has debated whether this distinction by the ECtHR was made to avoid, rather than resolve, the discrepancies in interpretation of slavery, servitude and forced labour in the Case of Siliadin v. France, (2005, ECtHR, 73316/01; van der Wilt, 2014). In 2012, when examining the distinction between 'servitude' and 'forced labour', the ECtHR concluded that 'servitude' is an aggravated type of forced labour with the distinction existing 'in the victim's feeling that their condition is permanent and that the situation is unlikely to change.' (C. N. & V. v. France, 2012, ECtHR, 67724/09 §91 p. 20). The emphasis upon distinguishing between two purposes 'servitude' and 'forced labour' by determining the perception of the victim, creates difficulty for the structure of the definition. The third element was constructed to address offender intention to commit human trafficking, namely that all of the first element actions using the second element means were carried out by an offender to benefit from the proceeds of exploitation. Offender intention cannot be measured by a victim's perception. Clarity of the law is an essential component of justice, and its absence not only creates the risk of injustice and 'exploitation creep' but also policy and practice failure due to the inability to define the parameters in which offender behaviour is occurring (R. v. Tang, Chief Justice Gleeson, 28th August 2008, High Court of Australia, unreported; Chuang, 2014; van der Wilt, 2014; Piper, 2015; UNODC, 2015b). Without clarity and agreement on the purpose element, an accurate examination of offender intention is hindered and therefore the capacity to identify appropriate interventions may be restricted:

> 'Maintaining the core of what "trafficking" was intended to
> cover requires staving off the risk not only of the
> underinclusiveness that slavery imagery promotes but also of
> the overinclusiveness that increased attention to exploitation
> writ large might inspire.', as stated by Chuang (2014, p. 641).

There have been attempts to achieve agreement, and at best domestic legal clarity on an expanded list of purpose. This includes begging in Bulgaria (EU

Directive 2011/36/EU) and Thailand (UNODC, 2015b), criminality (EU Directive 2011/36/EU), production and distribution of pornography in EU (Gallagher, 2010) and Thailand (UNODC, 2015b), using children for political campaigning in Egypt, (UNODC, 2015b), debt bondage in Australia, Brazil and Uganda, (UNODC, 2015b), witchcraft in Uganda, (UNODC, 2015b), illegal adoption in Mexico, (UNODC, 2014), unlawful biomedical experimentation in Mexico, (UNODC, 2014) and illegal surrogacy in Bulgaria, (UNODC, 2015b). These purposes for trafficking are present in Member State domestic legislation, though inconsistently, in addition to the prescribed list in the Palermo Protocol. Research has also been conducted to determine whether the third element extends to a new form of purpose, Sinai or trafficking for ransom (Bhabha, 2015; O Brhane, 2015; van Riesen, 2015). However, an inconsistent but extended list that helps to 'draw the edges' to purpose, is presented with a further difficulty that Member States do not necessarily understand the terms in the Palermo Protocol and in particular terms that derive from other international treaties, even where those terms have consistency of interpretation in international law (UNODC, 2015b). 'Forced labour' and 'slavery or practices similar to slavery' are established terms in international law, but have significant uncertainty in practice (Gallagher, 2010; Plant, 2015):

'Forced labour' is defined as:

> 'all work or service which is exacted from any person under the menace of any penalty, and for which the said person has not offered himself voluntarily' (International Labour Organization 'Labour Convention No. 29', done 28th June 1930)

and reaffirmed in the International Covenant on Civil and Political Rights; the case of C. N. & V. v. France (2012, ECtHR, 67724/09; C. N. & V. v. France, 2012 ECtHR, 67724/09; OHCHR, 2020). It has been clarified:

> "... the obligation to stay in a job due to the absence of alternative employment opportunities, taken alone, does not equate to a forced labour situation; however, if it can be proven that the employer is deliberately exploiting this fact

(and the extreme vulnerability which arises from it), to impose more extreme working conditions than would otherwise be possible, then this would amount to forced labour." as stated in ILO, 'Hard to See, Harder to Count: Survey guidelines to estimate forced labour of adults and children (2012, p.16 cited in UNODC, 2014, footnote p.33)

Patterson and Zhuo's (2018, pp. 407-439) recent examination of the terms suggested that even the International Labour Organization has begun to change its position on the interpretation of forced labour to accommodate the term modern slavery and the purpose of forced marriage (an approach to prosecution followed in England and Wales under the Modern Slavery Act 2015 (Cockbain, 2019)). Patterson and Zhuo (2018, pp. 407-439) consider servitude a better term for this purpose. There is inconsistency between Member States as to the applicability of these standards to their domestic environments (Baer, 2015). This is particularly so where an economy and standard of living are significantly below other Member State standards, leaving a gap between international law that is ratified and adopted domestically, with law that is actually enforced (UNODC, 2015b). In addition, Chuang's (2014, pp. 609-649) view of the United States of America policy shift in 2006, removing the necessity to establish the movement of a person for human trafficking for forced labour, subverted the structure of the definition by enabling prosecution for human trafficking with only the third element of the definition; a distortion of the aims of the Palermo Protocol. A view that is supported by Stoyanova (2015, pp. 32-73).

The historic and established crime of 'slavery' has created confusion with respect to the delineation between slavery and human trafficking (Chuang, 2014; Plant, 2015; Stoyanova, 2015b; UNODC, 2015b). Debt bondage has an historic link with 'slavery or practices similar to slavery' and 'servitude', originating from bonded labour. In the context of slavery, debt bondage requires the debt be unquantified and the corresponding value of the labour continuously fail to meet the debt alleged to be incurred by the victim:

> 'Art. 1(a), defines debt bondage as the status or condition arising from a pledge by a debtor of his personal services or of those of a person under his control as security for a debt, if the value of those services as reasonably assessed is not applied towards the liquidation of the debt or the length and nature of those services are not respectively limited and defined[.]' as stated in the Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery, 1957 cited by Chuang (2014, p. 647).

However, this description of debt bondage may also marry with its use as a means (UNODC, 2015b; Gearon, 2016). In addition, the purpose 'slavery or practices similar to slavery' may include actions that demonstrate 'the status or condition of a person over whom any or all of the powers attaching to a right of ownership are exercised' through the 'sale' and 'purchase' of people (Article 1 Convention to Suppress the Slave Trade and Slavery, done 25 September 1926; EU 2002/629/JHA framework decision; M and Others v. Italy and Bulgaria, 2012, ECtHR, 40020/03; UNODC, 2014, 2015b).

Sexual exploitation ('the exploitation of the prostitution of others or other forms of sexual exploitation'), as a purpose, is a primary focus of the third element of the Palermo Protocol, although the drafting language of this purpose appeared to be resolved by Member States conceding rather than agreeing upon terminology (Gallagher, 2010). Prostitution was a source of considerable debate and variation between prospective Member States to a protocol, on the domestic moral, political and legal status of prostitution alongside the perspective of whether there is ever an ability to engage in the action 'voluntarily' (Lehti, 2006; Iniguez de Heredia, 2008; Skilbrei, 2008; Gallagher, 2010, 2015; Kleemans, 2011b; Chuang, 2014; Stoyanova, 2015; Wijers, 2015; Patterson, 2018). The movement of men from 1840s onwards as industrialisation, colonialization, war and significant international infrastructure projects were undertaken, increased the global prostitution market in which transnational human trafficking occurs (Lehti, 2006; Kleemans, 2011b; Chuang, 2014; Stoyanova, 2015a). It is likely that an increase in the global prostitution market also led to the creation of the term

'human trafficking' itself in the early twentieth century with the first international treaty to address concerns related to white women and girls being coerced or deceived into prostitution in the 'white slave trade' (International Agreement for the Suppression of the White Slave Traffic, 1 LNTS 83, done May 4, 1904, entered into force July 18, 1905; Gallagher, 2010). So too the collapse of political controls and the opening up of borders following the end of the Cold War facilitated the movement of people looking for economic opportunity, increasing the vulnerability of women in search of work and escape from poverty (Lehti, 2006; Weitzer, 2007; Surtees, 2008; Gallagher, 2010; Chuang, 2014). International focus on prostitution turned from moral and cultural discussion and debate on prostitution towards efforts to address the involvement of Organised Crime Groups (OCG) in controlling prostitution markets (Lehti, 2006; Chuang, 2014; Stoyanova, 2015a; Gomez-Mera, 2017). Discussion focused on whether the lack of international agreement on the status of people providing sexual services facilitated OCG to control prostitution markets and operate forced prostitution (Lehti, 2006). Approximately 10-15% of prostitutes have been estimated to be trafficked for sexual exploitation with an increasing percentage with respect to foreign prostitutes (Lehti, 2006). Debate continues on what constitutes voluntary prostitution and trafficking for sexual exploitation, with authors contributing their opinion on the issue (Weitzer, 2007; Dempsey, 2017). Dempsey (2017, pp. 61-80) identifies that in this debate there is considerable discrepancy in what is being measured in empirical research as trafficking for sexual exploitation. Whilst there has been a consolidated effort to reference a legal definition of human trafficking in research, this does not always mean that researchers actually apply that legal definition.

Whilst there is considerable international debate on the various purposes that are understood to be included in the third element of the international definition of human trafficking, the importance of understanding the significance of purpose on offender method does not appear to have been

explored. Furthermore, the sequential order of elements mirrors the evidential burden of establishing a conviction of an offence: actions (first element) and means (second element) establishing the 'actus reus'[6] of the crime; and means and purpose (third element) establishing the 'mens rea'[7] of the crime. The structure of the definition may indicate an order to offender method. This structure is the subject of the third and fourth research objectives of this thesis:

Objective 3

To assess if the international definition adequately reflects convicted offender method.

Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

2.4 Exploring an order to actions

Crime scripting is an established approach in crime science research for exploring offender method (Brayley, 2011). Whilst academic legal theorists agree that human trafficking is a process crime, there is fundamental disagreement on the extent of that process, presenting a difficulty and potential flaw for a crime script of transnational human trafficking (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015). Data analysis through structural equation modelling (sem) has been used to explore the role of parenting on low-impulse control offenders (Higgins, 2002). Higgins (2002, pp.71-95) built upon existing path analysis research by adding more

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[6] Actus reus is defined as 'the act or omission that comprise the physical elements of a crime as required by statute' (Cornell, 2019).

[7] Mens rea is defined as 'the state of mind statutorily required in order to convict a particular defendant of a particular crime' (Cornell, 2019)

comprehensive statistical analysis through sem when seeking to determine the extent to which different parental management models influenced the development of self-control. By using sem rather than path analysis, it was possible to explore multiple measures of parental management and self control creating greater accuracy and reducing error. Further evidence for the use of sem appears in a different field of academic study: marketing and business (Martinez - Lopez, 2010). Martinez-Lopez et al. (2010, pp. 115-152) explored the application of sem as a tool in 191 academic papers on the development of business and marketing processes. The authors provide critical appraisal of the use of this type of modelling and present recommendations for best practice. Sem presents an alternative statistical approach for understanding human trafficking as a process crime, leading to research Objective 4 of this thesis:

Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

2.5   Conclusion

A review of academic research, international case law and Palermo Protocol Working Party studies has not identified empirical analysis of the international definition of human trafficking itself. Such an analysis may be used to provide insight into the continuing differences in interpretation and uncertainty related to the definition and provide greater insight into the efficacy of the definitional construct and its ability to reflect offender method to commit human trafficking. In addition, there are a number of gaps in existing knowledge on the international definition of human trafficking and offender method to commit human trafficking. Gallagher (2010, pp. 12-53) views the negotiation of the definition in the Palermo Protocol as leading to a 'conceptual breakthrough' by creating an 'umbrella definition' with process and purpose together under the same construct.

However, what is striking about the creation of the Palermo Protocol and the negotiation of its terms resulting in the three elements, is the lack of empirical research upon the definition. A lack of empirical analysis to support negotiation reflected the lack of prosecution of human trafficking as a result of the absence of a consistent legal framework and the hidden crime problem itself. Discrepancies in the meaning of words and the positioning of interpretation as to whether trafficking equates to the process actions involving the movement of people with separation from the purpose for which it was occurring, are theoretically confident and logical and may direct domestic application of human trafficking prosecutions. However, Gallagher (2010, pp. 12-53) and Chuang's (2014, pp. 609-649) disagreement on the definition of trafficking remains unresolved. In addition, further insight into the actual means used by offenders and prosecuted by Member States will inform a view on the consistency of interpretation of means and their significance for offending. Finally, the context in which actions and means are performed may facilitate a better understanding of the purposes listed in the third element and the capacity for the definition to support prosecution of forced labour and other forms of exploitation.

Whilst there is evidence that academic research on behavioural influences on crime and offending have utilised sem (Higgins, 2002), this technique has been considerably utilised in marketing and business practice (Martinez - Lopez, 2010). Advancing knowledge on offender method to commit human trafficking, exploring the efficacy of sem to facilitate analysis, may present a new opportunity for exploring what is described by legal scholars as a process crime.

This literature review has identified four research objectives requiring exploration:

1. To better understand the terms in the international definition of human trafficking that have created uncertainty through the

measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

2. To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

3. To assess if the international definition adequately reflects convicted offender method.

4. To determine whether offender method to commit human trafficking has structure and order to it?

To move discussion forward, Chapter 3 progresses an empirical analysis of the three elements of the Palermo Protocol by exploring the difficulty with sourcing and collecting data for such a study and the implications of the source data on the validity and reliability of findings. Furthermore, consideration is given to the data analysis suitable for an exploration of the elements of the Palermo Protocol definition. Finally, reflection is made of appropriate visuals to present data results to facilitate and inform an understanding of offender method to commit human trafficking.

Chapter 3   Human Trafficking Data

'The major problem in studying and combating trafficking in persons is the scarcity, unreliability, and non-comparability of existing national and international data.' as stated by Lehti (2006, p. 142).

''New (or even old) methods will not forward our understanding of trafficking if we keep asking the same questions. Any discussion of methods, then, should include consideration of what kind of knowledge we lack and, equally, that we require.' as stated by Brunovskis (2010, p. 28).

This chapter explores the data analysed in this thesis. An examination is made of the:

- factors considered in sourcing appropriate data for collection
- open source data selected for collection
- data collection methods applied to the unstructured data
- results from an audit of the collection methods applied to the unstructured data
- factors related to the data that may impact the validity of the findings in this thesis
- statistical methods applied to the data to support an analysis of the research questions, and
- data visuals suitable for presenting and communicating results.

3.1   Data selection - Data access issues

Sourcing appropriate data to examine the four research objectives identified from the literature was affected by the following factors: human trafficking offending was likely to be more extensive than was currently prosecuted (Datta, 2013).   In addition, local factors relevant to the UK, involved prosecutions brought under numerous statutes up until 2015 in England and Wales (CPS, 2017), and would involve the different legal systems within the UK (England and Wales; Northern Ireland and Scotland).   In addition, case

files on human trafficking prosecutions were not centralised in the UK and would not be readily retrievable, (Anonymous, 2016: Meeting with Head of Modern Slavery Unit, National Crime Agency) and qualitative data retrieved from offenders directly was going to be unlikely and potentially dangerous to collect. Human trafficking offending in the UK involved regional and international networks of offenders with only a partial picture of offending available in the UK (Anonymous, 2016: Meeting with Head of Modern Slavery Unit, National Crime Agency and Crime and Policing Analysis Unit, Home Office). At the point of commencing the search for suitable data upon which to conduct a study, this researcher assumed that closed data sources would take considerable time to access. As a result, a search for open source data on offenders was undertaken and quantitative data was preferred rather than qualitative data.

3.2 *Anticipated data content and quality issues*

Research and data had invariably focused on the victim experience and to the extent that the victim was aware of the offender's actions, involved a limited view of the offender (Goodey, 2008; Surtees, 2008; Broad, 2015). This researcher expected the quality of data from open source to have deficiencies and consideration was given to those deficiencies when assessing appropriate open data sources (Brunovskis, 2010):

Table 3.1 Open Source Data Deficiencies and Mitigating Steps

Open source data deficiency	Steps considered to mitigate deficiencies in data
Emotive and sensationalised accounts of victim trauma and experience (Weitzer, 2007; Zhang, 2009; Brunovskis, 2010)	Consistency of accounts from a significant volume of data on trafficking activity, even with emotive or sensational language, supported an understanding of underlying factors that could be measured: such as recruitment methods of grooming or specific steps taken to preserve control of victims such as the use of rape, sexual violence, or use of weapons. Consistent patterns collected from a significant volume of data might support a measurement of what offenders actually did.
Minimal public disclosure of method of offending due to the sensitive and protected nature of the actual methods used by offenders	Examination of offender personal details, the location of crime, specific activity of offender, relationship to victim, trafficking type, mitigating circumstances for sentencing, offender's previous convictions, employment history, other offender vulnerability such as addiction, or previously a trafficking victim, might facilitate a more complex understanding of offenders and insight into their methods.

Bias in policy on prosecuting and/or investigating human trafficking along with issues with domestic implementation of international commitments (Weitzer, 2007; Brunovskis, 2010; Chuang, 2014)	Examination of a broad range of conviction cases from a number of Member States to create a measurable analysis of offender methods rather than a domestic or local examination of offender method specific to a given location.
Assumptions that all victim testimonies are honest and accurate and that all offenders are demons and villains (Weitzer, 2007; Brunovskis, 2010)	Prioritising the collection of data on offenders from convictions for human trafficking rather than victim data.

To source the data the following questions were considered:

- What data are available on human trafficking convictions?
- Does the data on human trafficking convictions contain information on offenders?
- Are the available data 'good enough' to base a study upon which to identify patterns of activity?

Determining 'good enough':

- What content of data is available from a broad geographic range of offending?
- Is the content and quality of data sufficient to determine patterns of trafficking activity?

3.3   Open source data options

The scale of data collection required from open source material created a narrow field of opportunity. A 2006 study demonstrated sources of data were national governments, INTERPOL, Non-Governmental Organisations, International Organization for Migration and the United Nations Global

Programme against Trafficking in Human Beings (Lehti, 2006). Criticism had focused on inconsistency between national collection database with no standardised recording of crime information leading to generalised data rather than data specific to human trafficking crime (Salt, 2000; Lehti, 2006; Fry, 2009; Brunovskis, 2010). In 2010, continuing issues were apparent with access to data, the quality of data, bias in collection practice and the ethics and safety of data collection exercises (Brunovskis, 2010). An examination of the data available by this researcher at a national level arising from the first evaluation reports (2009 – 2019) of the regional body created by the Council of Europe, Group of Experts on Action Against Trafficking in Human Beings (GRETA) to examine compliance with the Council of Europe Convention indicated that at best, data was collected annually on the number of convictions, number of offenders, nationality and gender of offenders, locations of offending, victims affected, nationality of victims, gender of victims (GRETA, 2019). This was insufficient data to examine the techniques and methods used by offenders in human trafficking. In addition, despite the entry into force of the Treaty in 2005 and a round anticipated as taking 4 years (Planitzer, 2012), first evaluation rounds were continuing to take place throughout the development of this thesis and at the close (GRETA, 2019). Consistency in the data available through GRETA evaluations was not present to create a broad range study, upon which to base an empirical examination, at the point of data collection in 2016.

A search for the foundational international legal instrument, the UN OCG Convention and the Palermo Protocol uncovered that the UNODC held Secretariat responsibility for the UN OCG Convention and Palermo Protocol. Further research on the UNODC website led the researcher to the open source database, SHERLOC, within 'Legal Tools'. The database was launched in October 2011:

> 'as a global public online tool to collect and disseminate
> information on human trafficking prosecutions and convictions
> from all over the world,' as stated by UNODC (2017, p. 6).

As of December 2017, there were approximately 1500 cases from 101 jurisdictions held in the database. Its aim was:

> 'increasing the visibility of successful prosecutions and promoting the awareness of the realities of the crime...' as stated by UNODC (2017, p. 6).

3.4   Governance and control of SHERLOC database and case summaries

3.4.1   Funding

Within the UNODC, the diverse and complex division of human resource and management structure working on human trafficking and migrant smuggling in early 2012 were not supported by regularised funding arrangements (UNODC, 2012). It remained unclear, from a search of the UNODC website in April 2019 (UNODC, 2019) what funding was given to departments focused on human trafficking and migrant smuggling from the introduction of a new framework in 2012 (UNODC, 2012). UNODC's knowledge hub was initially funded by Emirate of Abu Dhabi (UNODC, 2012). SHERLOC was described as a legal tool but it was unclear if it formed part of UNODC's knowledge hub.

3.4.2   Accessing SHERLOC and security controls

Practically accessing SHERLOC was achieved either by visiting www.unodc.org and scrolling to 'Legal tools' or directly through the link www.sherloc.unodc.org. SHERLOC was accessed between April 2015 and 10th March 2017 (UNODC, 2017). During this time there were at least two major upgrades to SHERLOC that were noticeable for the effect on access with changes to the layout and format of SHERLOC. The last significant upgrade during the data collection phase took place on Monday 13th February 2017 where links to the site were disrupted (UNODC, 2017). SHERLOC case summaries were added, updated and removed during the period of collection for this thesis. SHERLOC held case summaries for human trafficking convictions in subfolders within the database, labelled by the Member State and the number of cases included for examination within the

subfolder. Member States without conviction cases held in SHERLOC had an entry that was inactive and represented by a 'faded' out field on the database to reflect a lack of data (UNODC, 2017).

To match the range and scope of conviction data case summaries in SHERLOC, it would have been necessary to carry out an international search of law reports and obtain a translation of legal cases, to achieve the same range of data for analysis. Although a greater depth of information may have been achieved from such an exercise, the time and cost constraints for this approach would have been prohibitive.

3.4.3 SHERLOC case summary content completeness and accuracy

Not all human trafficking convictions were represented in the case summaries held in SHERLOC (UNODC, 2017). The case summaries in SHERLOC were translated and summarized by White & Case LLP, Lawyers Without Borders, the UN Volunteer programme, and by governments of Member States (UNODC, 2017). Despite this researcher's best efforts, further information on the controls that have been applied to SHERLOC have not been made available. In particular, further information in relation to the population of cases from which the cases in SHERLOC have been selected, the criteria for selection of case summaries, the quality control applied to verify the content of case summaries, the removal of case summaries, and the continuing public access to SHERLOC (UNODC, 2017). This researcher identified several erroneous entries on the database where duplicate entries had been made. A full table setting out the number of cases reviewed in SHERLOC with the total number of cases included in the study and further details of issues with the case summaries appears in the notes section of the table in Appendix 1. Verification and insight into practices to control access and content on SHERLOC were important, however, this information was not available to this researcher.

3.5   Data collection

3.5.1   Member State and case selection

There were 41 Member States to the Palermo Protocol selected due to their geographic position in relation to the continent of Europe or the significance of nationals from a Member State on the UK market for human trafficking (for example, Nigeria and Vietnam were chosen for this reason (Anonymous, 2016: Meetings: Head of Modern Slavery Unit, National Crime Agency and Crime and Policing Analysis Unit, Home Office) and with at least one conviction case summary in SHERLOC. From the Member State entries in SHERLOC, 641 case summaries were examined. Human trafficking cases were identified by systematically and manually opening each case appearing in a Member State's online folder and examining the conviction offences that the offender(s) were given. Case summaries were excluded from analysis related to not guilty verdicts or cases overturned on appeal, and cases where an offender was not convicted of human trafficking but of another offence such as immigration offences or forgery offences. Co-offenders not convicted of human trafficking, appearing in the same case summary with other offenders convicted of human trafficking, were excluded from data collection. A limited few cases were included that were not conviction cases of offenders but did involve a finding of fact by a court that human trafficking had occurred, and a description of offending was attributable to an offender or offenders. The following case summaries were included:

- *Cyprus.* One case was brought in the European Court of Human Rights against the Cypriot and Russian states Rantseva, V. Cyprus and Russia, 2010, ECtHR, 25965/04. This case was included as it had sufficient detail of an incident very likely related to trafficking. The incident was recorded under cases connected to Cyprus. This case was not included in cases listed for Russia.

- *France*. Two cases were brought against France in the European Court of Human Rights (Siliadin v. France, 2005, ECtHR, 73316/01; C. N. & V. v. France, 2012, ECtHR, 67724/09). The cases included sufficient detail on the trafficking incidents and were included.

- *UK*. The UK had several immigration tribunal cases brought in relation to the immigration status of victims. Where there was a finding of fact that human trafficking had taken place against the victim and there was sufficient detail about the trafficking events, the cases were included.

Other factors that affected the case summary selection were related to the domestic implementation of human trafficking by a Member State affecting inclusion of cases in examination:

- Belgium applied existing domestic labour legislation consistently to prosecute trafficking for forced labour and its cases were included for this reason.

- France applied existing domestic labour legislation consistently to prosecute trafficking for forced labour and its cases on forced labour were included for this reason. However, France was not consistent in its approach to trafficking for sexual exploitation, with uncertainty as to whether cases were trafficking or prostitution or pimping. Where there was uncertainty, cases were excluded from examination.

Following an examination of 641 case summaries, 486 were selected as suitable for inclusion in the study. A full table setting out the number of cases reviewed in SHERLOC with the total number of cases included in the study and the percentage of the cases represented by each jurisdiction appears in Appendix 1. The jurisdictions with the greatest number of case summaries included in the study appears at Table 3.2 below:

Table 3.2 Jurisdictions and SHERLOC case summaries

State Party	Total no. cases in SHERLOC database	Total cases selected for analysis	% of 486 cases included
Slovakia	49	47	9.7%
Romania	52	44	9.1%
Republic of Moldova	60	37	7.6%
Serbia	47	34	7.0%
Belgium	36	28	5.8%
Czech Republic	31	22	4.5%
Ukraine	21	21	4.3%
Poland	26	18	3.7%
Sweden	33	17	3.5%
Germany	24	15	3.1%

Whilst Romania had a large number of conviction cases in SHERLOC, it did not have the largest percentage for inclusion in the study. Slovakia had the greatest number of cases. There was considerable discrepancy between the number of cases available for review in SHERLOC held for the Republic of Moldova and those actually suitable for inclusion in the study. Moldova had a very robust appeal process with virtually all human trafficking convictions leading to appeal to the Court of Appeal and, following Court of Appeal judgment, the Supreme Court. This resulted in a number of cases being overturned on appeal or committed for retrial and hence exclusion from the study.

Belgium, Sweden and Germany had a high number of conviction cases included in the study, and the remaining 7 jurisdictions in the top 10 were former Soviet satellite states. Stoyanova (2015a, pp. 19-31) has argued that 'weaker states' were burdened with a 'Western' state problem:

'… powerful states… sensitive and vulnerable to many of the activities it [the Palermo Protocol] proscribes', because such states can use transnational criminal law to influence the penal laws of weaker states. Transnational criminal law has been described as 'heavily biased towards Western interests' and 'as a tool for rich states to police in poorer states'. Western states acting alone cannot suppress threats from non-state actors beyond their borders; thus '[m]any of the suppression conventions are rooted in the crime control policies of powerful Western states battling to block criminal flows originating in developing states' Boister notes that 'frequently in the development of these treaty-based regimes, developed states are the active "law-givers" and developing states passive "law-takers"'.' as stated by Stoyanova (2015a, pp.26-27) citing Boister (2015).

An aspect of Stoyanova's (2015a, pp. 19-31) argument would appear valid, based upon the geographic distribution of conviction cases included in the study, although the perspective that 'weaker' States are pursuing offenders to facilitate problems residing in 'Western States' assumes that victims of human trafficking from 'weaker' States have not experienced harm within the 'weaker' State's borders that merits criminal prosecution, or that the role of a State, aside from any treaty commitment, would not generally include a responsibility to protect its citizens from human trafficking. In addition, Stoyanova's (2015a, pp. 19-31) argument is based upon an assumption that nationals of 'Western States' are not also trafficked and that offenders are not also present in or nationals of 'Western States' (Brayley, 2014).

3.5.2   Open coding

A pdf screen shot was taken of each relevant case summary and a copy was stored in a folder with the name of the Member State. Further information on the case held in SHERLOC along with the case summary was also collected where that information was in English or French. This additional information was downloaded and stored along with the pdf screen shot of the case summary. Data collection from SHERLOC closed on 10th March 2017 (UNODC, 2017).

Whilst the unstructured data collected was to be transformed into quantitative data, some aspects of data capture followed qualitative data practice in the first stage of open coding. To keep the richness of the data source, initially, the focus was made on a comprehensive collection of data rather than on capturing data that met data analysis requirements. Open coding was used for this purpose, to capture a range of data under specific topics, to support further examination for quantitative analysis (De Cuir-Gunby, 2011). For example, the method of working as a trafficker required some description of what the offender was doing. Open coding of data was taken from the facts in the summary section of the file.

Prior to commencing the full data collection exercise, a trial was made of the open coding data capture process to understand the quality of case summaries, the practicality of the exercise of data capture and suitability of the template created in Microsoft Excel, with labelled categories for data capture. A trial of the template was undertaken by capturing data from the case summaries from a Member State not part of the study. Argentina was chosen due to the sufficiently large number of case summaries in SHERLOC (UNODC, 2017). Following this trial of the template, amendments were made to address gaps in the design.

In addition, meetings with UK officials engaged in prevention and prosecution efforts to combat human trafficking took place with the aim of receiving feedback about the data source, collection methods and direction of interest of the thesis. The example template with entry capture was demonstrated at these meetings (Anonymous, 2016: Meetings: Head of Modern Slavery Unit, National Crime Agency; Crime and Policing Analysis Unit, Home Office; representative from Joint Money Laundering Intelligence Taskforce).

3.5.3   Axial coding for quantitative analysis

There were 972 offenders disaggregated from the 486 case summaries. Data captured from open coding was then reviewed to determine any

recurring patterns or themes, through a process known as axial coding (De Cuir-Gunby, 2011).

With respect to the first and second elements of the Palermo Protocol, nine actions and eighteen means were axial coded from the open coded data. To determine the necessity of means being present to support a conviction of an offender for adult human trafficking, data collected on the age of the victim was also collected and disaggregated into adult and child victims. To examine the third element of the Palermo Protocol and the purpose for which exploitation was occurring, open coded data collected under the heading 'Type of trafficking' was disaggregated into axial coded data to reveal seven consistent patterns of purpose.

Additional data was disaggregated and collected from the case summaries. Descriptive Results at section 3.7 below, provide further information about the range of data collected.

3.6   Codebook of variables

The axial coded data was collected in Microsoft Excel and imported into STATA 15SE. All variables were coded and prepared for analysis and were categorical and quantitative. The variables analysed in this thesis are categorical and binary. A codebook of variables and dummy variables created for data analysis in this thesis appears in Appendix 1.

3.7   Descriptive Results

Following import into STATA 15SE and coding, variables provided descriptive results for the population of offenders:

3.7.1   Jurisdictions and offenders

From the case summaries, there were 972 offenders convicted of human trafficking by 40 Member States between May 1997 and October 2016 and whilst 40 Member States conviction case summaries were examined, offenders were actually connected to 75 nation States. The connection to a

jurisdiction was identified from evidence that an offender had taken a journey through a jurisdiction or visited a property in a jurisdiction or was a national of a jurisdiction, in addition, to any connection arising from a prosecution by a Member State. Table 3.3 below provides the top 10 jurisdictions connected to offenders in this way: evidencing the number of offenders prosecuted by a jurisdiction; and the number of offenders with evidence of connection to a jurisdiction that may have been prosecuted by another Member State. A complete table of data for all 75 jurisdictions appears in Appendix 1. The proportion of offenders prosecuted by another Member State is also provided in addition to a percentage of the population of offenders connected to the Member State overall.

Romania had the greatest number of offenders with 16.7% of the total population of offenders. In Table 3.2, Slovakia had a greater number of conviction case summaries in the study. However, Romania exceeded the number of offenders both in the conviction cases brought in Romania and for the number of offenders connected to Romania but prosecuted in another jurisdiction. Despite the Republic of Moldova having a high number of conviction cases reviewed with 7.6% of the total cases in the study (see Table 3.2), it dropped out of the top 10 of jurisdictions for offender number with 49, 5.0% of offenders in the study. Ukraine also dropped out of the 10 jurisdictions with 47 offenders, 4.7% of the offenders in the study. Moldova and Ukraine were replaced by Italy and Turkey. Turkey had only 3 conviction case summaries 0.6% of the cases included in the study and Italy, 13 conviction case summaries, 2.7% of the study.

The descriptive results in Table 3.3 were concerning for the European Union's ability to protect its borders from human trafficking. Turkey's expanse stretches across the continents of Europe and Asia. Whilst not a member of the European Union, it borders the European Union. It had a significant number of connected offenders prosecuted in another jurisdiction, 54 offenders involving 5.6% of offenders in the study overall. A

Table 3.3 Number of offenders prosecuted by a Member State and the number connected to a Member State but prosecuted by another Member State

Member State	N. offenders prosecuted by Member State	N. connected to the Member State	Proportion of offenders prosecuted by another Member State	% of n. 972 offenders[8] in study overall
Romania	100	162	38.3%	16.7%
Slovakia	96	107	10.3%	11.0%
Italy	28	85	67.1%	8.7%
Czech Republic	45	81	44.4%	8.3%
Serbia	73	77	5.2%	7.9%
Belgium	65	58	-12.1%	6.7%
Turkey	5	54	90.7%	5.6%
Sweden	48	52	7.7%	5.3%
Poland	35	51	31.4%	5.2%
Germany	18	50	64.0%	5.1%

tiny proportion of these offenders, 5, had been prosecuted for human trafficking by Turkey, creating a discrepancy of 90.7% between Turkey's conviction rate and that of offenders connected to Turkey but prosecuted in another State. This disparity in prosecutions indicated that offenders connected to Turkey were offending outside Turkey, alternatively, Turkey was failing to detect and prosecute transnational offenders within its territory for human trafficking, or there was a significant imbalance of case summaries within SHERLOC representing Turkish prosecutions of human

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[8] Based on greatest number of offenders either prosecuted or connected to a jurisdiction which may include those prosecuted in the jurisdiction

trafficking. Italy with 85 offenders and 8.7% of all offenders, reflected an important vulnerability for the European Union too, as a border nation with migration routes crossing the Mediterranean from Libya with 67.1% of offenders connected to Italy prosecuted in another jurisdiction. Germany's prosecution rate was also noticeably low with 64.0% of offenders connected to Germany prosecuted by another Member State. Whilst Germany is not a boundary of the European Union, it was unclear if Germany's historic division between East and West during the Cold War remained a factor in influencing its apparent vulnerability to human trafficking offenders passing through its borders. The percentage population of offenders connected to Turkey, Italy, and Germany represented 19.4%, almost a fifth of all offenders in the study. The provisions in the UN OCG Convention related to extra-territoriality that facilitated the prosecution of offenders moving transnationally appeared essential to compensate for lack of prosecutions in certain jurisdictions. These deficiencies in Member States were either due to the lack of visability of offenders connected to a jurisdiction, the nature of the aspects of their offending, or due to deficiencies in national frameworks to detect, pursue and convict offenders of human trafficking.

The flow of migrants moving through Turkey into Europe became a significant issue for the European Union, resulting in the EU-Turkey Statement of March 2016 (EC, 2018), in which the European Union committed funding to Turkey to support the flow of refugees. Digidiki and Bhabha (2017, pp. 1-47) identified that there were 1.2 million migrants passing through Greece between 2015 and 2017, predominantly entering Greece from Turkey. The descriptive results in this thesis, related to the prosecution of offenders by Member States and prosecuted in other jurisdictions derived from data collected for this thesis, have not been evident in other academic research. The descriptive results relate to human trafficking offending between May 1997 and October 2016; a period covering offending 19 years prior to the EU-Turkey Statement of March 2016 (EC, 2018). Assuming that the number of conviction cases included in

SHERLOC is a fair representation of the actual prosecutions of offenders for human trafficking by Turkey and Italy, then the extent to which Turkey and Italy have been unable to detect, prosecute and convict transnational offenders, moving from or through their borders, to other States was a pre-existing vulnerability before the migrant crisis. It is unclear as to whether the EU-Turkey Statement of March 2016 has reduced the pre-existing risk for refugees and their vulnerability to fall prey to human trafficking. With only 12,476 Syrian refugee settlements in the European Union by April 2018 (EC, 2018) and the 33% increased cost of smuggling services (Brunovskis, 2019), due to a 97% drop in migrant crossings (EC, 2018), it is logical that the EU-Turkey Statement of March 2016 led to increased risk of vulnerability for human trafficking, although lower risk of death from unsafe sea crossings (EC, 2018).

The European Commission's Strategy paper of 2012 (E.C., 2012) indicated that the majority of victims of human trafficking identified in the European Union came from Romania, Bulgaria, Poland and Hungary and that non-European Union victims were from Nigeria, Vietnam, Ukraine, Russia and China. The European Commission data is a measurement of victim origin and not offender connection. Romania and Poland appeared in Table 3.3 above as significant for offender connection, whilst Bulgaria, Hungary, Nigeria, Vietnam, Ukraine, Russia and China were not. This discrepancy indicated that convictions from these jurisdictions and offenders connected to these jurisdictions were lower than the number of victims identified by the European Union. Bulgaria prosecuted 16 offenders and had 39 offenders connected overall in the study. Hungary prosecuted 10 offenders with 17 offenders identified as connected to Hungary. Nigeria prosecuted 12 offenders with 25 connected to Nigeria. Vietnam prosecuted 7 with 9 offenders identified in total as connected to Vietnam. Ukraine prosecuted 36 offenders with 46 connected to Ukraine. Russia prosecuted 19 offenders whilst 46 were identified as connected to Russia. China's prosecutions were not included in the study, although 7 offenders were identified as connected

to China. The discrepancy between the low number of prosecutions brought by Member States with higher numbers of victims, indicated that: offenders from these States were prolific, or that prosecutions were lower in these jurisdictions, or the case summaries were not representive of the actual prosecutions for human trafficking by these States.

3.7.2   Offender socio-demographics

There were 27.5% (n. 267) of offenders who were female and 63.3% (n. 615) who were male, represented in Figure 3.1 below. The descriptive results supported Kangaspunta (2015, pp. 80-97) and Broad's (2015, pp. 1058-1075) assessment that 30% of offenders convicted of human trafficking were women.
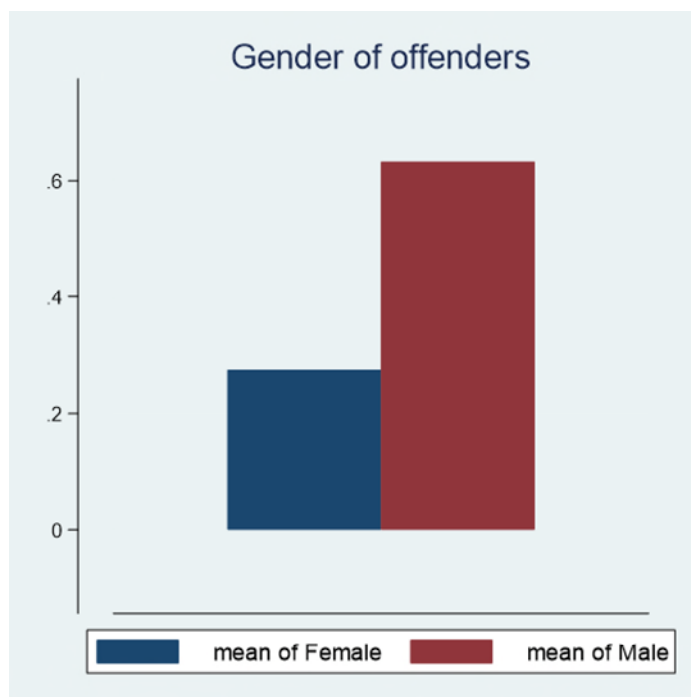
Figure 3.1 Gender of offenders

Offenders had a mean age of 37 at the point of conviction (n. 283; mean 36.6; standard deviation 11.3; minimum age 17, maximum age 77). This result was affected by the low recording of age in the case summaries. Only

283 offenders had a recorded year of birth from which it was possible to determine their age at the date of trial. This data was dependent upon State policy, for example Azerbaijan and Belarus routinely recorded age in the prosecution case summaries. A boxplot of the age distribution appears at Figure 3.2 below.
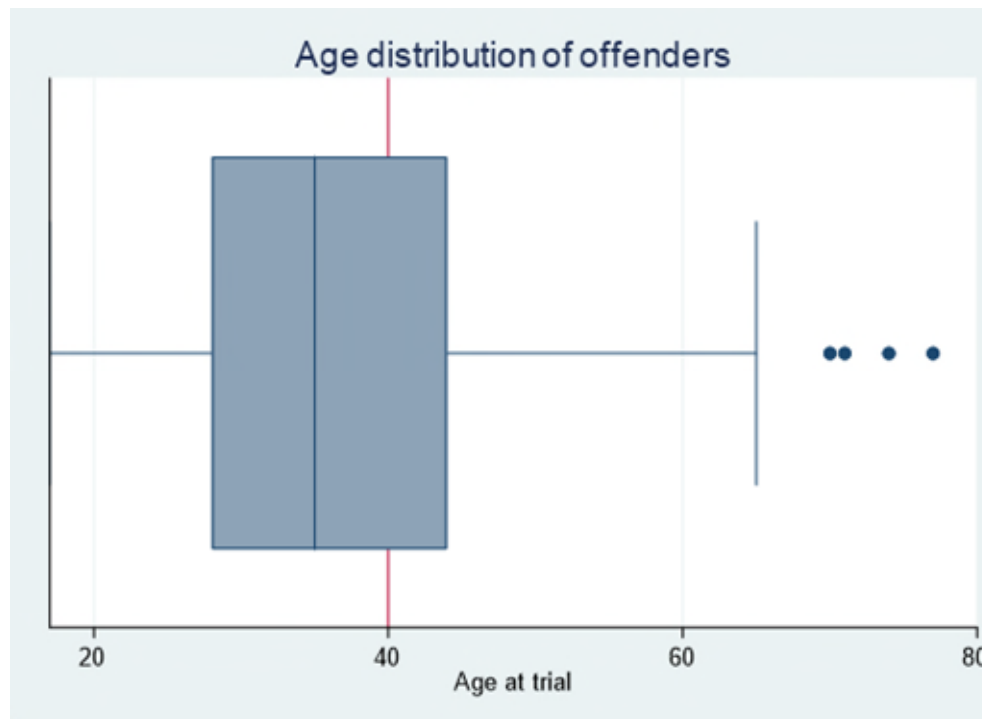
Figure 3.2 Age of offenders at trial

The age range of over 25 and below 45 with a mean of 37 years indicated that offenders probably had considerable experience and were acting from rational decision and reflection rather than opportunistic impulse[9]. Whilst Broad evidenced a lower average age of 29 years from 71 offenders convicted of human trafficking in the UK between 2004 – 2008 (Broad, 2015), Siegel and de Blank (2010, pp. 436-447) indicated that offenders were generally older than victims, citing Bureau National Referral Mechanism data from 2004 for Netherlands giving an average age of 32 years for both

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[9] The teen brain up to 25 years of age is developing decision making away from emotional and impulsive responses towards prefrontal cortex rational decision-making (Wallis, 2013; Stanford, 2020).

male and female offenders. The descriptive results of the data in this thesis and based on the average ages identified in other studies supports a view that offenders are mature and experienced. In this study, only 10.7% (104) offenders were identified as having previous convictions, although this was likely to be an under-reporting of information.

Whilst these results were likely to under-represent the complete picture of family circumstances, due to the lack of reporting of information in the case summaries, it was possible to identify that 14.2% (138) offenders were in a relationship either married or cohabiting and 9.6% (93) had children. The results also revealed that at least 28.9% (275) of offenders, almost a third, were running a family business in trafficking, of which 21.8% (60 of 275) were exploiting their own family members. Considering overall, 6.2% (60) of offenders were exploiting family members, it was more common for a family to work together exploiting non-family members. The case summaries also revealed that 14.2% (138) offenders were earning a living through alternative employment.

3.7.3   Offender method

This thesis examines the three elements: actions, means and purpose through Chapters 4, 5 and 6. Of the 972 offenders identified from the disaggregated data in case summaries, 869, 89.4% of offenders were carrying out an identifiable action suitable for an analysis of offender method. Examining previously reported academic empirical research related to offender methods, there was scant evidence of an empirical study involving such an extensive number of offenders for analysis (Siegel and de Blank, (2010, pp. 436-447), n. 89; Marcus et al. (2014, pp. 225-246), n. 85; Broad (2015, pp. 1058-1075; 2018 pp. 1-20), n. 71; Cockbain and Wortley (2015, p.35), n. 55; Baarda (2016, pp. 267-273), n. 16; Campana (2016a, pp. 68-86), n. 25).

For the first element, 9 actions were identified, with one of those actions related to the second element, means. The remaining 8 actions for the first

element, were Recruitment, Travel preparation, Transportation, Harbouring, the Purchase and Sale of victims, Financial administration, End Exploitation and Strategy. For descriptions of actions please refer to Table 4.1 in Chapter 4. Table 3.4 below sets out the number and percentage of offenders engaged in each of the 8 actions.

Table 3.4 Number and percentage of offenders performing actions

Actions	N.	%
Trafficking action generally	869	89.4%
Recruitment	452	46.5%
Travel preparation	143	14.7%
Transportation	260	26.8%
Harbouring	58	6.0%
Purchase and sale of victims	109	11.2%
Financial administration	51	5.3%
End Exploitation	421	43.3%
Strategy	28	2.9%

Some offenders were performing multiple actions. Table 3.5 below identifies the number and percentage of offenders by the combination of actions:

Table 3.5 Number and percentage of offenders by combination of actions

Actions combined	N.	%
One action only	368	37.9%
Two actions only	285	29.3%
Three actions only	122	12.6%
Four actions only	33	3.4%
Five actions only	9	0.9%

Six actions only	0	0
Seven actions	0	0
All actions	0	0

The descriptive results revealed there were 368 (37.9%) offenders engaged in only one action with 449 (46.2%) carrying out multiple actions. Table 3.6 below highlights the top 7 combinations of actions that were performed by offenders:

Table 3.6 Top 7 combinations of actions performed by offenders by number and percentage of offender

Action one	Action two	Action three	N.	%
Recruitment	End Exploitation		92	9.5%
Recruitment	Transportation		47	4.8%
Recruitment	Transportation	End Exploitation	42	4.3%
Recruitment	Travel Preparation		34	3.5%
Transportation	End Exploitation		28	2.9%
Travel preparation	End Exploitation		18	1.9%
Recruitment	Transportation	Travel Preparation	15	1.5%

Table 3.6 above highlighted that Recruitment and End Exploitation had 92, 9.5% of offenders performing these actions with no other actions, and overall 180, 18.5% of offenders appeared to be involved in the movement of the victims and benefitting from their exploitation. These offenders were either sole traffickers or benefitting from the exploitation of the victim whilst 'en route' to a final destination. In contrast, 96, 9.9% of offenders were purely moving the victim with no other actions involved. Suggesting that their actions did not extend to benefitting from the exploitation of the victim directly. These descriptive statistics were important for identifying

that the legal academic debate between Gallagher (2010, pp. 12-53), Chuang (2014, pp. 609 - 649) and Stoyanova (2015, pp. 32-73) as to whether the Palermo Protocol definition is a process crime or includes the static exploitation of victims, in addition to movement, could be developed through empirical analysis.

The second element, means, relates to the mechanisms by which offenders achieve actions in relation to adult trafficking victims. Whilst means are explored extensively in Chapter 5, the following descriptive results in Table 3.7 below indicated the significant harm posed by offenders:

Table 3.7 Number and percentage of offenders performing each means

Variable	N.	%
Means and child trafficking	579	59.6%
Child trafficking	372	38.3%
Means	369	38.0%
Employment offer	236	24.3%
Intimidation	141	14.5%
Physical control	125	12.9%
Physical Assault	121	12.5%
Financial hardship	103	10.6%
Debt Bondage	75	7.7%
Holding Passports	63	6.5%
'Loverboy' Romance	36	3.7%
Abduction	33	3.4%
Rape	31	3.2%
Weapon	20	2.1%
Corruption	10	1.0%
Physical Hardship	9	0.9%
Voodoo Ritual	8	0.8%

Controlling Communication	7	0.7%
Murder/ manslaughter	6	0.6%
Sexual abuse	2	0.2%
Torture	2	0.2%

Please refer to Table 5.3 in Chapter 5 for full descriptions of means.

Academic research has not explored a full range of means deployed by offenders or the use of means with actions. In Campana's (2016a, pp. 68-86) study of West African trafficking in Europe, voodoo rituals, controlled communications and intimidation were deployed against victims and their families to exert control. These means appeared in some of the case summaries examined in this thesis, although the number of offenders was low for the use of Voodoo Rituals and Controlling Communications compared with the more prevalent use of a deceptive Employment Offer and Intimidation. Whilst some academic research provided a description of a range of means used by offenders, such as physical assault, intimidation, psychological coercion, rape (Surtees, 2008), empirical research examining means across a significant number of offenders convicted of human trafficking was not evident.

Whilst the trafficking type or purpose for which offenders were trafficking victims has been the subject of a recent paper by Cockbain and Bowers (2019, pp. 9-34) identifying victim determinants, there appear to be no academic papers examining human trafficking offenders and the different purposes for which they are trafficking. The descriptive statistics from the data collected for this thesis showed that there were 77.3% (n. 751) of offenders involved in sexual exploitation; 11.8% (n. 115) in forced labour; 6.4% (n. 62) in forced begging, 2.6% (n. 25) in forced theft; 2.2% (n. 21) in domestic servitude; 1.5% (n 15) in commercial surrogacy; and 0.5% (n. 5) forced marriage. The European Commission Strategy paper of 2012 identified that 62% of victims were trafficked for sexual exploitation. This

variation in percentage between 62% of victims (E.C., 2012) and 77.3% of offenders engaged in Sexual Exploitation is not a like for like comparion but does indicate that the detection, investigation and conviction of offenders was significant for human trafficking for sexual exploitation. Chapter 6 of this thesis considers the third element, purpose and the importance purpose had for determining the actions and means used by offenders.

Offenders were active for a mean of 22 months prior to conviction (479; mean 21.9 months; standard deviation 27.4; minimum 0.1, maximum 144 months). The period of time for which offenders were active related to information given in the case summaries on the facts of trafficking events. It was likely to be an under-reporting of the period of time offenders were active as it related to the specific evidence upon which an offender was convicted. There was no academic research evident upon which to base a comparison for the purpose of analysis. However, the period of time of offending, almost 2 years for 479 offenders, along with a mean age of 37 years for 283 offenders, supported the conclusion that human trafficking was committed by experienced and practised offenders; and that human trafficking was premeditated and not a spontaneous crime with significant planning necessary to maintain criminality for long periods of time.

Offenders were responsible for offending against a mean of 6 victims (892; mean 5.8; standard deviation 10.4; minimum victims 1 and maximum victims 130). Comparing empirical findings on victims of trafficking with the findings from descriptive results in this thesis is not an ideal comparison of like for like but does indicate that there is a significant lack of offenders prosecuted for trafficking men and boys. Cockbain and Bowers (2019, pp. 19-34) research on 2630 victims identified in the UK found that 1625 (62.2%) were female, meaning nearly 40% of victims were men. Very few of the offenders in this study were identified as trafficking men and boys (61, 6.3% of offenders), whereas 759 (78.1%) were trafficking women and girls. These results reflect the distribution of offenders in this study towards human trafficking for Sexual Exploitation. Cockbain and Bowers (2019, pp. 19-34)

identified that Sexual Exploitation and Domestic Servitude were more likely to involve the victimisation of women and girls than men and boys.

This thesis examined the number of offenders engaged in trafficking both adult victims and child victims for a range of purposes. An examination of convicted offenders in this study revealed that 372, 38.3% of offenders were engaged in child trafficking. Whilst comparing data on the number of offenders engaged in adult or child trafficking with the number of adult and child victims is not a like for like comparison, empirical evidence showed that 21% of victims were children (13% girls, 9% boys, UNODC data 2010 cited in E.C., 2012) and 15% of victims were children (12% girls, 3% boys, European Commission data 2011 based on 21 European Union countries submission (E.C., 2012)), lower percentages of child victims than would be expected if the offenders in this study were representative of the general population of offenders. Offenders trafficking child victims may be more visible or given higher priority for detection and investigation than adult victims leading to a greater number of prosecutions. Alternatively, offenders were being deterred from engaging in child trafficking leading to reduced opportunity for offenders and consequently a lower percentage of victims reported as children.

Financial data in the case summaries was scarce. Where financial information was included, it linked 36.7% (357) offenders to cash and 29.3% (285) to property; property may include rented buildings, vehicles or some other form of disposable asset. It was not always clear from the case summaries who owned these assets, although they were clearly associated with the business of human trafficking. Of the remaining financial products identified, very little information was given in the case summaries: 30 offenders had control of a bank account whether in their name or the name of a victim; 19 offenders engaged in money transfers; 10 held gold; 8 obtained loans; 5 had access to savings accounts; and 1 held a bond instrument. With respect to currencies, multiple currencies were used with the Euro (€) the most utilised with 17.0% (165) offenders and only 3.0% (29)

offenders using US Dollars ($) and 2.0% (19) using UK Sterling (£). The remaining currencies had lower numbers of offenders identified. Of the property assets identified: 19.5% (190) offenders appeared to be controlling a business asset, whether a bar, hotel, nightclub, restaurant etc. Only 9.9% (96) offenders were identifiably in control of the business premises or a property in which they were living. There were 35 offenders identified in possession of a vehicle, and 4 holding a firearm. Only 2 offenders were identified with jewellery as an asset. Importantly, only 29 offenders had an identifiable financial asset confiscation order made against them in the case summaries. The mean amount was for €434,595.8[10] (29; mean 434595.8; standard deviation 973700; minimum confiscation €214.71 and the maximum confiscation €3,102,877). There did not appear to be any academic study suitable for a comparison of these descriptive results. The data revealed that the proceeds of crime provisions in the UN OCG Convention were either not being utilised or there was an under-reporting of financial investigation and confiscation in the case summaries.

Significantly, 85.7% (833) offenders received a custodial sentence of which the mean was 59 months (811; mean 59.2; standard deviation 41.5; minimum term 3 months, maximum term 360 months). There were 10.4% (101) offenders who received a suspended sentence and 31 offenders received no custodial sentence. Noticeably, 54.3% (528) offenders were not convicted of any other crime, whilst 40.1% (390) were convicted of other crimes in addition to human trafficking. There were 58.6% (570) offenders who received no financial penalty and 32.2% (313) who received a financial penalty in addition to any custodial sentence.

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[10] All amounts were converted into € Euro during data collection phase up until March 2017 and will have fluctuated in value from the point of confiscation order and since data collection.

The descriptive results related to offender methods are the subject of this thesis. The remaining descriptive results set out in this section may support future research building upon the findings in this thesis.

3.8   Validity and reliability of data

The data collected for this thesis was compiled by the researcher. By transforming unstructured data into categorical data, suitable for empirical analysis, the reliability of the variables created from the unstructured data required auditing to assess quality and the capacity to reproduce results. An audit of 10% (49) of case summaries included in this study was carried out to assess the quality of the categorical data created for this thesis. The case summaries given to the auditor were selected systematically from the open coded spreadsheet of cases, beginning with the first case, UNODC No. ALB010, and then every subsequent 10th case (UNODC No. ARM002 and so on) until 49 cases were selected Agresti, (2018, p. 33). In addition to each case summary, the auditor was given Tables 4.1, 5.1 and 6.1 from this thesis from which to code data. A comparison of the auditor's coded data and the researcher's coded data was achieved using Cohen's Kappa. Cohen's Kappa was selected as it is suitable for categorical data enabling a comparison between two raters, determining the significance of the difference between the expected agreement and actual agreement of the raters (Training: Reliability & Validity in Statistics, Institute of Child Health Care, UCL, 2018). Cohen's Kappa standardises the difference between expected agreement and actual agreement and is considered one of the most reliable statistical tests for this purpose, factoring in the expertise of the two raters and potential for bias (Grant, 2017). Table 3.8 sets out the results.

Table 3.8 Kappa results of audit

Variable	Agreement	Expected Agreement	Kappa	Std. Error.	Z score	P-value of Z
Recruitment	73.56%	49.78%	0.47	0.11	4.47	0.00
End Exploitation	57.47%	51.68%	0.12	0.11	1.12	0.13
Security	64.37%	52.87%	0.24	0.11	2.31	0.01
Transportation	66.67%	52.40%	0.30	0.10	2.90	0.00
Travel preparation	81.61%	60.87%	0.53	0.11	5.02	0.00
Harbouring	86.06%	82.31%	0.16	0.11	1.48	0.07
Financial administration unknown[11]	88.51%	89.14%	-0.06	0.10	-0.56	0.71
Strategy	100%	97.73%	1.00	0.11	9.33	0.00
Purchase and sale of victims	90.80%	77.88%	0.58	0.11	5.48	0.00
Employment Offer	78.16%	51.71%	0.55	0.10	5.47	0.00
Financial Hardship	87.36%	84.19%	0.20	0.10	1.92	0.03
'Loverboy' Romance	100%	93.34%	1.00	0.11	9.33	0.00
Intimidation	72.41%	62.90%	0.26	0.09	2.75	0.00
Physical control	85.06%	75.39%	0.39	0.11	3.67	0.00
Physical assault	89.66%	75.23%	0.58	0.10	5.58	0.00
Debt Bondage	83.91%	79.65%	0.21	0.11	1.95	0.03
Holding Passports	85.06%	76.52%	0.36	0.10	3.78	0.00
Abduction	95.40%	93.24%	0.32	0.08	4.07	0.00
Rape	95.40%	87.16%	0.64	0.11	5.37	0.00
Sexual Exploitation	91.95%	77.05%	0.65	0.11	6.06	0.00

[11] The auditor did not identify any offenders engaged in this activity. Kappa analysis was made of the dummy coded variable derived from the coded response 'unknown' by comparing the auditor's variable with the researcher's response variable 'unknown'.

Forced Labour	95.40%	89.17%	0.58	0.11	5.37	0.00
Forced Begging	100%	95.51%	1.00	0.11	9.33	0.00
Adult victim	88.51%	69.96%	0.62	0.11	5.78	0.00
Child victim	89.66%	52.87%	0.78	0.11	7.39	0.00

n. 87 offenders

The results revealed less than expected agreement on the only variable available for analysis related to Financial administration. Financial administration in Table 4.1 in Chapter 4 is defined as 'Holding, or arranging, disposing of or securing cash, profit, receipt of funds or any other book-keeping activity and operational supply of funds to facilitate trafficking'. The auditor did not find any offenders engaged in Financial administration in the sample audited. This result was not surprising as the subtle significance of statements in the case summaries related to 4 offenders engaged in Financial administration which were not identified by the auditor as supporting evidence that offenders were involved in this activity, and not simply receiving earnings from prostitution and personally living off those earnings. The relevant statements are reproduced below and demonstrate offenders engaged in financial crime:

> 'Anonymous 1, who arranged for forwarding of the money she [the victim] earned through prostitution' (UNODC, 2017 case DNK005)

> 'Defendant J.O. …she manages the logistics of the transnational organised criminal group in Italy, collects the profits of prostitution activities…' (UNODC, 2017 case ITAh015)

> 'Roci and Ismailaj were seen driving women to brothels. When they were arrested, authorities discovered them to be in possession of large sums of money,' (UNODC, 2017 case GBR024)

The statements in the examples above for the four offenders are subtle and demonstrate the difficulty in disaggregating financial crime activity from offender methods.

Further anomalies in the coding of the data were identified. The overall number of offenders recorded by the researcher and the auditor mismatched by 6 offenders. Three incidents of mismatch were human error (UNODC 2017, cases EST001, UNODC ITAh015, UNODC POL005). The remaining 3 incidents were related to lack of clarity in the case summary on the number of offenders convicted of human trafficking (UNODC, 2017 case AUT004), the conviction of a company for labour offences consistent with the approach taken in Belgium (UNODC, 2017 case BEL023) and the lack of clarity on the offences applied to human trafficking prior to the implementation of the Modern Slavery Act 2015 in the UK (UNODC, 2017 case GBR024). This indicated that future studies approaching disaggregation of offenders from unstructured data on this scale of volume of conviction cases would be improved by requiring further control measures with an audit of the number of offenders at an earlier stage of coding.

There was evidence for the reliability of the data generally, through the accuracy of the matching of data, with a number of variables demonstrating 100% matching between the auditor and the researcher (variables: Strategy, 'Loverboy' Romance and Forced Begging). Both the auditor and the researcher had maintained diligence whilst coding the data, as is demonstrated by the statistically significant Kappa probability value (p-value) results for the majority of variables examined. However, whilst the matching of End Exploitation and Harbouring both exceeded expected agreement, there was a noticeably less significant kappa p-value match rate than other variables. The content of the case summaries and the quality of the reporting on the facts was causing the discrepancy:

1. The case summaries were focused on Recruitment and Transportation. Harbouring was not used to demonstrate End Exploitation. Cases either did not clarify which offender was involved in End Exploitation or were vague about this aspect of offender activity whilst referring to the offenders receiving the proceeds from prostitution.

2. Cases involving appeals were sometimes unclear on the facts attributed to an offender. Some cases involved a successful appeal in part or not all offenders appealed.

Coding End Exploitation required a higher level of personal judgment to be made.

All results needed to be treated with caution due to the factors identified in section 3.4.3 above, namely that not all trafficking cases are held in SHERLOC and the controls related to the database itself and the content of the case summaries are uncertain, affecting the validity of the measurement of actions, means and purposes. There was minor discrepancy in the number of offenders disaggregated from the case summaries (6 of 87, 6.9% and 3 of 87, 3.4% attributed to human error). In addition, the reliability of the content of the variables 'End Exploitation' and 'Harbouring' was affected by the quality of the case summaries and the unstructured data from which they were derived with some cases demonstrating uncertainty when attributing responsibility to an offender. Results which also reflect the lack of agreement in legal theory as to whether the definition of human trafficking extends to include the exploitation of a victim in situ (Gallagher, 2010; Dempsey, 2017) or whether it is purely related to the process of moving victims prior to their exploitation (Chuang, 2014; Stoyanova, 2015).

3.9   Data analysis

Exploratory data analysis was performed to aid analysis of the research Objectives in the thesis. The variables created were categorical and nominal from disaggregating the data from case summaries. Statistical tests selected were suitable for categorical data analysis using STATA SE15. The statistical tests and models performed were Pearson's chi-squared (χ^2) test, Fisher's exact one-sided test, Pearsons correlation coefficient, bivariate logistic regression, multiple logistic regression, generalised structural equation modelling and structural equation modelling. All tests produced a

probability value (p-value). The statistical significance of p-values was set at <0.010 *** <0.05**. This made it possible to determine the extent of the statistical significance with <0.010*** showing p-value of higher statistical significance than <0.05**.

Contingency tables were created to identify the number of observations between two variables. For example, the number of offenders performing both Recruitment and Transportation actions. The contingency tables enabled an assessment of the distribution of the number of offenders performing various actions and/or means and the concentration of offenders in a particular activity or using particular means to further human trafficking.

Where relevant, percentages were used to demonstrate the distribution of offenders. For example, the percentage of offenders performing only one action, or two actions or other multiples of actions. This facilitated analysis of the distribution of actions or means across the population of offenders, identifying which actions or means and their combinations were more prevalent.

Pearson's chi-squared (χ^2) test and Fisher's exact one-sided test were performed on the pairing of variables to determine statistical significance of the relationship between two variables. Statistical significance was important to understand what offenders were and were not combining as actions or means in their methods. The Pearson's χ^2 test facilitated an exploration of the independence of variables by comparing the observed values with the expected values produced from bivariate analysis (Boslaugh, 2013). For example, comparing the observed number of offenders performing both Recruitment (variable 1) and Transportation (variable 2) with the expected number of offenders performing both actions. The statistical result from each test produced a probability value (p-value). However, the χ^2 test did not identify if the pairing was likely or unlikely, only whether the number of offenders observed were statistically significant

when compared to the expected number of offenders. Fisher's Exact one-sided test was performed to verify statistically significant results from Pearson's chi-squared (χ^2) test where there was a small number of observations upon which a test was performed (Boslaugh, 2013).

Whilst statistical significance from bivariate analysis indicates whether a result is random or not based on the expected frequency with which variables pair, statistical significance does not provide an indication of the strength of association between two variables (Agresti, 2018). Pearson's correlation analysis was performed on pairings of variables with statistical significance as a result of Pearson's χ^2 test or Fisher's exact one-sided test. This analysis developed an understanding of the strength or weakness of the relationship between two variables in addition to its statistical significance based on the correlation coefficient result of the pairing. A correlation coefficient greater than 0.3 was treated as strong and smaller than 0.3 was treated as weak.

Statistically significant pairings of variables from Pearson's χ^2 test or Fisher's exact one-sided test were further analysed through bivariate logistic regression to examine the likelihood or unlikelihood that variables would pair and whether this pairing continued to be statistically significant. This statistical analysis confirmed or refuted the results from Pearson's χ^2 test or Fisher's exact one-sided test results and began to develop an understanding of the pattern of relationships between variables building towards an exploration of the process or order to variables and a more complex form of statistical analysis.

Multiple logistic regression analysis was performed to develop a more complex analysis of a dependent variable. Multiple logistic regression models were created using forward selection of variables (Agresti, 2018). Variables were maintained in the model based upon their statistical significance and for their importance for explanatory power. Variables were dropped from the model that did not hold statistical significance when other

variables were added, and where two variables altered the statistical significance of the other variable when added to the model, the variable adding the greatest impact to the explanatory power of the model was chosen. Whilst bivariate logistic regression indicated whether a relationship was likely or unlikely between two variables, it was not sufficiently complex to explore whether the inclusion of other variables in a model affected this relationship and altered its statistical significance. For example, when creating a multiple logistic regression model of Transportation with actions and means in Sexual Exploitation in Chapter 6, statistically significant relationships with the means Physical control and a deceptive Employment Offer were identified which had not been evident in bivariate logistic regression. When the means, Abduction, was added to the model, End Exploitation as an action lost its statistical significance and the explanatory power of the model was increased. Multiple logistic regression models also provided explanatory power results from the pseudo R^2 result to give further context to analysis and identify the extent to which the model explained the dependent variable.

Analysis of variables was developed through these stages of statistical testing to facilitate the exploration of the research Objectives in this thesis and to build towards the fourth research Objective:

Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

Martinez-Lopez et al. (2010, pp. 115-152) examined the use of structural equation modelling (SEM/sem) in marketing and business academic papers from 1970s to 2010. They found that 'SEM is a powerful tool for theory testing' but also has flaws in its design. The paper identified that three modelling strategies were in use. Type 1 use of sem confirmed an existing theoretical model leading to no variation in the model regardless of the results from sem analysis. This approach was used in 70% of the papers they

examined. Type 2 involved the creation of a new model based entirely upon results from sem analysis. Only 16% of the papers they examined used sem in this way. Type 3 explored an existing theoretical model which was then adapted using the results from sem analysis. They found that only 14% of the papers they examined approached analysis using this third approach. They considered Type 3 a more reliable strategy although rare. They identified that Type 3 modelling was rare as it was more time-consuming with effort required to develop a theoretical model and then data analysis applied to test its efficacy and create an adapted model. Martinez-Lopez et al. (2010, pp. 115-152) found that Type 3 modelling was 'coherent… dynamic and focused on implementation' and that Type 2 and 3 models were preferable to Type 1. They also identified the importance of analysing significant sample sizes to support the model with a minimum of n.100-150 observations to ensure reliability.

Considering the findings for business and marketing process analysis by Martinez-Lopez et al. (2010, pp. 115-152) and having progressed statistical analysis of the categorical data towards a greater understanding of the complexity of relationships of variables through multiple logistic regression, this complexity of relationship was visualised through each chapter examining each element to create a model suitable for statistical analysis using sem.
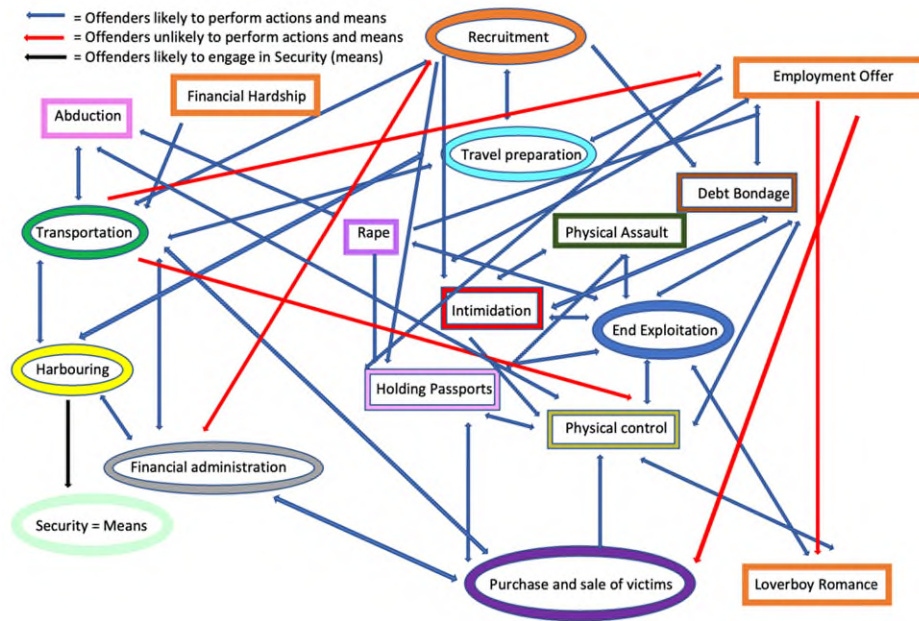
Figure 3.3 Example of model created from multiple logistic regression results of actions and means within Sexual Exploitation shown at Figure 6.4 in Chapter 6

For example, the model of results from multiple logistic regression analysis in Figure 3.3 above (reproduced from Chapter 6 at Figure 6.4) shows the actions and means performed by offenders within Sexual Exploitation and the complex pattern of potential interactions extending beyond direct actions and means requiring deconstruction and analysis using sem. To further analysis using sem, statistically significant connected activity performed by offenders were separated to identify a strand of process for further exploration of direct and potentially indirect activity flowing from a variable. Generalised structural equation modelling (gsem) using Bernoulli family link logit was chosen for this exploration as it was suitable for data analysis of categorical data and constrained two variables to a coefficient of 1 enabling the observation of the effect of this constraint on other variables potentially altering the flow of actions (STATA, 2013; NASA, 2015). For example, taking the strand of activity from a deceptive Employment Offer visible in Figure 3.3 above, the variable for a deceptive Employment Offer was constrained by the variable for Travel Preparation and the results

revealed the direction of action towards the variables Transportation and Harbouring, see Figure 3.4 below:
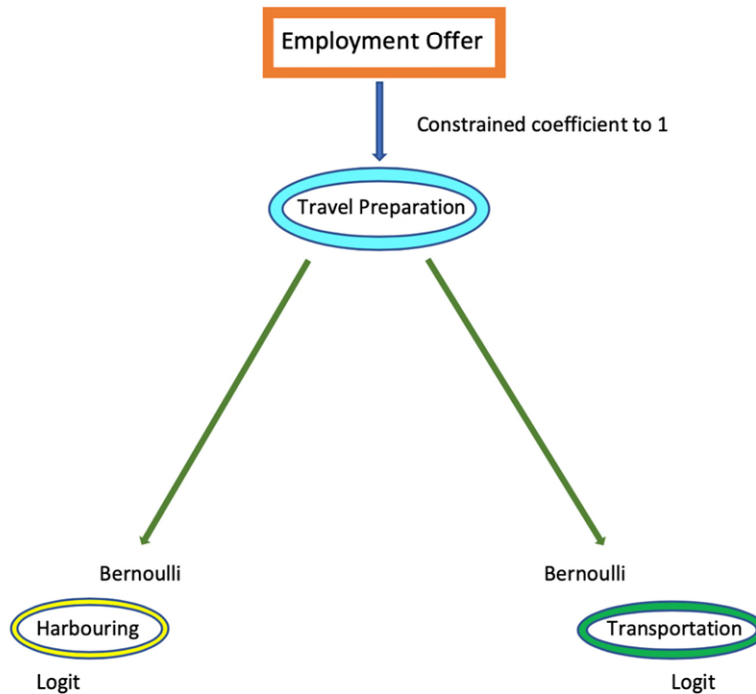
Figure 3.4 Path diagram for gsem using Bernoulli family link logit of a deceptive Employment Offer constrained with Travel Preparation in Sexual Exploitation

Finally, to give additional confidence to results from gsem analysis, structural equation modelling (sem) for indirect effects of one variable on another was performed to verify or refute the statistically significant results for the order and flow of actions and means identified from gsem analysis. A path diagram for each series of actions was created to support the creation of the appropriate command structure and each series of actions were tested using sem analysis for indirect effects. An example of the path diagram demonstrating the potential indirect relationship of a deceptive Employment Offer upon Harbouring through Travel Preparation within Sexual Exploitation demonstrates the flow:
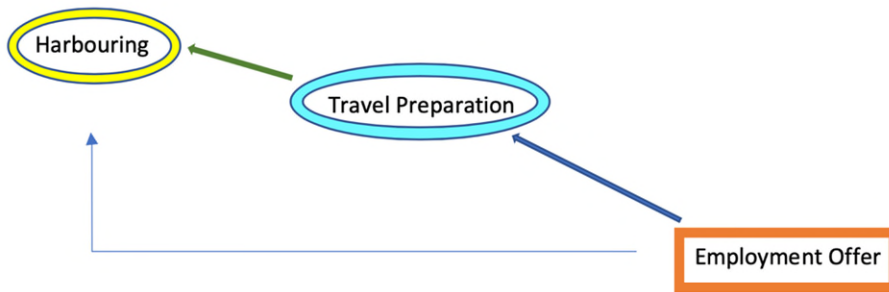
Figure 3.5 Visual of path diagram of sem for indirect effects with a deceptive Employment Offer indirectly effecting Harbouring through Travel Preparation

Coding used to create gsem and sem analysis appears in Appendix 2 of this thesis.

The sem verified gsem results altered the model shown at Figure 3.3 above. For example, the final model of the actions and means performed by offenders engaged in a deceptive Employment Offer appears at Figure 3.6 below and reflects the sem verified gsem results from analysis along with direct actions and means from multiple logistic regression.
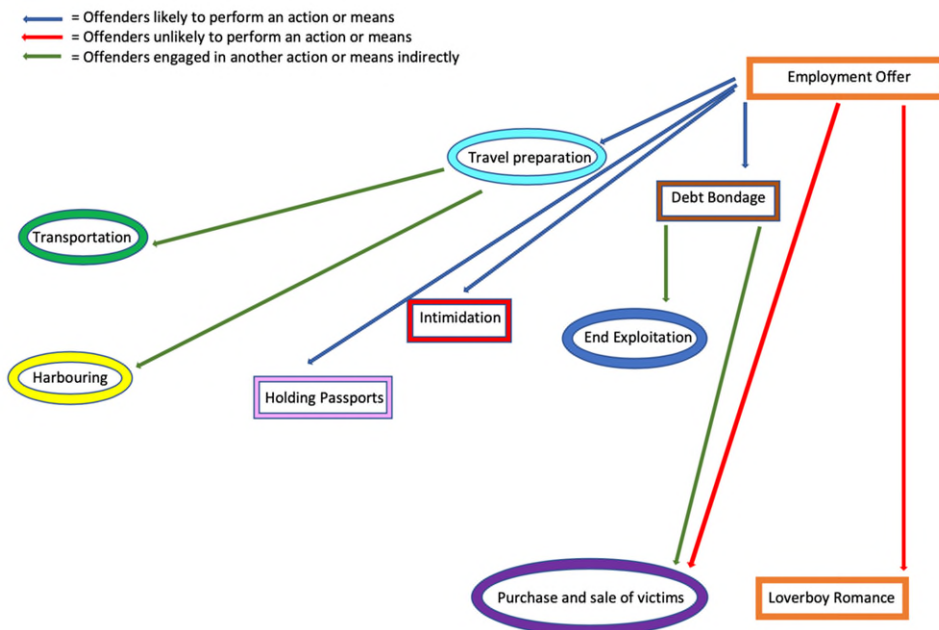
Figure 3.6 Revised Type 3 model including sem validated gsem results for Offenders engaged in a deceptive Employment Offer to further Recruitment in Sexual Exploitation with multiple logistic regression, gsem and sem results shown at Figure 6.6 in Chapter 6

Coding used to create each path diagram appears in Appendix 2 of this thesis.

gsem and sem were performed to identify the flow of actions and support an assessment of any causal relationships between variables. Agresti stated that to determine causation:

'A relationship must satisfy three criteria…

- association between the variables,
- an appropriate time order, and
- the elimination of alternative explanations.' (2018, p. 300)

Statistically significant results from gsem and sem models were explored in Chapters 4, 5 and 6 to progress analysis of research Objective 4. Agresti's (2018, p. 300) three criteria for causation, listed above, were considered when developing analysis.

3.10 Data visualisation

At each stage of analysis, a data visualisation was created of the statistically significant relationships between variables to explore the changing pattern created from data analysis towards building a model suitable for exploration using sem. This was used to aid the researcher's understanding of the data results and externalise analysis, supporting the consideration of alternative perspectives on the significance of data results. Circles and rectangles of colour were used to aid rapid understanding of the relationships represented in the visualisation. Circles were used to denote an action. Rectangle boxes were used to denote a means. Each action or means was given a consistent colour, for example Recruitment always appeared with an orange circle. Blue arrows designated a positive coefficient result with statistical significance. Red arrows designated a negative coefficient result with statistical significance. Green arrows designated an indirect effect from statistically significant sem verified gsem results. The data visuals included

in this thesis have been considered for the six questions recommended by Gough et al (2016, pp. 2-5) when presenting data visualisation:

Table 3.9 Questions to form data visuals

Visualisation Questions (Gough, 2016)	Consideration and implications
1. How does this knowledge benefit the user?	The visualisation in this thesis creates an opportunity to explore the complexity of relationships between actions, means and purposes of human trafficking. Multiple stages of data analysis were performed, with each stage of data analysis deepening an understanding of the potential connections in offender method. Multiple results from data analysis are presented in the paper and the data visualisation of these results enables a rapid appreciation of the connections between actions, means and purposes.
2. What about this data is relevant or important?	The analysis in this thesis provides a foundation upon which further research on offender method can be explored.
3. What is otherwise inaccessible to the user?	Multiple stages of data analysis were used for each element of human trafficking. The exploration of the significance of each element

	altered the visualisation of how actions and means were influencing relationships and what was presented by each stage of data analysis. Visualisation aided a speedier transition between stages of data analysis. Each chapter builds upon the preceding chapter and each visualisation presents an alteration in the data results, aiding the user to comprehend more rapidly the variation in results at each stage of analysis and the implications for interaction between actions, means and purpose.
4. What can the user access on their own?	All results are present in the paper. However, the multiple stages of analysis and multiple results are difficult to process together without a visualisation.
5. What myths and misconceptions are relevant to the data?	Empirical research has not been performed on all three elements prior to this thesis. Theory and legal analysis of the crime problem created the definition forming action, means and purpose (Gallagher, 2010) and the visuals help the reader understand the extent to which the definitional

	construct of the three elements reflect offender method to commit human trafficking.
6. What is the potential impact and what are the risks for this visualization?	The visuals in this thesis reflect data analysis based upon the data. However, the data itself is not a comprehensive population of human trafficking offenders. In addition, the case summaries from which data were collected are not comprehensive, had varying clarity and as a result, data findings and conclusions drawn from analysis in this thesis must be treated with caution.

3.11 Conclusion

The data collected for this thesis was tailored to consider the four research objectives identified from the literature review in Chapter 2. An extensive collection exercise was undertaken of unstructured material derived from 486 case summaries in SHERLOC. Whilst data collection yielded a considerable number of offenders and variables for exploration, the findings from this thesis need to be treated with caution. The SHERLOC database does not hold a comprehensive population of human trafficking offenders and the case summaries from which data were collected are not comprehensive and varied in clarity (UNODC, 2017). As a result, data findings and conclusions drawn from analysis in this thesis must be treated with caution.

Open coding of the unstructured data supported the identification of suitable patterns of data that became axial coded and subsequently imported into STATA SE15 for analysis. The remaining chapters to this thesis build an empirical analysis of the three elements of the Palermo Protocol, exploring the four research objectives identified from the literature review in Chapter 2. Chapter 4 begins with the first element, actions, and expores the identifiable actions committed by offenders, the relationships between actions and a potential flow to those actions to commit human trafficking.

Chapter 4   Action: the first element of the definition of human trafficking

> 'Intelligent design of organized criminal behavior is often an illusion and it is best to begin by assuming that organization and design are weak and loose… Often the ongoing structure is determined by the same locations, designs and activities but with fluctuations in the cast of participants at any given time… place, time, and sequence may prove to the central structural components, while the specific persons involved are at least partly incidental to that structure…' as stated by Felson (2012, pp. 215-221).

4.1   Introduction

The international definition of the offence of human trafficking, from which other regional instruments gain their structure (Council of Europe Convention and European Union Directive 2011/36/EU), is derived from the definition appearing in Article 3 of the Palermo Protocol in the UN OCG Convention. The definition in the Palermo Protocol is also the basis upon which the European Court of Human Rights examines a nation state's compliance with Article 4 of the European Convention on Human Rights (European Convention for the Protection of Human Rights and Fundamental Freedoms, 1950; Rantseva v. Cyprus and Russia, 2010, ECtHR, 25965/04). The Palermo Protocol definition is also considered a corner stone for academic research on human trafficking (Ezeilo, 2015; David, 2017; Dempsey, 2017; Robinson, 2017).

Considerable negotiation between Member States to the UN OCG Convention took place to formulate the definition of the Palermo Protocol (Gallagher, 2010; UNODC, 2013, 2014, 2015b), resulting in a definition that was specifically constructed around three elements: 'action', 'means' and 'purpose' (Gallagher, 2010; UNODC, 2013, 2014, 2015b; Stoyanova, 2015; Dempsey, 2017). All three elements must be present to establish an offence of human trafficking has been committed, except where the victim is a child, in which case the second element, 'means' is not required (UNODC, 2013,

2014, 2015b; van der Wilt, 2014). However, the specific terms used to describe the elements in the Palermo Protocol were not defined (Gallagher, 2010; UNODC, 2013, 2014, 2015b; Stoyanova, 2015; Dempsey, 2017). Chapter 2 of this thesis examined current understanding in international case law, academic literature and Issue Papers of the UNODC Working Party which all contribute to a developing understanding and also highlight considerable debate on some of the aspects of the definition. However, understanding and debate have not evolved as a result of empirical examination of the actual actions, means and purposes used by human trafficking offenders. The following research objectives were identified for further exploration through empirical analysis from an examination of the prevailing literature:

1. Is it possible to better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions?

2. Is it possible to explore the definitional construct of human trafficking and identify whether it is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017)?

3. Does the international definition adequately reflect convicted offender method or is it deficient in some way?

4. Is it possible to determine whether offender method to commit human trafficking has structure and order to it by exploring advanced data analysis techniques through structural equation modelling?

This Chapter contributes to knowledge on human trafficking. An empirical study of the first element of the definition is explored through analysis of the actual actions present in 486 case summaries appearing in SHERLOC, the

UNODC case law database, involving 972 offenders, convicted by 40 Palermo Protocol Member States, between May 1997 and October 2016.

The Palermo Protocol defines 'action' to commit human trafficking as:

> 'recruitment, transportation, transfer, harbouring or receipt of persons' as stated in Art. 3 of the Palermo Protocol of the United Nations Convention Against Transnational Organized Crime, 2000.

The first element of the Palermo Protocol definition, closely aligns to the legal structure of a criminal offence, commonly recognised as the 'actus reus'[12]. To aid exploration of the four research objectives above, empirical analysis of the first element is structured through the following questions:

1. Were there distinguishable and consistent human trafficking actions?
2. Did offender actions reflect those identified in the Palermo Protocol?
3. Were some actions necessarily performed with other actions?
4. Was there an order to actions?

The discussion at the end of Chapter 4 will return to the four research objectives, examining the first element through the results from analysis of the questions in this Chapter.

4.2   Methodology

To achieve a comprehensive examination of actual actions from a significant body of case summaries, 641 cases were examined from SHERLOC. Of the 641 cases examined, 155 cases were excluded from analysis where a court made a finding that human trafficking had not occurred, or where offenders were convicted of offences other than human trafficking or where a

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[12] defined as 'the act or omission that comprise the physical elements of a crime as required by statute' (Cornell, 2019)

conviction for human trafficking was subsequently overturned on appeal. As a result, 486 cases were suitable for analysis. Each case was read and disaggregated to capture data on each offender convicted of human trafficking, excluding offenders convicted of ancillary offences, resulting in the capture of data for 972 offenders. A manual process of open-coding was used to collect data related to any description of the offender's actions, in Microsoft Excel (De Cuir-Gunby, 2011). Through a process of axial coding, by establishing from the open coded data consistent patterns of action and means used by offenders (De Cuir-Gunby, 2011), nine actions were revealed as potentially suitable for analysis. The actions were described as:

Table 4.1 Descriptions of trafficking actions

Trafficking action	Description
Recruitment	The first approach or contact with the victim other than forced taking of the victim.
Travel preparation	Making active arrangements for the travel of the victim, such as purchasing travel tickets, attending administrative meetings with the victim to obtain passport or visa for travel, sometimes providing the victim with funds to bribe border guards or for supplies during the journey
Transportation	Accompanying or conveying the victim on a journey.
Security	Acting to maintain vulnerability of the victim or protect the trafficking network.
Harbouring[13]	Holding the victim in a secure environment covertly

[13] Note that the definition of Harbouring is more restrictive for this purpose with the addition of 'covert' with the attempt to conceal the victim, rather than the broader interpretation given as 'accommodating or housing persons in whatever way…' (Council of

Purchase and sale of victims	Engaging in the purchase(s) and/or the sale of a victim(s) from one trafficker to another trafficker[14]
Financial administration	Holding, or arranging, disposing of or securing cash, profit, receipt of funds or any other book-keeping activity and operational supply of funds to facilitate trafficking
End Exploitation	The end day-to-day activity of exploiting the victim by pimping, procuring or brothel keeping, to guarantee the victim provides sex acts, or operating as a gang master or directly benefiting from the victim's labour or begging activity.
Strategy	Running a trafficking network by overseeing, managing or organising other offenders in an organised network. Determining whether an offender was acting strategically was derived from the court summary of the offender controlling an extensive network of offenders, and/or the controlling offender prosecuted following an investigation by a Joint Investigation Team (EUROPOL, 2018).

An audit of 49 case summaries selected randomly was carried out to assess the quality and consistency of the content of variables created. Results from

Europe and United Nations 'Trafficking in Organs, Tissues and Cells and Trafficking in Human Beings for the Purpose of Removal of Organs (2009) cited in Gallagher (2010, p.30).

[14] Note that this does not extend to a victim being sold to a client for prostitution, but the exit and entry point of victims between trafficking networks and between trafficking offenders.

the audit appear in section 3.8 of Chapter 3. Excel variables created as a result of axial coding were imported into STATA SE15 for data analysis. Variables were categorical, binary (1 = action present 0 = action not present) and nominal (Kateri, 2010). Offenders carried out one or a series of actions and therefore data on action was aggregated. It was important to determine whether each action was sufficiently distinct as to have offenders performing an action alone and to the exclusion of other actions and so dummy variables were also created and actions were disaggregated through a process of coding logic. A complete Codebook of variables and coding logic appears at Appendix 2. Table 4.1 sets out the variables created to support data analysis to answer the research questions related to actions.

Data analysis was performed to support an examination of each question using the variables above. Pearson's chi-squared test and Fisher's Exact one-sided test were used to explore an association between two variables to establish whether results were significant and not random or produced as a result of error (Connor-Linton, 2010; Agresti, 2018). Fisher's Exact one-sided test was performed: where chi-squared test had identified a statistically significant result, and there was a small population of offenders, and an assumption was made that there was some relationship between actions. Pearson's product moment correlation was used to examine the effects size and the strength of association (Connor-Linton, 2010; Agresti, 2018). Bi-variate logistic regression was used to explore the likelihood of the association and the statistical significance of combined activity.

To develop a model of the order of activity, multiple logistic regression was performed placing each action as dependent variable (Pevalin, 2009; Agresti, 2018). The results from multiple logistic regression enabled the creation of a model of the flow of actions suitable for further exploration through structural equation modelling (sem). To further analysis using sem, statistically significant connected relationships from multiple logistic regression were separated to identify a strand of process for further exploration of direct and potentially indirect activity flowing from an action.

Table 4.2 Descriptive parameters for actions

Variable	N.	Proportion	Percent	Std. Deviation	Std. Error.	Conf. Int. Min	Conf. Int. Max
Trafficking action	869	.89	89.4%	.31	.01	.87	.91
Recruitment only (no other action)	136	.14	14.0%	.35	.01	.12	.16
Recruitment in total	452	.47	46.5%	.50	.02	.43	.50
Travel preparation only (no other action)	10	.01	1.0%	.10	.00	.01	.02
Travel preparation in total	143	.15	14.7%	.35	.01	.13	.17
Transportation only (no other action)	38	.04	3.9%	.19	.01	.03	.05
Transportation in total	260	.27	26.8%	.44	.01	.24	.30
Security	379	.39	39.0%	.49	.02	.36	.42
Harbouring only (no other action)	3	.00	0.3%	.06	.00	.00	.01
Harbouring in total	58	.06	6.0%	.24	.01	.05	.08
Purchase and sale of victims only (no other actions)	31	.03	3.2%	.18	.01	.02	.05
Purchase and sale of victims in total	109	.11	11.2%	.32	.01	.09	.13
Financial administration only (no other action)	12	.01	1.2%	.11	.00	.01	.02

Financial administration in total	51	.05	5.3%	.22	.01	.04	.07
End Exploitation only (no other action)	129	.13	13.3%	.34	.01	.11	.16
End Exploitation in total	421	.43	43.3%	.50	.02	.40	.46
Strategy only (no other action)	9	.01	0.9%	.10	.00	.00	.02
Strategy in total	28	.03	2.9%	.17	.01	.02	.04

n. 972

Generalized structural equation modelling (gsem) (STATA, 2013) using 'gsem' command in STATA for categorical variables using family Bernouilli and logit link (STATA, 2013) was performed with one variable constraining another presenting an opportunity to understand the direction of other actions. Results from gsem were verified through structural equation modelling (sem) examining the indirect effect of actions in the model (Preacher, 2007; STATA, 2013). Appendix 2 includes the full coding logic and commands used to generate results in STATA to perform gsem and sem. The statistical significance of p-values generated from results were set at <0.010 *** <0.05 **.

4.3 Results: An examination of actions

4.3.1 Question 1 Were there distinguishable and consistent human trafficking actions?

There were 869 (89.4%) offenders who carried out activity from disaggregating offender method from the case summaries. It was not possible to establish an action for 103 (10.6%) offenders. Nine actions were identified from offender methods: Recruitment, End Exploitation, Security, Transportation, Travel preparation, the Purchase and Sale of victims, Harbouring, Financial administration and Strategy (for descriptions of actions, please see Table 4.1 above). Security related to the second element, means to achieve action, explored in Chapter 5. Of the remaining eight actions, Table 4.3 below shows the extent to which actions were performed exclusively:

Table 4.3 Number of offenders performing each action in isolation compared to number of offenders performing action overall

Variable	N. of offenders involved in the action exclusively	N. of offenders involved in the action overall	% of all offenders involved in the action exclusively	% of offenders involved in the action exclusively derived from the number of offenders involved in the action overall
Strategy	9	28	0.9%	32.1%
End Exploitation	129	421	13.3%	30.6%
Recruitment	136	452	14.0%	30.1%
Purchase and sale of victims	31	109	3.2%	28.4%
Financial administration	12	51	1.2%	23.5%
Transportation	38	260	3.9%	14.6%
Travel preparation	10	143	1.0%	7.0%
Harbouring	3	58	0.3%	5.2%

n. 368

The results revealed that eight actions were separate and identifiable. There were 368 (37.9%) offenders involved in only one action and not two or more actions. This meant that 42.3% of offenders (based upon 368 of 869 offenders) limited their involvement in human trafficking to one action. There were noticeably higher percentages of offenders performing the actions that related to the logical beginning and the end of the process of human trafficking (Recruitment, Purchase and sale of victims and End Exploitation): Strategy (32.1%); End Exploitation (30.6%); Recruitment (30.1%); and the Purchase and sale of victims (28.4%). Activity that could be grouped as supporting or service actions for trafficking (Transportation, Travel preparation and Harbouring) had noticeably fewer percentages of offenders performing these support or service actions exclusively: Transportation (n. 38, 14.6%); Harbouring (n. 3, 5.2%); Travel preparation (n.

10, 7.0%). Financial administration appeared to be both exclusive and supportive with 12 offenders (23.5%) engaged in this activity exclusively, and 39 (76.5%) offenders aggregating this activity with other actions. To illustrate the contrast between the service actions and other isolated activity, only 28 offenders performed Strategy of human trafficking networks, 9 (32.1%) of these offenders did not aggregate their activity with other human trafficking actions. This was in contrast to 58 offenders performing Harbouring where only 3 (5.2%) offenders did not aggregate their activity with other human trafficking actions.

The empirical analysis of actions revealed that there were distinguishable actions performed by offenders. Whilst Harbouring, Travel Preparation and Transportation were distinguishable, they were performed by offenders as service actions and were likely to be part of a process of activity and aggregated with other actions.

4.3.2   Question 2 Did offender actions reflect those identified in the Palermo Protocol?

The Palermo Protocol defines 'action' to commit human trafficking as 'recruitment, transportation, transfer, harbouring or receipt of persons' (as stated in Art. 3 of the Palermo Protocol of the United Nations Convention Against Transnational Organized Crime, 2000). Five distinct actions establish the primary element of the offence. However, when disaggregating the actual actions performed by offenders convicted of human trafficking the results indicated that the first element of the definition only partially covered the actual actions performed by offenders. Only three disaggregated actions from offender method to commit human trafficking (Recruitment, Transportation and Harbouring) readily matched the actions listed in the first element. The remaining six actions were not simply matched to the undefined terms in the first element. The first element actions: 'transfer' and 'receipt of persons', were only partially reflected in the more apparent actions of 'End Exploitation', 'Transportation', and 'Purchase and sale of victims'.

Recruitment readily matched the first element. It had a significant proportion of offenders engaged in this activity (n. 452) and to the exclusion of other actions (n. 136, 30.1% of all offenders in Recruitment and 14.0% of all offenders). Transportation also had clarity with 260 offenders performing this action, although it was more likely to be aggregated with other activity with only 38 offenders performing Transporation in isolation with no other actions. Harbouring was also readily identifiable but even less likely to be isolated. There were 58 offenders performing Harbouring but only 3 were doing so in isolation with no other action.

Turning to examine the actions that were not listed in the first element of the Palermo Protocol definition but were present in offender method: there were 421 offenders involved in End Exploitation, which was a significant number of offenders. Of those performing End Exploitation, 129 offenders did so with no other discernible action present (see Table 4.3 above). The prescribed actions of Harbouring, Transportation and Recruitment appeared to be missing from their activity. This was a significant number of offenders who were prosecuted without establishing the movement of the victim.

Travel Preparation as an activity was identified in the case summaries for this study. Travel Preparation was not significantly separate as an activity from other actions, only 7.0% (10) of offenders were involved in this activity to the exclusion of other actions. As a service or support activity, it was more closely identifiable with Recruitment or with Transportation, which are two of the five actions listed in the Palermo Protocol. Pearson's correlation coefficient test results showed that with Recruitment, Travel preparation had a correlation coefficient of 0.10 and with Transportation 0.12. Neither Recruitment nor Transportation indicated a particularly strong effects size for offenders performing these actions with Travel preparation. Travel Preparation was also performed by offenders with other activity including actions that were not listed as one of the five actions in the Palermo Protocol definition. For example, 54 offenders performed Travel Preparation with End Exploitation and 19 offenders performed Travel Preparation and

engaged in Purchase and sale of victims. This activity was not exclusively related to the early stage process of moving victims from Recruitment.

There was clear evidence for three of the prescribed actions: Recruitment, Transportation and Harbouring, in the case summaries. However, the prescribed actions 'transfer' and 'receipt of persons' were not evident in their own right as actions performed by offenders but were likely to be evident in other more clearly distinguishable activity such as End Exploitation, Transportation and Purchase and sale of victims.

4.3.3   Question 3: Were some actions necessarily performed with other actions?

A complete table of the number of offenders observed performing two actions appears in Appendix 3. There were 251 offenders who performed both Security and End Exploitation. This combination of activity performed by an offender had the most observations. No offenders were observed combining Strategy with the Purchase and sale of victims.   To determine whether there was statistical significance for the combination of actions performed by offenders, Pearson's chi-squared and Fisher's Exact one-sided tests were performed. Results for these statistical tests appear in Appendix 3. The statistically significant results from these tests were further analysed through bivariate logistic regression to understand the likelihood that offenders were performing a combination of actions. The results from bivariate logistic regression appear in Table 4.4 below. Results of 1 or above indicated a likelihood that an offender would perform both actions and results below 1, diminishing away from 1, indicated that an offender was unlikely to perform both actions.

Recruitment, Transportation and Travel preparation were statistically likely to be performed by offenders together as actions, indicating that there was a Recruitment process that led to the movement of victims. This was evidenced by the logistic regression results for offenders performing both Recruitment with Transportation (Odds Ratio 1.81, Standard Error 0.27, Z-

statistic 4.06, p-value 0.00***; Pearson's correlation coefficient 0.13), Recruitment with Travel Preparation (Odds Ratio 1.78, Standard Error 0.33, Z-statistic 3.15, p-value 0.00***; Pearson's correlation coefficient 0.10) and Transportation with Travel preparation (Odds Ratio 2.04, Standard Error 0.39, Z-statistic 3.78, p-value 0.00***; Pearson's correlation coefficient 0.12). However, the Pearson's correlation results did not indicate a strong effects size for combined activity and offenders engaged in Transportation were also statistically likely to engage in Financial administration (Odds Ratio 2.18, Standard Error 0.64, Z-statistic 2.66, p-value 0.01***) whilst it was unlikely that offenders involved in Recruitment engaged in Financial administration (Odds Ratio 0.42, Standard Error 0.13, Z-statistic -2.73, p-value 0.01***). This indicated separation between stages of activity with statistical significance for offenders performing the Recruitment process that included Transportation and statistical significance for offenders engaged in Transportation and also engaged in Financial administration, a seemingly different stage of the trafficking process. Offenders engaged in Financial administration were also statistically likely to be engaged in Harbouring (Odds Ratio 3.81, Standard Error 1.51, Z-statistic 3.38, p-value 0.00***). Results related to Financial administration indicated that offenders engaged in Transportation were moving victims and moving money. In addition, the combination of Financial administration activity with Harbouring indicated that offenders involved in concealing victims were also involved in the concealment of money. To better illustrate these results, a visualisation was created. Figure 4.1 below presents the results with a blue arrow used to show the statistical significance for the likelihood that offenders were performing actions together.

Table 4.4 Bivariate logistic regression results for offenders performing actions

Action 1	Action 2	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z - statistic	Confidence Intervals Min	Confidence intervals Max
Recruitment	Transportation	149	1.81 (.27)	4.06	0.00***	1.36	2.41
Recruitment	Travel preparation	84	1.78 (.33)	3.15	0.00***	1.24	2.56
End Exploitation	Security	251	4.88 (.69)	11.20	0.00***	3.70	6.44
Transportation	Travel preparation	57	2.04 (.39)	3.78	0.00***	1.41	3.00
Transportation	Financial administration	22	2.18 (.64)	2.66	0.01***	1.23	3.86
Harbouring	Financial administration	9	3.81 (1.51)	3.38	0.00***	1.76	8.28
Recruitment	End Exploitation	178	.74 (.10)	-2.30	0.02**	.57	.96
Recruitment	Purchase and sale of victims	33	.46 (.10)	-3.54	0.00***	.30	.71
Recruitment	Financial administration	14	.42 (.13)	-2.73	0.01***	.22	.78
Recruitment	Strategy	6	.30 (.14)	-2.56	0.01**	.12	.76
Purchase and sale of victims	Harbouring	2	.27 (.20)	-1.80	0.07	.06	1.11
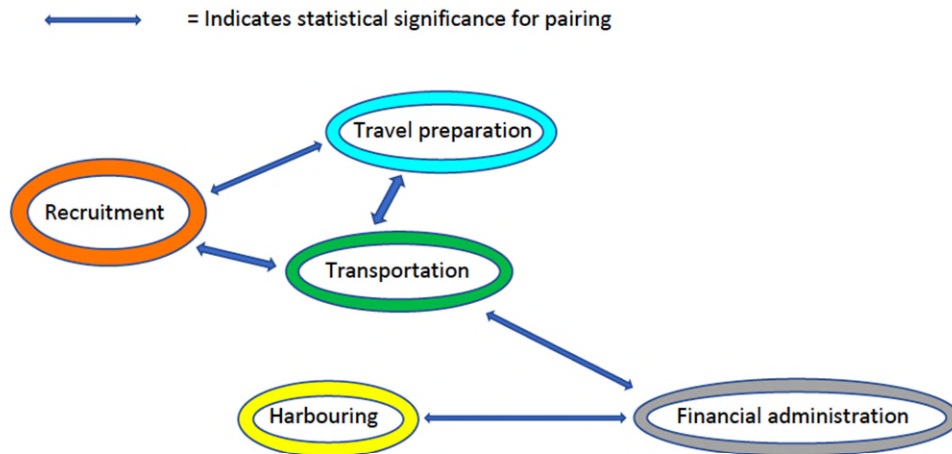
Figure 4.1 Actions likely to be performed together by offenders

Another result, evidenced in Table 4.4 above, indicated that offenders involved in End Exploitation were highly likely to be involved in Security. As previously stated, this combination of activity had the highest number of observations (251). This result indicated that the performance of both actions was the most likely of all bivariate logistic regression results (n. 251 Odds ratio 4.88, Standard Error 0.69, Z-statistic 11.20, p-value 0.00***). The performance of both activities by the same offender also had the strongest effect size of all bivariate relationships when examined through Pearson's correlation coefficient with 0.37. It indicated that the activity producing financial benefit to offenders necessitated the greatest level of protection and that the End Exploitation of the victim almost inevitably led to means. What is understood by Security as an action, with a further breakdown of this activity through the means used by offenders is explored in more detail in Chapter 5.

Whilst Table 4.4 results included actions that were performed together by offenders, there were also actions that were statistically significant because there were fewer offenders performing these actions together. Offenders performing Recruitment were unlikely to be involved in End Exploitation, Strategy, the Purchase and sale of victims and Financial administration. The results in Table 4.4 are illustrated by Figure 4.2.
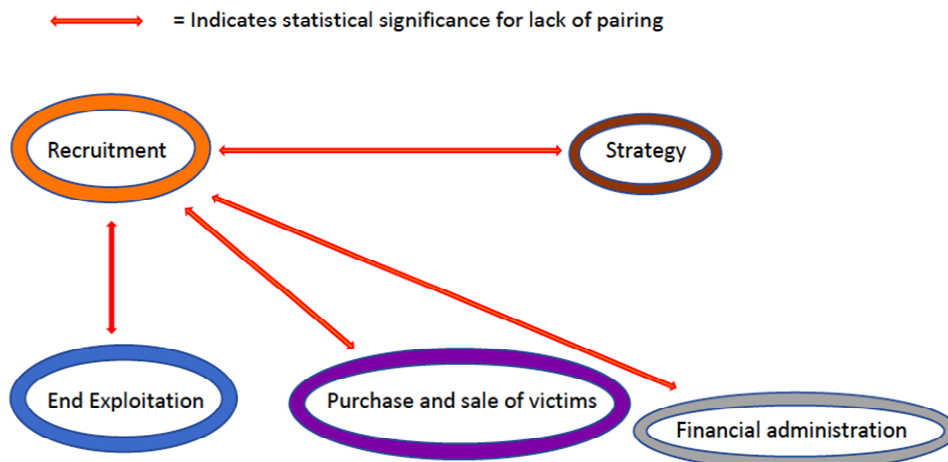
Figure 4.2 Actions that were unlikely to be performed by the same offender together

Figure 4.2 shows that there was evidence that offenders in Recruitment did not engage in Strategy, End Exploitation, Financial administration or the Purchase and sale of victims. There were a significant number of offenders engaged in Recruitment 452 (46.5%) and in End Exploitation 421 (43.3%). Whilst there were offenders engaged in both Recruitment and End Exploitation (n.178, 18.3%), the separation of the initiating action, Recruitment from the ultimately benefiting action, End Exploitation, was represented by the Odds Ratio 0.74, (Standard Error 0.10, Z – statistic -2.30, p-value 0.02**) which showed that these actions were unlikely to be performed together by an offender. Offenders involved in Recruitment were also unlikely to engage in the Purchase or sale of victims (n. 33, Odds Ratio 0.46, Standard Error 0.10, Z – statistic -3.54, p-value 0.00***). Offenders involved in more identifiable activity associated with slavery, by buying and selling victims were not appearing to diversify into Recruitment and vice versa. The two entry routes into trafficking for victims appeared to be separate.

Not surprisingly, offenders involved in Strategy were also isolated, as previously stated n.0 offenders performed both Strategy with the Purchase and sale of victims, although this result was not statistically significant from Fisher's Exact one-sided analysis with a p-value of 0.06. Offenders were

unlikely to engage in Recruitment in addition to Strategy (n. 6, Odds Ratio 0.30, Standard Error 0.14, z-statistic -2.56, p-value 0.01**).

Further analysis of actions was undertaken through multiple logistic regression models by taking each action as a dependent variable and adding actions to the model using forward selection (Agresti, 2018). The complete set of models appear in Appendix 3. Only the multiple logistic regression model of End Exploitation as a dependent variable produced an additional result for understanding the interaction of multiple activity with offenders engaged in End Exploitation. The results for this model appear in Table 4.5 below.

Table 4.5 Multiple logistic regression of End Exploitation as dependent variable with other actions

End Exploitation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	-.38	.14	-2.69	0.01***	-.66	-.10
Security	1.61	.14	11.26	0.00***	1.33	1.89
Purchase and sale of victims	-.49	.23	-2.16	0.03**	-.94	-.04
Constrained	-.69	.11	-6.13	0.00***	-.91	-.47

Model chi-square p-value 0.00*** Pseudo R-squared = 0.11 Log likelihood = -592.23 LR chi2(3) = 145.57 n. 972

Offenders were unlikely to perform both End Exploitation and the Purchase and sale of victims (Coefficient -0.49, Standard Error 0.23, z-statistic -2.16 and p-value 0.03**). The explanatory power of the multiple logistic regression model for End Exploitation was 11% which was very low but greater than the explanatory power of the multiple logistic regression models of the other seven actions explored in this Chapter. This meant that there were other factors that explained the performance of actions by

offenders. The importance of explanatory power is considered in the Discussion at Section 4.4 of this Chapter.

4.3.4   Question 4: Was there an order to actions?

As a result of bivariate logistic regression analysis and multiple logistic regression analysis it was possible to create a theoretical model of the process of actions suitable for exploration through structural equation modelling. A visualisation of this model is presented in Figure 4.3 below. Figure 4.3 shows the performance of actions by offenders previously illustrated in Figures 4.1 and 4.2 with the additional result that offenders engaged in End Exploitation also performed Security (means) (not previously represented in Figure 4.1) and that they were unlikely to engage in the Purchase and sale of victims (identified from multiple logistic regression in Table 4.5 above). The red arrow points towards End Exploitation from the Purchase and sale of victims, as End Exploitation was the dependent variable in multiple logistic regression, generating the statistically significant result.

Figure 4.3 Bivariate and multiple logistic regression analysis results of the performance of actions by offenders

Figure 4.3 was the basis for a theoretical model, as recommended by Martinez-Lopez et al. (2010, pp. 115-152), upon which further statistical analysis was performed to explore an order to actions and whether the theoretical model was advanced by structural equation modelling. As a first stage of analysis, generalised structural equation modelling (gsem) was performed by exploring each action and constraining it with a second action to determine whether the combination of actions performed by offenders directed the performance of other actions (STATA, 2013). The second stage of analysis involved structural equation modelling of the statistically significant relationships identified from gsem analysis to confirm or refute gsem findings indicating an indirect effect of an action through another action. Blue arrows indicated that an offender was statistically likely to

perform an action. Red arrows indicated that offenders were unlikely to perform an action and green arrows identified the action was likely to be influenced through the performance of another action by an offender. The population of all gsem and sem models was 972. A complete set of gsem model results and sem indirect effects results appears in Appendix 3.

Following the identification of sem verified gsem statistically significant results, the direct and indirect relationships appearing to flow from an action, identified from Figure 4.3, were separated into visuals and the results from structural equation modelling were added to these relationships. Separate processes were identified from sem verified gsem results for offenders performing Travel preparation, Transportation and Financial administration.

Offenders performing Travel preparation and the flow of their activity

The confounding of relationships continued to be evident between Recruitment, Transportation and Travel preparation following gsem (see Table 4.6 below) and sem analysis (see Table 4.9 below) of Travel Preparation. When Travel preparation was constrained by Transportation in gsem analysis there was a statistically significant relationship with Recruitment (Coefficient 6.34, Standard Error 2.36, Z-statistic 2.69, p-value 0.007***). In sem analysis Travel preparation was also indirectly effecting Recruitment through Transportation (Coefficient 0.02, Standard Error 0.01, Z-statistic 2.70, p-value 0.007***).

The results from gsem and sem analysis varied the pattern of activity of offenders engaged in Travel preparation, creating a new visual of activity at Figure 4.4 below. Figure 4.3 had reflected that offenders were likely to combine Recruitment with Transportation activity. In Figure 4.4 offenders engaged in Travel preparation were directing the flow of activity through Transportation towards Recruitment as well as combining their activity with Recruitment.
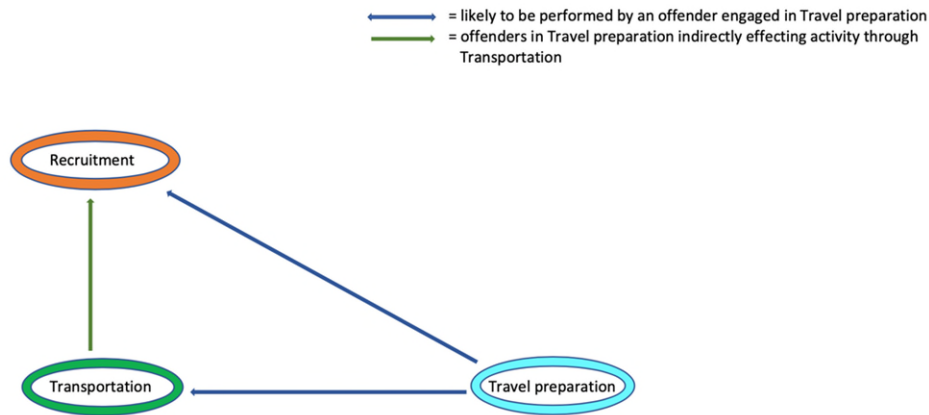
Figure 4.4 Offenders engaged in Travel preparation and other activity including gsem and sem analysis results

Offenders engaged in Transportation and the flow of their activity

An examination of gsem (Table 4.7) and sem (Table 4.9) analysis of offenders engaged in Transportation revealed consistency with bivariate and multiple logistic regression analysis. Offenders engaged in Transportation were likely to engage in Recruitment and Travel preparation. With the flow of action moving in both directions in gsem and in sem analysis it was likely that there was a confounding of activity (Agresti, 2018). Offenders engaged in Transportation when constrained by Recruitment activity directed Travel preparation activity (gsem: Coefficient 0.18, Standard Error 0.08, Z-statistic 2.26, p-value 0.02**) and when constrained by Travel preparation activity directed Recruitment activity (gsem: Coefficient 5.60, Standard Error 2.48, Z-statistic 2.26, p-value 0.02**). In sem analysis offenders engaged in Transportation indirectly effected Travel preparation through Recruitment (Coefficient 0.01, Standard Error 0.00, Z-statistic 2.27, p-value 0.02**) and indirectly effected Recruitment through Travel preparation (Coefficient 0.01, Standard Error 0.01, Z-statistic 2.23, p-value 0.03**).

The relationship between Transportation and Financial administration was not directed through Recruitment with statistical strength for lack of direction in both gsem (Coefficient -0.30, Standard Error 0.14, Z-statistic -2.15, p-value 0.03**) and sem analysis (Coefficient 0.01, Standard Error

0.00, Z-statistic -2.53, p-value 0.01**).   In addition, offenders engaged in Transportation were not connected to Recruitment through Financial administration activity (gsem: Coefficient -3.33, Standard Error 1.55, Z-statistic -2.15, p-value 0.03** and sem: Coefficient -0.01, Standard Error 0.00, Z-statistic -2.08, p-value 0.04**).   Furthermore, offenders were not engaged in Purchase and sale of victims (gsem: Coefficient -0.21, Standard Error 0.09, Z-statistic -2.34, p-value 0.02** and sem: Coefficient -0.01, Standard Error 0.00, Z-statistic -2.79, p-value 0.005***).

The results from gsem and sem analysis varied the pattern of activity of offenders engaged in Transportation, creating a new visual of activity at Figure 4.5 below:
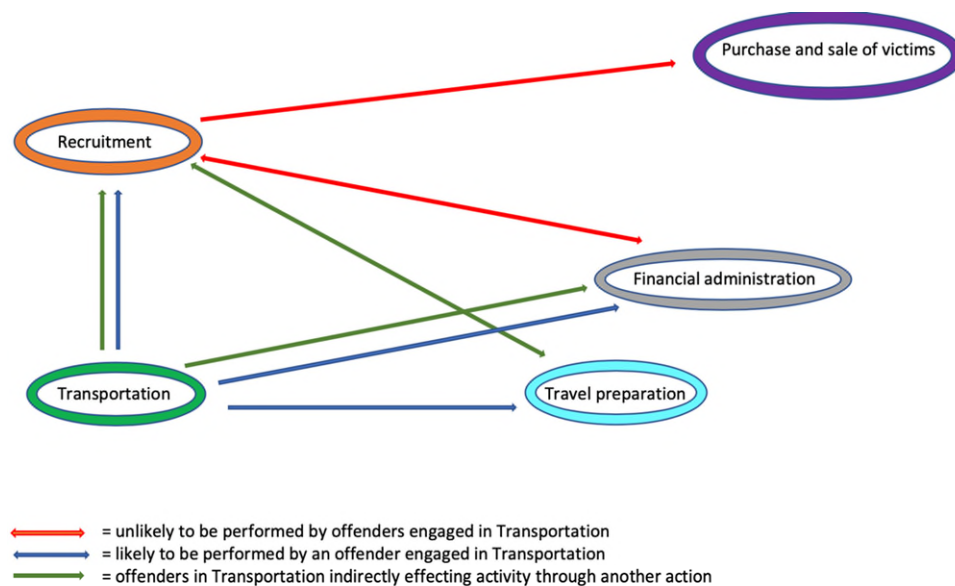
Figure 4.5 Offenders engaged in Transportation and other activity including gsem and sem analysis results

Offenders engaged in Financial administration and the flow of their activity

Offenders engaged in Financial administration were also engaged in Transportation and gsem (Coefficient 1.03, Standard Error 0.36, Z-statistic 2.87, p-value 0.00***, see Table 4.8) and sem (Coefficient 0.02, Standard Error 0.01, Z-statistc 2.23, p-value 0.03**, see Table 4.9) results indicated offenders were indirectly effecting Travel preparation activity through

Transportation. This indicated that offenders in Transportation were reimbursing financial costs for Travel preparation. There was statistical strength of association between Transportation and Financial administration and not asymmetry in bivariate analysis and multiple logistic regression. There was no statistical association between Financial administration and Travel preparation in bivariate analysis or multiple logistic regression. The results from gsem and sem analysis varied the pattern of activity of offenders engaged in Financial administration, creating a new visual of activity at Figure 4.6 below
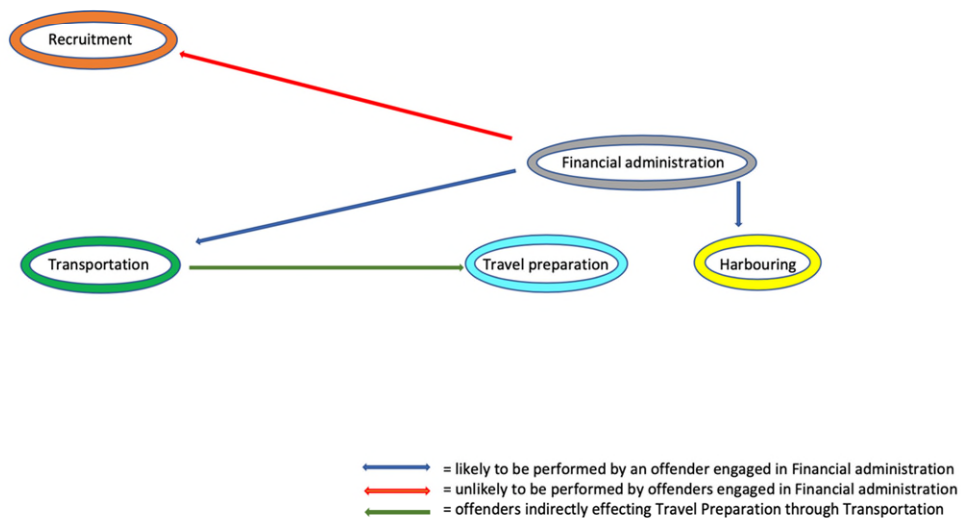
Figure 4.6 Offenders engaged in Financial administration and other actions including gsem and sem results

Table 4.6 gsem Travel preparation statistically significant results

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Recruitment	6.34	2.36	2.69	0.007***	1.71	10.96

Table 4.7 gsem Transportation

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
Travel preparation	.18	.08	2.26	0.02**	.024	.33
Purchase and sale of victims	-.21	.09	-2.34	0.02**	-.39	-.03
Financial administration	-.30	.14	-2.15	0.03**	-.58	-.03
Travel preparation	Constrained					
Recruitment	5.60	2.48	2.26	0.02**	.74	10.46
Financial administration	Constrained					

Recruitment	-3.33	1.55	-2.15	0.03**	-6.36	-.29

Table 4.8 gsem Financial administration

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Travel preparation	1.03	.36	2.87	0.00***	.33	1.73

Table 4.9 sem results for offenders indirectly effecting the performance of other activity

Variable creating indirect effect	Variable through which the flow of the indirect effect travels	Variable indirectly affected	Coefficient (Standard Error)	Z-statistic	P-value of Z	95% Confidence Intervals
Recruitment	Transportation	Travel preparation	.01 (.00)	2.66	0.008***	.00 .02
Recruitment	Travel preparation	Transportation	.01 (.00)	2.36	0.02**	.00 .02
Recruitment	Transportation	Financial administration	.01 (.00)	2.50	0.01**	.00 .01
Recruitment	Financial administration	Harbouring	-.00 (.00)	-2.20	0.03**	-.01 -.00

Recruitment	Financial administration	Transportation	-.01 (.00)	-2.09	0.04**	-.02 -.00
Transportation	Recruitment	Travel preparation	.01 (.00)	2.27	0.02**	.00 .02
Transportation	Travel preparation	Recruitment	.01 (.01)	2.23	0.03**	.00 .02
Transportation	Recruitment	Financial administration	-.01 (.00)	-2.53	0.01**	-.01 -.00
Transportation	Financial administration	Recruitment	-.01 (.00)	-2.08	0.04**	-.02 -.00
Transportation	Recruitment	Purchase and sale of victims	-.01 (.00)	-2.79	0.005***	-.02 -.00
Travel preparation	Transportation	Recruitment	.02 (.01)	2.70	0.007***	.01 .04
Financial administration	Transportation	Travel Preparation	.02 (.01)	2.23	0.03**	.00 .03

Offenders engaged in remaining activity and the flow of their activity

There was little evidence that offenders engaged in Recruitment had the power to influence actions beyond immediate relationships with Transportation and Travel preparation. Whilst offenders involved in Recruitment were at the beginning of a victim's trafficking journey, they were unlikely to control trafficking. Models for gsem of Recruitment did not reveal any statistically significant results. Analysis of Harbouring and Purchase and sale of victims found results in gsem were not supported in sem analysis. Analysis of offenders engaged in End Exploitation and Strategy found reversal of positive and negative statistically significant results: gsem revealed offenders were statistically likely to engage in Recruitment with Transportation and sem found the opposite. Results indicated Simpson's Paradox (Agresti, 2018) and were inconclusive. All gsem and sem model results appear in Appendix 3.

4.4   Discussion

The results developed in this Chapter, answering specific questions related to the first element actions, supported the discussion and an exploration of the four research objectives identified in the Literature Review in Chapter 2:

Objective 1

To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

The extensive data collected for this thesis presented an opportunity to explore offender method to commit human trafficking empirically. There were 869 offenders identified with corresponding data available on their method of committing human trafficking. Whilst all 972 offenders will have performed some action to merit a conviction for human trafficking, there

were 103 offenders with no data included in case summaries indicating what they did to commit human trafficking. Other data will have been included in these case summaries that will have contributed to an understanding of offenders, but not their modus operandi. At the time of collecting the data for this thesis, UNODC had not published further information on the steps to populate case summaries or the content selected. It was unclear whether Member States were providing case summaries they chose for inclusion on SHERLOC or whether there was some independent scrutiny of cases chosen. It was unclear whether there were criteria that must be included in case summaries. It is important for UNODC to publish this information and require case summary entries submitted to SHERLOC to include the method that offenders used and their activity. Data collection should not be tailored to fit any given interpretation of the first element of the definition but should be sufficiently broad to facilitate a critique across jurisdictions on human trafficking offender methods. The goal of data analysis of collected data must be to find agreement and commonality on human trafficking offending and to facilitate discussion. Basing agreement on what is an offence by analysing what was prosecuted as human trafficking across Member States to the Palermo Protocol supports international efforts to combat this crime. Common agreement on the definition of human trafficking may improve the effectiveness of other provisions in the UN OCG Convention designed to facilitate transnational investigation, prosecution of offenders and the confiscation of their financial assets.

Disaggregating offender methods from the case summaries revealed that there were nine actions consistently performed by offenders: Recruitment, Travel preparation, Transportation, Harbouring, the Purchase and sale of victims, Financial administration, End Exploitation, Security and Strategy. Security is explored in greater detail in Chapter 5. This activity was a grouping of means used by offenders to protect or secure the continuation of trafficking activity. It was likely that offenders engaged in End Exploitation were also engaged in Security activity from bivariate and multiple logistic

regression analysis. The presence of Security evidenced means used to fulfil actions.

The results revealed that eight actions were separate and identifiable. Of the three actions that were directly identifiable with the five actions in the definition of human trafficking in the Palermo Protocol, 452 offenders performed Recruitment with 136 of those offenders performing no other activity (30.1% of all offenders performing Recruitment). There were 260 offenders engaged in Transportation, although only 38 offenders engaged in Transportation and no other activity (14.6% of all offenders performing Transportation) and 3 offenders out of 58 engaged in Harbouring and no other activity (5.2% of all offenders engaged in Harbouring victims).

The definition of Harbouring in this thesis was restricted to the concealment of victims and on this interpretation, it was not extensively identified in the data with only 58 offenders of the population of 972 performing this activity. Whilst it was possible that offenders engaged in Harbouring had not been detected or prosecuted or that the case summaries were insufficiently populated with information on this aspect of offending, it was also likely that the low number of offenders engaged in Harbouring challenged the perception that trafficking victims are concealed from everyday members of the public. The results in this thesis indicated that victims of trafficking were more likely to be visible and accessible than is generally appreciated. Means are explored in Chapter 5. Means may serve as a more remote and effective mechanism for isolating victims from the general public.

The first element of the definition only partially covered the actual actions performed by offenders. Other activity was readily identifiable in offender method and did not automatically conform to the remaining prescribed actions 'transfer' or 'receipt of persons' which were only partially reflected in the more apparent activity of 'End Exploitation', 'Transportation', and 'Purchase and sale of victims'. These terms have been subject to debate and confusion amongst Member States with the second session of the Working

Group of the Palermo Protocol in 2010 calling for papers on their meaning and interpretation (UNODC, 2013). A paper on these terms was not subsequently commissioned. This empirical analysis of the actions performed by offenders convicted of human trafficking across 40 Member States has confirmed their ambiguity and uncertainty. They did not accurately reflect what 972 offenders did to commit human trafficking. Relying on a 'broad interpretation' of actions (Gallagher, 2010) is an understandable approach when there is an absence of knowledge on the specifics of offending. Following further empirical research, it is advisable to revisit the wording of the first element to ensure that it more accurately reflects the actual actions performed by offenders committing this offence.

There were 421 offenders engaged in End Exploitation and 129 offenders did not perform another action (30.6% of offenders engaged in End Exploitation). There were 109 offenders engaged in the Purchase and sale of victims and 31 of these offenders engaged in this activity exclusively with no other activity present (28.4% of offenders engaged in the Purchase and sale of victims). Travel preparation was a broader activity than facilitating and arranging travel through forged or procured documents, an extension to the first element adopted through the regional treaty the Council of Europe Convention (Council of Europe Convention on Action Against Trafficking in Human Beings, 2005; van der Wilt, 2014). There were 143 offenders engaged in Travel preparation with only 10 offenders performing it with no other activity (7.0% of offenders engaged in Travel preparation) but they were not performing this solely with Recruitment or with Transportation: 54 offenders were also engaged in End Exploitation and 19 offenders in the Purchase and sale of victims indicating that this activity was more than an extension of the Recruitment process.

Another two actions (Financial administration and Strategy) were identified that were not included in the definition of human trafficking but the activity offenders engaged in was included in Article 5.1 (b) of the UN OCG

Convention[15]. Offenders engaged in Strategy were the most isolated of offenders: with 28 performing Strategy of which 9 (32.1%) offenders did not aggregate their activity with other human trafficking actions. There were 51 offenders engaged in Financial administration and 12 offenders (23.5%) did so to the exclusion of other activity leaving the remaining 39 (76.5%) offenders aggregating this activity with other actions.

These results did not improve an understanding of the existing prescribed actions but did identify that only three of the prescribed actions were readily evident in offender method to commit human trafficking. Two of the actions in the first element 'transfer' and 'receipt of persons' did not fully reflect offender method, they only partially related to the more accurate but absent actions: 'End Exploitation' and 'Purchase and sale of victims'.

Objective 2:

To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

Results from bivariate and multiple logistic regression and from advanced modelling did support the movement of victims from entry into trafficking towards their exploitation. Offenders engaged in Recruitment, Transportation and Travel preparation were statistically likely to perform these actions together, indicating that there was a Recruitment process that led to the movement of victims. However, the results from empirical

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[15] 'Organizing, directing, aiding, abetting, facilitating or counselling the commission of serious crime involving an organized criminal group.' (Article 5.1(b) United Nations Convention Against Transnational Organized Crime, 2000).

analysis presented some challenge to the legal academic theory that human trafficking is a process crime with no static exploitation of victims (Chuang, 2014; Stoyanova, 2015). Noticeably, 421 offenders were prosecuted for End Exploitation and 129 of these offenders did not perform another activity upon which their prosecution would have been directly related to a prescribed action. Offenders involved in End Exploitation were highly likely to be involved in Security (n. 251 Odds ratio 4.88, Standard Error 0.69, Z-statistic 11.20, p-value 0.00***) and combining these actions had the strongest effect size (Pearson's correlation coefficient 0.37), which was more prevalent than offenders combining Recruitment with Transportation (Pearson's correlation coefficient 0.13).

Offenders performing Recruitment were statistically unlikely to be involved in End Exploitation, Strategy, the Purchase and sale of victims and Financial administration. Despite 178 offenders engaging in both Recruitment and End Exploitation, it was statistically unlikely for offenders to perform both these actions. Offenders involved in more identifiable activity associated with slavery, the Purchase and sale of victims, were not appearing to diversify into Recruitment and vice versa. The two entry routes into trafficking for victims appeared to be separate. Not surprisingly, offenders involved in Strategy were also isolated. No offenders performed both Strategy with the Purchase and sale of victims.

Empirical analysis did support Gallagher's (2010, pp. 12-53) view that Harbouring was being used to prosecute offenders engaged in End Exploitation with 29 offenders combining these actions, which was 50% of offenders engaged in Harbouring (n.58), but this combination of activity was not statistically significant, and it was noticeable that considerably more offenders engaged in End Exploitation (n. 129) were prosecuted with no evidence of the use of Harbouring or another activity to further prosecution. Further analysis of offender method would be necessary, in particular exploring the actual grounds for prosecution in court documents and transcripts to elicit a more accurate finding.

What was noticeable was a change in offending from the Recruitment process to a closer association with operational finance. In Table 4.4, offenders engaged in Transportation were also statistically likely to engage in Financial administration whilst offenders involved in Recruitment were unlikely to engage in this activity. Offenders engaged in Financial administration were also statistically likely to engage in Harbouring. This combination of Financial administration activity with Harbouring indicated that offenders involved in concealing victims were also involved in the concealment of money. There was a separation between stages of activity, a seemingly different stage of the trafficking process, and an aspect of offending not discussed by academic legal theorists.

Petrunov (2011, pp. 165-183) focused on exploring the management of profit from human trafficking to further sexual exploitation (Petrunov, 2011). However, it was grounded in money laundering research rather than human trafficking and whilst Petrunov explored aspects of human trafficking debate on establishing the number of victims and recruitment means used by offenders, it was unclear how participants were validated as victims of human trafficking and not voluntary prostitution:

'The most variation exists with regard to the net profits that the prostitutes receive. It can differ among girls working for the same organization. The difference depends on the individual experience of the girl. If a girl is very experienced and brings in a lot of money, traffickers need to give her a higher percentage in order to keep her.'
((Petrunov, 2011): 172)

Prostitutes determined who they worked for dependent upon the money they made for their services. This choice reduced the strength of the association with human trafficking, although Petrunov identified that they rarely received the earnings that they had negotiated (Petrunov, 2011). This research made no reference to the Palermo Protocol definition of human trafficking, nor any definition to ground analysis (Petrunov, 2011). Whilst Petrunov's research provided important insight into the control mechanisms to guarantee profit with dummy clients sent to receive a service to check

pricing and inter-personal conflict created between prostitutes to encourage them to inform on each other, operational aspects were not explored, related to the movement of money from prostitutes to offenders, or how premises, utilities and day-to-day expenses of prostitution were met (Petrunov, 2011).

Very little research has been conducted on the relationship between human trafficking and financial crime. The empirical analysis in this thesis identified that offenders involved in moving people also moved money and that offenders who concealed people also had statistical significance for concealing money.

Objective 3

To assess if the international definition adequately reflects convicted offender method.

It was clear that End Exploitation, Travel Preparation, the Purchase and sale of victims, Financial administration and Strategy actions were performed by offenders. These actions were not directly reflected in the first element. End Exploitation was closely aligned to the third element, explored in Chapter 6. The Purchase and sale of victims may have been linked to the 'transfer' and 'receipt of persons' and the third element of 'slavery or practices similar to slavery'. The Council of Europe had already identified offenders were engaged in fraudulent and procured travel documents and extended the definition of human trafficking to include this activity (Council of Europe Convention on Action Against Trafficking in Human Beings, 2005). Although the activity in this thesis involved a broader definition involving supporting victims with their passport and visa applications by attending meetings with them, purchasing travel documents and tickets and giving money to victims to bribe border guards and officials.

These results indicated that Member States to the Palermo Protocol were prosecuting offenders by supplementing the first element of the definition

of the Palermo Protocol with other actions in their domestic legislation or taking a broad interpretation of the actions listed in the first element, or relying on other provisions in the UN OCG Convention, such as Article 5.1(b) and the corresponding domestic legislation that implemented this provision. The first element of the Palermo Protocol definition was not fully comprehensive and failed to reflect the actual actions performed by offenders to commit human trafficking.

Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

Whilst the multiple logistic regression models created for each action, as a dependent action, had very low explanatory power and fell far short of explaining offender method, they facilitated early stage exploration of the process or order to action through structural equation modelling. Results from multiple logistic regression models of the eight actions were represented in Figure 4.3 reproduced below. The activity connected to each action was separated into a process and two stages of structural equation modelling were performed to determine whether the process had an order to activity. Generalised structural equation modelling (gsem) for categorical data involving an action when constrained or combined with another action enabling the identification of actions that were likely to be performed as a result of this combination of activity by an offender. Statistically significant results from this analysis were verified using structural equation modelling (sem) for indirect effects. Results that were supported in both forms of modelling led to revisions to Figure 4.3.

Figure 4.3 Bivariate and multiple logistic regression analysis results of the performance of actions by offenders

Not surprisingly offenders in Recruitment were not directing human trafficking activity. Results in gsem were not statistically significant. However, analysis of offenders engaged in Travel preparation resulted in the identification of a flow of activity directed by these offenders represented in Figure 4.4. In addition to engaging in Recruitment, offenders involved in Travel preparation were directing Recruitment through Transportation activity. These results did not greatly enhance an understanding of the importance of offenders involved in Travel preparation in the Recruitment process. They were not identified as having a wider significance in trafficking activity.
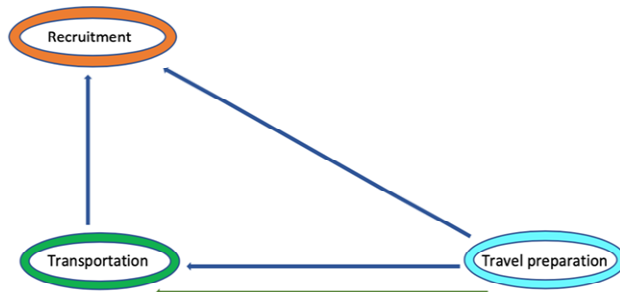
Figure 4.4 Offenders engaged in Travel preparation and other activity including gsem and sem analysis results

Analysis of offenders engaged in Transportation did provide additional insight, as shown in Figure 4.5:
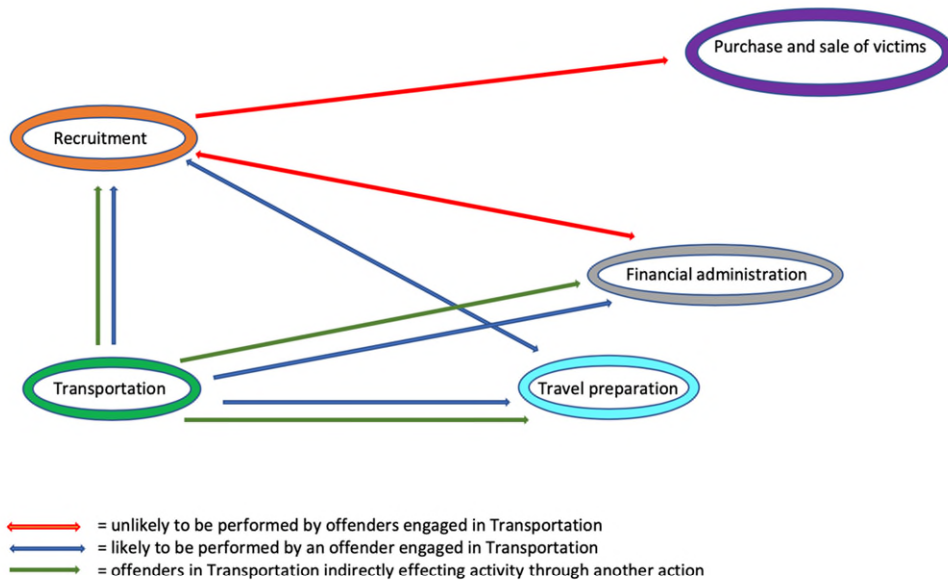
Figure 4.5 Offenders engaged in Transportation and other activity including gsem and sem analysis results

These offenders were moving money in addition to people. Offenders remained active in the Recruitment process but appeared to have additional responsibility for distributing money to reimburse recruitment and travel costs and collecting earnings and moving profit. This activity was a direct relationship and not indirectly managed through Recruitment.

Offenders engaged in Financial administration were also engaged in Transportation and Harbouring and indirectly engaged with Travel preparation, as shown in Figure 4.6. Travel preparation activity was likely to involve increased financial costs requiring reimbursement. Financial administration activity disrupted the recruitment process that had seen a confluence of activity between Recruitment, Transportation and Travel preparation. Offenders reimbursing financial costs were not involved in Recruitment. This distinction in activity indicated a new process of activity from the discussion that academic legal theorists have focused upon as to whether human trafficking involves the process of movement of the victim or includes the static exploitation of the victim at the end of a journey (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015). Human trafficking activity inevitably includes the movement of money in addition to the victims that generate profit. It necessitates the distribution of finance to reimburse costs and it requires a trusted person to move profit from the exploitation of victims. Petrunov's (2011, pp. 165-183) analysis of the management of profit from Bulgarian prostitution activity, which may have been sex trafficking, did identify mechanisms for checking that prostitutes were charging and collecting the agreed amount for services, but it did not identify how profit is collected and moved away from victims in exploitation. Disrupting human trafficking activity necessitates understanding the practicalities of its day-to-day support functions and what offenders perceive as a risk and their vulnerability (Eck, 2013). The close association that Harbouring activity had with offenders engaged in Financial administration indicated that concealing money was crucial to an operation. The data collected for Harbouring was structured around identifying offenders engaged in concealing victims, not finance. The advanced modelling through gsem and sem did not contradict the bivariate and multiple logistic regression results related to offenders performing both Financial administration and Harbouring. The concealment of money was particularly important to offenders.
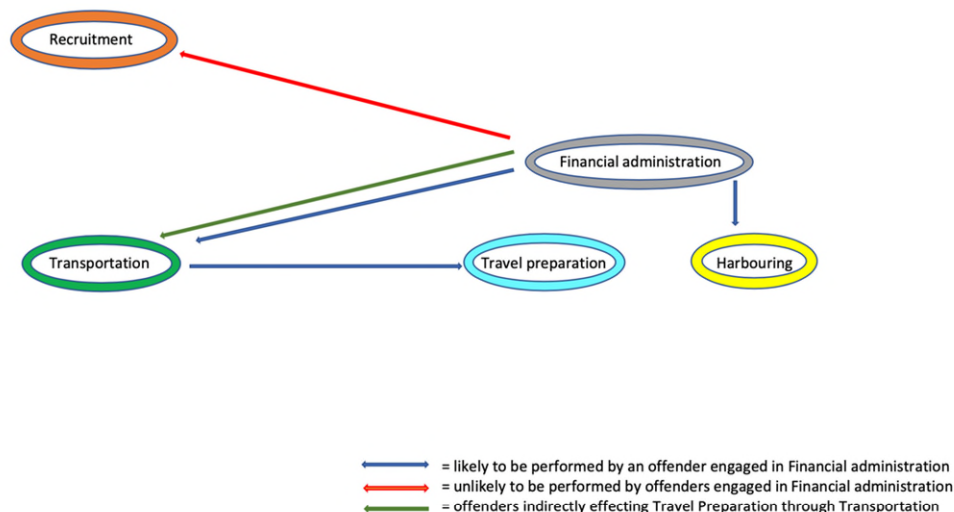
Figure 4.6 Offenders engaged in Financial administration and other actions including gsem and sem results

Analysis of the direction of action from Harbouring, the Purchase and sale of victims, End Exploitation and Strategy were not supported through gsem and sem analysis. A complete order to offender activity was not possible beyond a recruitment process and the movement of finance. However, establishing that a recruitment process existed confirmed Campana's (2016a pp. 68-86) analysis of West African human trafficking networks but unlike Campana's analysis that identified three stages to the human trafficking process: 1. Recruitment; 2. Transportation; and 3. Exploitation, this thesis identified that Transportation activity is part of the Recruitment process and there is a confluence of activity. Sometimes there were additional responsibilities for offenders involved in Transportation of moving money, in addition to victims and that offenders engaged in Financial administration were part of the service of the network, not involved in the Recruitment process but involved in the reimbursement of that activity to maintain an operation.

The first element of the international definition is structured from the perspective of how an offender engages with a victim. The remoteness of Financial administration activity from other activity directly committed against a victim would normally be expected to be treated as aiding an

offender. It would seem that 12 offenders or 23.5% of offenders engaged in Financial administration, with no other activity present in the case summaries, were not treated as aiding other offenders but were convicted of human trafficking. Further exploration of whether offenders engaged in Financial administration were directly causing harm to victims is explored further in Chapter 5 when the means to achieve action is analysed.

This Chapter has explored the first element through four research objectives identified from the literature review in Chapter 2. There were specific actions that were performed by offenders to commit human trafficking but only three of those actions married with the prescribed list of actions in the first element. The debate between academic legal theorists was scrutinised and the argument that human trafficking is a process action involved in moving the victim but not exploiting the victim in a static activity (Chuang, 2014; Stoyanova, 2015) was not supported by empirical analysis. There was evidence that offenders were performing Harbouring and End Exploitation but not a sufficient number of offenders to confirm that this activity was statistically significant. Further empirical research would be necessary to determine whether Member States were prosecuting offenders engaged in the static exploitation of victims by relying on Harbouring. The exploration of an order to human trafficking action revealed that a Recruitment process exists that includes the movement of the victim and that there was a confluence of actions performed by offenders so that a clear separation between Recruitment and Transportation of the victim was not possible. Structural equation modelling of actions did reveal an additional process involving the movement and concealment of money by offenders engaged in Transportation and Harbouring. This process had not been identified in academic literature and related to the first element of the definition. There was evidence that offenders engaged in Financial administration were engaged in prescribed actions and were also prosecuted for human trafficking with no prescribed action rather than for aiding and abetting an offender. The four research objectives explored in this Chapter are

developed further through an exploration of the second element of the Palermo Protocol definition, the means to achieve action.

Chapter 5   Means: the second element of the definition of human trafficking

5.1   Introduction

In Chapter 4, the first element of the Palermo Protocol definition and the actions performed by offenders convicted of human trafficking were analysed. Chapter 5 builds upon that examination by providing the first empirical study of the second element of the Palermo Protocol definition, the means to achieve action. Unlike the prescribed list of actions in the first element of the Palermo Protocol definition, the second element of the definition is less prescriptive. It is contingent on an action from the first element being performed:

> 'by means of threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person,' as stated in Art 3. Palermo Protocol, United Nations Convention Against Transnational Organized Crime, 2000.

The means to commit the action, provided evidence of both the actus reus[16] and the mens rea[17] of the crime of human trafficking (Gallagher, 2010). Means were 'subtle' or 'obvious' and created vulnerability or maintained vulnerability (UNODC, 2013, 2014, 2015b; van der Wilt, 2014). Means were not required to be established where the victim was a child, they were relevant only where the victim was an adult, to vitiate an adult's consent to being trafficked (Article 3(c) of the Palermo Protocol United Nations

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[16] defined as 'the act or omission that comprise the physical elements of a crime as required by statute' (Cornell, 2019)

[17] defined as 'the state of mind statutorily required in order to convict a particular defendant of a particular crime' (Cornell, 2019)

Convention Against Transnational Organized Crime, 2000; Gallagher, 2010; UNODC, 2014; Dempsey, 2017). Furthermore, means did not appear to be a compulsory element of the offence of human trafficking and some Member States chose to prosecute offenders for the trafficking of adult victims without the necessity of establishing that an adult's consent was vitiated (UNODC, 2014). An empirical examination of actual means used to achieve action is important to provide a more accurate assessment of risk and harm related to human trafficking. Empirical analysis can develop knowledge on the prevalence of means, changes in prevalence, identification of new emerging means and where interventions are adopted, the basis for an assessment of the effectiveness of interventions to prevent means.

As with the first element actions, the terms of the second element are not defined and have subsequently caused debate over their meaning (UNODC, 2014). Importantly, these terms do not appear to have formed as a result of empirical analysis of offender method to commit human trafficking. The following research objectives were identified from an examination of the prevailing literature on the three elements of the Palermo Protocol definition and offender method to commit human trafficking in Chapter 2:

1. Is it possible to better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions?

2. Is it possible to explore the definitional construct of human trafficking and identify whether it is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017)?

3. Does the international definition adequately reflect convicted offender method or is it deficient in some way?

4. Is it possible to determine whether offender method to commit human trafficking has structure and order to it by exploring advanced data analysis techniques through structural equation modelling?

This exploration of the second element of the Palermo Protocol definition is structured through the following research questions:

5. Were means present in prosecutions for human trafficking?
6. Which means were used to fulfil action?
7. Were multiple means used by offenders and how did this use of means further an action?
8. Did the means to fulfil action affect the flow of human trafficking actions?

The discussion at the end of Chapter 5 will return to the four research objectives, examining the second element through the results from analysis of the research questions in this Chapter.

5.2   Methodology

As with Chapter 4 and an exploration of the actual actions performed by offenders, a manual process of open coding was used to collect data from 486 case summaries selected from SHERLOC. Data was collected on any description of the offender's method and recorded in Microsoft Excel (De Cuir-Gunby, 2011). Through a process of axial coding, identifying patterns in open coded data of action and means used by offenders (De Cuir-Gunby, 2011), means used by offenders in the open coded data were identified in relation to the Recruitment action, with 4 means identified from a disaggregation of Recruitment methods used by offenders to fulfil Recruitment. A second range of means was also identified through a disaggregation of the Security action identified in Chapter 4, revealing 14 separate means. There were 18 specific means identified in total and are described in Table 5.1 below:

Table 5.1 Describing Means

Means	Description
Employment Offer	A deceptive offer of employment to encourage the victim to travel to work.
Financial Hardship	Exploiting the poverty of the victim by persuading the victim to travel to work. The victim may or may not be aware of the nature or type of work but is unaware of the true conditions.
'Loverboy' Romance	Offering a relationship and encouraging the victim to leave family or travel to start a new life with the offender.
Physical Hardship	Exploiting a physical or mental disability of the victim including exploiting an addiction to facilitate the victim's entry into trafficking.
Intimidation	Using menacing behaviour with threats against the victim and/or the victim's family to create fear in the victim but falling short of actual physical restraint or harm.
Physical control	Controlling the physical movement of the victim by maintaining constant watch over the victim through supervision or escorting the victim or physically restraining the victim.
Physical assault	Using actual bodily harm or more serious forms of physical violence on the victim.
Debt Bondage	Creating a debt that the victim must repay through exploitation.
Holding Passports	Retaining the victim's passport.
Abduction	Forced taking of the victim.
Rape	Without consent, forced sexual penetration of the victim.

Weapon	Threatening the victim with assault with a weapon or using a weapon on a victim.
Corruption	Abusing an official position or paying a person in an official capacity to facilitate human trafficking.
Voodoo Ritual	Using a traditional religion to create fear in a victim.
Controlling communications	Controlling a victim's personal mobile phone or access to internet and other communication systems. Where an offender is not physically present with a victim, requiring the victim to report to the offender on their work or physical location through a mobile phone given to them by the offender.
Murder/ manslaughter	The death of a victim as a result of an offender's actions, with the consequence that other victims are intimidated by events.
Sexual abuse	Sexually abusing a victim without their consent but falling short of rape.
Torture	Inflicting significant physical harm and suffering on a victim to break the victim's will.

Following import of the axial coded variables into STATA SE15, a number of means had an insufficient number of offenders to support data analysis:

Table 5.2 Means excluded from data analysis in STATA

Variable	n.	%
Weapon	20	2.1%
Corruption	10	1.0%
Physical Hardship	9	0.9%
Voodoo Ritual	8	0.8%

Controlling Communication	7	0.7%
Murder/ manslaughter	6	0.6%
Sexual abuse	2	0.2%
Torture	2	0.2%

Variables suitable for data analysis were categorical, binary (1 = means present 0 = means not present) and nominal (Kateri, 2010). In addition, data was collected in open coding of 'Victim age group'. The open coded data was used to create an axial coded variable 'victimagegroup' which was also imported into STATA SE15. Victim ages were separated through a process of dummy coding to create a variable named 'Childcomb' (Child trafficking) (1 = child victim 0 = no child victim) to establish the number of offenders convicted of child trafficking. Dummy coding was used to isolate a group of offenders using means 'Means' (1 = means present 0 = no means present) and further dummy coding was used to identify offenders using means and/or child trafficking 'Meanspluschild' (Means and child trafficking) (1 = means or child victim present 0 = adult victim and means not present). An audit of 49 case summaries selected randomly was carried out to assess the quality and consistency of the content of variables created. Results from the audit appear in paragraph 3.8 of Chapter 3. A complete Codebook of variables and coding logic appears at Appendix 2.

Data analysis was performed to support an examination of research questions using the variables above and variables appearing in the descriptive parameters for actions in Chapter 4 at Table 4.2. Pearson's chi-squared test and Fisher's Exact one-sided test were used to explore an association between two variables of actions and means or means and means, performed by offenders, to establish whether results were statistically significant and not random or produced as a result of error (Connor-Linton, 2010; Agresti, 2018). Fisher's Exact one-sided test was

Table 5.3 Descriptive Parameters for an examination of means

Variable	N.	Proportion	Percent	Std. Deviation	Std. Error.	Conf. Int. Min	Conf. Int. Max
Means and child trafficking	579	.60	59.6%	.49	.02	.56	.63
Child trafficking	372	.38	38.3%	.49	.02	.35	.41
Means	369	.38	38.0%	.49	.02	.35	.41
Employment offer	236	.24	24.3%	.43	.01	.22	.27
Intimidation	141	.15	14.5%	.35	.01	.12	.17
Physical control	125	.13	12.9%	.33	.01	.11	.15
Physical Assault	121	.12	12.5%	.33	.01	.11	.15
Financial hardship	103	.11	10.6%	.31	.01	.09	.13
Debt Bondage	75	.08	7.7%	.27	.01	.06	.09
Holding Passports	63	.06	6.5%	.25	.01	.05	.08
'Loverboy' Romance	36	.04	3.7%	.19	.01	.03	.05
Abduction	33	.03	3.4%	.18	.01	.02	.05
Rape	31	.03	3.2%	.18	.01	.02	.04

n. 972

performed where chi-squared test had identified a statistically significant result, there was a small population of offenders, and an assumption was made that there was some relationship between the actions and means or means with means performed by offenders. Pearson's product moment correlation was used to examine the effects size and the strength of an association (Connor-Linton, 2010; Agresti, 2018). Bivariate logistic regression was used to explore the likelihood of the association and the statistical significance of combined activity with actions and means or means with means by offenders.

To develop an order to activity and the influence that means had on that order, multiple logistic regression placing means and actions as dependent variables were performed (Pevalin, 2009; Agresti, 2018). The results from multiple logistic regression enabled the creation of a model of the flow of actions and means suitable for further exploration through structural equation modelling (sem). To further analysis using sem, statistically significant connected relationships from multiple logistic regression were separated to identify a strand of process for further exploration of direct and potentially indirect activity flowing from actions and means. Generalized structural equation modelling (gsem) (STATA, 2013) for categorical variables using family Bernoulli and logit link (STATA, 2013) was performed with one variable constraining another to determine whether the combination of actions and means performed by offenders directed the performance of other actions or means. Results from gsem were verified through structural equation modelling (sem) examining the indirect effect of actions and means in the model (Preacher, 2007; STATA, 2013). Appendix 2 includes the full coding logic and commands used to generate results in STATA to perform gsem and sem. The statistical significance of p-values generated from results were set at <0.010 *** <0.05 **.

5.3 Results: An examination of means

5.3.1 Question 5: Were means present in prosecutions for human trafficking?

To examine the structural effectiveness of the Palermo Protocol, it was important to establish whether prosecutions for human trafficking had means to achieve action where adult victims were trafficked. An examination of the variable 'Means' indicated that 38.0% (369) of offenders used an identifiable means to commit human trafficking. When combined with 372 offenders who trafficked children, 579 (59.6%) offenders had either an established means to accompany an action, vitiating the consent of the adult victim, or children were trafficked. However, 393 (40.4%) offenders used no discernible means from the case summaries to traffic adult victims.

There were three means used by offenders to achieve Recruitment that were suitable for data analysis: a deceptive Employment Offer (n. 236); exploiting the Financial Hardship of a victim (n. 103) and 'Loverboy' Romance (n. 36). Exploiting the Physical Hardship of a victim was also present in case summaries but excluded from analysis as only 9 offenders were identified as using this means. In addition to means directly related to Recruitment, Abduction was also another entry route into trafficking with 33 offenders performing this means. There were 236 offenders using a deceptive Employment Offer to further Recruitment. This was the most prevalent means. Deception and manipulation were far more likely to be used than the forced taking of a victim through Abduction. However, offenders were also using violent and dangerous means: 141 offenders using Intimidation, 125 offenders Physical Control of the victim and 121 offenders Physical Assault. Offenders did resort to using weapons on victims, with 20 offenders using this means. Descriptive results at paragraph 3.7 in Chapter 3 revealed that 4 offenders held a firearm.

Most means were used to maintain vulnerability in a victim previously made vulnerable, although some means created the vulnerability. The complexity

of creating or maintaining vulnerability through the use of means was represented in Table 5.4 below for each means. In addition, means divided into subtle[18] or obvious[19] means and were mapped to the terms in the definition of the second element in the Palermo Protocol (UNODC, 2013, 2014, 2015b; van der Wilt, 2014):

Table 5.4 Actual means used and their delivery and function for achieving action

Variable	Obvious means	Subtle means	Means creating a vulnerability	Means maintaining a vulnerability
Employment Offer		Fraud or Deception	Creating	
Financial hardship	Abuse of a position of vulnerability		Creating	Maintaining
'Loverboy' Romance		Fraud or Deception; Abuse of power or a position of vulnerability	Creating	Maintaining
Physical hardship		Abuse of a position of vulnerability	Creating	Maintaining
Intimidation	Coercion			Maintaining
Physical control	Use of force			Maintaining
Physical assault	Use of force			Maintaining

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[18] defined as 'behaving in a clever way, and using indirect methods, in order to achieve something' (Oxford, 2019)

[19] defined as 'easy to see or understand' (Oxford, 2019)

Debt Bondage		Abuse of position of vulnerability	Creating	Maintaining
Holding Passports	Coercion		Creating	Maintaining
Abduction	Abduction		Creating	
Rape	Use of force		Creating	Maintaining
Weapon	Use of force or Coercion		Creating	Maintaining
Corruption	Abuse of power	Abuse of power	Creating	Maintaining
Voodoo Ritual	Coercion	Abuse of power or of a position of vulnerability		Maintaining
Controlling Communications	Coercion			Maintaining
Murder/ Manslaughter	Use of force or Coercion			Maintaining for other victims
Sexual abuse	Use of force		Creating	Maintaining
Torture	Use of force			Maintaining

Means were evident from offender method, although not universally evident. There were 18 separate means identified in the case summaries, of which 14 were suitable for data analysis. Means either created or maintained vulnerability to human trafficking and means were either obvious or subtle and could be mapped to terms in the second element of the Palermo Protocol definition.

5.3.2 Question 6 Which means were used to fulfil action?

Means to achieve action were identified at the beginning of the trafficking journey as Recruitment means and through the trafficking journey as Security means. Recruitment means were formed from breaking down the

method of achieving Recruitment and were therefore always associated with Recruitment. Pearson's correlation coefficient for Recruitment with Recruitment means revealed in Table 5.5 the strength of the associations:

Table 5.5 Recruitment and Recruitment means correlations

Action	Means	Pearson's correlation coefficient
Recruitment	Employment Offer	0.61
Recruitment	Financial Hardship	0.37
Recruitment	Loverboy Romance	0.21

Further analysis of the relationship of offender use of these means with Recruitment was not performed.   However, an examination of the combination of these means with the remaining seven actions by offenders (Transportation, Travel Preparation, Transportation, Harbouring, the Purchase and Sale of victims, Financial administration, End Exploitation and Strategy) was examined.

Pearson's chi-squared and Fisher's Exact one-sided tests were performed to determine whether there was any statistical significance for offenders performing specific means with actions. A complete set of results appear in Appendix 4. Results that were statistically significant from Pearson's chi-squared and Fisher's Exact one-sided tests were further analysed through bivariate logistic regression to determine the likelihood that an offender would perform a means and an action and to verify statistical significance of the combination of means and action. Results appear in Tables 5.6 and 5.7 below and the means used by offenders to bring victims into trafficking are considered followed by the means used by offenders once victims are brought into trafficking.

Table 5.6 Likely means to be used by offenders with actions

Means	Action	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z-statistic	Confidence Intervals Min	Confidence intervals Max
Intimidation	Recruitment	87	2.06 (.38)	3.86	0.00***	1.43	2.97
Intimidation	End Exploitation	105	4.75 (.98)	7.57	0.00***	3.17	7.12
Physical control	End Exploitation	80	2.64 (.53)	4.87	0.00***	1.79	3.90
Physical control	Financial administration	15	3.07 (.99)	3.47	0.00***	1.63	5.79
Physical assault	Recruitment	66	1.45 (.28)	1.89	0.06	.99	2.12
Physical assault	End Exploitation	91	4.79 (1.06)	7.06	0.00***	3.10	7.40
Financial Hardship	Transportation	36	1.55 (.34)	1.98	0.048**	1.00	2.38
Financial Hardship	Travel preparation	26	2.17 (.54)	3.13	0.00***	1.34	3.53
Debt Bondage	Recruitment	47	2.04 (.51)	2.87	0.00***	1.25	3.32
Debt Bondage	End Exploitation	49	2.66 (.67)	3.88	0.00***	1.62	4.36

Holding Passports	End Exploitation	50	5.58 (1.78)	5.40	0.00***	2.99	10.41
Abduction	Transportation	20	4.48 (1.63)	4.12	0.00***	2.20	9.15
Rape	End Exploitation	23	3.92 (1.63)	3.29	0.00***	1.74	8.86

Table 5.7 Unlikely means to be used by offenders with actions

Means	Action	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z-statistic	Confidence Intervals Min	Confidence intervals Max
Employment Offer	Purchase and sale of victims	12	.35 (.11)	-3.30	0.00***	.19	.66
Employment Offer	Financial administration	4	.25 (.13)	-2.61	0.009***	.090	.71
Loverboy Romance	Purchase and sale of victims	0	No results 0 offenders				
Abduction	Recruitment	9	.42 (.17)	-2.19	0.03**	.19	.91
Abduction	Travel preparation	1	.18 (.18)	-1.71	0.09	.02	1.29

Despite a deceptive Employment Offer being the most prevalent means used by offenders with 236 offenders performing this means, there was no statistical significance for the use of this means with any other activity. In contrast, it was statistically unlikely for offenders to use this means to further the Purchase and sale of victims (n.12, coefficient 0.35, Standard Error, 0.11, z-statistic -3.30, p-value 0.00***) or Financial administration (n. 4, Coefficient 0.25, Standard Error, 0.13, Z-statistic -2.61, p-value 0.009***).

Exploiting the Financial Hardship of a victim to create and maintain vulnerability was identified as a means used by offenders to further Recruitment. Offenders using this means were statistically likely to engage in Transportation (n. 36, Coefficient 1.55, Standard Error, 0.34, Z-statistic 1.98, p-value 0.048**) and Travel preparation (n. 26, Coefficient 2.17, Standard Error 0.54, Z-statistic 3.13, p-value 0.00***).

Abduction presented another entry route into trafficking. It by-passed the Recruitment activity. Offenders were likely to combine Abduction with Transportation (n. 20, Coefficient 4.48, Standard Error 1.63, Z-statistic 4.12, p-value 0.00***) but not Recruitment (n. 9, Coefficient 0.42, Standard Error 0.17, Z-statistic -2.19, p-value 0.03**).

In Chapter 4, Question 3 examined the extent to which offenders combined actions. Security was an aggregated action of means involving 379 (39.0%) offenders. Offenders were most likely to combine Security with End Exploitation with results in bivariate logistic regression (n. 251 Odds ratio 4.88, Standard Error 0.69, Z-statistic 11.20, p-value 0.00***) and with the strongest effect size through Pearson's correlation coefficient (0.37). It was expected that data analysis would reveal further insight as to the variation of specific means used by offenders engaged in End Exploitation. Following the entry of the victim into trafficking, all means were statistically likely to be performed by offenders engaged in End Exploitation.

Offenders using Intimidation as a means to achieve action appeared likely for both Recruitment (n. 87, Coefficient 2.06, Standard Error 0.38, Z-statistic

3.86, p-value 0.00***) and End Exploitation (n. 105, Coefficient 4.75, Standard Error 0.98, Z-statistic 7.57, p-value 0.00***). Offenders using Intimidation to further End Exploitation had the strongest effects size, which was moderate with 0.26 from Pearson's correlation coefficient analysis of the use of means with actions by offenders.

The Physical Control of the victim was likely to be used by offenders in End Exploitation (n. 80, Coefficient 2.64, Standard Error 0.53, Z-statistic 4.87, p-value 0.00***) and Financial administration (n. 15, Coefficient 3.07, Standard Error 0.99, Z-statistic 3.47, p-value 0.00***).

Offenders engaged in Physical assault of victims used this means to further End Exploitation (n. 91, Coefficient 4.79, Standard Error 1.06, Z-statistic 7.06, p-value 0.00***). Offenders using Physical assault to further End Exploitation had a moderate effects size 0.24 from Pearson's correlation coefficient analysis.

Offenders used Debt Bondage as a means with Recruitment (n. 47, Coefficient 2.04, Standard Error 0.51, Z-statistic 2.87, p-value 0.00***) and End Exploitation (n. 49, Coefficient 2.66, Standard Error, 0.67, Z-statistic 3.88, p-value 0.00***). It was a means used to create vulnerability and to maintain it.

Offenders Holding Passports from victims to create or maintain vulnerability once a victim reached the end destination was used by offenders engaged in End Exploitation (n. 50, Coefficient 5.58, Standard Error 1.78, Z-statistic 5.40, p-value 0.00***) and offenders using Rape were also engaged in End Exploitation (n. 23, Coefficient 3.92, Standard Error 1.63, Z-statistic 3.29, p-value 0.00***).

There were no offenders performing the Purchase and sale of victims and using 'Loverboy' Romance as a means to facilitate this activity and the absence of offenders performing this means with this action produced a statistically strong result through Pearson's chi-square (p-value 0.03**) and

Fisher's Exact one-sided test (p-value 0.01**). No offenders engaged in Financial administration used Rape as a means to further their activity. No offenders engaged in Strategy used Debt Bondage or Rape to further their activity, although these results had no statistical significance. A complete set of observations for offenders appears in Appendix 4. There was no statistical significance for offenders using means to further Harbouring or Strategy activity.

5.3.3 Question 7: Were multiple means used by offenders and how did this use of means further an action?

Pearson's chi-squared and Fisher's Exact one-sided tests were performed to determine whether there was any statistical significance for offenders performing specific means with other means. A complete set of results appear in Appendix 4. Results that were statistically significant from Pearson's chi-squared and Fisher's Exact one-sided tests were further analysed through bivariate logistic regression to determine the likelihood that an offender would perform a means with another means. The results appear in Tables 5.8 and 5.9 below.

Of the 121 offenders using Physical assault as a means, 62 used Intimidation and were likely to perform both means (Coefficient 10.27, Standard Error 2.23, Z-statistic 10.74, p-value 0.00***) and the use of these means had the strongest effect size with Pearson's correlation coefficient result 0.39. Of the 125 offenders using Physical Control, 35 offenders used Intimidation and were likely to do so (Coefficient 2.72, Standard Error 0.61, Z-statistic 4.45, p-value 0.00***). Of the 141 offenders using Intimidation, 56 offenders used a deceptive Employment Offer for Recruitment and were statistically likely to do so (Coefficient 2.38, Standard Error 0.46, Z-statistic 4.53, p-value 0.00***).

Of the 75 offenders engaged in Debt Bondage as a means 33 offenders used Intimidation and were statistically likely to do so (n. 33, Coefficient 5.74, Standard Error 1.46, Z-statistic 6.87, p-value 0.00***) and this result had a

Table 5.8 Offenders performing means with other means, bivariate logistic regression results

Means	Means	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z statistic	Confidence Intervals Min	Confidence intervals Max
Employment Offer	Intimidation	56	2.38 (.46)	4.53	0.00***	1.64	3.47
Employment Offer	Debt Bondage	32	2.53 (.62)	3.76	0.00***	1.56	4.10
Employment Offer	Holding Passports	24	2.02 (.55)	2.60	0.009***	1.19	3.44
Intimidation	Physical control	35	2.72 (.61)	4.45	0.00***	1.75	4.22
Intimidation	Physical assault	62	10.27 (2.23)	10.74	0.00***	6.71	15.71
Intimidation	Debt Bondage	33	5.74 (1.46)	6.87	0.00***	3.49	9.45
Intimidation	Holding Passports	21	3.29 (.94)	4.18	0.00***	1.88	5.74
Physical control	Debt Bondage	23	3.45 (.94)	4.56	0.00***	2.02	5.87
Physical control	Holding Passports	16	2.50 (.77)	2.98	0.00***	1.37	4.56
Physical control	Abduction	8	15.63 (.94)	1.94	0.05	.99	5.10

Physical control	Rape	8	2.45 (1.03)	2.12	0.03**	1.07	5.60
Physical assault	Holding Passports	22	4.39 (1.25)	5.19	0.00***	2.51	7.67
Physical assault	Abduction	11	3.77 (1.44)	3.46	0.00***	1.78	7.98
Holding Passports	Rape	6	3.72 (1.77)	2.77	0.006***	1.47	9.44
Abduction	Rape	9	15.63 (6.98)	6.16	0.00***	6.52	37.50

Table 5.9 Offenders unlikely to perform these means with other means, bivariate logistic regression results

Means	Means	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-Statistic	Logistic Regression p-value of z-statistic	Confidence Intervals Min	Confidence intervals Max
Employment Offer	Physical control	20	.56 (.14)	-2.29	0.02**	.34	.92
Employment Offer	'Loverboy' Romance	2	.18 (.13)	-2.37	0.02**	.04	.74
Employment Offer	Abduction	3	.30 (.18)	-1.96	0.050	.092	1.00

moderate effect size with Pearson's correlation coefficient result of 0.24. They were also statistically likely to have used a deceptive Employment Offer to fulfil Recruitment (n. 32, Coefficient 2.53, Standard Error 0.62, Z-statistic 3.76, p-value 0.00***) and performed Physical Control of victims (n. 23, Coefficient 3.45, Standard Error 0.94, Z-statistic 4.56, p-value 0.00***) once Recruitment was fulfilled.

Of the 63 offenders Holding victim Passports, 24 offenders used this means with a deceptive Employment Offer to further Recruitment and were statistically likely to do so (Coefficient 2.02, Standard Error 0.55, Z-statistic 2.60, p-value 0.009***) and these offenders also used Physical Assault (n. 22, Coefficient 4.39, Standard Error 1.25, Z-statistic 5.19, p-value 0.00***), Intimidation (n. 21, Coefficient 3.29, Standard Error 0.94, Z-statistic 4.18, p-value 0.00***) and Physical Control (n. 16, Coefficient 2.50, Standard Error 0.77, Z-statistic 2.98, p-value 0.00***) to maintain victims in human trafficking.

Of the 31 offenders engaged in Rape, 9 offenders did so with Abduction and were statistically likely to use these means together (Coefficient 15.63, Standard Error 6.98, Z-statistc 6.16, p-value 0.00***) and the effect size of the use of these means together was moderate with Pearson's correlation coefficient result 0.26. Of the 33 offenders engaged in Abduction they were also likely to use Physical Assault (n. 11, Coefficient 3.77, Standard Error 1.44, Z-statistic 3.46, p-value 0.00***). Offenders that used Rape were also likely to use Physical Control (n. 8, Coefficient 2.45, Standard Error 1.03, Z-statistic 2.12, p-value 0.03**) and to be Holding Passports of victims (n. 6, Coefficient 3.72, Standard Error 1.77, Z-statistic 2.77, p-value 0.006***).

Offenders using a deceptive Employment Offer to further Recruitment (n. 236), were unlikely to use Physical Control (n.20, Coefficient 0.56, Standard Error 0.14, Z-statistic -2.29, p-value 0.02**) and 'Loverboy' Romance as an alternative means of furthering Recruitment (n. 2, Coefficient 0.18, Standard Error 0.13, Z-statistic -2.37, p-value 0.02**).

Table 5.10 Employment Offer multiple logistic regression

Employment Offer dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	-.61	.18	-3.49	0.00***	-.96	-.27
Purchase and sale of victims	-1.15	.33	-3.53	0.00***	-1.79	-.51
Financial administration	-1.41	.54	-2.61	0.01***	-2.47	-.35
Strategy	-1.26	.63	-1.98	0.047**	-2.50	-.015
Physical control	-.77	.28	-2.73	0.01***	-1.32	-.22
Holding Passports	.90	.30	2.98	0.00***	.31	1.49
Intimidation	1.01	.22	4.58	0.00***	.58	1.44
Debt Bondage	1.00	.28	3.62	0.00***	.46	1.54

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.08 LR chi2(8) = 84.40 Log likelihood = -496.57 n. 972

Table 5.11 Abduction multiple logistic regression

Abduction dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	1.57	.39	4.00	0.00***	.80	2.33
Physical assault	1.39	.42	3.34	0.00***	.57	2.20
Rape	3.00	.50	5.98	0.00***	2.02	3.98

Employment Offer	-1.30	.63	-2.06	0.04**	-2.54	-.063
Constrained	-4.43	.36	-12.46	0.00	-5.13	-3.74

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.21 LR chi2(4) = 60.36 Log likelihood = -113.89 n. 972

Table 5.12 Holding Passports multiple logistic regression

Holding Passports dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Physical control	.74	.33	2.25	0.03**	.09	1.38
Physical assault	1.09	.31	3.56	0.00***	.49	1.69
Purchase and sale of victims	.96	.38	2.54	0.01**	.22	1.69
End Exploitation	1.52	.34	4.54	0.00***	.87	2.18
Employment Offer	.94	.29	3.21	0.00***	.37	1.52
Constrained	-4.39	.34	-13.08	0.00	-5.05	-3.73

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.14 LR chi2(5) = 66.10 Log likelihood = -200.24 n. 972

Table 5.13 Physical assault multiple logistic regression

Physical assault dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	1.14	.24	4.66	0.00***	.66	1.62
Abduction	1.62	.43	3.78	0.00***	.78	2.46

Holding Passports	.99	.33	3.00	0.00***	.34	1.63
Intimidation	2.18	.24	9.05	0.00***	1.71	2.66
Debt Bondage	-.85	.39	-2.17	0.03**	-1.61	-.08
Constrained	-3.31	.21	-15.50	0.00	-3.73	-2.89

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.22 LR chi2(5) = 162.63 Log likelihood = -283.93 n. 972

Table 5.14 Comparing explanatory power of multiple logistic regression models for actions

Dependent variable	Difference in explanatory power	Action with means % explanatory power	Action % explanatory power
Recruitment	**3%**	8%	5%
Transportation	**2%**	5%	3%
Travel preparation	0%		3%
Purchase and sale of victims	0%		3%
Harbouring	0%		4%
Financial administration	**3%**	9%	6%
End Exploitation	0%	11%	11%
Strategy	0%		3%

NA – Not applicable

No offenders engaged in 'Loverboy' Romance and Holding Passports as a means. There was no statistical significance for this absence of combined use of means in offender methods. The complete set of observations for offenders using means with other means appears in Appendix 4.

From bivariate logistic regression, offenders performing Recruitment chose multiple means: a deceptive Employment Offer, exploiting the Financial Hardship of the victim, 'Loverboy' Romance with the victim and other offenders engaged in the forced taking of the victim with Abduction. The remaining means were used to maintain victim vulnerability once in trafficking. To develop a more comprehensive analysis of the use of means in offender method, all means were analysed through multiple logistic regression models with each means as a dependent variable with actions and means added to the model using forward selection (Agresti, 2018).

In addition to results from bivariate logistic regression, offenders engaged in a deceptive Employment Offer did not engage in End Exploitation (Coefficient -0.61, Standard Error 0.18, Z-statistic -3.49, p-value 0.00***) or Strategy (Coefficient -1.26, Standard Error 0.63, Z-statistic -1.98, p-value 0.047**, see Table 5.10). Offenders engaged in Abduction were unlikely to engage in a deceptive Employment Offer (Coefficient -1.30, Standard Error 0.63, Z-statistic -2.06, p-value 0.04**, see Table 5.11).

Offenders Holding victim Passports were likely to use this means when engaged in the Purchase and sale of victims (Coefficient 0.96, Standard Error 0.38, Z-statistic 2.54, p-value 0.01**, see Table 5.12) and offenders using Physical assault were unlikely to use this means with Debt Bondage (Coefficient -0.85, Standard Error 0.39, Z-statistic -2.17, p-value 0.03**, see Table 5.13).

There was considerable empirical evidence that offenders using means to maintain vulnerability once a victim was in a situation of trafficking would use multiple means against a victim. However, the use of multiple means did not appear to vary the likely actions performed by offenders with End

Exploitation as the action most likely to be performed with means and with multiple means.

5.3.4   Question 8: Did means affect the flow of human trafficking actions?

In Chapter 4, bivariate and multiple logistic regression of actions led to the creation of Figure 4.3, a model of the potential flow of actions. This visual of results and the strands of process to action from Figure 4.3 were explored through structural equation modelling to refine the flow of actions.   gsem results were verified using sem analysis and led to a series of Figures related to the flow of actions (Figure 4.4 Travel preparation; Figure 4.5 Transportation and Figure 4.6 Financial administration). To advance an understanding of the effect that means had on offender method by including the first element action with the second element means to achieve action leading to further development of gsem and sem analysis, multiple logistic regression models developed in Chapter 4 were recreated and means were added to determine their statistical significance and effect on the power of the original model using forward selection of means (Agresti, 2018). Models for offenders engaged in Recruitment, Transportation, Financial administration and End Exploitation supported the addition of means to models and supported the bivariate logistic regression results in Tables 5.6 and 5.7, with the exception that the model of offenders engaged in Transportation did not support the use of Financial Hardship as a means. All models appear in Appendix 4. However, multiple logistic regression models for offenders engaged in Travel preparation, Harbouring, the Purchase and sale of victims and Strategy were not advanced by means and remained consistent with models produced in Chapter 4.

Table 5.14 above compares the explanatory power of multiple logistic regression models for actions developed in this Chapter and in Chapter 4. The model for offenders engaged in Recruitment when means were added increased explanatory power of multiple logistic regression from 5% to 8% by 3%. Whilst this was demonstrating some contribution to explaining Recruitment, the overall explanatory power was very low. The model of

offenders engaged in Transportation was only improved by 2% explanatory power (3 – 5%). The model of offenders engaged in Financial administration saw a 3% increase from 6% to 9% and the model of offenders engaged in End Exploitation remained consistent with the removal of Security as an action, replaced by means with 11% explanatory power of the model. These results identified that other factors were significant to explain actions and that means had not greatly altered an understanding of actions.

Results from bivariate logistic regression of offenders engaged in Travel preparation, Harbouring, the Purchase and sale of victims and Strategy with multiple logistic regression of means appearing at Tables 5.10 – 5.13 and in Appendix 4 for means and actions were populated into two visuals of results appearing at Figures 5.1 and 5.2 below. Blue arrows indicated that an offender was statistically likely to perform actions together. Red arrows indicated that offenders were unlikely to perform actions together. Whilst Chapter 4 analysis using gsem and sem explored the strand of process from each action, the entry routes into trafficking: a deceptive Employment Offer, the exploitation of a Financial Hardship, 'Loverboy' Romance and Abduction were treated as actions at the beginning of the process and analysis was developed through gsem and sem for each entry route into trafficking. In addition, each action was explored through gsem and sem with the addition of means.

Figures 5.1 and 5.2 were the basis for theoretical models (as recommended by Martinez-Lopez et al. (2010, pp. 115-152), upon which further statistical analysis was performed to explore an order to actions and means and whether the theoretical model was advanced by structural equation modelling. As a first stage of analysis, generalised structural equation modelling (gsem) was performed by exploring each means, representing an entry route into trafficking and each action by constraining them with a second action or means to determine whether the combination of actions and means performed by offenders directed the performance of other actions or means (STATA, 2013). The second stage of analysis involved
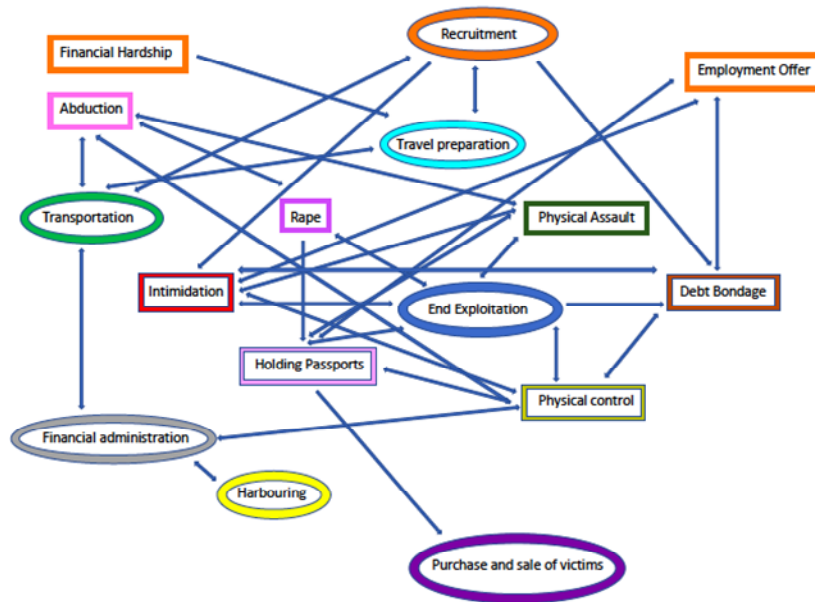
Figure 5.1 Offenders engaged in actions and means developed from bivariate and multiple logistic regression analysis
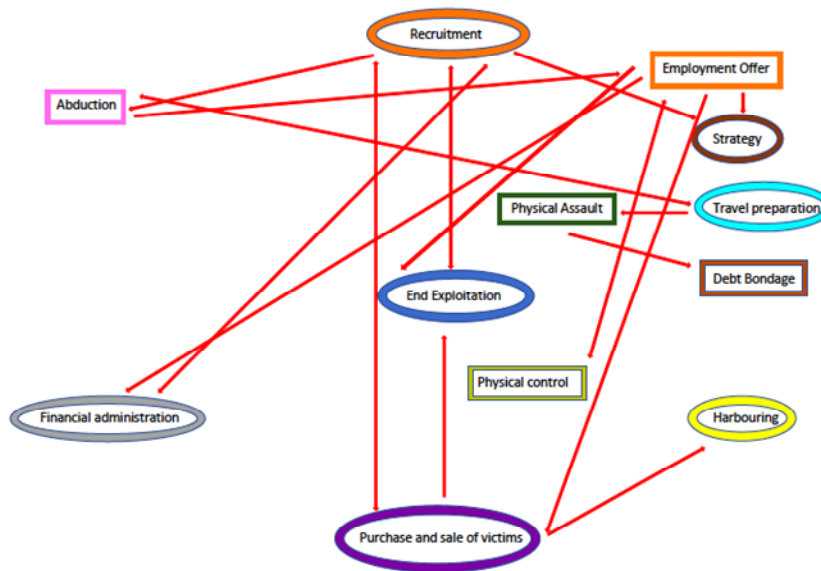
Figure 5.2 Actions and means unlikely to be performed together by offenders developed from bivariate and multiple logistic regression analysis

structural equation modelling of the statistically significant relationships identified from gsem analysis to confirm or refute gsem findings indicating an indirect effect of an action or means through another action or means. Following the identification of statistically significant results from data modelling, the direct and indirect relationships appearing to flow, appearing in Figure 5.1 and 5.2, were separated into a visualisation and the results from

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gsem and sem were added to understand the extent to which equation modelling had provided additional insight into offender activity. Blue arrows indicated that an offender was statistically likely to perform an action or means. Red arrows indicated that offenders were unlikely to perform an action or means and green arrows identified the action was likely to be influenced through the performance of another action or means by an offender. The population of all gsem and sem models was 972. A complete set of gsem model results and sem indirect effects results appears in Appendix 4.

As no additional relationships had been identified for offenders performing Travel preparation, Harbouring, the Purchase and sale of victims or Strategy actions in multiple logistic regression, no gsem analysis was performed for these actions.

Five entry routes into trafficking

There were five possible entry routes into trafficking identified in this Chapter: Recruitment through unspecified means, Recruitment as a result of a deceptive Employment Offer, Recruitment through exploitation of the Financial Hardship of a victim, Recruitment following 'Loverboy' Romance and Abduction involving the forced taking of the victim. Each approach was different and logistic regression models revealed different associations and relationships, with the exception of 'Loverboy' Romance where no statistical significance was identified. These variations of entry into trafficking for the victim may result in a different flow of actions than that explored in Chapter 4.

Offenders engaged in Recruitment directing the flow of actions and means

In Chapter 4 gsem analysis of actions directed by offenders engaged in Recruitment had not identified statistically significant results for offenders directing other actions. Analysis in gsem and sem in this Chapter revealed that offenders engaged in general Recruitment were exploiting the

Financial Hardship of victims and that offenders performed Travel preparation to further the movement of these victims towards exploitation (gsem: Coefficient 1.46, Standard Error 0.65, Z-statistic 2.24, p-value 0.03**; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 2.15, p-value 0.03**, see Tables 5.15 and 5.18 below). These results identified from analysis in gsem and sem combined with bivariate logistic regression results from Tables 4.4, 5.6 and 5.7 are shown in the visualisation created at Figure 5.3 below.
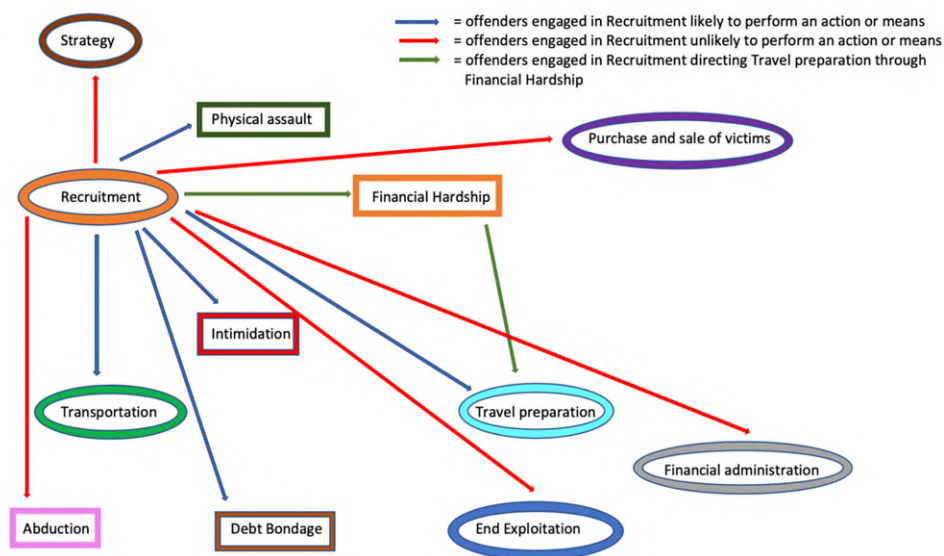
Figure 5.3 Offenders engaged in Recruitment with multiple logistic regression, gsem and sem analysis of actions and means

Offenders engaged in a deceptive Employment Offer directing the flow of actions and means

Offenders engaged in a deceptive Employment Offer when constrained by Recruitment directed activity towards Transportation (gsem: Coefficient 0.18, Standard Error 0.07, Z-statistic 2.52, p-value 0.01**; sem: Coefficient 0.14, Standard Error 0.03, Z-statistic 5.36, p-value 0.00***) and Travel preparation (gsem: Coefficient 0.20, Standard Error 0.09, Z-statistic 2.32, p-value 0.02**; sem: Coefficient 0.05, Standard Error 0.02, Z-statistic 2.66, p-value 0.008***) and not towards Strategy (gsem: Coefficient -0.30, Standard Error 0.15, Z-statistic -1.98, p-value 0.048**; sem Coefficient -0.02, Standard

Table 5.15 gsem analysis of offenders engaged in Recruitment with actions and means

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial Hardship	Constrained					
Travel preparation	1.46	.65	2.24	0.03**	.18	2.74

Table 5.16 gsem analysis of offenders engaged in a deceptive Employment Offer with actions and means

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
Transportation	.18	.07	2.52	0.01**	.04	.33
Travel preparation	.20	.09	2.32	0.02**	.03	.37
Strategy	-.30	.15	-1.98	0.048**	-.60	-.00

Table 5.17 gsem analysis of offenders engaged in End Exploitation with actions and means

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Debt Bondage	Constrained					

Recruitment	4.77	2.25	2.12	0.03**	.37	9.18
Intimidation	Constrained					
Recruitment	5.88	2.21	2.67	0.008***	1.56	10.21

Table 5.18 sem indirect effects analysis supporting statistically significant gsem results of actions and means

Variable creating indirect effect	Variable through which the flow of the indirect effect travels	Variable indirectly affected	Coefficient (Standard Error)	Z-statistic	P-value of Z	95% Confidence Intervals
Recruitment	Financial Hardship	Travel preparation	.02 (.01)	2.15	0.03**	.00 - .04
Employment Offer	Recruitment	Transportation	.14 (.03)	5.36	0.00***	.087 .19
Employment Offer	Recruitment	Travel preparation	.05 (.02)	2.66	0.008***	.01 .09
Employment Offer	Recruitment	Strategy	-.02 (.01)	-2.10	0.04**	-.04 -.00
End Exploitation	Debt Bondage	Recruitment	.01 (.01)	2.54	0.01**	.00 .02
End Exploitation	Intimidation	Recruitment	.04 (.01)	4.12	0.00***	.02 .06

Error 0.01, Z-statistic -2.10, p-value 0.04**). Results for gsem and sem appear in Tables 5.16 and 5.18 below. Results identified from analysis in gsem and sem combined with bivariate logistic regression results from Table 5.10 are shown in the visualisation created at Figure 5.4 below.
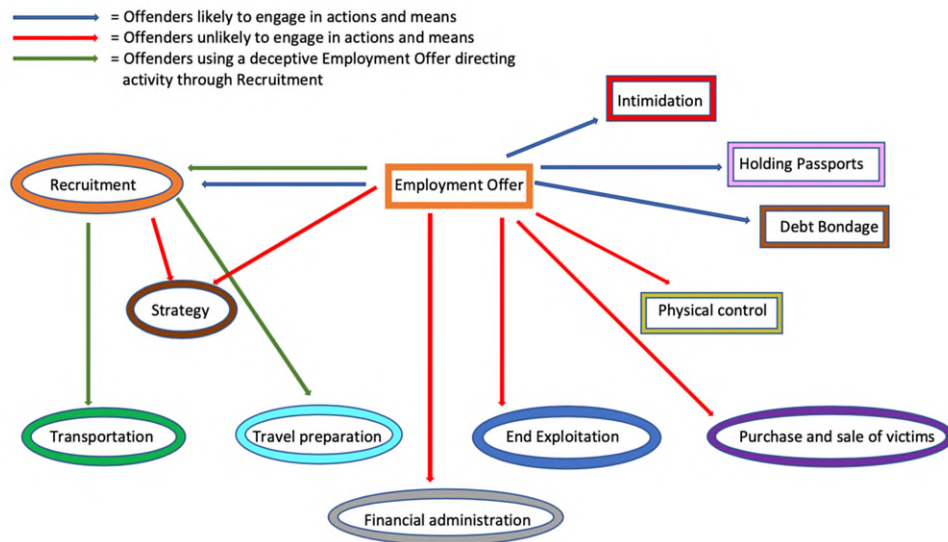
Figure 5.4 Offenders using a deceptive Employment Offer with multiple logistic regression, gsem and sem analysis of actions and means

Offenders engaged in End Exploitation of victims directing means and Recruitment through means

Offenders engaged in End Exploitation were directing Recruitment through Debt Bondage (gsem: Coefficient 4.77, Standard Error 2.25, Z-statistic 2.12, p-value 0.03**; sem: Coefficient 0.01, Standard Error 0.01, Z-statistic 2.54, p-value 0.01**), suggesting these offenders were lone traffickers. In addition, a statistically significant relationship with Recruitment when constrained by Intimidation in gsem analysis was supported in sem analysis (gsem: Coefficient 5.88, Standard Error 2.21, Z-statistic 2.67, p-value 0.008***; Coefficient sem: Coefficient 0.04, Standard Error 0.01, Z-statistic 4.12, p-value 0.00***). Results for gsem and sem appear in Tables 5.17 and 5.18 above. Results identified from analysis in gsem and sem combined with bivariate logistic regression results from Tables 4.4 and 5.6 are shown in the visualisation created at Figure 5.5 below.
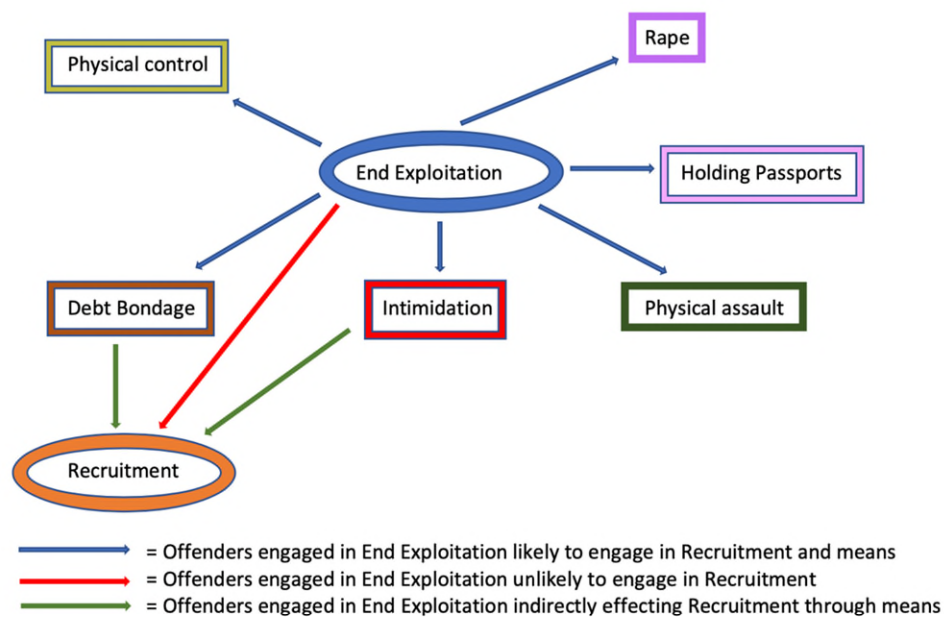
Figure 5.5 Offenders engaged in End Exploitation with multiple logistic regression, gsem and sem analysis of actions and means

Offenders engaged in remaining activity and means and the flow of their activity

Analysis of offenders using Abduction as an entry route into trafficking, Transportation and Financial administration did not reveal supported gsem and sem results.   In addition, analysis was not performed for offenders engaged in Travel preparation, Harbouring, the Purchase and sale of victims or Strategy actions, as means had not been identified in multiple logistic regression analysis.

Statistical analysis of the process of human trafficking had been advanced with the addition of means by developing an analysis of general Recruitment, a deceptive Employment Offer and End Exploitation, processes that had not been evident from structural equation modelling in Chapter 4. However, the entry process for victims into human trafficking and their End Exploitation did not appear to link together and data analysis using structural equation modelling appeared to have limited success in identifying a complete process to offending.

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5.4   Discussion

The discussion of the results is explored through the four research objectives identified from the literature review in Chapter 2:

Objective 1

To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

Objective 2

To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

Both Objectives 1 and 2 are explored together in this discussion. The coding of means from disaggregating offender method, did not reflect the debate in literature as to whether means were overt or subtle (UNODC, 2013, 2014). Disaggregated means were primarily identified from the first element action Recruitment and the entry of victims into trafficking and from Security related to keeping control of victims and maintaining the operation of human trafficking. The overt means defined as:

> 'by means of threat or use of force or other forms of coercion, of abduction,…" (as stated in Art. 3 Palermo Protocol, United Nations Convention Against Transnational Organized Crime, 2000)

were more readily identifiable as Intimidation, Physical Control, Physical Assault, Abduction and Rape. Only one of these means was recognisable for

its use as an entry route into trafficking: Abduction. Only 33 offenders used this means.   Of offenders engaged in Recruitment, 87 offenders used Intimidation, 50 used Physical control, 66 used Physical assault, 9 used Abduction and 13 used Rape. However, it was unclear at what stage of the trafficking process most of the overt means were used. It was not certain that offenders used overt means to further Recruitment.

The remaining entry routes into trafficking were subtle means: a deceptive Employment Offer, exploiting the Financial Hardship of the victim which was likely to be subtle but could also be an overt means and 'Loverboy' Romance used by the offender to create an emotional bond with a victim. These means were recognisably related to

> 'fraud, of deception, of the abuse of power or of a position of
> vulnerability…' (as stated in Art. 3 Palermo Protocol, United
> Nations Convention Against Transnational Organized Crime,
> 2000)

in the second element in the definition.

There were 56 offenders who used Intimidation and a deceptive Employment Offer, and this was statistically significant and likely, as evidenced by the bivariate and multiple logistic regression results in Tables 5.8 and 5.10 in this Chapter.   However, offenders using a deceptive Employment Offer were unlikely to use Physical Control or Abduction, evidenced by bivariate logistic regression in Table 5.9. There were no other overt means that were statistically likely to be used with this entry route into trafficking. Offenders using other means to bring victims into trafficking (exploiting the Financial Hardship of victims and 'Loverboy' Romance) were not statistically likely to use other overt means. It was possible that overt means had been used but were not included in case summaries and the case summaries did not reflect the full extent of the convictions for human trafficking (UNODC, 2017).

There was evidence of:

'giving or receiving payments or benefits to achieve the consent of a person having control over another person,' (as stated in Art. 3 Palermo Protocol, United Nations Convention Against Organized Crime, 2000)

a means that had been subject to further consideration by the Working Party of the Palermo Protocol as it had created confusion in interpretation (UNODC, 2013) but this wording was not identified as a means in coding offender method, it was apparent in offender activity for the Purchase and sale of victims.

To give a better understanding of how the second element in the Palermo Protocol translated to the means identified for analysis in this thesis, Table 5.4 set out whether a means had the potential to be obvious, subtle, create vulnerability or maintain it. Table 5.4 is reproduced below:

Table 5.4 Actual means used and their delivery and function for achieving action

Variable	Obvious means	Subtle means	Means creating a vulnerability	Means maintaining a vulnerability
Employment Offer		Fraud or Deception	Creating	
Financial hardship	Abuse of a position of vulnerability		Creating	Maintaining
'Loverboy' Romance		Fraud or Deception; Abuse of power or a position of vulnerability	Creating	Maintaining
Physical hardship		Abuse of a position of vulnerability	Creating	Maintaining
Intimidation	Coercion			Maintaining
Physical control	Use of force			Maintaining

Physical assault	Use of force			Maintaining
Debt Bondage		Abuse of position of vulnerability	Creating	Maintaining
Holding Passports	Coercion		Creating	Maintaining
Abduction	Abduction		Creating	
Rape	Use of force		Creating	Maintaining
Weapon	Use of force or Coercion		Creating	Maintaining
Corruption	Abuse of power	Abuse of power	Creating	Maintaining
Voodoo Ritual	Coercion	Abuse of power or of a position of vulnerability		Maintaining
Controlling Communications	Coercion			Maintaining
Murder/ Manslaughter	Use of force or Coercion			Maintaining for other victims
Sexual abuse	Use of force		Creating	Maintaining
Torture	Use of force			Maintaining

However, it was evident that subtle means were more likely to be used for the entry into trafficking and for the movement of a victim towards their exploitation. Subtle means that were used by offenders engaged in Recruitment (including a deceptive Employment Offer) and were also used by offenders engaged in End Exploitation, were Debt Bondage and Holding Passports. They reflected a process of deception and subtle use of means by offenders to move victims into situations of exploitation. Offenders Holding victim Passports very likely to resort to overt means (Physical Assault and Physical Control) and were involved in a deceptive Employment

Offer, the Purchase and sale of victims and their End Exploitation, as evidenced by the multiple logistic regression in Table 5.12. Offenders using this means were deceptive and dangerous. It was important to understand that means were not simply segmented and isolated but operated together like interconnected levers to facilitate offending. Subtle means were not without danger, as has been inferred from discussion evident in the UNODC Working Party papers on victim consent and vulnerability (UNODC, 2013, 2014). The subtlety of means belied the precarious nature of a victim's position with the prevalence of overt means once the victim was in End Exploitation. Furthermore, subtle means are considered in relation to what is done to a victim, but they may also be about the offender's perception of risk (Kahneman, 2011; Eck, 2013). There is a greater risk to the offender that someone will see the victim being abducted or that physical assault or intimidation will become too obvious to other people and to the victim. When a victim receives a deceptive Employment Offer and they accept this offer, any fears expressed by family and friends are likely to be alleyed by the victim, as it is the victim's judgment in question. Once the victim has become disabused of the situation, it is likely the victim will experience self blame and recrimination for failing to take further precautions to avoid the situation they find themselves in. This is a psychological factor that facilitates the offender and not the victim. Overt means require less effort for a prosecutor, as they resonate more easily in the mind of a jury with harm (UNODC, 2013, 2014) but that does not mean that they are necessarily more effective for an offender. There is a risk that the interpretation of the drafting of the second element may not reflect the reality that there is not one process of movement in trafficking but a continuing cycle of means reflecting a continuing cycle of activity.

There were numerous entry routes used by offenders to bring victims into trafficking: general Recruitment, a deceptive Employment Offer, exploiting the Financial Hardship of the victim, 'Loverboy' Romance and Abduction. There was also the Purchase of a victim. Recruitment and the Purchase of

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the victim were first element actions performed by offenders. The other entry routes were means to achieve action used by offenders. However, Abduction did not facilitate an offender performing Transportation. Transportation facilitated an offender using Abduction.

Whilst there was evidence of offenders using a deceptive Employment Offer with Intimidation, Debt Bondage and Holding Passports either to further Recruitment or the movement of the victim or End Exploitation, indicating offenders were possibly lone traffickers and not working in a group of traffickers, overt means were statistically likely to be used by offenders engaged in End Exploitation. Empirical evidence suggests that the arguments presented by Chuang (2014, pp. 609-649) and Stoyanova (2015, pp. 32-73) that human trafficking is a process and that it does not include the static exploitation of the victim, would restrict empirical analysis to predominantly subtle means. Rarely were overt means used at the Recruitment and Transportation stages of trafficking. As previously considered at research Objective 1 above, offenders may have used subtle means at the Recruitment stage of the process of trafficking because they were effective at bringing victims into a situation of vulnerability, but they also limited the potential for harm to the trafficker, as they were less visible to the victim's family and friends. Chuang (2014, pp. 609-649) argued that extending human trafficking to include the exploitation of the victim was undermining the significance of the legislation and its intended purpose:

> 'Maintaining the core of what "trafficking" was intended to cover requires staving off the risk not only of the underinclusiveness that slavery imagery promotes but also of the overinclusiveness that increased attention to exploitation writ large might inspire.' (2014, p. 641).

Chuang's argument is logical but empirical analysis (Tables 5.6, 5.17 and 5.18) identified that the more violent and overt means were used by offenders in End Exploitation, as illustrated in Figure 5.5 and reproduced here:
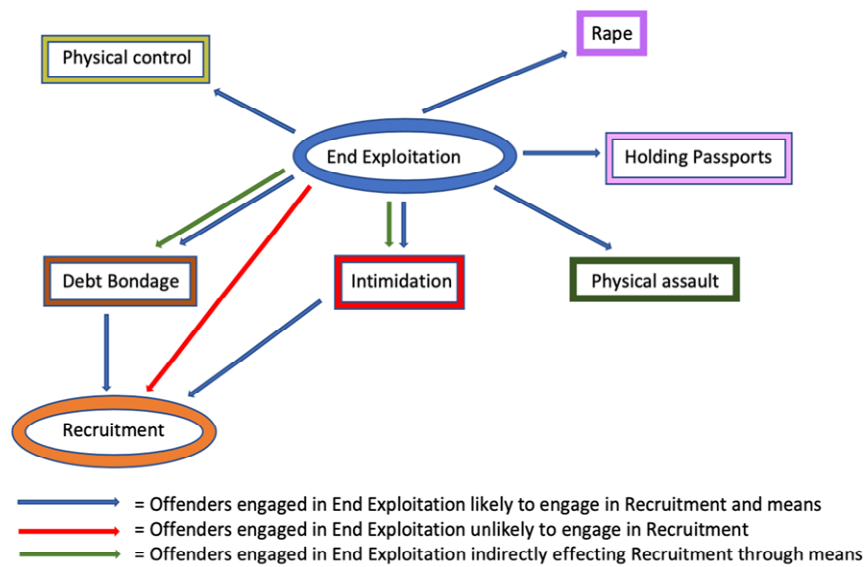
Figure 5.5 Offenders engaged in End Exploitation with multiple logistic regression, gsem and sem analysis of actions and means

and not the Recruitment and Transportation stages of human trafficking as illustrated by Figures 5.3 and 5.4.

Arguments presented by Chuang (2014, pp. 609-649) and Stoyanova (2015, pp. 32-73) were also presenting human trafficking as a linear process; a victim enters trafficking through recruitment and is transported at which point the victim leaves the process of human trafficking and is exploited. Following this analysis other international legislation addresses the conditions of exploitation. This analysis ignores the cycle of human trafficking which may involve a victim being exploited in numerous ways along the journey or in a static environment or later sold to another trafficking network. Analysis of the first element of the definition revealed that there were other actions necessary to fulfil and maintain human trafficking, involving Travel preparation, Security, Financial administration, the Purchase and sale of victims and Strategy. Means also revealed that offenders were likely to use multiple means to further human trafficking and that means better explained other means. For example, the multiple regression analysis of the use of Physical Assault by offenders set out in

Table 5.13 includes End Exploitation but it also includes numerous other means (Abduction, Holding Passports, Intimidation, Debt Bondage). This model of Physical Assault as the dependent variable also had a much higher explanatory power of 22% than models created for actions (see Table 5.14). In Table 5.14 the multiple logistic regression model with the greatest explanatory power of an action was End Exploitation which remained at 11% from the model created in Chapter 4 when Security was replaced by means. The process of human trafficking was not a linear process better fitting Chuang (2014, pp. 609-649) and Stoyanova's (2015, pp. 32-73) theory, it was far more complex and cyclical, with the use of means resembling the method of a boa constrictor. The more the victim struggled with their situation the more overt the means were likely to become.

Objective 3:

To assess if the international definition adequately reflects convicted offender method.

To establish that an adult victim's consent was vitiated to the conditions in which they are working, means are required to be established (UNODC, 2014). Means are related to the second element of the Palermo Protocol definition. There were 579 (59.6%) offenders who used means or trafficked children and 393 (40.4%) offenders where there was no discernible means evident from case summaries. Not all Member States to the Palermo Protocol fully implemented the second element of means into domestic law as an essential element of prosecution of human trafficking and therefore did not require means to convict an offender of human trafficking (for example, Belarus (Belarus 2001 criminal code as amended 2005, (UNODC, 2014); Belgium (GRETA, 2017a); Bulgaria (GRETA, 2017b); Czech Republic (GRETA, 2019); Hungary (Kelemen, 2013); Switzerland (UNODC, 2013)). In addition, there may have been a deficiency in the quality of the case summaries appearing in SHERLOC. Understanding how means are used by offenders to not only further action but to maintain control and dominate

victims or manage their own risk is essential for understanding harm and the potential opportunities for intervention and how interventions may be measured for their effectiveness (Kahneman, 2011; Eck, 2013). Whilst prosecution of offenders may be more effective for the absence of establishing means, recording evidence of means is essential for future research on offender method and commonality in offending across jurisdictions.

Whilst means to further Recruitment: a deceptive Employment Offer, exploiting the Financial or Physical Hardship of a victim and 'Loverboy' Romance were obviously related to Recruitment, Abduction was not. Offenders engaged in Abduction were statistically likely to engage in Transportation (see Table 5.6), however, they were not furthering Transportation by using Abduction as a means, Transportation facilitated Abduction. In this respect Abduction was a first element action and Transportation a second element means to achieve that action. In addition, this example illustrated the uncertainty of the order of the definitional construct. The second element did not necessarily follow the first element. A deceptive Employment Offer preceded Recruitment and Abduction preceded Transportation, whilst Physical Assault might follow End Exploitation to maintain the cycle of exploitation. It was unclear if the structure of the definition was designed with time order to offender method. Offender method was not necessarily following the order of the elements of the definition.

The drafting of the second element includes:

'giving or receiving payments or benefits to achieve the consent
of a person having control over another person,' (as stated in
Art. 3 Palermo Protocol, United Nations Convention Against
Transnational Organized Crime, 2000)

and as discussed at research Objective 1 this was evidenced as action rather than means. Offenders were engaged in the Purchase and sale of victims, activity more aligned with the first element. Alternatively, the drafting of

the second element refers to the payment of family members to exploit their children or wards. The descriptive results at paragraph 3.7 in Chapter 3 revealed that whilst there was evidence that 60 offenders exploited their own family members, which may have included their sale to other traffickers, there was very little evidence that this was a means used by offenders to purchase the control of victims from families. It was also unclear which action this means would fulfil. It was likely it would fulfil End Exploitation, which is an action, but not listed in the prescribed actions of the first element.

Examining the prescribed first element actions readily identified in this thesis (Recruitment, Transportation and Harbouring) there was evidence of offenders using means to further Recruitment and evidence in Table 5.6 of the use of Abduction and exploiting the Financial Hardship of a victim with Transportation, but there was no strong evidence that offenders were using means with Harbouring. Offenders were observed using all of the means and engaging in Harbouring (a complete set of observations appears in Appendix 4), but no specific means was identified as statistically likely or unlikely to be used by offenders engaged in Harbouring. It was unclear whether this presented as a deficiency in the construction of the definition. Further research on the use of Harbouring, End Exploitation and means were necessary to draw definitive conclusions about the efficacy of the definition for offenders engaged in this activity.

The absence of a prescribed action performed by offenders benefiting from the exploitation of victims, represented in this thesis as End Exploitation, demonstrated a material deficiency with the definitional construct for pursuing offenders using overt means. Offenders using Physical control and Rape were not associated with an action that was readily identifiable as a prescribed action, as evidenced by Table 5.6, and the multiple logisitic regression of Physical assault in Table 5.13 also demonstrated the absence of a prescribed action.

Empirical evidence indicated that human trafficking was not a linear process but was more complex with means often leading to the use of other means, as evidenced by bivariate and multiple logistic regression of means in Tables 5.8, 5.12 and 5.13. Legal academic theory has focused on understanding human trafficking as a process (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015) and the extent to which that process includes the static exploitation of the victim, placing emphasis upon the first element actions in the Palermo Protocol definition. However, empirical evidence of means in this thesis indicated that research on means and the levers used by offenders to fulfil human trafficking may present more opportunities for identifying mechanisms for disruption of human trafficking. Analysis of the use of voodoo ritual has revealed important insight into the mechanisms used by West African traffickers (Baarda, 2016; Dunkerley, 2017). Baarda (2016, pp. 257-273) identified that whilst voodoo was used to intimidate victims and their families it was also a feature of controlling offenders supporting a network and Dunkerley (2017, pp. 83-100) provided insight into the complexity of interviewing a victim of human trafficking subject to control through voodoo with findings that supported the development of specific interview techniques to illicit information from victims on the offences committed against them.

Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

In Chapter 4, structural equation modelling of actions led to the creation of visuals: Figure 4.4 Travel preparation, Figure 4.5 Transportation and Figure 4.6 Financial administration, illustrating the bivariate and multiple logistic regression results and gsem and sem analysis of these actions performed by offenders performing and likely to be indirectly performing other actions in human trafficking. Developing structural equation modelling with actions and means followed the same data analysis tests performed in Chapter 4,

with models for offenders engaged in Recruitment, Transportation, Financial administration and End Exploitation supporting the addition of means and the bivariate logistic regression results in Tables 5.6. However, multiple logistic regression models for offenders engaged in Travel preparation, Harbouring, the Purchase and sale of victims and Strategy were not advanced by means and remained consistent with models produced in Chapter 4. Table 5.14 identified some improvement of explanatory power for models of actions with the addition of means, however, this amounted to only 2-3% increase and the explanatory power of models remained low which indicated that there were likely to be other influences, not reflected in analysis, that were relevant to the direction of action.

Analysis of the means used by offenders led to the identification of five entry routes into trafficking for victims: general Recruitment, a deceptive Employment Offer, exploiting the Financial Hardship of a victim, 'Loverboy' Romance and Abduction. A considerable diversification of entry for victims into trafficking. Means may have reflected an offender's skill set which may have driven diversification of the process and order of offender method. For example, the multiple logistic regression of Physical assault (Table 5.13) demonstrated the distinction between offenders who used overt and increasingly physical means and those who used deception and subtle means. Offenders who used Intimidation were likely to be multi-skilled using both subtle means and overt means (Table 5.8). Offenders engaging in Intimidation were capable of deception and manipulation moving to an escalating and overt level of threat resulting in Physical Assault.

Offenders using Debt Bondage and Holding victim Passports may have been lone traffickers or identified a 'means-in-common' for offenders across a network. For example, offenders were unlikely to perform Recruitment and the Purchase and sale of victims or End Exploitation whilst, offenders Holding victim Passports were likely to use this means with a deceptive Employment Offer, the Purchase and sale of victims and End Exploitation. The identity document of the victim appeared to travel along a network as

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the victim did, presenting both a psychological and physical representation of a victim's freedom.

Empirical analysis was also important for identifying specificity in offender method. In Chapter 2, analysis of academic literature identified that Rape was used by offenders involved in Transportation to break the will and control of the victim and enable adjustment for sexual exploitation (Lehti, 2006). Bivariate analysis in Table 5.6 and 5.8 identified that offenders used Rape and Abduction at the beginning of the trafficking process and Rape with End Exploitation at the end of the trafficking process. Whilst 9 offenders of the 260 engaged in Transportation used Rape, this use of means was not statistically significant and the observations indicated it was not prevalent. Offenders involved in Abduction were more likely to move to Transportation from Abduction, however, the offender Abducting the victim, rather than generally the offender Transporting the victim was more likely to use Rape.

Figure 5.1 illustrated the statistically significant results from bivariate and multiple logistic regression of actions and means likely to be performed together by offenders and is reproduced below. Figure 5.2 represented the actions and means that were unlikely to be performed by offenders together to further human trafficking.

Figures 5.1 and 5.2 represented theoretical models, as recommended by Martinez-Lopez et al. (2010 pp. 115-152), upon which further statistical analysis was performed to explore an order to actions and means and whether the models represented in Figures 5.1 and 5.2 were advanced by structural equation modelling. Generalised structural equation modelling (gsem) results for categorical data, supported by structural equation modelling (sem) results for indirect effects analysis, led to the adaptation of Figures 5.1 and 5.2 creating new models for general Recruitment (Figure 5.3), a
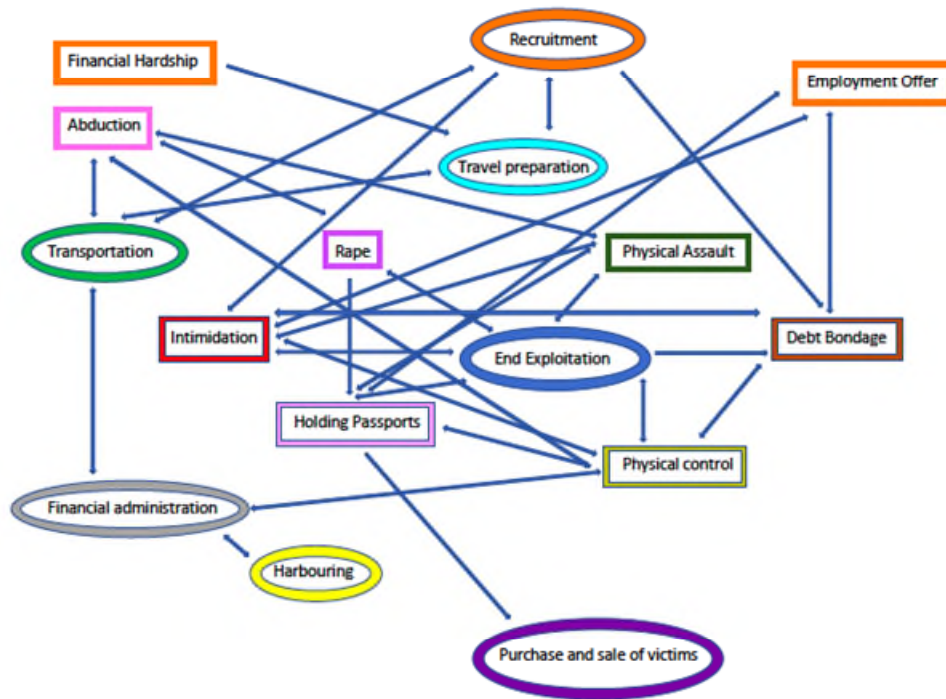
Figure 5.1 Offenders engaged in actions and means developed from bivariate and multiple logistic regression analysis

deceptive Employment Offer to further Recruitment (Figure 5.4) and End Exploitation (Figure 5.5). Figures 5.3, 5.4 and 5.5 are reproduced together below to aid visual comparison.

Models representing general Recruitment and a deceptive Employment Offer to further Recruitment were very similar, in so far as offenders did not engage in the Purchase and sale of victims, Financial administration, End Exploitation and Strategy activity, but the model of offenders engaged in general Recruitment identified that offenders, that exploited the Financial Hardship of victims, were likely to engage in Travel Preparation. Offenders supported victims to move themselves to a place of exploitation, rather than the offender physically moving the victim to a place of exploitation. There was evidence that offenders using this means were engaged in Transportation, as evidenced in Table 5.6, but gsem and sem modelling
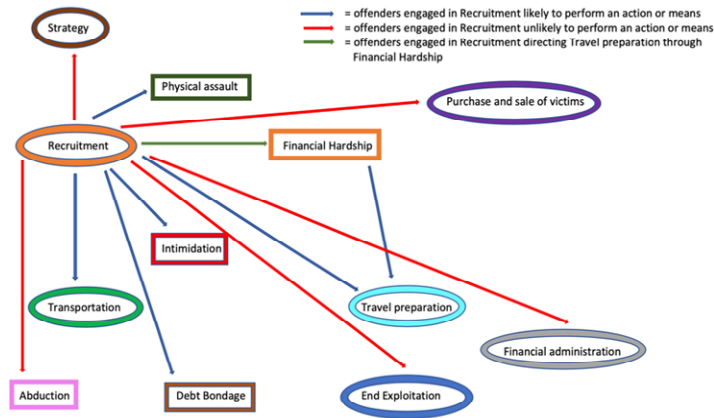
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Figure 5.3 Offenders engaged in Recruitment with multiple logistic regression, gsem and sem analysis of actions and means
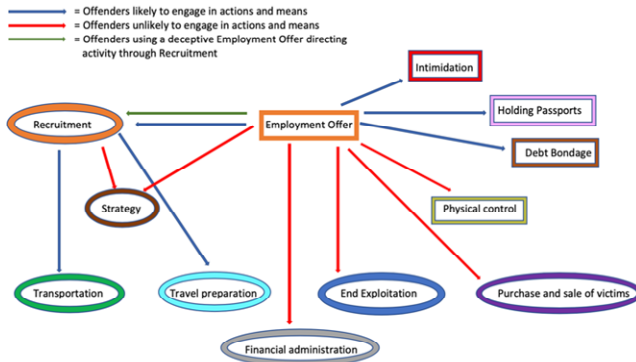
Figure 5.4 Offenders using a deceptive Employment Offer with multiple logistic regression, gsem and sem analysis of actions and means
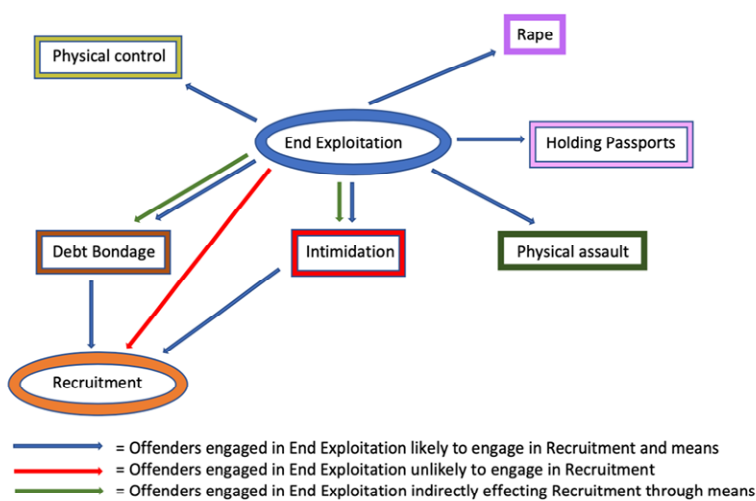
Figure 5.5 Offenders engaged in End Exploitation with multiple logistic regression, gsem and sem analysis of actions and means

revealed that there was stronger evidence for offenders engaging in Travel Preparation to support victims to move themselves.

Offenders engaged in general Recruitment were also more likely to use violence against victims with the use of Physical assault in addition to Intimidation, whereas there was no evidence that offenders were generally using Physical Assault when engaged in a deceptive Employment Offer, indicating that the deception was maintained as far as possible by offenders. Whilst Intimidation was also used by offenders engaged in a deceptive Employment Offer, it appeared that offenders were controlled in the use of means rather than indiscriminate. Offenders were Holding victim Passports, and as other activity associated with this means was not performed by these offenders (see Table 5.12), it was likely that passports were passed on to other offenders with an offender engaged in End Exploitation also likely to use this means, as is evident in Figure 5.5.

Having examined the first and second elements of the Palermo Protocol definition in Chapters 4 and 5 and found evidence for connection between the elements and deficiencies with the definitional construct, Chapter 6 turned to examine the third element. Actions and means performed by offenders were examined through empirical analysis for the variation in pattern of offender method arising from the purpose for which offenders were human trafficking.

Chapter 6   Purpose: the third element of the definition of human trafficking

6.1   Introduction

In Chapters 4 and 5 an examination was made of the actual actions and means performed by 972 offenders convicted of human trafficking. Chapter 6 contributes to knowledge on human trafficking with the development of an empirical analysis of the third element, purpose, for which actions and means were performed.   The third element of the Palermo Protocol definition is prescriptive, in that it provides for a list of purposes that must be included in member state legislation, but is not exhaustive, enabling Member States to add to the list:

> 'Exploitation shall include at a minimum, the exploitation of the
> prostitution of others or other forms of sexual exploitation,
> forced labour or services, slavery or practices similar to slavery,
> servitude or the removal of organs;' (as stated in Article 3
> Palermo Protocol, United Nations Convention Against
> Transnational Organized Crime, 2000).

When the first and second elements, actions and means, fulfil a purpose, the definition of human trafficking in the Palermo Protocol is established, and an offence is made out. The third element also fulfils the mens rea[20] of the crime of human trafficking.

To aid an empirical exploration of the third element, the following research questions support the structure of analysis:

9.   Which purposes were prosecuted?

10. Which actions aligned with which purpose?

11. Which means aligned with which purpose?

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[20] defined as 'the state of mind statutorily required in order to convict a particular defendant of a particular crime' (Cornell, 2019)

12. Which actions and means were performed by offenders with which purpose?

13. How did purpose alter the flow of actions to commit human trafficking?

In the literature review in Chapter 2, the following research objectives were identified from an examination of the prevailing literature on the international definition:

1. Is it possible to better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions?

2. Is it possible to explore the definitional construct of human trafficking and identify whether it is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017)?

3. Does the international definition adequately reflect convicted offender method or is it deficient in some way?

4. Is it possible to determine whether offender method to commit human trafficking has structure and order to it by exploring advanced data analysis techniques through structural equation modelling?

The discussion at the end of Chapter 6 will return to the four research objectives developed from the literature review in Chapter 2, examining the third element through the results from analysis of the questions in this Chapter.

6.2 Methodology

As with Chapters 4 and 5, a manual process of open coding was used to collect data from 486 case summaries selected from SHERLOC, the UNODC

caselaw database. Data was disaggregated for 972 offenders and data was collected on the type of exploitation attributed to an offender in each case summary. The collected data was recorded in Microsoft Excel, under the heading 'Type of trafficking' (De Cuir-Gunby, 2011). Axial coding of the open coded data revealed 7 consistent patterns of purpose (De Cuir-Gunby, 2011):

Table 6.1 Descriptions of purposes

Purposes	Description
Sexual Exploitation	Prostitution of victims in brothels, other accommodation or through street prostitution with limited or no earnings given back to victims[21]
Forced Labour[22]	Victims working for no pay or compensation below the statutory minimum, sometimes with deductions from wages related to accommodation, food and day-to-day transportation to and from work premises
Forced Begging	Victims forced to beg for money from members of the public
Forced criminality for theft	Victims forced to steal and pickpocket members of the public
Domestic servitude	Victims forced to work in private homes as domestic servants for little or no pay

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[21] Note a plain meaning for Sexual Exploitation was used to facilitate a rapid assessment for data collection rather than '"'Sexual exploitation' shall mean: (i) of an adult [forced] prostitution, sexual servitude or participation in the production of pornographic materials for which the person does not offer himself or herself with free and informed consent; (ii) Of a child, prostitution, sexual servitude or use of a child in pornography": "Sixth Draft of the Trafficking Protocol," UN Doc. A/AC.254/4/Add.3/Rev.6, Apr. 4, 2000, at Art. 2(bis), Option 1.' cited in Gallagher, (2010, p. 38).

[22] Note a plain meaning for Forced Labour was used to facilitate a rapid assessment for data collection rather than the formal definition: 'all work or service which is exacted from any person under the menace of any penalty, and for which the said person has not offered himself voluntarily' (International Labour Organization 'Labour Convention No. 29', done 28th June 1930).

Forced criminality for commercial surrogacy	Child victims sold at birth by organised criminal gangs facilitating the sale between birth mothers and prospective parents
Slavery for forced marriage	Victims sold into marriage

Following import of the axial coded variables into STATA SE15, a number of purposes had an insufficient number of offenders to support data analysis. These variables were considered only in the context of the number of offenders engaged in these purposes. They were not analysed through data analysis using STATA SE15:

Table 6.2 Purposes excluded from analysis

Variable	Number of offenders	%
Forced criminality for theft	25	2.6%
Domestic servitude	21	2.2%
Forced criminality for commercial surrogacy	15	1.5%
Slavery for forced marriage	5	0.5%

Variables were created to support data analysis. Variables suitable for data analysis were categorical, binary (e.g. 1 = purpose present 0 = purpose not present, 1 = action in sexual exploitation present 0 = action in sexual exploitation not present, 1 = means in sexual exploitation present 0 = means in sexual exploitation not present) and nominal (Kateri, 2010). To examine actions and means within the context of a purpose, dummy coding was used to create subsets of data restricted to a particular purpose. Following dummy coding, a number of subset variables had an insufficient number of offenders to support data analysis. These variables were considered only in the context of the number of offenders engaged in these actions and means. They were not analysed through data analysis using STATA SE15:

Table 6.3 Actions and means excluded from subset analysis

Variable	Number of offenders	% of total population of offenders
Labour Transportation	16	1.7%
Labour Travel preparation	7	0.7%
Labour Purchase and sale of victims	2	0.2%
Labour Harbouring	6	0.6%
Labour Financial administration	4	0.4%
Labour Strategy	2	0.2%
Labour Financial Hardship	8	0.8%
Labour 'Loverboy' Romance	1	0.1%
Labour Intimidation	18	1.9%
Labour Physical control	8	0.8%
Labour Physical assault	17	1.8%
Labour Debt Bondage	5	0.5%
Labour Holding Passports	8	0.8%
Labour Abduction	3	0.3%
Labour Rape	3	0.3%
Forced Begging Travel preparation	6	0.6%
Forced Begging Purchase and sale of victims	1	0.1%
Forced Begging Harbouring	4	0.4%
Forced Begging Financial administration	3	0.3%
Forced Begging Strategy	1	0.1%
Forced Begging Employment Offer	12	1.2%
Forced Begging Financial Hardship	3	0.3%
Forced Begging 'Loverboy' Romance	1	0.1%
Forced Begging Intimidation	14	1.4%
Forced Begging Physical control	13	1.3%

Forced Begging Physical assault	10	1.0%
Forced Begging Debt Bondage	5	0.5%
Forced Begging Holding Passports	3	0.3%
Forced Begging Abduction	7	0.7%
Forced Begging Rape	1	0.1%

An audit of 49 case summaries selected randomly was carried out to assess the quality and consistency of the content of variables created. Results from the audit appear in paragraph 3.8 of Chapter 3. A complete Codebook of variables and coding logic appears at Appendix 2.

Data analysis was performed to support an examination of research questions 9 to 13 using the variables in Table 6.4 and variables appearing in the descriptive parameters for actions in Chapter 4 at Table 4.2 and means in Table 5.3 in Chapter 5. Pearson's chi-squared test and Fisher's Exact one-sided test were performed to explore an association between two variables to establish whether results were significant and not random or produced as a result of error (Connor-Linton, 2010; Agresti, 2018). Fisher's Exact one-sided test was performed where chi-squared test had identified a statistically significant result, there was a small population of offenders, and an assumption was made that there was some relationship between actions and purposes and means and purposes and the subset of actions and means within a purpose. Pearson's product moment correlation was used to examine the effects size and the strength of association between two variables with statistical significance from statistical analysis (Connor-Linton, 2010; Agresti, 2018). Bivariate logistic regression was used to explore the likelihood of the association and statistical significance.

To develop an order to activity and understand the importance of purpose on that order, multiple logistic regression of subsets of means and actions as dependent variables were performed (Pevalin, 2009; Agresti, 2018). The

Table 6.4 Descriptive statistics for analysis of Purpose

Variable	N.	Proportion/ Mean	Percent	Std. Deviation	Std. Error.	Confidence Intervals Min	Conf. Int. Max
Sexual Exploitation	751	.77	77.3%	.42	.01	.75	.80
Forced Labour	115	.12	11.8%	.32	.01	.10	.14
Forced Begging	62	.06	6.4%	.24	.01	.05	.08
Sex Recruitment	381	.39	39.2%	.49	.02	.36	.42
Sex End Exploitation	309	.32	31.8%	.47	.01	.29	.35
Sex Security	283	.29	29.1%	.45	.01	.26	.32
Sex Transportation	206	.21	21.2%	.41	.01	.19	.24
Sex Travel preparation	125	.13	12.9%	.33	.01	.11	.15
Sex Purchase and sale of victims	89	.09	9.2%	.29	.01	.07	.11
Sex Harbouring	45	.05	4.6%	.21	.01	.03	.06
Sex Financial administration	38	.04	3.9%	.19	.01	.03	.05
Sex Strategy	23	.02	2.4%	.15	.00	.02	.04
Sex Employment offer	198	.20	20.4%	.40	.01	.18	.23

Sex Intimidation	108	.11	11.1%	.31	.01	.09	.13
Sex Physical control	94	.10	9.7%	.30	.01	.08	.12
Sex Physical assault	87	.09	9.0%	.29	.01	.07	.11
Sex Financial hardship	86	.09	8.8%	.28	.01	.07	.11
Sex Debt Bondage	63	.06	6.5%	.25	.01	.05	.08
Sex Holding Passports	47	.05	4.8%	.21	.01	.04	.06
Sex 'Loverboy' Romance	33	.03	3.4%	.18	.01	.02	.05
Sex Rape	28	.03	2.9%	.17	.01	.02	.04
Sex Abduction	23	.02	2.4%	.15	.00	.02	.04
Labour End Exploitation	64	.07	6.6%	.25	.01	.05	.08
Labour Security	44	.05	4.5%	.21	.01	.03	.06
Labour Recruitment	37	.04	3.8%	.19	.01	.03	.05
Labour Employment Offer	30	.03	3.1%	.17	.01	.02	.04
Forced Begging End Exploitation	34	.03	3.5%	.18	.01	.03	.05
Forced Begging Security	34	.03	3.5%	.18	.01	.03	.05
Forced Begging Recruitment	31	.03	3.2%	.18	.01	.02	.05

| Forced Begging Transportation | 29 | .03 | 3.0% | .17 | .01 | .02 | .04 |

n. 972

results from multiple logistic regression enabled the creation of a model of the flow of actions and means suitable for further exploration through structural equation modelling (sem).   To further analysis using sem, statistically significant connected relationships from multiple logistic regression were separated to identify a strand of process for further exploration of direct and potentially indirect activity flowing from subsets of actions and means.   Generalized structural equation modelling (gsem) (STATA, 2013) for categorical variables using family Bernoulli and logit link (STATA, 2013) was performed with one variable constraining another to explore the strands of process created from multiple logistic regression presenting an opportunity to understand the direction of actions and means to further Sexual Exploitation.   Results from gsem were verified through structural equation modelling (sem) examining the indirect effect of subsets of actions and means in the model (Preacher, 2007; STATA, 2013). Appendix 2 includes the full coding logic and commands used to generate results in STATA to perform gsem and sem.   The statistical significance of p-values generated from results were set at <0.010 *** <0.05 **.

6.3   Results: An examination of purpose

6.3.1   Question 9:   Which purposes were prosecuted?

There were three purposes suitable for empirical analysis: Sexual Exploitation, Forced Labour and Forced Begging. Sexual Exploitation was the predominant purpose with 751 (77.3%) offenders. There were 115 (11.8%) offenders engaged in Forced Labour and 62 (6.4%) offenders engaged in Forced Begging. The remaining populations of offenders engaged in Forced criminality for theft (n. 25); Domestic Servitude (n. 21); Forced criminality for commercial surrogacy (n. 15) and Slavery for Forced Marriage (n. 5) were not included for empirical data analysis.   Only 18 (1.85%) offenders convicted of human trafficking had no discernible purpose stated or described in the case summaries.

6.3.2 Question 10:   Which actions aligned with which purpose?

Offenders were observed performing all of the actions for each of the purposes. Table 6.4 provides the summary statistics for variables that were suitable for statistical analysis due to the higher number of offenders observed performing these actions. Table 6.3 lists the remaining variables showing the number of offenders observed performing actions and means within the subset of Forced Labour and Forced Begging. Every action or means had at least one offender observed.

The allocation of actions within each purpose was compared. Table 6.5 sets out the percentage of offenders performing a purpose, taken as a baseline, for a comparison of the number of offenders performing an action allocated to that purpose. For example, 77.3% (751) offenders were engaged in Sexual Exploitation. There were 371 offenders engaged in Recruitment in Sexual Exploitation and 452 offenders engaged in Recruitment across purposes and the population of offenders. In Table 6.5 this is shown as 84.3% of all offenders engaged in Recruitment. To aid a visual comparison of the variation in percentage, where the allocation of offenders represented as a percentage was above the baseline percentage for the purpose, as it was in this case where the baseline was 77.3%, the variation in percentage was coloured green and where it was below the baseline, the variation in percentage was coloured red.

The results in Table 6.5 revealed that there was a higher percentage of offenders engaged in Travel Preparation to further Sexual Exploitation (10.1%) than was expected and a greater percentage of offenders engaged in Recruitment to further Sexual Exploitation (7.0%).

Offenders engaged in End Exploitation to further Forced Labour had a higher percentage than expected, with 3.4%. There was a 10% variation below the expected number of offenders engaged in the Purchase and sale of victims and 6.9% lower percentage of offenders engaged in Travel preparation in Forced Labour than expected. There was a lower percentage of offenders

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Table 6.5 Comparison of action allocation across the purposes: Sexual Exploitation, Forced Labour and Forced Begging

	Recruitment % of 452 offenders (number of offenders observed)	End Exploitation % of 421 offenders (number of offenders observed)	Security % of 379 offenders (number of offenders observed)	Transporta-tion % of 260 offenders (number of offenders observed)	Travel preparation % of 143 offenders (number of offenders observed)	Purchase and sale of victims % of 109 offenders (number of offenders observed)	Harbouring % of 58 offenders (number of offenders observed)	Financial admin. % of 51 offenders (number of offenders observed)	Strategy % of 28 offenders (number of offenders observed)
Sexual Exploitation (baseline 77.3%)	84.3% (371) 7.0%	73.4% (309) 3.9%	74.7% (283) 2.6%	79.2% (206) 1.9%	87.4% (125) 10.1%	81.7% (89) 4.4%	77.6% (45) 0.3%	74.5% (38) 2.8%	82.1% (23) 4.8%
Forced Labour (baseline 11.8%)	8.2% (37) 3.6%	15.2% (64) 3.4%	11.6% (44) 0.2%	6.2% (16) 5.6%	4.9% (7) 6.9%	1.8% (2) 10.0%	10.3% (6) 1.5%	7.8% (4) 4.0%	7.1% (2) 4.7%
Forced Begging (baseline 6.4%)	6.9% (31) 0.5%	8.1% (34) 1.7%	9.0% (34) 2.6%	11.2% (29) 4.8%	4.2% (6) 2.2%	0.9% (1) 5.5%	6.9% (4) 0.5%	5.9% (3) 0.5%	3.6% (1) 2.8%

engaged in Transportation than expected with 5.6%. There was also a noticeable drop in offenders engaged in Strategy with 4.7% fewer offenders than expected.

The variation in allocation of offenders for actions to perform Forced Begging did not reveal noticeable variations in percentage from the baseline of offenders. There were 5.5% fewer offenders than expected engaged in the Purchase and sale of victims and 4.8% more offenders engaged in Transportation than expected. Analysis of the relationship of actions and purpose was progressed by turning to examine the statistical significance of association that actions had with a purpose, through Pearson's Chi-squared test and Fisher's Exact one-sided test. A complete set of results for Pearson's Chi-squared test and Fisher's Exact one-sided test appears in Appendix 5. The statistically significant actions performed by offenders for each purpose were analysed through bivariate logistic regression. Table 6.6 shows results from bivariate analysis.

Offenders engaged in Sexual Exploitation were likely to be engaged in Recruitment (Coefficient 2.18, Standard Error 0.35, Z-statistic 4.81, p-value 0.00***) and Travel preparation (Coefficient 2.25, Standard Error 0.60, Z-statistic 3.07, p-value 0.00***) but were unlikely to engage in End Exploitation (Coefficient 0.68, Standard Error 0.10, Z-statistic -2.51, p-value 0.01**).

Offenders engaged in Forced Labour were likely to be engaged in End Exploitation (Coefficient 1.76, Standard Error 0.35, Z-statistic 2.82, p-value 0.005***) but not in Recruitment (Coefficient 0.51, Standard Error 0.11, Z-statistic -3.24, p-value 0.00***), Transportation (Coefficient 0.41, Standard Error 0.11, Z-statistic -3.22, p-value 0.00***), Travel Preparation (Coefficient 0.34, Standard Error 0.14, Z-statistic -2.66, p-value 0.008***) or Purchase and sale of victims (Coefficient 0.12, Standard Error 0.09, Z-statistic -2.90, p-value 0.00***).

Table 6.6 Bivariate logistic regression of purpose with action

Purpose	Action	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z-statistic	Confidence Intervals Min	Confidence intervals Max
Sexual Exploitation	Recruitment	371	2.18 (.35)	4.81	0.00***	1.59	2.99
Sexual Exploitation	Travel preparation	125	2.25 (.60)	3.07	0.00***	1.34	3.78
Forced Labour	End Exploitation	64	1.76 (.35)	2.82	0.005***	1.19	2.60
Forced Begging	End Exploitation	34	1.64 (.43)	1.88	0.06	.98	2.75
Forced Begging	Security	34	1.99 (.53)	2.60	0.009***	1.18	3.34
Forced Begging	Transportation	29	2.58 (.69)	3.57	0.00***	1.53	4.35
Sexual Exploitation	End Exploitation	309	.68 (.10)	-2.51	0.01**	.50	.92
Forced Labour	Recruitment	37	.51 (.11)	-3.24	0.00***	.33	.76
Forced Labour	Transportation	16	.41 (.11)	-3.22	0.00***	.23	.70
Forced Labour	Travel preparation	7	.34 (.14)	-2.66	0.008***	.16	.75
Forced Labour	Purchase and sale of victims	2	.12 (.09)	-2.90	0.00***	.03	.51

Forced Begging	Purchase and sale of victims	1	.12 (.12)	-2.08	0.04**	.02	.89

Table 6.7 Bivariate logistic regression of offender actions to commit human trafficking for Sexual Exploitation

Action 1	Action 2	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z - statistic	Confidence Intervals Min	Confidence intervals Max
Sex Recruitment	Sex End Exploitation	134	1.29 (.18)	1.82	0.07	.98	1.70
Sex Recruitment	Sex Security	142	1.90 (.27)	4.46	0.00***	1.43	2.51
Sex Recruitment	Sex Transportation	117	2.50 (.40)	5.73	0.00***	1.83	3.42
Sex Recruitment	Sex Travel preparation	71	2.28 (.44)	4.24	0.00***	1.56	3.33
Sex End Exploitation	Sex Security	184	8.39 (1.33)	13.37	0.00***	6.14	11.45
Sex End Exploitation	Sex Transportation	79	1.45 (.24)	2.27	0.02**	1.05	2.00
Sex End Exploitation	Sex Purchase and sale of victims	39	1.77 (.40)	2.53	0.01**	1.14	2.76
Sex Security	Sex Transportation	74	1.49 (.25)	2.41	0.02**	1.08	2.07
Sex Security	Sex Purchase and sale of victims	40	2.15 (.49)	3.39	0.00***	1.38	3.35

Sex Security	Sex Harbouring	20	2.02 (.62)	2.28	0.02**	1.10	3.70
Sex Transportation	Sex Travel preparation	44	2.30 (.47)	4.02	0.00***	1.53	3.44
Sex Transportation	Sex Purchase and sale of victims	31	2.16 (.51)	3.24	0.00***	1.36	3.45
Sex Transportation	Sex Harbouring	20	3.19 (.99)	3.73	0.00***	1.73	5.86
Sex Transportation	Sex Financial administration	16	2.85 (.96)	3.09	0.00***	1.47	5.53
Sex Travel preparation	Sex Harbouring	12	2.62 (.92)	2.74	0.006***	1.31	5.22
Sex Purchase and sale of victims	Sex Financial administration	9	3.31 (1.32)	3.00	0.00***	1.52	7.24
Sex Harbouring	Sex Financial administration	6	4.30 (2.04)	3.08	0.00***	1.70	10.90
Sex Recruitment	Sex Financial administration	8	.40 (.16)	-2.26	0.02**	.18	.88

Offenders in Forced Begging were likely to be engaged in Security (Coefficient 1.99, Standard Error 0.53, Z-statistic 2.60, p-value 0.009***) and Transportation (Coefficient 2.58, Standard Error 0.69, Z-statistic 3.57, p-value 0.00***) but not the Purchase and sale of victims (Coefficient 0.12, Standard Error 0.12, Z-statistic -2.08, p-value 0.04**).

The statistically significant actions performed by offenders engaged in Sexual Exploitation from Pearson's chi-squared test and Fisher's Exact one-sided test analysis were explored through bivariate logistic regression analysis (a complete set of results are available in Appendix 5). Table 6.7 above shows the results. Offenders engaged in Recruitment were also likely to perform Security (Coefficient 1.90, Standard Error 0.27, Z-statistic 4.46, p-value 0.00***), Transportation (Coefficient 2.50, Standard Error 0.40, Z-statistic 5.73, p-value 0.00***) and Travel Preparation (Coefficient 2.28, Standard Error 0.44, Z-statistic 4.24, p-value 0.00***) but were unlikely to engage in Financial administration (Coefficient 0.40, Standard Error 0.16, Z-statistic -2.26, p-value 0.02**).

In addition to Recruitment and End Exploitation, offenders engaged in Transportation were also likely to engage in Security (Coefficient 1.49, Standard Error 0.25, Z-statistic 2.41, p-value 0.02**), Travel Preparation (Coefficient 2.30, Standard Error 0.47, Z-statistic 4.02, p-value 0.00***), the Purchase and sale of victims (Coefficient 2.16, Standard Error 0.51, Z-statistic 3.24, p-value 0.00***), Harbouring (Coefficient 3.19, Standard Error 0.99, Z-statistic 3.73, p-value 0.00***) and Financial administration (Coefficient 2.85, Standard Error 0.96, Z-statistic 3.09, p-value 0.00***).

In addition to Recruitment and Transportation, offenders engaged in Travel Preparation were likely to engage in Harbouring (Coefficient 2.62, Standard Error 0.92, Z-statistic 2.74, p-value 0.006***).

In addition to Transportation and End Exploitation, offenders engaged in the Purchase and sale of victims were likely to engage in Security (Coefficient 2.15, Standard Error 0.49, Z-statistic 3.39, p-value 0.00***) and Financial

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administration (Coefficient 3.31, Standard Error 1.32, Z-statistic 3.00, p-value 0.00***).

In addition to Transportation and Travel Preparation, offenders engaged in Harbouring were likely to engage in Security (Coefficient 2.02, Standard Error 0.62, Z-statistic 2.28, p-value 0.02**) and Financial administration (Coefficient 4.30, Standard Error 2.04, Z-statistic 3.08, p-value 0.00***).

Offenders engaged in End Exploitation of victims were likely to engage in Security (Coefficient 8.39, Standard Error 1.33, Z-statistic 13.37, p-value 0.00*** and this had the strongest effect size with Pearson's correlation coefficient result 0.46), Transportation (Coefficient 1.45, Standard Error 0.24, Z-statistic 2.27, p-value 0.02**) and the Purchase and sale of victims (Coefficient 1.77, Standard Error 0.40, Z-statistc 2.53, p-value 0.01**).

Subset analysis of actions performed by offenders in Forced Labour and Forced Begging was not performed due to the limited number of offenders observed performing actions as shown in Table 6.3 above.

Empirical analysis revealed that there was variation in the actions likely to be performed by offenders, dependent upon the purpose. Offenders engaged in Forced Labour did not appear to mirror the actions performed by offenders engaged in Sexual Exploitation or in Forced Begging. A closer examination of the actions within a subset analysis of Sexual Exploitation revealed that offenders were performing many more combinations of actions together than was evident in bivariate analysis of actions in Chapter 4 at Table 4.4.

6.3.3   Question 11.   Which means aligned with which purpose?

In Chapter 5 an examination was made of the second element of the Palermo Protocol definition, means to further action. There were 10 means analysed with respect to their relevance for actions and for their association with each other. A comparison of the allocation of means across purposes is shown in Table 6.8 below.

The percentage of offenders performing a purpose is taken as a baseline for a comparison of the number of offenders performing a means allocated to that purpose. For example, 77.3% (751) offenders were engaged in Sexual Exploitation. There were 198 offenders engaged in a deceptive Employment Offer to further Recruitment in Sexual Exploitation and 236 offenders engaged in a deceptive Employment Offer across purposes and the population of offenders. In Table 6.8 below this is shown as 83.9% of all offenders engaged in a deceptive Employment Offer to further Recruitment. To aid a visual comparison of the variation in percentage, where the allocation of offenders represented as a percentage was above the baseline percentage for the purpose, as it was in this case where the baseline was 77.3%, the variation in percentage was coloured green and where it was below the baseline, the variation in percentage was coloured red.

There were 15.3% more offenders using Abduction to further Forced Begging than was expected from the baseline 6.4% with 21.2% (7) offenders using this means as an entry route to bring victims into trafficking for Forced Begging. There were 14.4% more offenders engaged in 'Loverboy' Romance and 13.0% more offenders engaged in Rape to further Sexual Exploitation than was expected from the baseline of 77.3% with 91.7% (33) offenders engaged in 'Loverboy' Romance and 90.3% (28) offenders engaged in Rape to further trafficking for Sexual Exploitation.

Bivariate logistic regression of the use of means with a purpose was performed on the statistically significant results identified from Pearson's chi-squared test and Fisher's Exact one-sided test analysis (a complete set of results are available in Appendix 5) and results are shown in Table 6.9 below. Offenders engaged in Sexual Exploitation were likely to engage in a deceptive Employment Offer (Coefficient 1.72, Standard Error 0.34, Z-statistic 2.77, p-value 0.006***) and 'Loverboy' Romance (Coefficient 3.34, Standard Error 2.03, Z-statistic 1.98, p-value 0.047**) to further Recruitment. Offenders were likely to use Abduction to bring victims into trafficking for Forced Begging (Coefficient 4.33, Standard Error 1.94, Z-

Table 6.8 Comparison of means allocation across the purposes: Sexual Exploitation, Forced Labour and Forced Begging

	Employment Offer % of 236 (number of offenders observed)	Intimidation % of 141 (number of offenders observed)	Physical Control % of 125 (number of offenders observed)	Physical Assault % of 121 (number of offenders observed)	Financial Hardship % of 103 (number of offenders observed)	Debt Bondage % of 75 (number of offenders observed)	Holding Passports % of 63 (number of offenders observed)	'Loverboy' Romance % of 36 (number of offenders observed)	Abduction % of 33 (number of offenders observed)	Rape % of 31 (number of offenders observed)
Sexual Exploitation (baseline 77.3%)	83.9% (198) **6.6%**	76.6% (108) **0.7%**	75.2% (94) **2.1%**	71.9% (87) **5.4%**	83.5% (86) **6.2%**	84.0% (63) **6.7%**	74.6% (47) **2.7%**	91.7% (33) **14.4%**	69.7% (23) **7.6%**	90.3% (28) **13.0%**
Forced Labour (baseline 11.8%)	12.7% (30) **0.9%**	12.8% (18) **1.0%**	6.4% (8) **5.4%**	14.0% (17) **2.2%**	7.8% (8) **4.0%**	6.7% (5) **5.1%**	12.7% (8) **0.9%**	2.8% (1) **9.0%**	9.1% (3) **2.7%**	9.7% (3) **2.1%**
Forced Begging (baseline 6.4%)	5.1% (12) **1.3%**	9.9% (14) **3.5%**	10.4% (13) **4.0%**	8.3% (10) **1.9%**	2.9% (3) **3.5%**	6.7% (5) **0.3%**	4.8% (3) **1.6%**	2.8% (1) **3.6%**	21.2% (7) **15.3%**	3.2% (1) **3.2%**

Table 6.9 Bivariate logistic regression of offenders using means to further a purpose

Purpose	Means	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z - statistic	Confidence Intervals Min	Confidence intervals Max
Sexual Exploitation	Employment Offer	1.72 (.34)	2.77	0.006***	1.17	2.53
Sexual Exploitation	'Loverboy' Romance	3.34 (2.03)	1.98	0.047**	1.01	11.00
Forced Begging	Physical control	1.89 (.62)	1.94	0.05	.99	3.59
Forced Begging	Abduction	4.33 (1.94)	3.27	0.00***	1.80	10.41
Forced Labour	Physical control	.47 (.18)	-1.97	0.049**	.22	1.00

Table 6.10 Multiple logistic regression of Sexual Exploitation with actions and means

Sexual Exploitation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	.73	.16	4.46	0.00***	.41	1.05

End Exploitation	-.37	.16	-2.36	0.02**	-.68	-.06
Travel preparation	.74	.27	2.76	0.01***	.21	1.27
Rape	1.27	.62	2.05	0.04**	.05	2.48

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.04 LR chi2(4) = 42.76 Log likelihood = -499.68 n. 972

Table 6.11 Multiple logistic regression of Forced Labour with actions and means

Forced Labour dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	-1.56	.41	-3.82	0.00***	-2.36	-.76
End Exploitation	.52	.21	2.51	0.01**	.11	.93
Transportation	-.67	.29	-2.33	0.02**	-1.23	-.11
Travel preparation	-.90	.41	-2.21	0.03**	-1.70	-.10
Purchase and sale of victims	-2.10	.73	-2.89	0.00***	-3.52	-.67
Physical assault	-.81	.39	-2.08	0.04**	-1.57	-.046
Employment Offer	1.31	.44	3.00	0.00***	.46	2.16

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.10 LR chi2(7) = 68.58 Log likelihood = -319.08 n. 972

statistic 3.27, p-value 0.00***) and unlikely to use Physical Control against victims to further Forced Labour (Coefficient 0.47, Standard Error 0.18, Z-statistic -1.97, p-value 0.049**).

Empirical analysis revealed that some means were particularly related to the purpose of human trafficking. For example, 'Loverboy' Romance was likely to be used by offenders in Sexual Exploitation. Unexpectedly, Abduction was likely to be used by offenders engaged in Forced Begging.

6.3.4   Question 12:   Which actions and means were performed by offenders with which purpose?

Multiple logistic regression was used to explore a comparison of actions and means used by offenders to fulfil a purpose. Tables 6.10 and 6.11 above show the results for offenders engaged in Sexual Exploitation and Forced Labour.

Multiple logistic regression of offenders engaged in Sexual Exploitation (Table 6.10 above) confirmed the bivariate logistic regression results from Table 6.6 for offenders using Recruitment and Travel Preparation to fulfil Sexual Exploitation and not End Exploitation. However, the means to fulfil action were restricted to Rape (Coefficient 1.27, Standard Error 0.62, Z-statistic 2.05, p-value 0.04**), which had not been statistically significant in bivariate logistic regression. Other means that were statistically significant (a deceptive Employment Offer and 'Loverboy' Romance) in Table 6.9 were not included in the model. The explanatory power of the model was very low at only 4%, indicating that Sexual Exploitation was not explained by the variables populated in the model and there were other material factors as yet unidentified.

Multiple logistic regression of offenders engaged in Forced Labour (Table 6.11 above) confirmed bivariate logistic regression results in Table 6.6 that offenders engaged in End Exploitation but not Recruitment, Travel Preparation, Transportation or the Purchase and sale of victims. However, a deceptive Employment Offer was likely to be used by offenders as a means

to achieve Recruitment (Coefficient 1.31, Standard Error 0.44, Z-statistic 3.00, p-value 0.00***), whilst Physical Assault was not likely to be used by offenders (Coefficient -0.81, Standard Error 0.39, Z-statistic -2.08, p-value 0.04**). The means differed from bivariate logistic regression results in Table 6.9. The explanatory power of the model was 10%, better than for Sexual Exploitation, but indicated there were other material factors that explained offenders engaged in Forced Labour that were not yet identified.

Multiple logistic regression of offenders engaged in Forced Begging did not reveal additional results from those identified in bivariate logistic regression in Table 6.6 and 6.9. The explanatory power of the model was 7% and the complete model appears in Appendix 5.

To aid a comparison of the different results for each purpose from multiple logistic regression Tables 6.10 – 6.11 for Sexual Exploitation and Forced Labour and Tables 6.6 and 6.9 for bivariate logistic regression of Forced Begging, visuals of the statistically significant results appear below. Blue arrows indicated that an offender was statistically likely to perform an action or means. Red arrows indicated that offenders were unlikely to perform an action or means.
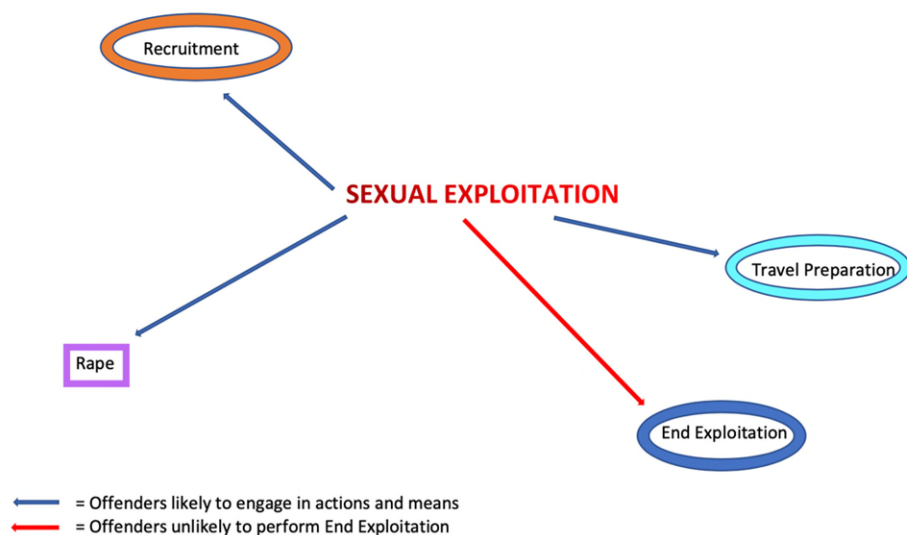
Figure 6.1 Offenders engaged in actions and means to fulfil Sexual Exploitation from multiple logistic regression
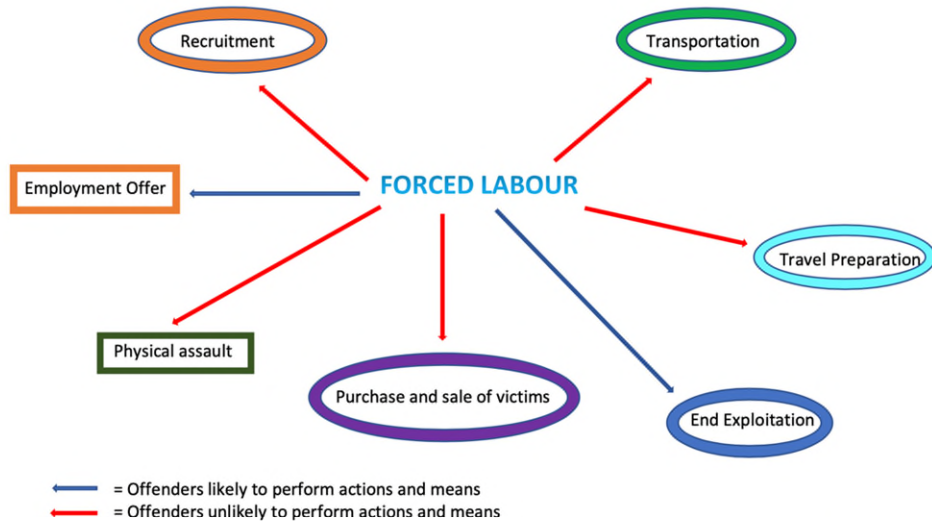
Figure 6.2 Offenders engaged in actions and means to further Forced Labour from multiple logistic regression
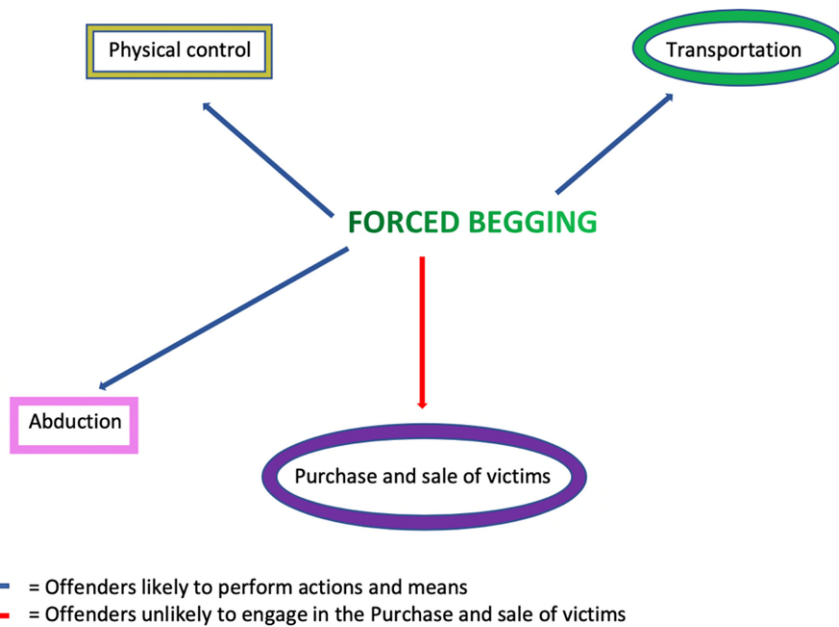
Figure 6.3 Offenders engaged in actions and means to fulfil Forced Begging from multiple logistic regression

Subset analysis of the actions and means performed by offenders within Forced Labour and Forced Begging was not suitable for empirical analysis due to the small numbers of offenders shown in Table 6.3 above. Subset

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analysis was suitable to examine the actions and means performed by offenders to commit human trafficking for Sexual Exploitation.

Pearson's chi-squared test and Fisher's Exact one-sided test were performed to determine statistical strength of offenders using certain actions and means together within Sexual Exploitation. A complete set of results appears in Appendix 5. The statistically significant results from Pearson's chi-squared test and Fisher's Exact one-sided test were analysed using bivariate logistic regression. Results appear in Table 6.12 below.

Offenders involved in Travel Preparation (n. 125) were likely to have used a deceptive Employment Offer to further Recruitment for Sexual Exploitation (n. 40, Coefficient 2.05, Standard Error 0.43, Z-statistic 3.41, p-value 0.00***). Offenders exploiting the Financial Hardship of victims to further Recruitment (n. 86) for Sexual Exploitation were likely to Transport victims (n. 26, Coefficient 1.70, Standard Error 0.42, Z-statistic 2.13, p-value 0.03**). Offenders using 'Loverboy' Romance (n. 33) to further Recruitment for Sexual Exploitation were likely to engage directly in End Exploitation (n. 18, Coefficient 2.67, Standard Error 0.95, Z-statistic 2.76, p-value 0.006***) and they were statistically unlikely to engage in the Purchase and sale of victims (n.0, Fisher's Exact one-sided 0.04**). Offenders engaged in Abduction (n. 23) were statistically likely to Transport victims (n. 14, Coefficient 6.13, Standard Error 2.67, Z-statistic 4.17, p-value 0.00***), engage in the Purchase and sale of victims (n. 5, Coefficient 2.86, Standard Error 1.48, Z-statistic 2.03, p-value 0.04**) and End Exploit victims (n. 14, Coefficient 3.45, Standard Error 1.49, Z-statistic 2.86, p-value 0.00***).

Offenders engaged in general Recruitment (n. 381) used Intimidation (n. 69, Coefficient 3.13, Standard Error 0.67, Z-statistic 5.37, p-value 0.00***), Physical Assault (n. 51, Coefficient 2.38, Standard Error 0.54, Z-statistic 3.80, p-value 0.00***), Debt Bondage, (n. 41, Coefficient 3.12, Standard Error 0.85, Z-statistic 4.17, p-value 0.00***) and Holding victim Passports (n. 28,

Table 6.12 Offender performing actions and means to further Sexual Exploitation - bivariate logistic regression results

Sex Means	Sex Action	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z-statistic	Confidence Intervals Min	Confidence intervals Max
Sex Employment Offer	Sex Travel preparation	40	2.05 (.43)	3.41	0.00***	1.36	3.10
Sex Financial Hardship	Sex Transportation	26	1.70 (.42)	2.13	0.03**	1.04	2.77
Sex 'Loverboy' Romance	Sex End Exploitation	18	2.67 (.95)	2.76	0.006***	1.33	5.38
Sex Intimidation	Sex Recruitment	69	3.13 (.67)	5.37	0.00***	2.06	4.75
Sex Intimidation	Sex End Exploitation	80	7.92 (1.84)	8.89	0.00***	5.02	12.50
Sex Physical control	Sex End Exploitation	59	4.23 (.96)	6.38	0.00***	2.72	6.60
Sex Physical control	Sex Purchase and sale of victims	17	2.47 (.73)	3.07	0.00***	1.39	4.40
Sex Physical control	Sex Financial administration	8	2.63 (1.09)	2.34	0.02**	1.17	5.92
Sex Physical assault	Sex Recruitment	51	2.38 (.54)	3.80	0.00***	1.52	3.73

Sex Physical assault	Sex End Exploitation	68	9.56 (2.58)	8.35	0.00***	5.63	16.24
Sex Debt Bondage	Sex Recruitment	41	3.12 (.85)	4.17	0.00***	1.83	5.33
Sex Debt Bondage	Sex End Exploitation	39	3.85 (1.04)	5.00	0.00***	2.27	6.52
Sex Holding Passports	Sex Recruitment	28	2.39 (.73)	2.86	0.00***	1.31	4.34
Sex Holding Passports	Sex End Exploitation	36	7.82 (2.75)	5.84	0.00***	3.92	15.58
Sex Holding Passports	Sex Purchase and sale of victims	11	3.32 (1.21)	3.29	0.00***	1.62	6.78
Sex Rape	Sex End Exploitation	20	5.67 (2.40)	4.09	0.00***	2.47	13.01
Sex Rape	Sex Purchase and sale of victims	6	2.83 (1.34)	2.19	0.03**	1.12	7.17
Sex Abduction	Sex End Exploitation	14	3.45 (1.49)	2.86	0.00***	1.48	8.06
Sex Abduction	Sex Transportation	14	6.13 (2.67)	4.17	0.00***	2.62	14.38
Sex Abduction	Sex Purchase and sale of victims	5	2.86 (1.48)	2.03	0.04**	1.04	7.90
Sex 'Loverboy' Romance	Sex Purchase and sale of victims	0					

Coefficient 2.39, Standard Error 0.73, Z-statistic 2.86, p-value 0.00***) as means to further Sexual Exploitation.

Offenders engaged in the Purchase and sale of victims (n. 89) used Physical Control (n. 17, Coefficient 2.47, Standard Error 0.73, Z-statistic 3.07, p-value 0.00***) and Holding victim Passports (n. 11, Coefficient 3.32, Standard Error 1.21, Z-statistic 3.29, p-value 0.00***) to further Sexual Exploitation.

Offenders engaged in Financial administration (n. 38) used Physical Control to further Sexual Exploitation (n. 8, Coefficient 2.63, Standard Error 1.09, Z-statistic 2.34, p-value 0.02**).

Offenders engaged in End Exploitation (n. 309) used Intimidation (n. 80, Coefficient 7.92, Standard Error 1.84, Z-statistic 8.89, p-value 0.00***), Physical Assault (n. 68, Coefficient 9.56, Standard Error 2.58, Z-statistic 8.35, p-value 0.00***), Physical Control (n. 59, Coefficient 4.23, Standard Error 0.96, Z-statistic 6.38, p-value 0.00***), Debt Bondage (n. 39, Coefficient 3.85, Standard Error, Z-statistic 5.00, p-value 0.00***) and Holding victim Passports (n. 36, Coefficient 7.82, Standard Error 2.75, Z-statistic 5.84, p-value 0.00***) to further Sexual Exploitation.

Pearson's chi-squared test and Fisher's Exact one-sided test were performed to determine statistical strength of offenders using means together within Sexual Exploitation. A complete set of results appears in Appendix 5. The statistically significant results from this analysis were analysed using bivariate logistic regression. Results appear in Table 6.13 below.

Offenders engaged in a deceptive Employment Offer (n. 198) used Intimidation (n. 44, Coefficient 3.17, Standard Error 0.68, Z-statistic 5.37, p-value 0.00**), Debt Bondage (n. 28, Coefficient 3.48, Standard Error 0.93, Z-statistic 4.66, p-value 0.00***) and Holding victim Passports (n. 21, Coefficient 3.41, Standard Error 1.04, Z-statistic 4.02, p-value 0.00***) to further Sexual Exploitation.

Table 6.13 Bivariate logistic regression results for offenders performing means with means in Sexual Exploitation

Sex Means	Sex Means	Number of offenders observed	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z statistic	Confidence Intervals Min	Confidence intervals Max
Sex Employment Offer	Sex Intimidation	44	3.17 (.68)	5.36	0.00***	2.08	4.83
Sex Employment Offer	Sex Debt Bondage	28	3.48 (.93)	4.66	0.00***	2.06	5.87
Sex Employment Offer	Sex Holding Passports	21	3.41 (1.04)	4.02	0.00***	1.88	6.21
Sex 'Loverboy' Romance	Sex Physical control	8	3.17 (1.34)	2.74	0.006***	1.39	7.25
Sex 'Loverboy' Romance	Sex Rape	3	3.66 (2.33)	2.03	0.04**	1.05	12.78
Sex Intimidation	Sex Physical control	28	4.23 (1.08)	5.68	0.00***	2.57	6.96
Sex Intimidation	Sex Physical assault	49	18.05 (4.60)	11.36	0.00***	10.96	29.74
Sex Intimidation	Sex Debt Bondage	24	6.04 (1.71)	6.34	0.00***	3.47	10.54
Sex Intimidation	Sex Holding Passports	20	7.05 (2.22)	6.19	0.00***	3.80	13.08

Sex Physical control	Sex Physical assault	14	1.93 (.61)	2.09	0.04**	1.04	3.57
Sex Physical control	Sex Debt Bondage	20	5.25 (1.56)	5.59	0.00***	2.93	9.39
Sex Physical control	Sex Holding Passports	13	3.98 (1.38)	3.99	0.00***	2.02	7.85
Sex Physical control	Sex Rape	7	3.28 (1.48)	2.64	0.008***	1.36	7.94
Sex Physical control	Sex Abduction	8	5.35 (2.42)	3.71	0.00***	2.21	12.98
Sex Physical assault	Sex Debt Bondage	10	2.04 (.74)	1.95	0.05	.10	4.17
Sex Physical assault	Sex Holding Passports	18	7.70 (2.50)	6.28	0.00***	4.07	14.56
Sex Physical assault	Sex Abduction	5	2.94 (1.52)	2.08	0.04**	1.06	8.12
Sex Debt Bondage	Sex Holding Passports	8	3.24 (1.34)	2.85	0.00***	1.45	7.28
Sex Holding Passports	Sex Rape	6	6.01 (2.93)	3.68	0.00***	2.31	15.62
Sex Rape	Sex Abduction	9	31.47 (15.29)	7.10	0.00***	12.14	81.58

Sex Employment Offer	Sex 'Loverboy' Romance	2	.24 (.18)	-1.92	0.06	.058	1.03

Offenders engaged in 'Loverboy' Romance (n. 33) used Physical Control (n. 8, Coefficient 3.17, Standard Error 1.34, Z-statistic 2.74, p-value 0.006***) and Rape (n. 3, Coefficient 3.66, Standard Error 2.33, Z-statistic 2.03, p-value 0.04**) to further Recruitment for Sexual Exploitation.

Offenders engaged in Abduction (n. 23) used Rape (n. 9, Coefficient 31.47, Standard Error 15.29, Z-statistic 7.10, p-value 0.00***; Pearson's correlation coefficient effect size was strong at 0.34), Physical Control (n. 8, Coefficient 5.35, Standard Error 2.42, Z-statistic 3.71, p-value 0.00***) and Physical Assault (n. 5, Coefficient 2.94, Standard Error 1.52, Z-statistic 2.08, p-value 0.04**) to further Sexual Exploitation.

Offenders using Rape (n. 28) in addition to Abduction (n. 9) and 'Loverboy' Romance (n. 8) used Physical Control (n. 7, Coefficient 3.28, Standard Error 1.48, Z-statistic 2.64, p-value 0.008***) and Holding victim Passports (n. 6, Coefficient 6.01, Standard Error 2.93, Z-statistic 3.68, p-value 0.00***) to further Sexual Exploitation.

Offenders engaged in Holding victim Passports (n. 47) in addition to a deceptive Employment Offer (n. 21) used Intimidation (n. 20, Coefficient 7.05, Standard Error 2.22, Z-statistic 6.19, p-value 0.00***), Physical Assault (n. 18, Coefficient 7.70, Standard Error 2.50, Z-statistic 6.28, p-value 0.00***), Physical Control (n. 13, Coefficient 3.98, Standard Error 1.38, Z-statistic 3.99, p-value 0.00***), Debt Bondage (n. 8, Coefficient 3.24, Standard Error 1.34, Z-statistic 2.85, p-value 0.00***) and in addition Rape (n.6) to further Sexual Exploitation.

Offenders engaged in Debt Bondage (n. 63) in addition to a deceptive Employment Offer (n. 28) used Intimidation (n. 24, Coefficient 6.04, Standard Error 1.71, Z-statistic 6.34, p-value 0.00***), Physical Control (n. 20, Coefficient 5.25, Standard Error 1.56, Z-statistic 5.59, p-value 0.00***), in addition to Holding victim Passports (n. 8) to further Sexual Exploitation.

Offenders engaged in Physical Assault (n. 87) used Intimidation (n. 49, Coefficient 18.05, Standard Error 4.60, Z-statistic 11.36, p-value 0.00***; Pearson's correlation coefficient effect size was very strong at 0.45) and Physical Control (n. 14, Coefficient 1.93, Standard Error 0.61, Z-statistic 2.09, p-value 0.04**), in addition to Holding victim Passports (n. 18) and Abduction (n. 5) to further Sexual Exploitation.

Offenders engaged in Physical Control (n. 94) used Intimidation (n. 28, Coefficient 4.23, Standard Error 1.08, Z-statistic 5.68, p-value 0.00***), in addition to Debt Bondage (n. 20), Holding victim Passports (n. 13), 'Loverboy' Romance (n. 8), Abduction (n. 8) and Rape (n. 7) to further Sexual Exploitation.

Subset analysis of offenders engaged in Sexual Exploitation and the actions and means used to fulfil this purpose were suitable for further analysis through multiple logistic regression using forward selection (Agresti, 2018).

Analysis of offenders using Recruitment (Table 6.14 below) and Transportation (Table 6.15 below) to further Sexual Exploitation produced a variation in statistically significant relationships previously identified in bivariate logistic regression at Tables 6.7 and 6.12. Offenders engaged in Recruitment were not engaged in Abduction (Coefficient -1.07, Standard Error 0.52, Z-statistic -2.05, p-value 0.04**). Offenders engaged in Transportation were unlikely to have used a deceptive Employment Offer to further Recruitment (Coefficient -0.67, Standard Error 0.23, Z-statistic -2.83, p-value 0.005***) or to use Physical Control on victims (Coefficient -0.70, Standard Error 0.32, Z-statistic -2.19, p-value 0.03**) to fulfil Sexual Exploitation.

Offenders engaged in a deceptive Employment Offer to further Recruitment (see Table 6.16 below) were not engaged in the Purchase and sale of victims in Sexual Exploitation. This was a result that was not identified in bivariate logistic regression at Table 6.12. Multiple logistic regression of other means

Table 6.14 Multiple logistic regression of offenders using Recruitment to further Sexual Exploitation with actions and means

Sex Recruitment dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	.98	.17	5.69	0.00***	.64	1.32
Sex Travel preparation	.62	.21	3.02	0.00***	.22	1.02
Sex Financial administration	-1.34	.43	-3.15	0.00***	-2.17	-.50
Sex Abduction	-1.07	.52	-2.05	0.04**	-2.09	-.05
Sex Intimidation	1.05	.23	4.62	0.00***	.60	1.49
Sex Debt Bondage	.87	.29	2.98	0.00***	.30	1.45
Constrained	-.85	.09	-9.74	0.00	-1.02	-.68

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.08 LR chi2(6) = 98.66 Log likelihood = -601.54 n. 972

Table 6.15 Multiple logistic regression of offenders engaged in Transportation to further Sexual Exploitation with actions and means

Sex Transportation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Recruitment	1.32	.20	6.53	0.00***	.93	1.72
Sex Travel preparation	.71	.22	3.25	0.00***	.28	1.15
Sex Purchase and sale of victims	.73	.26	2.78	0.005***	.22	1.24
Sex Harbouring	1.02	.33	3.06	0.00***	.37	1.67

Sex Financial administration	1.25	.37	3.37	0.00***	.52	1.98
Sex Employment Offer	-.67	.23	-2.83	0.005***	-1.13	-.21
Sex Abduction	2.20	.47	4.70	0.00***	1.28	3.12
Sex Physical control	-.70	.32	-2.19	0.03**	-1.32	-.07
Constrained	-2.10	.14	-15.14	0.00	-2.37	-1.82

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.11 LR chi2(8) = 105.68 Log likelihood = -449.21 n. 972

Table 6.16 Multiple logistic regression of Employment Offer with actions and means to further Sexual Exploitation

Sex Employment Offer dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Travel preparation	.77	.22	3.47	0.00***	.33	1.20
Sex Purchase and sale of victims	-.94	.35	-2.72	0.01***	-1.62	-.26
Sex 'Loverboy' Romance	-1.56	.75	-2.08	0.04**	-3.04	-.09
Sex Holding Passports	1.01	.34	2.99	0.00***	.35	1.67
Sex Intimidation	.89	.24	3.80	0.00***	.43	1.36
Sex Debt Bondage	.97	.29	3.35	0.00***	.40	1.53

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.07 LR chi2(6) = 69.26 Log likelihood = -456.71 n. 972

Table 6.17 Comparing Pseudo R-squared results on multiple logistic regression models

Dependent variable	Difference in % between Chapter 6 model and Chapter 4 model	Chapter 6 Model % explanation of variable	Chapter 5 Model % and Pseudo -R- squared	Chapter 4 Model % and Pseudo -R- squared
Recruitment and subset Sex Recruitment	3%	8%	8%	5%
Transportation and subset Sex Transportation	8%	11%	5%	3%
Travel preparation and subset Sex Travel preparation	1%	4%		3%
Purchase and sale of victims and subset Sex Purchase and sale of victims	2%	5%		3%
Harbouring and subset of Sex Harbouring	2%	6%		4%
Financial administration and subset of Sex Financial administration	4%	10%	9%	6%
End Exploitation and subset Sex End Exploitation	5%	16%	11%	11%
Strategy and subset of Sex Strategy	0%	No model		3%
Employment Offer and subset of Sex Employment Offer	1%	7%	8%	
Intimidation and subset of Sex Intimidation	7%	33%	26%	
Physical control and subset of Sex Physical control	4%	13%	9%	
Physical assault and subset of Sex Physical assault	7%	29%	22%	

Financial Hardship	0%	1%	1%	
Debt Bondage and subset Sex Debt Bondage	**4%**	16%	12%	
Holding Passports and subset of Sex Holding Passports	**9%**	23%	14%	
'Loverboy' Romance and subset of Sex 'Loverboy' Romance	**3%**	4%	1%	
Rape and subset of Sex Rape	**6%**	22%	16%	

remained consistent with bivariate analysis at Tables 6.12 and 6.13 above. All multiple logistic regression models are shown in Appendix 5.

Table 6.17 compares the changing explanatory power of multiple logistic regression models created in Chapters 4 and 5 with models created for Sexual Exploitation. To aid visual comparison of models an increase in explanatory power is shown in green and a decrease in explanatory power is shown in red.

The explanatory power of the multiple logistic regression of offenders Holding victim Passports was increased by 9% through subset analysis and narrowing the model to Sexual Exploitation. The explanatory power of the model of Transportation to further Sexual Exploitation was increased by 8% from the model created for Transportation in Chapter 4. Models for offenders using Intimidation, Physical Assault and Abduction increased in explanatory power by 7% when subset analysis of Sexual Exploitation was developed. The explanatory power of the use of Rape by offenders through subset analysis of Sexual Exploitation increased by 6%. Only a model of the use of a deceptive Employment Offer by offenders furthering Recruitment decreased in explanatory power by 1%.

Overall, the model for the use of Intimidation by offenders engaged in Sexual Exploitation had the greatest explanatory power with 33%. There were material factors that were necessary to fully explain the use of Intimidation by offenders, but this model was considerably more powerful than other multiple logistic regression models.

At a higher level, empirical analysis of the purposes with actions and means appeared to show clarity for offenders using or not using particular actions and means to further a purpose. This analysis that appeared simple, actually belied the complexity of actions and means performed by offenders within Sexual Exploitation. Empirical analysis was extensive, intricate and showed considerable complexity in offender method with the interaction of actions with means and between means to fulfil Sexual Exploitation.

6.3.5 Question 13. How did purpose alter the flow of actions to commit human trafficking?

In Chapter 5, multiple logistic regression of actions with means led to the creation of Figures 5.1 and 5.2, models of the potential flow of actions and means. These visuals of results and the strands of process to actions and means from Figures 5.1 and 5.2 were explored through structural equation modelling. Generalised structural equation modelling (gsem) results were used to explore the order to actions and means and verified using structural equation modelling of indirect effects (sem) analysis leading to a series of Figures: 5.3 Recruitment; 5.4 a deceptive Employment Offer and 5.5 End Exploitation showing the flow of actions and means to further human trafficking across purposes.

To advance an understanding of the effect of purpose on offender method, and the importance of the third element for understanding the process of actions and means to further human trafficking for Sexual Exploitation, the multiple logistic regression results of subset variables for Sexual Exploitation, developed at Question 12 above (see Tables 6.7 and 6.12 – 6.16 above) are shown in Figure 6.4 below. Actions and means that were statistically likely to be performed together by offenders were identified by a blue arrow. Actions and means that were unlikely to be performed together by the same offender were highlighted with a red arrow.

Figure 6.4 was the basis for a theoretical model, as recommended by Martinez-Lopez et al. (2010, pp. 115-152), upon which further statistical analysis was performed to explore an order to actions and means and whether the theoretical model was advanced by structural equation modelling. Each strand of process from each action and entry route into trafficking including a deceptive Employment Offer, the exploitation of a Financial Hardship, 'Loverboy' Romance and Abduction identified in Figure 6.4 below was explored through gsem and sem analysis.
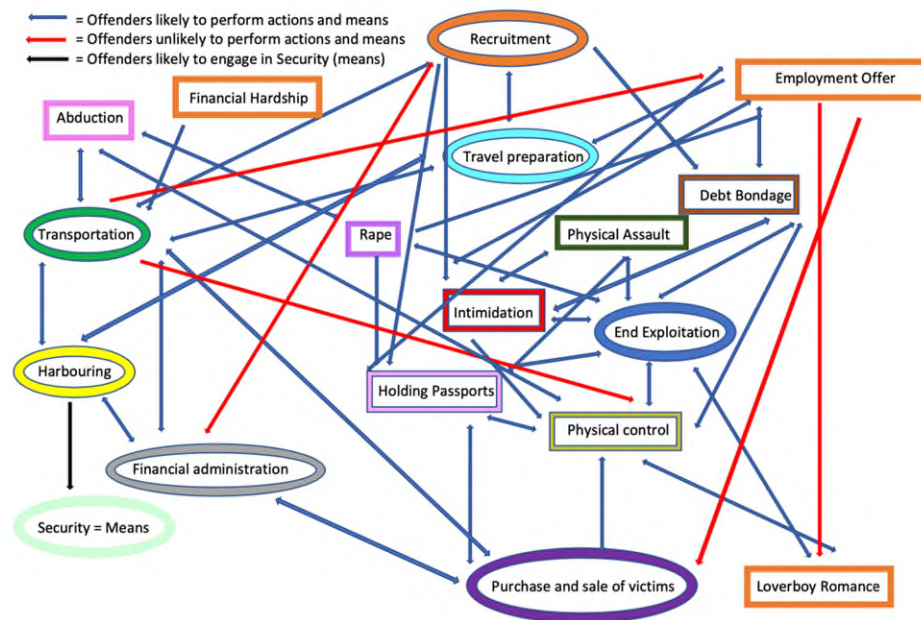
Figure 6.4 Multiple logistic regression results of actions and means to fulfil Sexual Exploitation

As a first stage of analysis, generalised structural equation modelling (gsem) was performed by exploring the combination of actions and means (STATA, 2013). The second stage of analysis involved structural equation modelling of the statistically significant relationships identified from gsem analysis to confirm or refute gsem findings indicating an indirect effect of an action or means through another action or means. Following the identification of statistically significant results from data modelling, the direct and indirect actions and means, identified from Figure 6.4, were separated into a visualisation and the results from gsem and sem were added. Blue arrows indicated that an offender was statistically likely to perform an action or means. Red arrows indicated that offenders were unlikely to perform an action or means and green arrows identified the action or means an offender was likely to influence through the performance of another action or means. The population of all gsem and sem models was 972. A complete set of gsem model results and sem indirect effects results appears in Appendix 5.

Offenders engaged in general Recruitment directing the flow of actions and means within Sexual Exploitation
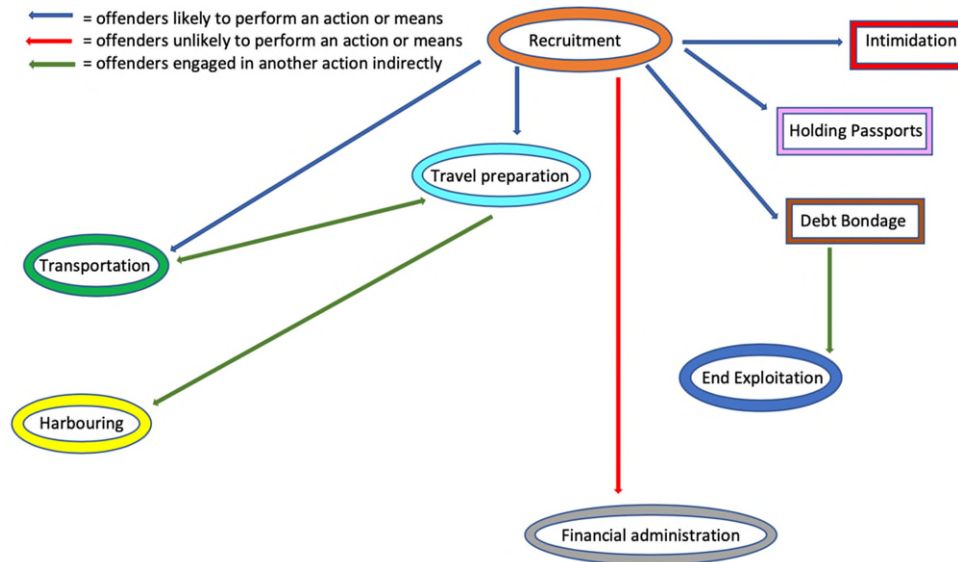
Figure 6.5 Offenders engaged in general Recruitment to further Sexual Exploitation with multiple logistic regression, gsem and sem results

In addition, to the direct relationships identified in multiple logistic regression in Table 6.14, Tables 6.18 and 6.23 below, Figure 6.5 shows that offenders engaged in general Recruitment were likely to engage indirectly in Harbouring (gsem: Coefficient 1.60, Standard Error 0.61, Z-statistic 2.63, p-value 0.008***; sem: Coefficient 0.01, Standard Error 0.00, Z-statistic 2.34, p-value 0.02**) and Transportation (gsem: Coefficient 2.36, Standard Error 1.16, Z-statistic 2.03, p-value 0.04**; sem: Coefficient 0.01, Standard Error 0.00, Z-statistic 2.69, p-value 0.007***) through Travel Preparation and engage indirectly in Travel Preparation through Transportation (gsem: Coefficient 0.42, Standard Error 0.21, Z-statistic 2.03, p-value 0.04**; sem: Coefficient 0.01, Standard Error 0.00, Z-statistic 2.66, p-value 0.008***). Furthermore, offenders engaged indirectly in End Exploitation through Debt Bondage (gsem: Coefficient 0.58, Standard Error 0.20, Z-statistic 2.88, p-value 0.004***; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 3.35, p-value 0.00***).

Offenders engaged in a deceptive Employment Offer to further Recruitment with actions and means within Sexual Exploitation
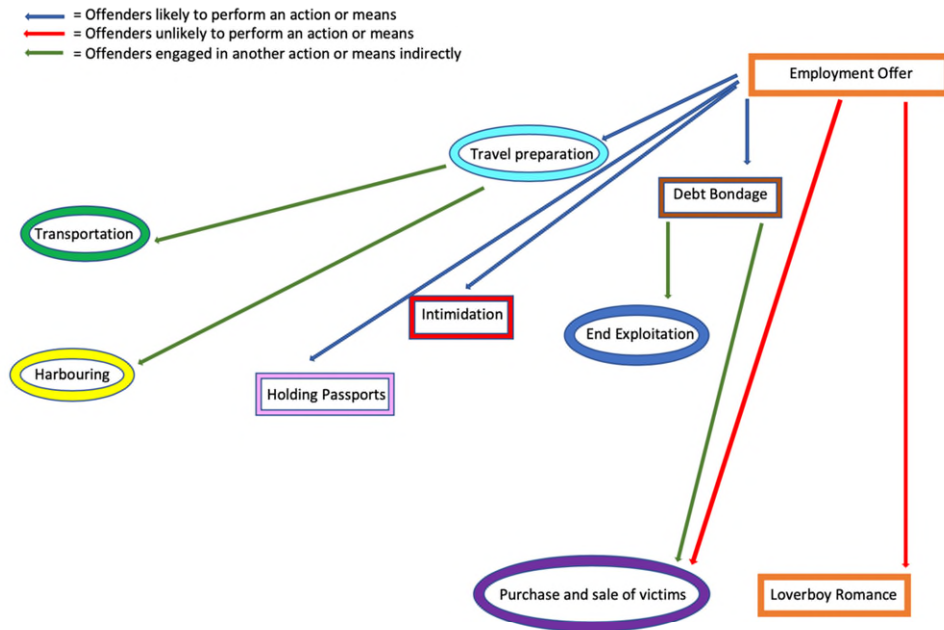
Figure 6.6 Offenders engaged in a deceptive Employment Offer to further Recruitment in Sexual Exploitation with multiple logistic regression, gsem and sem results

In addition to direct relationships identified through multiple logistic regression in Table 6.16, Tables 6.19 and 6.23 below, Figure 6.6 shows that offenders engaged in a deceptive Employment Offer to further Recruitment were indirectly engaged in Transportation (gsem: Coefficient 2.36, Standard Error 1.16, Z-statistic 2.03, p-value 0.04**; sem: Coefficient 0.01, Standard Error 0.01, Z-statistic 2.63, p-value 0.009***) and Harbouring (gsem: Coefficient 1.60, Standard Error 0.61, Z-statistic 2.63, p-value 0.008***; sem: Coefficient 0.01, Standard Error 0.00, Z-statistic 2.15, p-value 0.03**) through Travel Preparation. They were also engaged in End Exploitation (gsem: Coefficient 0.46, Standard Error 0.15, Z-statistic 3.07, p-value 0.00***; sem: Coefficient 0.03, Standard Error 0.01, Z-statistic 3.64, p-value 0.00***) and the Purchase and sale of victims (gsem: Coefficient 0.54, Standard Error 0.24, Z-statistic 2.29, p-value 0.02**; sem: Coefficient 0.01, Standard Error 0.00, Z-statistic 2.02, p-value 0.04**) through Debt Bondage.

Offenders engaged in 'Loverboy' Romance to further Recruitment with actions and means in Sexual Exploitation
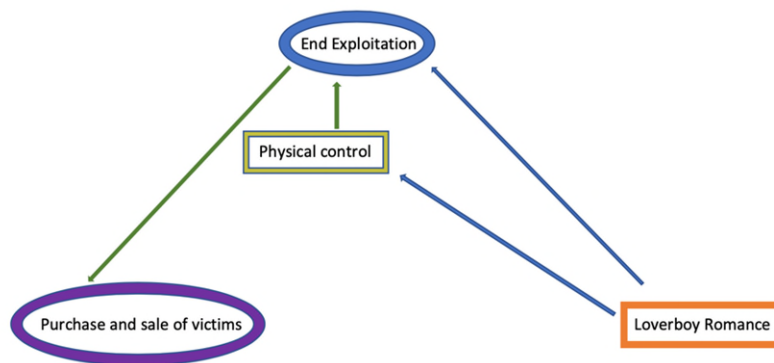
Figure 6.7 Offenders engaged in 'Loverboy' Romance to further Recruitment in Sexual Exploitation with multiple logistic regression, gsem and sem results

Figure 6.7 shows offenders engaged in End Exploitation and Physical Control from the direct relationships identified in multiple logistic regression and in addition, from results in Tables 6.20 and 6.23, offenders engaged in End Exploitation through Physical Control (gsem: Coefficient 0.72, Standard Error 0.22, Z-statistic 3.35, p-value 0.00***; sem: Coefficient 0.05, Standard Error 0.02, Z-statistic 2.66, p-value 0.008***) and the Purchase and sale of victims through End Exploitation (gsem: Coefficient 2.18, Standard Error 0.98, Z-statistic 2.22, p-value 0.03**; sem: Coefficient 0.01, Standard Error 0.01, Z-statistic 1.99, p-value 0.047**).

Table 6.18 gsem offenders engaged in general Recruitment to further Sexual Exploitation

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Debt Bondage	Constrained					
Sex End Exploitation	.58	.20	2.88	0.004***	.19	.98
Sex Transportation	Constrained					
Sex Travel preparation	.42	.21	2.03	0.04**	.01	.83
Sex Travel preparation	Constrained					
Sex Transportation	2.36	1.16	2.03	0.04**	.08	4.63
Sex Harbouring	1.60	.61	2.63	0.008***	.41	2.79

Table 6.19 gsem offenders engaged in a deceptive Employment Offer to further Sexual Exploitation

Sex Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Travel preparation	Constrained					
Sex Transportation	2.36	1.16	2.03	0.04**	.08	4.63
Sex Harbouring	1.60	.61	2.63	0.008***	.41	2.79
Sex Debt Bondage	Constrained					

Sex End Exploitation	.46	.15	3.07	0.00***	.17	.76
Sex Purchase and sale of victims	.54	.24	2.29	0.02**	.08	1.01

Table 6.20 gsem Offenders engaged in 'Loverboy' Romance to fulfil Recruitment to further Sexual Exploitation

Sex 'Loverboy' Romance latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	Constrained					
Sex Purchase and sale of victims	2.18	.98	2.22	0.03**	.26	4.09
Sex Physical control	Constrained					
Sex End Exploitation	.72	.22	3.35	0.00***	.30	1.15

Table 6.21 gsem Offenders engaged in Financial administration to further Sexual Exploitation

Sex Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	Constrained					
Sex Purchase and sale of victims	.27	.13	2.13	0.03**	.02	.53
Sex Recruitment	.44	.20	2.17	0.03**	.04	.84

Sex Travel preparation	.49	.25	1.98	0.047**	.01	.97
Sex Harbouring	.49	.23	2.17	0.03**	.05	.94
Sex Purchase and sale of victims	Constrained					
Sex Transportation	3.66	1.72	2.13	0.03**	.29	7.03
Sex End Exploitation	.71	.34	2.10	0.04**	.05	1.36
Sex Harbouring	Constrained					
Sex Transportation	2.04	.94	2.17	0.03**	.20	3.88
Sex Travel preparation	1.0	.37	2.72	0.007***	.28	1.71

Table 6.22 gsem Offenders engaged in End Exploitation of Sexual Exploitation

Sex End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Intimidation	Constrained					
Sex Recruitment	1.42	.43	3.29	0.00***	.58	2.27
Sex Debt Bondage	Constrained					
Sex Recruitment	1.10	.37	2.95	0.00***	.37	1.84

Table 6.23 sem Indirect effects analysis of actions and means to further Sexual Exploitation

Variable creating indirect effect	Variable through which the flow of the indirect effect travels	Variable indirectly affected	Coefficient (Standard Error)	Z-statistic	P-value of Z	95% Confidence Intervals
Sex Recruitment	Sex Debt Bondage	Sex End Exploitation	.02 (.01)	3.35	0.00***	.01 .03
Sex Recruitment	Sex Transportation	Sex Travel preparation	.01 (.00)	2.66	0.008***	.00 .02
Sex Recruitment	Sex Travel preparation	Sex Transportation	.01 (.00)	2.69	0.007***	.00 .02
Sex Recruitment	Sex Travel preparation	Sex Harbouring	.01 (.00)	2.34	0.02**	.00 .01
Sex Employment Offer	Sex Travel preparation	Sex Transportation	.01 (.01)	2.63	0.009***	.00 .03
Sex Employment Offer	Sex Travel preparation	Sex Harbouring	.01 (.00)	2.15	0.03**	.00 .01
Sex Employment Offer	Sex Debt Bondage	Sex End Exploitation	.03 (.01)	3.64	0.00***	.01 .05
Sex Employment Offer	Sex Debt Bondage	Sex Purchase and sale of victims	.01 (.00)	2.02	0.04**	.00 .02
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Purchase and sale of victims	.01 (.01)	1.99	0.047**	.00 .03
Sex 'Loverboy' Romance	Sex Physical control	Sex End Exploitation	.05 (.02)	2.66	0.008***	.01 .09
Sex Financial administration	Sex Transportation	Sex Purchase and sale of victims	.01 (.01)	2.21	0.03**	.00 .03
Sex Financial administration	Sex Transportation	Sex Recruitment	.05 (.02)	2.87	0.00***	.02 .09

Sex Financial administration	Sex Transportation	Sex Travel preparation	.02 (.01)	2.58	0.01**	.01 .04
Sex Financial administration	Sex Transportation	Sex Harbouring	.01 (.01)	2.41	0.02**	.00 .02
Sex Financial administration	Sex Purchase and sale of victims	Sex Transportation	.02 (.01)	2.19	0.03**	.00 .04
Sex Financial administration	Sex Purchase and sale of victims	Sex End Exploitation	.02 (.01)	2.01	0.045**	.00 .04
Sex Financial administration	Sex Harbouring	Sex Transportation	.03 (.01)	2.46	0.01**	.01 .05
Sex Financial administration	Sex Harbouring	Sex Travel preparation	.02 (.01)	2.22	0.03**	.00 .03
Sex End Exploitation	Sex Intimidation	Sex Recruitment	.06 (.01)	4.78	0.00***	.04 .08
Sex End Exploitation	Sex Debt Bondage	Sex Recruitment	.02 (.01)	3.29	0.00***	.01 .04

Offenders engaged in Financial administration with actions and means within Sexual Exploitation
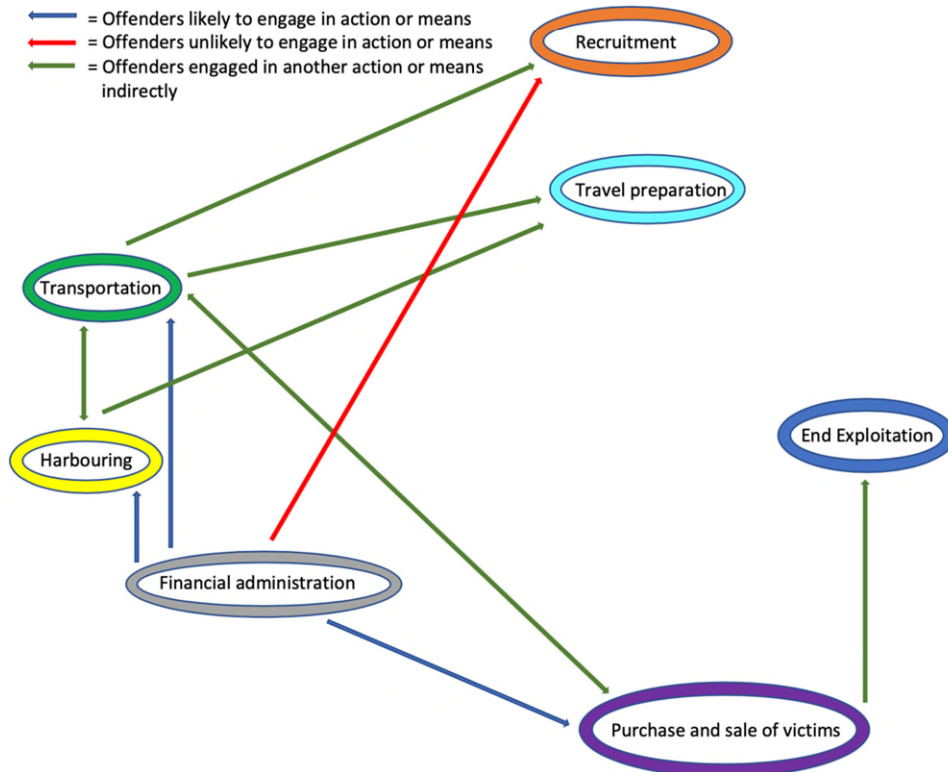
Figure 6.8 Offenders engaged in Financial administration to further Sexual Exploitation with multiple logistic regression, gsem and sem results

Table 6.7 shows the bivariate logistic regression results for offenders engaged in Financial administration to further Sexual Exploitation. These relationships remained consistent in multiple logistic regression appearing in Appendix 5. In addition to these results, Tables 6.21 and 6.23 are shown in Figure 6.8 above. Offenders engaged in Financial administration were also indirectly engaged in End Exploitation (gsem: Coefficient 0.71, Standard 0.34, Z-statistic 2.10, p-value 0.04**; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 2.01, p-value 0.045**) and Transportation (gsem: Coefficient 3.66, Standard Error 1.72, Z-statistic 2.13, p-value 0.03**; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 2.19, p-value 0.03**) through the Purchase and sale of victims. Offenders were indirectly engaged in the Purchase and sale of victims (gsem: Coefficient 0.27, Standard Error 0.13, Z-statistic 2.13, p-value 0.03**; sem: Coefficient 0.01, Standard Error 0.01, Z-statistic 2.21, p-value 0.03**), Recruitment (gsem: Coefficient 0.44,

Standard Error 0.20, Z-statistic 2.17, p-value 0.03**; sem: Coefficient 0.05, Standard Error 0.02, Z-statistic 2.87, p-value 0.00***), Travel Preparation (gsem: Coefficient 0.49, Standard Error 0.25, Z-statistic 1.98, p-value 0.047**; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 2.58, p-value 0.01**) and Harbouring (gsem: Coefficient 0.49, Standard Error 0.23, Z-statistic 2.17, p-value 0.03**; sem: Coefficient 0.01, Standard Error 0.01, Z-statistic 2.41, p-value 0.02**) through Transportation. In addition, offenders engaged indirectly in Travel Preparation (gsem: Coefficient 1.0, Standard Error 0.37, Z-statistic 2.72, p-value 0.007***; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 2.22, p-value 0.03**) and Transportation (gsem: Coefficient 2.04, Standard Error 0.94, Z-statistic 2.17, p-value 0.03**; sem: Coefficient 0.03, Standard Error 0.01, Z-statistic 2.46, p-value 0.01**) through Harbouring.

Offenders engaged in End Exploitation and actions and means within Sexual Exploitation
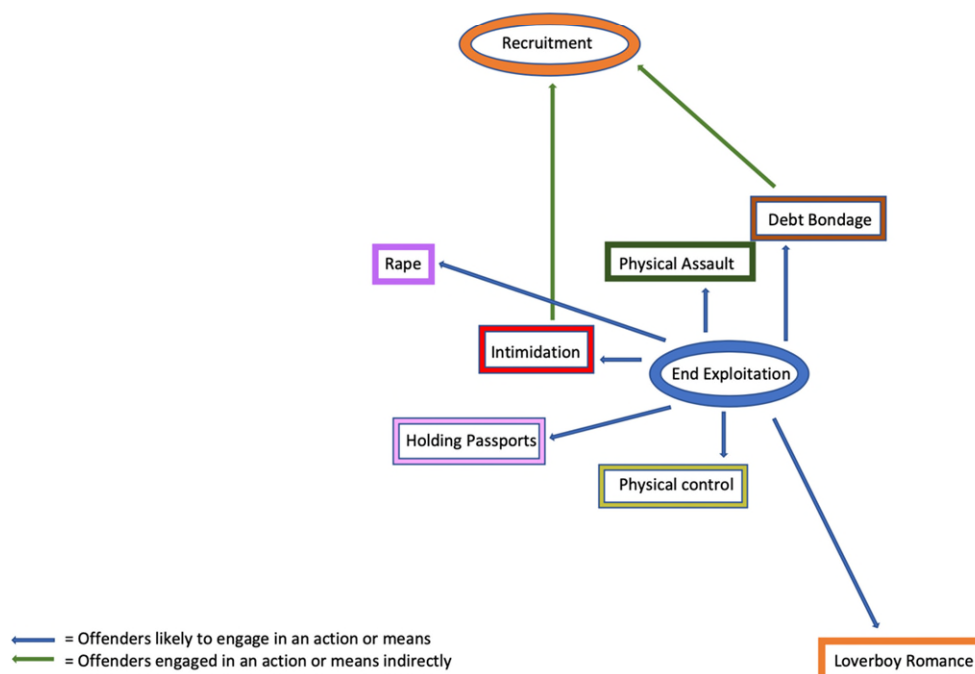
Figure 6.9 Offenders engaged in End Exploitation in Sexual Exploitation with multiple logistic regression, gsem and sem results

With the exception of offenders engaged in Abduction, identified in Table 6.12 from bivariate logistic regression, all other means likely to be performed by offenders engaged in End Exploitation to fulfil Sexual Exploitation were confirmed in multiple logistic regression. The full model appears in Appendix 5. The results in Table 6.12 with the exception of Abduction are shown in Figure 6.9. In addition, results from Tables 6.22 and 6.23 above revealed that offenders were engaged in Recruitment indirectly through Intimidation (gsem: Coefficient 1.42, Standard Error 0.43, Z-statistic 3.29, p-value 0.00***; sem: Coefficient 0.06, Standard Error 0.01, Z-statistic 4.78, p-value 0.00***) and indirectly through Debt Bondage (gsem: Coefficient 1.10, Standard Error 0.37, Z-statistic 2.95, p-value 0.00***; sem: Coefficient 0.02, Standard Error 0.01, Z-statistic 3.29, p-value 0.00***). These results are also shown in Figure 6.9 above.

An examination of offender method and the order of actions and means performed by offenders narrowed to Sexual Exploitation, generally showed that purpose had an effect on the actions and means performed by offenders. By narrowing an examination of actions and means to a subset of variables for Sexual Exploitation, purpose provided further refinement of the model of the order of actions and means flowing from general Recruitment and a deceptive Employment Offer, explored in Chapter 5 at paragraph 5.3.4. and shown in Figures 5.3 and 5.4. Additional actions and indirect activity were identified through analysis of offenders engaged in Financial administration to further Sexual Exploitation, from the model created in Chapter 4 at Figure 4.6. Narrowing analysis to Sexual Exploitation also led to the identification of an additional model for offenders engaged in 'Loverboy' Romance, whilst there was little variation in action or means from the model of offenders engaged in End Exploitation, identified at Figure 5.5 in Chapter 5, paragraph 5.3.4.

6.4   Discussion

Objective 1

To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

The third element of the definition of the Palermo Protocol is prescriptive, but not limited by the following forms of exploitation:

> '… the exploitation of the prostitution of others or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs;' (as stated in Art. 3 Palermo Protocol, United Nations Convention Against Transnational Organized Crime, 2000)

The third element was constructed to address offender intention to commit human trafficking, namely that all of the first element actions using the second element means were carried out by an offender to benefit from the proceeds of exploitation. There were seven purposes identified in case summaries: Sexual Exploitation (751 offenders), Forced Labour (115 offenders), Forced Begging (62 offenders), Forced Criminality for theft (25 offenders), Domestic Servitude (21 offenders), Forced Criminality for commercial surrogacy (15 offenders) and Slavery for Forced Marriage (5 offenders). The range of purposes identified from case summaries revealed that Member States were making use of the expansive structure of the third element to pursue human trafficking prosecutions.

In the literature review in Chapter 2, discussion identified that whilst Member States had ratified the UN OCG Convention and Palermo Protocol, there was inconsistency between Member States vis-à-vis the domestic implementation of all forms of exploitation to further human trafficking (UNODC, 2015b). The significantly smaller population of offenders engaged in actions and means to further Forced Labour (115) than to further Sexual Exploitation (751) supported these conclusions, although the extent to which the imbalance between purposes arose due to the practical difficulty of identifying cases of human trafficking for Forced Labour for prosecution,

as opposed to a failure of effort by Member States to enforce human trafficking for Forced Labour, meant that a definitive conclusion, based on the distribution of offenders between purposes, could not be reached.

In the literature review in Chapter 2, Forced Begging and Forced Criminality were recognised as forms of human trafficking exploitation through the EU Directive 2011 (European Union Directive 2011/36/EU, 2011). There was evidence that Forced Criminality for commercial surrogacy was being pursued as a form of exploitation, although it was not significantly present in the case summaries (15 offenders). There was evidence of acceptance of these forms of exploitation internationally beyond the European Union, although not consistently (UNODC, 2015b). Domestic Servitude as a form of exploitation has had a more uncertain history in European case law. Whilst it has appeared as an accepted form of exploitation generally, since the Case of Siliadin in 2005 (Siliadin v. France, 2005, ECtHR, 73316/01), there has been uncertainty as to which term from the international definition adequately reflects this form of exploitation: Forced Labour, Slavery or Servitude. The European Court of Human Rights has presented conflicting case law on the matter ((Siliadin v. France, 2005, ECtHR, 73316/01); Rantseva v. Cyprus and Russia, 2010, ECtHR, 25965/04) but finally settled for Domestic Servitude as presenting an aggravated form of Forced Labour or Servitude (C. N. & V. v. France, 2012, ECtHR, 67724/09).

There was evidence of Forced Marriage in the case summaries with 5 offenders included in the study, although the observations were very few upon which to base an understanding of regional agreement on human trafficking for Forced Marriage. Forced Marriage has had an uncertain beginning as a form of exploitation for human trafficking. It is considered a form of Forced Labour in England and Wales under the Modern Slavery Act 2015 (Cockbain, 2019) and is thought to have the support of the International Labour Organization to accommodate a developing perspective on Modern Slavery through the inclusion of Forced Marriage as part of Forced Labour (Patterson, 2018). Its origins are found in a General

Assembly Resolution on custom and practice that infringes the United Nations Universal Declaration of Human Rights (M. and Others v. Italy and Bulgaria, 2012, ECtHR, 40020/03, §55) culminating in the United Nations 'Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages' General Assembly Resolution 1763 A (XVII) 7th November 1962 ('United Nations Convention') (M. and Others v. Italy and Bulgaria, 2012, ECtHR, 40020/03). The Case of M. and Others v. Italy and Bulgaria (2012, ECtHR, 40020/03) related to an allegation of Forced Marriage and Forced Criminality by a Roma family from Bulgaria against a Serbian Roma family living in Italy. The allegation was further complicated by the fact that the girl who was married was under 18 years and there was evidence that her family had received a dowry from the Serbian family. Her family alleged that they had been forced into giving her for marriage. Italy had signed but not ratified the United Nations Convention on marriage and Bulgaria had not signed or ratified it. The European Court of Human Rights based its understanding of Forced Marriage on the United Nations Convention and referred to the later Council of Europe Resolution 1468 (2005) on Forced and Child Marriage and a later Council of Europe Resolution 1740 (2010) on Roma customs and Forced Marriage and the Council of Europe's Strasbourg Declaration on Roma (2010) cited in M. and Others v. Italy and Bulgaria, 2012, ECHR, 40020/03. The Declaration (2010) specifically linked Forced Marriage to a condition that facilitates human trafficking but did not specifically state that Forced Marriage is a form of exploitation:

> 'Combat Trafficking
>
> Bearing in mind that Roma children and women are often victims of trafficking and exploitation, devote adequate attention and resources to combat these phenomena *[Forced Marriage],* within the general efforts aimed at curbing trafficking of human beings and organised crime, and, in appropriate cases, issue victims with residence permits.' as cited in M. and Others v. Italy and Bulgaria (2012, ECHR, 40020/03, §57).

The Declaration enabled the European Court of Human Rights to consider whether Italy had given the victim every assistance available and had fully investigated her allegations, but only in so far as it related to the conditions of her vulnerability as a result of Forced Marriage (M. and Others v. Italy and Bulgaria, 2012, ECHR, 40020/03, §106). The facts in the judgment presented as a failure of the Italian authorities to investigate human trafficking for Forced Criminality and Sexual Exploitation, the conditions under which the victim was living, rather than Forced Marriage itself. Drawing a structural parallel with the elements of the Palermo Protocol definition from the interpretation of Forced Marriage in the European Court of Human Rights ruling, Forced Marriage appeared to be an aspect of the second element, means, as a form of vulnerability created by the Roma custom of dowry marriage, rather than a form of exploitation itself.

An empirical exploration of the various purposes for which offenders were engaged in human trafficking revealed relative simplicity in disaggregating Sexual Exploitation, Forced Labour, Forced Begging and Forced Criminality. It was unclear if Forced Labour had been implemented as a form of human trafficking and this apparent absence of convictions may have been due to Member States failing to implement human trafficking for Forced Labour into their domestic legislation, as a result of uncertainty related to the term in international law, or through a conscious domestic political decision to narrow the scope of this term in legislation to the domestic labour market conditions. There was more complexity and uncertainty for the newly emerging forms of exploitation, such as Forced Marriage. There were offenders included in this study, although only 5, and there was uncertainty as to whether this was a form of exploitation or whether it was in fact a means used to further another form of exploitation such as Forced Labour or Sexual Exploitation.

Objective 2

To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

The actions and means explored in Chapters 4 and 5 and the variables created from disaggregating the data in case summaries, revealed offenders performed all of the actions and means identified in Chapters 4 and 5 to fulfil human trafficking for three purposes: Sexual Exploitation, Forced Labour and Forced Begging. Every action or means had at least one offender observed (Table 6.3 and 6.4).

An edited version of Table 6.5 previously shown in analysis at Question 10 above, including only actions that related to the prescribed actions in the Palermo Protocol definition (Recruitment, Transportation and Harbouring) and the action subject to discussion amongst academic scholars, 'End Exploitation' (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015), is reproduced as an edited version below at Table 6.24:

Table 6.24 Edited Table 6.5, a comparison of process actions and End Exploitation across purposes

	Recruitment % of 452 offenders (number of offenders observed)	Transporta-tion % of 260 offenders (number of offenders observed)	Harbouring % of 58 offenders (number of offenders observed)	End Exploitation % of 421 offenders (number of offenders observed)
Sexual Exploitation (baseline 77.3%)	84.3% (371) **7.0%**	79.2% (206) **1.9%**	77.6% (45) **0.3%**	73.4% (309) **3.9%**
Forced Labour (baseline 11.8%)	8.2% (37) **3.6%**	6.2% (16) **5.6%**	10.3% (6) **1.5%**	15.2% (64) **3.4%**

Forced Begging (baseline 6.4%)	6.9% (31) **0.5%**	11.2% (29) **4.8%**	6.9% (4) **0.5%**	8.1% (34) **1.7%**

Table 6.24 shows the percentage of offenders performing a purpose, taken as a baseline, for a comparison of the number of offenders performing an action allocated to that purpose. To aid a visual comparison of the variation in percentage, where the allocation of offenders represented as a percentage was above the baseline percentage for the purpose, the variation in percentage was coloured green and where it was below the baseline, the variation in percentage was coloured red.

The comparison of actions in Table 6.24 identifies that prosecutions for Forced Labour were present for process actions: Recruitment, Transportation and Harbouring but more noticeable for End Exploitation. There were fewer offenders prosecuted for the prescribed actions for Forced Labour than was expected from an analysis of offender method in the case summaries. Whereas there were more offenders prosecuted for the prescribed actions and fewer offenders prosecuted for End Exploitation for Sexual Exploitation.

Table 6.6 sets out the bivariate logistic regression results for statistical significance of offenders performing actions to further a purpose. Offenders were statistically likely to perform End Exploitation for Forced Labour and statistically unlikely to engage in Recruitment and Transportation for Forced Labour. Whilst offenders were statistically unlikely to perform End Exploitation to further Sexual Exploitation. From an empirical analysis it was possible to conclude that the process actions subject to debate by academic legal scholars reflected human trafficking for Sexual Exploitation but not human trafficking for Forced Labour (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015). Eliminating prosecutions of offenders engaged in End Exploitation for Forced Labour would have materially reduced the number

of offenders observed for this purpose. Of the 115 offenders observed engaged in Forced Labour, 64 offenders engaged in End Exploitation, 37 in Recruitment, 16 in Transportation and 6 in Harbouring. The debate between academic legal scholars did not reflect the actual prosecutions for Forced Labour in this study. Gallagher's (2010, pp. 12-53) advocacy of the use of Harbouring as a static action to include offenders engaged in End Exploitation was not reflected in the case summaries, assuming that Harbouring is defined as the concealment of victims, a strict interpretation of the undefined term (Gallagher, 2010). Chuang (2014, pp. 609-649) and Stoyanova's (2015, pp. 32-73) approach to excluding all offenders engaged in the static End Exploitation of victims would have further reduced the opportunity for analysis.

There were few offenders observed in Forced Begging (62). There were 34 offenders engaged in End Exploitation for Forced Begging but there were also 31 offenders engaged in Recruitment, 29 offenders engaged in Transportation and 4 offenders engaged in Harbouring. The nature of Forced Begging required victims to be out in public on the street, inevitably leaving offenders more visible where they were engaged in process actions. There were fewer offenders than expected prosecuted for End Exploitation for Sexual Exploitation but more than expected for the prescribed process actions, noticeably Recruitment. The prescribed actions in the first element better reflected human trafficking for Sexual Exploitation and Forced Begging. They did not adequately reflect offender method for Forced Labour.

There was little evidence that offenders engaged in Forced Labour used any coercive means. However, any reduction in the prosecution of offenders engaged in Forced Labour, an inevitability if offenders engaged in End Exploitation are not prosecuted for human trafficking, would reduce the opportunity for exploring the harm caused by offenders engaged in Forced Labour. Advocating for a restrictive list of process actions, whilst including Forced Labour as a form of exploitation in the third element appears

contradictory (UN OCG Convention, 2000; Chuang, 2014; Stoyanova, 2015). Fewer prosecutions would have been included in this analysis and even less opportunity for understanding the harm offenders posed to victims of Forced Labour. At present, the legal academic debate on the process of human trafficking (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015) and the implications for prosecutions of Forced Labour is delivered persuasively from both perspectives. However, these perspectives are not necessarily an accurate portrayal of the circumstances, experiences, or harm caused to victims. Further empirical research is recommended to improve our knowledge on human trafficking for Forced Labour (see Chapter 7 for further consideration of appropriate research on this topic).

Bivariate logistic regression of the use of means with a purpose showed that the use of means by offenders engaged in Sexual Exploitation appeared at early stages of analysis to focus on the entry of victims into human trafficking. Offenders were likely to engage in a deceptive Employment Offer and 'Loverboy' Romance to further Recruitment. These results supported the structure of the definition towards a process crime. Multiple logistic regression for Sexual Exploitation, in Table 6.10, progressed analysis of means identifying that Rape was statistically likely to be used by offenders and subset bivariate analysis of means used within Sexual Exploitation at Table 6.13, revealed that Rape was used with 'Loverboy' Romance and Abduction. Furthermore, within subset bivariate analysis of actions with means, other means to maintain victim vulnerability were also likely: Physical Control and Holding victim Passports, in addition to Rape. In addition, subset analysis of End Exploitation in Sexual Exploitation in Table 6.12 revealed that offenders engaged in this action were more consistently likely to use a range of harmful means than offenders engaged in the process of bringing a victim to the point of exploitation. The phrase 'any means necessary' was pertinent to offenders engaged in End Exploitation. They were statistically likely to use Intimidation, Physical Control, Physical Assault, Debt Bondage, Holding victim Passports and Rape. All multiple

logistic regression models of means used to maintain victims in human trafficking included End Exploitation as an action in the model. They had the greatest explanatory power of all multiple logistic regression models and demonstrated that identifying offenders engaged in End Exploitation was crucial to progressing an understanding of offender risk and victim harm (Kahneman, 2011; Eck, 2013). The use of means in End Exploitation appeared to accelerate when victims were in the static phase of human trafficking and this may have been directly related to an offender's perception of risk of loss of revenue and concealment of their involvement in the victim's circumstances (Cottrell, 2005). Furthermore, there may be a combination of psychological profiles of offenders using multiple overt means to further End Exploitation such as the 'exploiter' or the 'bully' (Toch, 2017). Chuang (2014, pp. 609-649) and Stoyanova's (2015, pp. 32-73) interpretation of human trafficking as a process bringing a victim to a point of exploitation but not including their End Exploitation did not reflect the continuing cycle of harm experienced by victims. It also challenged Chuang's (2014, pp. 609-649) concern that 'exploitation creep' was occurring. Offenders engaged in End Exploitation for human trafficking to further Sexual Exploitation were causing harm to victims. Prosecutions for offenders engaged in End Exploitation did not appear to have extended the offence beyond its natural and intended sense, the concern related to 'exploitation creep' and had not distorted the true nature of the risk and harm from the crime (R. v. Tang, Chief Justice Gleeson, 28th August 2008, High Court of Australia, unreported; Chuang, 2014; van der Wilt, 2014; UNODC, 2015b).

Objective 3

To assess if the international definition adequately reflects convicted offender method.

Sexual Exploitation was the predominant purpose in the population of 972 offenders (n. 751, 77.3%) and whilst offenders engaged in Forced Labour and

Forced Begging were observed performing all of the actions (Recruitment, Travel Preparation, Transportation, Harbouring, the Purchase and sale of victims, Financial administration and Strategy), the predominance of offenders in Sexual Exploitation will have strongly influenced the actions identified and disaggregated from the case summaries and there are likely to be other actions that are essential to the success of offenders engaged in human trafficking that have not been identified from the quality of the case summaries. An examination of offender method to commit human trafficking for Forced Labour was revealing for its focus on End Exploitation as a material aspect of offender method. It is likely that other actions necessary to fulfil this purpose of human trafficking would be identified from analysis of prosecution and investigation files for human trafficking for Forced Labour and litigation for unpaid wages and other labour infringements.

Bivariate logistic regression results in Table 6.6 showed that offenders engaged in Sexual Exploitation were statistically likely to be engaged in Recruitment and offenders engaged in Forced Begging were statistically likely to be engaged in Transportation and Security. The structure of the Palermo Protocol definition appeared fulfilled by offenders engaged in human trafficking for Forced Begging from these actions alone with Transportation a prescribed first element action and Security representing the second element means. Further subset analysis of offenders engaged in Sexual Exploitation revealed that offenders involved in Recruitment were statistically likely to perform Security, linking the second element with the first element to fulfil the structure of the Palermo Protocol definition for these offenders. However, as previously considered, offenders engaged in Forced Labour did not appear to routinely fulfil the structural definition of human trafficking with an absence of statistical significance for the performance of any prescribed actions (Recruitment, Transportation, Harbouring), with only End Exploitation as a statistically significant and likely action to be performed by offenders.

Whilst these results establish a symmetry with the Palermo Protocol definition for offenders engaged in Recruitment to further Sexual Exploitation and Transportation to further Forced Begging, they do not reflect the complete cycle of actions performed by offenders. Subset analysis of the actions and means performed by offenders to fulfil Forced Begging was not possible. As with analysis of the case summaries for offenders engaged in Forced Labour, the actions and means used by offenders engaged in Forced Begging may have included additional actions and means present in investigation and prosecution files and information not evident in the case summaries. Further research on this aspect of human trafficking, disaggregating offender methods in detail from a greater number of convictions with quality of depth to the content of the information available on offender method is likely to reveal further insight into offender method to commit Forced Begging.

Exploring research Objective 3 through a closer inspection of the statistically significant results from a subset analysis of offenders engaged in Sexual Exploitation revealed that offenders engaged in the prescribed actions: Recruitment, Transportation and Harbouring were statistically likely to engage in Security. Security related to the second element means and created symmetry with the definition in the Palermo Protocol. Offenders engaged in Transportation were also likely to engage in the Purchase and sale of victims. This activity may relate to the 'transfer' and 'receipt of persons', the two actions in the first element of the definition that were not readily identifiable from the actions disaggregated from the case summaries. Offenders engaged in the Purchase and sale of victims were also statistically likely to engage in Security facilitating the completion of the definition with the addition of means.

Whilst Financial administration is not treated as an action in the definition, the day-to-day financial support to pay offenders and meet other expenditure that may be derived from proceeds from exploitation or from legitimate funds is addressed by Article 5.1 (ii) a. or b. of the UN OCG

Convention (knowingly, participating in activity that supports a criminal group) and the movement of profit from exploitation, Article 6. Separating the movement of profit or 'money laundering' into a separate Article in the UN OCG Convention that is isolated to the movement of profit reflects the perspective of money laundering in 2000, that it was an identifiable activity in its own right and that the movement of profit from any criminal enterprise into the legitimate financial system required 'placement, layering and integration', a perspective that is now recognised as a myth (Levi, 2015). Furthermore, Campana (2016a, pp. 68-86) identified that no 'centralized accounting system', in otherwords, a group of offenders managing the financial costs of human trafficking, meeting expenditure and moving profit across a network of human trafficking existed in a network of West African human trafficking across Europe. However, importantly, the essential activity of meeting the day-to-day financial costs of human trafficking and collecting money from exploitation is not specifically included in the definition of human trafficking.

It is unlikely that an organised human trafficking operation or any organised criminal operation can exist without operational finance. The prosecution of offenders engaged in operational finance is reliant upon adequate domestic implementation of Article 5.1 of the UN OCG Convention. If Financial administration is addressed by other domestic legislation then it does not require means to be established, but in isolating the prosecution of this activity by excluding it from the definition of human trafficking, it facilitates a perception that offenders engaged with finance are remote from criminality and are not harming people directly. Empirical evidence in this thesis indicated that offenders engaged in Financial administration for Sexual Exploitation directly engaged in human trafficking through Transportation, Harbouring and the Purchase and sale of victims. Offenders engaged in Transportation and Harbouring were statistically likely to engage in Financial administration. Maintaining a human trafficking operation requires finance to meet the day-to-day costs and offenders engaged in

moving victims and concealing them were doing so alongside the movement of money and the concealment of money. This 'hands-on' perspective of the relationship that offenders had with the financial aspects of human trafficking has been ignored as a result of the misconception that the movement of profit away from human trafficking requires morally dubious but apparently 'clean' people to move funds, evident in the separation of money laundering in Article 6 in the UN OCG Convention. In fact, offenders were moving money and victims. Furthermore, offenders engaged in Harbouring with Financial administration may have feared losing profit to other traffickers and authorities.

There were 309 offenders engaged in End Exploitation to further Sexual Exploitation and 184 of those offenders engaged in Security, means. It was statistically significant that offenders engaged in End Exploitation would engage in means and this activity was important with the strongest effect size and a Pearson's correlation coefficient result 0.46. As discussed at research Objective 2, offenders engaged in End Exploitation even with means did not meet the definitional construct of the three elements. It was necessary to establish a prescribed action was present. Offenders engaged in End Exploitation were statistically likely to engage in Transportation and the Purchase and sale of victims, activities which were likely to support a prosecution maintaining the symmetry of the three elements of the definition. However, the necessity of establishing a prescribed action in addition to End Exploitation was unnecessarily complex, assuming the rigid structure of process advocated by Chuang (2014, pp. 609-649) and Stoyanova (2015, pp. 32-73) to address the risk of 'exploitation creep'.

Figure 6.1: Offenders engaged in actions and means to fulfil Sexual Exploitation from multiple logistic regression
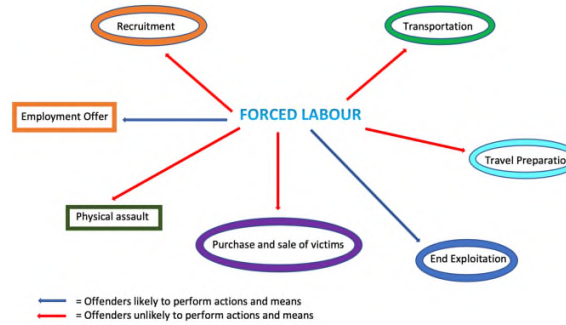
Figure 6.2: offenders engaged in actions and means to further Forced Labour from multiple logistic regression
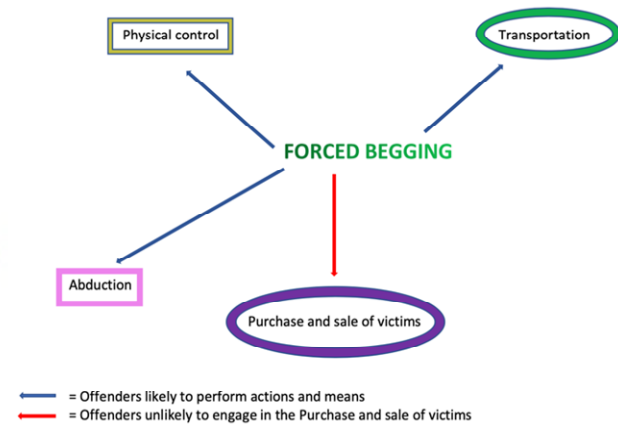
Figure 6.3: Offenders engaged in actions and means to fulfil Forced Begging from multiple logistic regression

Empirical evidence did not support the theory that offenders were being prosecuted unnecessarily, in fact, it supported a view that States were finding ways to prosecute these offenders precisely because they were likely to be engaged in the greatest harm to victims.

Empirical evidence supported the inclusion of Financial administration and End Exploitation as prescribed actions in the first element of the definition of the Palermo Protocol.

Figures 6.1, 6.2 and 6.3, reproduced above, highlighted the inconsistency in the first and second elements with the third element. For ease of comparison they are placed together on the same page. Blue arrows show the statistically likely actions and means that offenders performed, and red arrows show the actions and means that were unlikely to be performed by offenders.

Figure 6.1 for offenders engaged in Sexual Exploitation demonstrates the emphasis placed on the process of moving victims to their exploitation but also shows that offenders convicted of human trafficking for Sexual Exploitation were not likely to be benefitting from the proceeds of exploitation. Whereas Figure 6.2 for offenders engaged in Forced Labour demonstrated that victims were likely to have been recruited using a deceptive Employment Offer, offenders prosecuted for Forced Labour were likely to have engaged in End Exploitation and not Recruitment. This seems a contradiction but reflects the separation in process with offenders who brought victims into trafficking not prosecuted to the same extent as offenders at the end of the process of trafficking. Figure 6.3 identified both action and means were used by offenders engaged in Forced Begging. Offenders performing actions rather than means appeared more important to explain Sexual Exploitation.

The complexity of actions that enabled offenders to commit Forced Labour for human trafficking remained opaque. Harbouring was not supportive of the static nature of offending in Forced Labour. Victims were likely to have

moved themselves into a place of exploitation. It was likely that offenders were connected to the use of a deceptive Employment Offer but unlikely that they were involved in Recruitment.

Overall, Figures 6.1, 6.2 and 6.3 seemed deficient for appearing simplistic. The multiple logistic regression results only explained a small proportion of the purposes for which trafficking was taking place, represented in the very low explanatory power of the models (Sexual Exploitation, 4%; Forced Labour, 10%; Forced Begging, 7%).

Subset analysis of the actions and means performed by offenders within Forced Labour and Forced Begging was not suitable for empirical analysis due to the low numbers of offenders observed as shown in Table 6.3 above. Subset analysis was suitable to examine the actions and means performed by offenders to commit human trafficking for Sexual Exploitation.

Analysis of Sexual Exploitation at a subset level revealed that the structure of the elements in the definition of the Palermo Protocol, whilst likely to better fit the structure of a criminal offence with the actus reus (actions and means) followed by the mens rea (means and purpose), was not necessarily correct in the time order of events. The entry routes into trafficking through a deceptive Employment Offer, exploiting the Financial Hardship of the victim, 'Loverboy' Romance to further Recruitment and Abduction were all second element means that took place prior to the first element action. In Chapter 4, Tables 4.6, 4.7 and 4.9 confirmed that offenders engaged in Recruitment, Transportation and Travel preparation were difficult to distinguish with a confounding of order of actions. The means that were clearly entry routes into trafficking facilitated a separation of the order to the first element actions: offenders involved in Travel Preparation were likely to have used a deceptive Employment Offer to further Recruitment for Sexual Exploitation, whilst offenders engaged in Transportation were unlikely to have engaged in this means (multiple logistic regression of Transportation at Table 6.15). Offenders exploiting the Financial Hardship

of victims and offenders engaged in Abduction were likely to engage in Transportation and offenders using 'Loverboy' Romance engaged directly in End Exploitation. The means preceded each action and were crucial in building a more accurate understanding of the process of human trafficking.

Finally, as discussed at research Objective 2, offenders engaged in End Exploitation were engaged in coercive means to maintain control of victims. The process of exploitation was likely to involve a cycle of means. Offenders were using means as a mechanism to maintain a cycle of exploitation (evidenced at Table 6.13). The simplicity of identifying one means furthering an action was not evident at this stage of human trafficking. Means appeared to take over to ensure a consistent and continuous flow of profit from the victim and importantly, for offenders means may have also reflected an offender's fear of losing income from a victim's exploitation or being identified as a trafficker by authorities.

Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

Figure 6.4 was the basis for a theoretical model, as recommended by Martinez-Lopez et al. (2010, pp. 115-152), upon which further statistical analysis was performed to explore an order to actions and means and whether the theoretical model was advanced by structural equation modelling. To identify strands of process suitable for analysis using structural equation modelling to advance an understanding of the effect of purpose on offender method, multiple logistic regression results were brought together in a visualisation. Actions and means that were statistically likely to be performed together by offenders were identified by a blue arrow. Actions and means that were unlikely to be performed together by the same offender were highlighted with a red arrow. Figure 6.4 is reproduced below and shows a very complex array of interaction of actions and means within Sexual Exploitation.
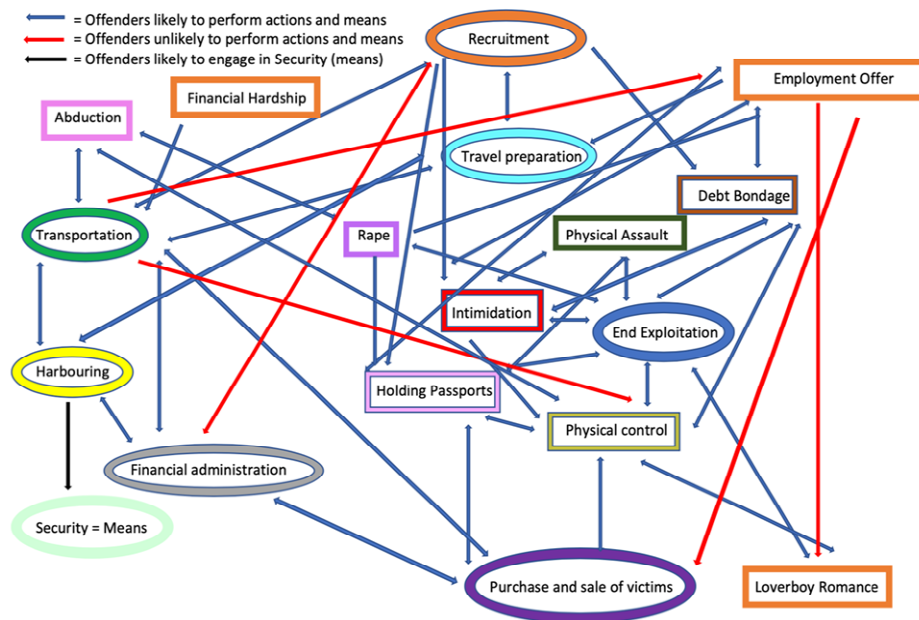
Figure 6.4 Multiple logistic regression results of actions and means to fulfil Sexual Exploitation

Offenders performing actions and means were very interconnected from the visualisation appearing at Figure 6.4 and it was unclear who might initiate actions and means and the extent to which their involvement was likely to continue or end with other offenders taking over the process.

Following structural equation modelling, Figure 6.4 was further refined with separate visuals for offenders engaged in general Recruitment (Figure 6.5), a deceptive Employment Offer to further Recruitment (Figure 6.6), 'Loverboy' Romance to further Recruitment (Figure 6.7), Financial administration (Figure 6.8) and End Exploitation (Figure 6.9). Blue arrows indicated that an offender was statistically likely to perform an action or means. Red arrows indicated that offenders were unlikely to perform an action or means and green arrows identified the action or means that was influenced by another action or means performed by the offender. Figures 6.5 – 6.7 created at Question 13 are reproduced below.
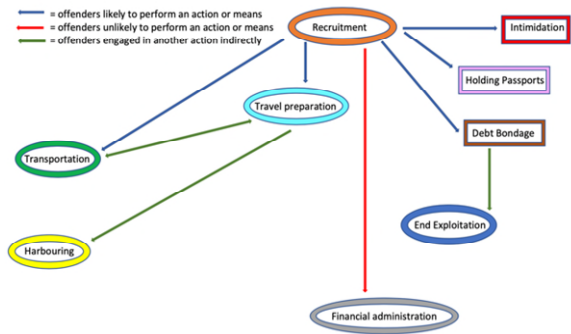
Figure 6.5 Offenders engaged in general Recruitment to further Sexual Exploitation with multiple logistic regression, gsem and sem results.
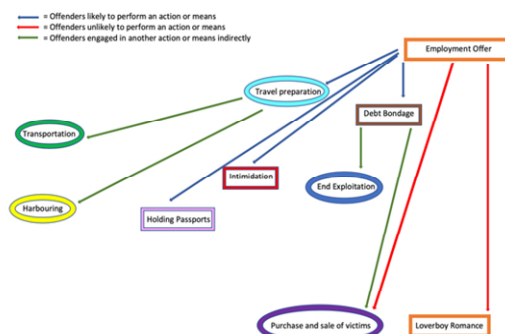
Figure 6.6 Offenders engaged in a deceptive Employment Offer to further Sexual Exploitation with multiple logistic regression, gsem and sem results.
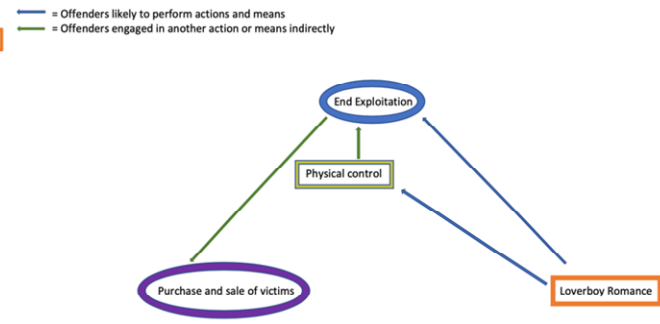
Figure 6.7 Offenders engaged in 'Loverboy' Romance to further Sexual Exploitation with multiple logistic regression, gsem and sem results.

Offenders engaged in general Recruitment and a deceptive Employment Offer to further Recruitment performed very similar actions. However, the confounding of the actions performed by offenders engaged in Recruitment, Travel Preparation and Transportation was disrupted by a deceptive Employment Offer. Offenders using a deceptive Employment Offer with Travel Preparation were adept at deception and manipulation. Offenders supported victims with gaining passports, visas and general assistance in making the journey towards their exploitation. Offenders appeared to continue with the deception by passing victims on to be concealed through Harbouring. It is possible that in these circumstances and whilst deceived, victims consented to Harbouring, believing that they were entering countries illegally with the promise of employment awaiting them at the end of their journey. Offenders using deception in this way were also likely to use Debt Bondage and sell victims on to other traffickers through the indirect relationship with the Purchase and sale of victims. This relationship was not evident in the flow of actions from general Recruitment.

The model for offenders engaged in 'Loverboy' Romance was simplistic. Victims were likely to be directly exploited and the means to maintain this exploitation was likely to involve coercion with Physical Control of victims. Offenders were likely to be sole traffickers rather than part of a larger network. The 'Loverboy' Romantic approach was both a means of creating a state of vulnerability in a victim and of maintaining it. It was also an overt (fraud or deception) and subtle (abuse of power or position of vulnerability) means. Offenders appeared to end the arrangement by passing victims on for Sale to other offenders, although this was not evident in observations (n. 0) but was evident in both forms of structural equation modelling. The use of Physical control and the bond offenders created with victims may have had some affinity with domestic violence and coercive control relationships (Kleemans, 2011a) and the 'exploiter' and the 'bully' profiles identified by Toch may have been particularly relevant for understanding the behaviours of these offenders (Toch, 2017). The few offenders identified in this study

did not support a view that lone traffickers using the 'Loverboy' recruitment method were as prevalent as reported (van der Wilt, 2014). However, the few offenders may have had more to do with the selection of cases appearing in SHERLOC, or the difficulty with detecting offenders that groomed the victim and used an array of means to maintain control over the victim. In addition, they were likely working in isolation with no other offenders involved. Research into the psychology of offenders practiced in 'Loverboy' Romance may be fruitful for understanding this phenomenon. It appeared to stand apart from other entry routes into Sexual Exploitation.

Offenders engaged in Financial administration were the link towards offenders engaged in End Exploitation. The Figures 6.8 and 6.9 are reproduced and appear alongside each other.

Figure 6.8 showed the importance of understanding offender method related to Financial administration. Offenders engaged in Financial administration and Transportation played a central role within a network. They maintained the life blood of activity meeting the costs of moving the victim and moving funds to meet those costs. Offenders engaged in Financial administration indirectly supported Recruitment and Travel Preparation in this way. Offenders were involved in operational finance, moving victims and profit from the sale of victims or reimbursing the cost of purchasing victims. Offenders were indirectly connected to End Exploitation through the Purchase and sale of victims. This indirect relationship was likely to be related to victims being brought into a network or moved out of the network with the necessity of paying for new victims and receiving compensation for the sale of victims to other traffickers. Offenders engaged in End Exploitation were connected to this sale and resupply of victims in this model. This was not evident in Figure 6.9 for offenders engaged in End Exploitation.

Figure 6.8 Offenders engaged in Financial administration to further Sexual Exploitation with multiple logistic regression, gsem and sem results
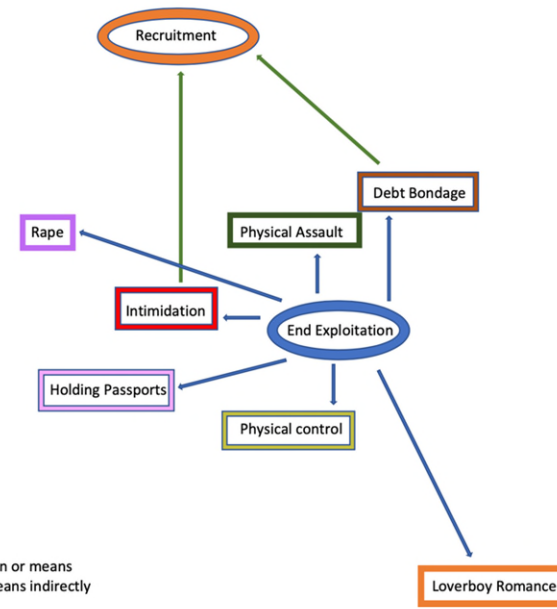
Figure 6.9 Offenders engaged in End Exploitation to further Sexual Exploitation with multiple logistic regression, gsem and sem results

Another feature of Figure 6.8 is the lack of means present in this service focused visualisation. Means appeared more prevalent in Figures 6.5 – 6.7 for the entry routes into trafficking and at Figure 6.9 for End Exploitation of victims but not in the general process of managing the financial aspects of moving victims and moving money. Further research on human trafficking offender method exploring data from investigation and prosecution files is likely to yield more information about the extent to which offenders engaged in the use of means.

Offenders engaged in End Exploitation to further Sexual Exploitation were likely to indirectly effect Recruitment through Debt Bondage and Intimidation. Debt Bondage was used by offenders engaged in general Recruitment at Figure 6.5 above and a deceptive Employment Offer (Figure 6.6) and indirectly effected End Exploitation. This was evidence of sole traffickers operating and evidently Debt Bondage in Sexual Exploitation was an indicator for this type of offender.

In conclusion, analysis of the third element through questions explored in this Chapter supported the importance of purpose for understanding offender method to commit human trafficking. Offenders engaged in 'Loverboy' Romance were primarily involved in human trafficking for Sexual Exploitation and no other purpose. Analysis within Sexual Exploitation provided greater clarity for the confounding of activities in the Recruitment process. Offenders engaged in Transportation were clearly performing other actions as well as moving victims. Their engagement in Financial administration by moving profit and operational finance and concealing profit by Harbouring victims and money were evident for subset analysis. There was also a greater perspective about harm through the means that were used in conjunction with actions. Offenders involved in End Exploitation appeared to be the most dangerous by the array of overt means deployed against victims.

In the following chapter, the four research objectives explored in this Discussion and in the Discussion sections of Chapters 4 and 5 are explored in depth to determine the extent to which this research has developed knowledge on human trafficking offender method.

Chapter 7   Conclusion

This thesis has explored offender method to commit human trafficking. The aim of this exploration was to undertake empirical research, structured in accordance with the definition that has been negotiated and ratified by the international community, and upon which other provisions in the UN OCG Convention are reliant for common agreement to facilitate joint investigation, judicial cooperation and pursuit of proceeds of crime (Articles 13 – 22 UN OCG Convention).

Research on offender methods to commit human trafficking to date (2020) has not been extensive, with relatively few examples of empirical analysis: Siegel and de Blank (2010, pp. 436-447; Marcus et al (2014, pp. 225-246); Broad (2015, pp. 1058-1075); Cockbain and Wortley (2015, p. 35); Baarda (2016, pp.257-273); and Campana (2016a, pp. 68-86). This deficiency has been due to a lack of available data on human trafficking offenders (Salt, 2000; Lehti, 2006; Kangaspunta, 2007; Brunovskis, 2010; Patterson, 2018) and perhaps due to a lack of skill or application of empirical scientific method (Albanese, 2007; Aromaa, 2007; Zhang, 2009; Kleemans, 2011b; Datta, 2013; Weitzer, 2014, 2015; Cockbain, 2018, 2019). Legal academic research has identified a division in agreement between scholars on the extent to which human trafficking is the process of moving a victim to a point of exploitation (Chuang, 2014; Stoyanova, 2015), or includes both the process of moving a victim and the static action of exploiting a victim (Gallagher, 2010). An exploration of academic research in Chapter 2, led to the identification of three research objectives requiring consideration in this thesis:

1. To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.
2. To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is

interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

3. To assess if the international definition adequately reflects convicted offender method.

A further fourth research objective was identified in Chapter 2, exploring the opportunities to identify a structured process in human trafficking offending through data analysis:

4. To determine whether offender method to commit human trafficking has structure and order to it?

This Chapter brings together the findings of this thesis and the structured discussions from each empirical chapter (Chapters 4, 5 and 6). Each of the four research objectives is explored in depth to develop knowledge on human trafficking offending specific to each research objective.

7.1   Objective 1

To better understand the terms in the international definition of human trafficking that have created uncertainty through the measurement of what is actually prosecuted as human trafficking across a body of convictions and jurisdictions.

The Working Party of the UNODC commissioned a series of papers on the terms in the Palermo Protocol definition of human trafficking that were causing difficulty for Member States to interpret. As the UN OCG Convention was structured to encourage transnational cooperation on combatting organised crime including human trafficking, it was imperative that Member States agreed upon the definition of the crime and the terms within that definition (UNODC, 2013, 2014, 2015b).

7.1.1 The first element terms

Disaggregating offender methods from the 486 case summaries included in the study revealed that there were nine actions consistently performed by offenders to commit human trafficking: Recruitment, Travel preparation, Transportation, Harbouring, the Purchase and sale of victims, Financial administration, End Exploitation, Security and Strategy. Security was a grouping of means used by offenders to protect or secure the continuation of trafficking activity. The descriptions for these actions appear at Table 4.1 in Chapter 4.

A number of the actions performed by offenders were not in the prescribed list of actions in the first element of the Palermo Protocol definition. They are discussed in more detail at research Objectives 2 and 3. Recruitment, Transportation and Harbouring that are prescribed actions in the first element, were clearly identifiable from offender methods. The remaining prescribed actions 'transfer' and 'receipt of persons' were not readily identifiable. They appeared to be blended actions. Recruitment, Transportation and the Purchase and sale of victims might involve the 'transfer' of victims to other offenders or situations and 'receipt of persons' was likely to be involved in Transportation, Harbouring, the Purchase and sale of victims and End Exploitation activity. These terms appeared to be useful as a 'catch all' for prosecuting offenders involved in other activity to further human trafficking.

Harbouring as an activity was restricted to the concealment of victims in this thesis. It was not extensively performed by offenders (n. 58 offenders). Whilst it was possible that offenders engaged in Harbouring had not been detected or prosecuted or that the case summaries were insufficiently populated with information on this aspect of offending, it was also likely that the few offenders engaged in Harbouring challenged the perception that trafficking victims are concealed from everyday members of the public. Empirical evidence indicated that victims of trafficking were more likely to be visible and accessible than is generally appreciated.

The prescribed list of actions in the first element was extended by the regional treaty, the Council of Europe Convention (van der Wilt, 2014) with the addition of facilitating and arranging travel through forged or procured documents. The description of Travel Preparation in this thesis was broader than this activity, including attending official meetings, paying for supplies and giving victims cash to pay for visas or bribe border officials. Offenders engaged in Travel Preparation were not just performing this activity with Recruitment or with Transportation, there were 54 offenders also engaged in End Exploitation and 19 offenders in the Purchase and sale of victims.

Financial administration and Strategy actions were identified in offender method but were not included in the definition of human trafficking in the Palermo Protocol, instead Articles 5.1 and 6 of the UN OCG Convention[23] were more likely to be relevant for a prosecution of an offender for these activities.

7.1.2 The second element terms

In the second element of the Palermo Protocol definition, the means:

> 'giving or receiving payments or benefits to achieve the consent
> of a person having control over another person,' (Art. 3
> Palermo Protocol, UN OCG Convention)

has been subject to further consideration by the Working Party of the Palermo Protocol. It had created confusion among Member States with respect to its interpretation (UNODC, 2013). This term did not become evident as a means from coding offender method from the case summaries. It was apparent in offender activity for the Purchase and sale of victims.

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[23] 'Organizing, directing, aiding, abetting, facilitating or counselling the commission of serious crime involving an organized criminal group.' (Article 5.1(b) United Nations Convention Against Transnational Organized Crime, 2000).

Alternatively, this term may refer to the payment of family members by offenders to exploit children or vulnerable people. The descriptive results in Chapter 3 revealed that whilst there was evidence that 60 offenders exploited their own family members, which may have included their sale to other traffickers, there was very little evidence that this was a means used by offenders to purchase the control of victims from other families. It was also unclear which action this means would fulfil. It was likely it would fulfil End Exploitation, which is an action, but not listed in the prescribed actions of the first element.

To give a better understanding of how the second element in the Palermo Protocol translated to the means identified for analysis in this thesis, Table 5.4 was created. It is reproduced below. Table 5.4 shows how the means identified from offender method, mapped to discussion in Issue Papers produced for the Working Party of the UNODC (UNODC, 2013, 2014):

Table 5.4 Actual means used and their delivery and function for achieving action

Variable	Obvious means	Subtle means	Means creating a vulnerability	Means maintaining a vulnerability
Employment Offer		Fraud or Deception	Creating	
Financial hardship	Abuse of a position of vulnerability		Creating	Maintaining
'Loverboy' Romance		Fraud or Deception; Abuse of power or a position of vulnerability	Creating	Maintaining
Physical hardship		Abuse of a position of vulnerability	Creating	Maintaining

Intimidation	Coercion			Maintaining
Physical control	Use of force			Maintaining
Physical assault	Use of force			Maintaining
Debt Bondage		Abuse of position of vulnerability	Creating	Maintaining
Holding Passports	Coercion		Creating	Maintaining
Abduction	Abduction		Creating	
Rape	Use of force		Creating	Maintaining
Weapon	Use of force or Coercion		Creating	Maintaining
Corruption	Abuse of power	Abuse of power	Creating	Maintaining
Voodoo Ritual	Coercion	Abuse of power or of a position of vulnerability		Maintaining
Controlling Communications	Coercion			Maintaining
Murder/ Manslaughter	Use of force or Coercion			Maintaining for other victims
Sexual abuse	Use of force		Creating	Maintaining
Torture	Use of force			Maintaining

Table 5.4, or something similar, should be included in future research of means as it adopts the concepts raised in the literature and applies them to the means disaggregated from case summaries. This approach is important and practical as it will aid prosecution of offenders where Member States have imported the wording and terms of the second element of the Palermo Protocol into their domestic legislation. However, practically, at a higher level of analysis, means split into deception and coercion. Empirical

research did not show that means were as complex as the wording in the second element. Means separated into what was used by a trafficker to get a victim into trafficking at the outset, and what was used to keep a victim in trafficking.

Deception was more commonly used by offenders to get victims into trafficking: a deceptive Employment Offer or 'Loverboy' Romance. Exploiting the Financial Hardship of the victim to further Recruitment was partially honest, in that victims understood that they would be engaged in prostitution or begging but not honest about the conditions and day-to-day life that they were going to experience. As with the separation in actions, there appeared to be a separation in offenders practised at deception from offenders using coercive means. Analysis of offenders using a deceptive Employment Offer, which was the most likely means for Recruitment, showed that these offenders at most used Intimidation either at the same time or following Recruitment, along with Debt Bondage and Holding victim Passports. However, offenders using a deceptive Employment Offer were unlikely to use Physical Control or Abduction, evidenced by bivariate logistic regression in Table 5.9. Offenders exploiting the Financial Hardship of victims were not statistically likely to use any coercive means.

The more coercive means were used to maintain control of a victim, they were present in analysis of offenders engaged in general Recruitment and following a deceptive Employment Offer, but they were predominantly used by offenders to keep a victim in trafficking for End Exploitation. The coercive means to maintain a victim in trafficking identified in this thesis were: Intimidation, Physical Control, Physical Assault and Rape. The offender that was Holding a victim's Passport was also more likely to engage in more coercive means.

Offenders using 'Loverboy' Romance were a different category of offender interchanging deceptive and coercive means. These offenders were statistically likely to use Physical Control and engage in End Exploitation from

multiple logistic regression analysis and they were statistically likely to Rape their victims from bivariate logistic regression analysis. There were only a few offenders identified in the data (n. 33) and virtually all of these offenders (n. 32) engaged in Sexual Exploitation. They groomed victims to keep them in a close relationship and this closeness is likely to be the cause of the lack of prosecution evident in the case summaries. Of those cases that were included, where they provided sufficient detail about the offender's method, they were particularly difficult to read. One case, UNODC DEU003 involved an older male grooming a female minor of 14 years (UNODC, 2017). He took several years to build a close sexual relationship with her before prostituting her. The offender had a wife and family and promised to leave them for her. He used the proceeds from her prostitution as an income to sustain his wife and family. Once she was in prostitution he would rape and beat her to maintain control. The exploitation continued for 11 years. Whilst she eventually escaped and was awarded significant financial compensation, and he was prosecuted, the facts of the case were so severe that it was very difficult to imagine how she would begin to rebuild her life following this experience. Empirical data and analysis did not fully communicate the extent of the harm caused by offenders using this means and the longer-term consequence of this behaviour.

7.1.3 The third element terms

The third element was constructed to address offender intention to commit human trafficking, namely that all of the first element actions using the second element means were carried out by an offender to benefit from the proceeds of exploitation. There were seven purposes identified in case summaries: Sexual Exploitation (751 offenders), Forced Labour (115 offenders), Forced Begging (62 offenders), Forced Criminality for theft (25 offenders), Domestic Servitude (21 offenders), Forced Criminality for commercial surrogacy (15 offenders) and Slavery for Forced Marriage (5 offenders). The range of purposes identified from case summaries revealed

that Member States were making use of the expansive structure of the third element to pursue human trafficking prosecutions.

An empirical exploration of the various purposes for which offenders were engaged in human trafficking revealed relative simplicity in disaggregating data on Sexual Exploitation, Forced Labour, Forced Begging and Forced Criminality from the case summaries. However, examining case summaries held in France's case file in SHERLOC did not evidence that France had a specific offence for human trafficking, and there was no consistency in the application of domestic legislation to determine whether cases were human trafficking for Sexual Exploitation, prostitution, pimping or brothel keeping (UNODC, 2017). As a result, the data related to these cases and offenders were not collected as part of this study. Domestic consistency in approaching human trafficking was integral to facilitating the cross-jurisdictional empirical analysis in this thesis.

Regardless of the level of consistency in domestic implementation of human trafficking for Forced Labour, it was unclear if Forced Labour for human trafficking was being pursued by Member States, even if it had been implemented into domestic legislation. There were very few offenders convicted of human trafficking for Forced Labour (115). The apparent absence of convictions across the Member States may have been due to uncertainty of the term 'Forced Labour' in international law, or through a conscious domestic political decision to narrow the scope of this term in legislation to the domestic labour market conditions. Developing an understanding of the range of actions and means related to human trafficking for Forced Labour required further research. It may be beneficial for research to be conducted in Member States where convictions for human trafficking for Forced Labour have been made and there is a diverse range of court cases that includes legal proceedings for other labour law infringements such as unpaid wages and working conditions, to gain a greater insight into the distinction between human trafficking for Forced Labour and other labour law disputes.

In the literature review in Chapter 2, Forced Begging and Forced Criminality were recognised as forms of human trafficking exploitation through the EU Directive 2011 (European Union Directive 2011/36/EU, 2011). There was evidence that Forced Criminality for commercial surrogacy was being pursued as a form of exploitation, although it was not significantly present in the case summaries (15 offenders). There was evidence of acceptance of these forms of exploitation internationally beyond the European Union, although not consistently (UNODC, 2015b). Domestic Servitude as a form of exploitation has had a more uncertain history in European case law. Whilst it has appeared as an accepted form of exploitation generally, since the Case of Siliadin in 2005 (Siliadin v. France, 2005, ECtHR, 73316/01), there has been uncertainty as to which term from the international definition adequately reflects this form of exploitation: Forced Labour, Slavery or Servitude. The European Court of Human Rights has presented conflicting case law on the matter (Siliadin v. France, 2005, ECtHR, 73316/01; Rantseva v. Cyprus and Russia, 2010, ECtHR, 25965/04) but finally settled for Domestic Servitude as presenting an aggravated form of Forced Labour or Servitude (C. N. & V. v. France, 2012, ECtHR, 67724/09).

There was more complexity and uncertainty for the newly emerging forms of exploitation, such as Forced Marriage. There were offenders included in this study, although only 5, and there was uncertainty as to whether this was a form of exploitation or whether it was in fact a means used to further another form of exploitation such as Forced Labour or Sexual Exploitation in case law (M. and Others v. Italy and Bulgaria, 2012, ECtHR, 40020/03).

To conclude, the terms 'transfer' and 'receipt of persons' in the first element of the Palermo Protocol definition are partially reflected in other indentifiable actions performed by offenders to commit human trafficking. The other three actions: 'recruitment, transportation, harbouring' were present and identifiable in offender method.

The drafting of the second element presents complexity of means that is not necessarily reflected in offender method. Offender method diverges into deception and coercion. The 'Loverboy' Romance means was not specifically included in the drafting of the second element, but offenders performing this category of means use a combination of deception and coercion, building close personal and long-term relationships with victims, making them a flexible hybrid of offender that is particularly dangerous and likely difficult to investigate and prosecute. Further research is recommended on the nexus between coercive control relationships and prostitution to gain a greater insight into the type of offender who deploys this means and its prevalence.

Applying a consistent approach in domestic legislation to human trafficking for a form of exploitation is essential to facilitate cross-jursidictional analysis of offender method to commit different types of trafficking. Further research undertaken in developed Member States on the actions and means used by offenders and employers for both human trafficking for Forced Labour and other labour law infringements may assist in developing a greater understanding of the term Forced Labour, in practice.

7.2   Objective 2:

To identify whether human trafficking is prosecuted as a process crime (Chuang, 2014; Stoyanova, 2015) or whether the definition is interpreted broadly to include both the process and the prosecution of offenders engaged in the end exploitation of victims across a body of convictions and jurisdictions (Gallagher, 2010; Dempsey, 2017).

Academic legal theorists have diverged in their view on the interpretation of the definition of human trafficking in the Palermo Protocol. Gallagher (2010, pp. 12-53) has argued that it is an 'umbrella definition' combining the process of moving the victim to a place of exploitation and covering the end exploitation of the victim through the prescribed action harbouring. The

opposing argument presented is that Member States never intended the definition to include the end exploitation of victims and that the process of moving a victim to a place of exploitation is the original and negotiated position on the terms of the definition of human trafficking (Chuang, 2014; Stoyanova, 2015). Furthermore, that by facilitating the prosecution of offenders for human trafficking who are engaged in end exploitation of victims, there is a risk that 'exploitation creep' dilutes the importance of the offence of human trafficking through prosecution of people for minor infringements that would be best addressed by other enforcement mechanisms (Chuang, 2014).

In Chapter 4, across purposes, empirical analysis from bivariate and multiple logistic regression and from advanced modelling did support the movement of victims from entry into trafficking towards their exploitation. Offenders engaged in Recruitment, Transportation and Travel preparation were statistically likely to perform these actions together, indicating that there was a Recruitment process that led to the movement of victims. However, the results from empirical analysis presented some challenge to the theory that human trafficking is a process crime with no static exploitation of victims. Noticeably, 421 offenders were prosecuted for End Exploitation and 129 of these offenders did not perform another activity. Offenders involved in End Exploitation were highly likely to be involved in Security which usually involved coercive means (n. 251 Odds ratio 4.88, Standard Error 0.69, Z-statistic 11.20, p-value 0.00***) and combining these actions had the strongest effect size (Pearson's correlation coefficient 0.37), which was more prevalent than offenders combining Recruitment with Transportation (Pearson's correlation coefficient 0.13).

Arguments presented by Chuang (2014, pp. 609-649) and Stoyanova (2015, pp. 32-73) were also presenting human trafficking as a linear process. A victim enters trafficking through recruitment and is transported at which point the victim leaves the process of human trafficking and is exploited. Following this analysis, Chuang (2014, pp. 609-649) and Stoyanova (2015,

pp. 32-73) rely on other international legislation to address the conditions of exploitation, but this analysis ignores the cycle of human trafficking which may involve a victim being exploited on numerous occasions in different places along the journey or in a static environment or later sold to another trafficking network. Empirical analysis of the first element of the definition revealed that there were other actions necessary to fulfil and maintain human trafficking, involving Travel preparation, Security, Financial administration, the Purchase and sale of victims and Strategy.

Empirical analysis did support Gallagher's (2010, pp. 12-53) view that Harbouring was being used to prosecute offenders engaged in End Exploitation with 29 offenders combining these actions across purposes, which was 50% of offenders engaged in Harbouring (n.58), but this combination of activity was not statistically significant, and it was noticeable that considerably more offenders engaged in End Exploitation (n. 129) were prosecuted with no evidence of the use of Harbouring or any other activity to further prosecution.

Exploring actions and means through the third element, purpose, revealed that offenders performed all of the actions and means identified in Chapters 4 and 5 to fulfil three purposes: Sexual Exploitation, Forced Labour and Forced Begging. Every action or means had at least one offender observed (Table 6.3 and 6.4). As discussed at research Objective 1, not all of the actions that were performed by offenders appeared in the prescribed list of actions in the first element.

An edited version of Table 6.5 previously shown in analysis at Question 10 above, including only actions that related to the prescribed actions in the Palermo Protocol definition (Recruitment, Transportation and Harbouring) and the action subject to discussion amongst academic scholars, 'End Exploitation' (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015), is reproduced as an edited version below at Table 6.24:

Table 6.24 Edited Table 6.5, a comparison of process actions and End Exploitation across purposes

	Recruitment % of 452 offenders (number of offenders observed)	Transporta-tion % of 260 offenders (number of offenders observed)	Harbouring % of 58 offenders (number of offenders observed)	End Exploitation % of 421 offenders (number of offenders observed)
Sexual Exploitation (baseline 77.3%)	84.3% (371) **7.0%**	79.2% (206) **1.9%**	77.6% (45) **0.3%**	73.4% (309) **3.9%**
Forced Labour (baseline 11.8%)	8.2% (37) **3.6%**	6.2% (16) **5.6%**	10.3% (6) **1.5%**	15.2% (64) **3.4%**
Forced Begging (baseline 6.4%)	6.9% (31) **0.5%**	11.2% (29) **4.8%**	6.9% (4) **0.5%**	8.1% (34) **1.7%**

Table 6.24 shows the percentage of offenders performing a purpose, taken as a baseline, for a comparison of the number of offenders performing an action allocated to that purpose. To aid a visual comparison of the variation in percentage, where the allocation of offenders represented as a percentage was above the baseline percentage for the purpose, the variation in percentage was coloured green and where it was below the baseline, the variation in percentage was coloured red.

The comparison of actions in Table 6.24 identifies that offenders were prosecuted for process actions related to human trafficking for Forced Labour: Recruitment, Transportation and Harbouring but prosecutions were greater for End Exploitation.

Table 6.6 sets out the bivariate logistic regression results for statistical significance of offenders performing actions to further a purpose. Offenders were statistically likely to perform End Exploitation for Forced Labour and statistically unlikely to engage in Recruitment and Transportation for Forced

Labour. Whilst offenders were statistically unlikely to perform End Exploitation to further Sexual Exploitation. From an empirical analysis it was possible to conclude that the process actions subject to debate by academic legal scholars reflected human trafficking for Sexual Exploitation but not human trafficking for Forced Labour. Eliminating prosecutions of offenders engaged in End Exploitation for Forced Labour would have materially reduced the number of offenders observed for this purpose. Of the 115 offenders observed engaged in Forced Labour, 64 offenders engaged in End Exploitation, 37 in Recruitment, 16 in Transportation and 6 in Harbouring. The debate between academic legal scholars did not reflect the actual prosecutions for Forced Labour in this study. Gallagher's (2010, pp. 12-53) advocacy of the use of Harbouring as a static action to include offenders engaged in End Exploitation was not reflected in the case summaries, assuming that Harbouring is defined as the concealment of victims, a strict interpretation of the undefined term. Chuang (2014, pp. 609-649) and Stoyanova's (2015, pp. 32-73) approach to excluding all offenders engaged in the static End Exploitation of victims would have further reduced the opportunity for analysis.

There were few offenders observed in Forced Begging, n. 62. There were 34 offenders engaged in End Exploitation for Forced Begging but there were also 31 offenders engaged in Recruitment, 29 offenders engaged in Transportation and 4 offenders engaged in Harbouring. The nature of Forced Begging required victims to be out in public on the street, inevitably leaving offenders more visible where they were engaged in process actions. There were fewer offenders than expected prosecuted for End Exploitation for Sexual Exploitation but more than expected for the prescribed process actions, noticeably Recruitment. The prescribed actions in the first element better reflected human trafficking for Sexual Exploitation and Forced Begging. They did not adequately reflect offender method for Forced Labour.

In Table 6.8 there was a comparison across the three purposes of the distribution of offenders engaged in means to achieve action. Offenders engaged in Forced Labour had a higher prevalence for Physical Assault, Intimidation and Holding victim Passports than was expected from the baseline of 11.8%. These results were not statistically significant from bivariate analysis and may have arisen as a result of chance rather than demonstrating a trend in harmful behaviour. However, any reduction in the prosecution of offenders engaged in Forced Labour, an inevitability if offenders engaged in End Exploitation are not prosecuted for human trafficking, would reduce the opportunity for exploring the harm caused by offenders engaged in Forced Labour. Advocating for a restrictive list of process actions (Chuang, 2014; Stoyanova, 2015), whilst Forced Labour is included as a form of exploitation in the third element, appears contradictory (United Nations Convention Against Transnational Organized Crime, 2000). Whilst Chuang (2014, pp. 609-649) and Stoyanova (2015, pp. 32-73) present as conservatives of the original negotiation and drafting of the definition and that the actions in the first element must be adhered to and relate only to process, Forced Labour is specifically listed in the third element and yet in empirical analysis of the actions that are performed to fulfil human trafficking for Forced Labour, the prescribed actions do not accurately mirror offender method. Forced Labour is not served by the process actions of the first element. This discrepancy cannot be reconciled. A choice has to be made. Does the first element or the third element take precedence? Logic would suggest that Member States agreed the specific inclusion of Forced Labour in the third element and that combatting this form of human trafficking was the priority rather than the mechanism of how offenders achieved Forced Labour. Fewer prosecutions would have been included in this analysis and even less opportunity for understanding the harm offenders posed to victims of Forced Labour if Chuang (2014, pp. 609-649) and Stoyanova's (2015, pp. 32-73) position was accepted. At present, the legal academic debate on the process of human trafficking and the implications for prosecutions of Forced Labour is delivered persuasively

from both perspectives (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015). However, these perspectives are not necessarily an accurate portrayal of the circumstances, experiences or harm caused to victims. Further empirical research is recommended to improve our knowledge on human trafficking for Forced Labour.

Turning to examine the action that is subject to debate, End Exploitation. The phrase 'any means necessary' was pertinent to offenders engaged in this action. To illustrate this point, the visualisation at Figure 6.9 (reproduced below) shows the flow of actions and means used by offenders engaged in End Exploitation within Sexual Exploitation. It is created from multiple logistic regression and structural equation modelling results. Blue arrows indicated that an offender was statistically likely to perform actions or means together and green arrows identified the action or means that was influenced by another action or means performed by the offender.

Offenders were statistically likely to use Intimidation, Physical Control, Physical Assault, Debt Bondage, Holding victim Passports and Rape. Rarely were overt means used at the Recruitment and Transportation stages of trafficking. All multiple logistic regression models of means used to maintain victims in human trafficking included End Exploitation as an action in the model. They had the greatest explanatory power of all multiple logistic regression models (see Table 6.17 for comparison of explanatory power across models) and demonstrated that identifying offenders engaged in End Exploitation was crucial to progressing an understanding of offender risk and victim harm (Kahneman, 2011; Eck, 2013). In End Exploitation there was a multitude of coercive means deployed against victims when they were in the static phase of human trafficking and this may have been directly related to an offender's perception of risk of loss of revenue and concealment of their involvement in the victim's circumstances (Cottrell, 2005).
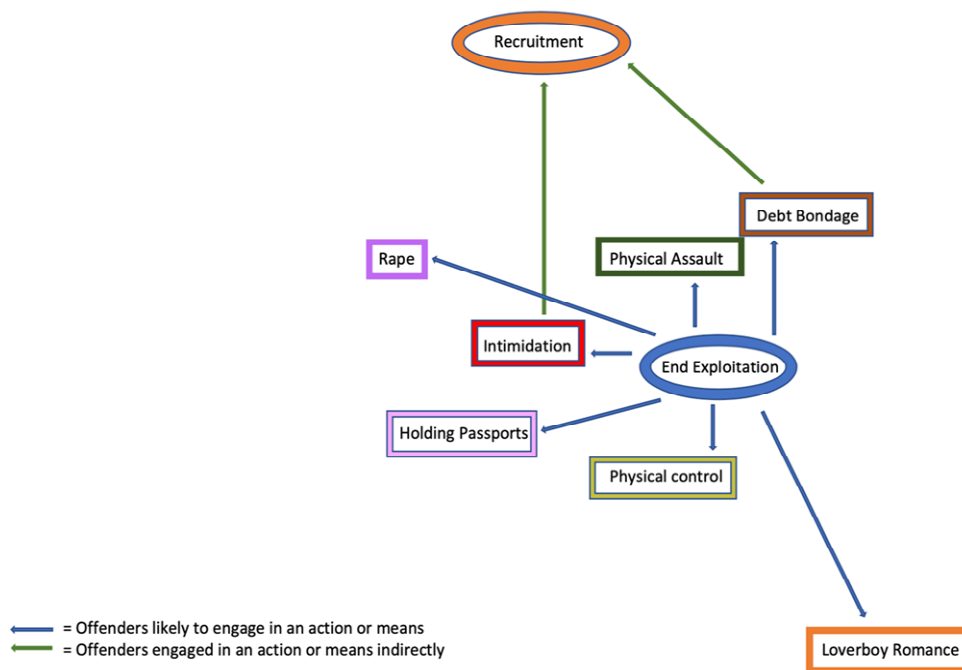
Figure 6.9 Offenders engaged in End Exploitation in Sexual Exploitation with multiple logistic regression, gsem and sem results

Furthermore, there may be a combination of psychological profiles of offenders using multiple overt means to further End Exploitation such as the 'exploiter' or the 'bully' (Toch, 2017). Chuang (2014, pp. 609-649) and Stoyanova's (2015, pp. 32-73) interpretation of human trafficking as a process bringing a victim to a point of exploitation but not including their End Exploitation did not reflect the continuing cycle of harm experienced by victims. It also challenged Chuang's (2014, pp. 609-649) concern that 'exploitation creep' was occurring. Offenders engaged in End Exploitation for human trafficking to further Sexual Exploitation were causing harm to victims. Prosecutions for offenders engaged in End Exploitation did not appear to have extended the offence beyond its natural and intended sense, the concern related to 'exploitation creep' was not reflected in empirical evidence. Offenders prosecuted for End Exploitation had not distorted the true nature of the risk and harm from the crime of human trafficking (R. v. Tang, Chief Justice Gleeson, 28th August 2008, High Court of Australia, unreported; Chuang, 2014; van der Wilt, 2014; UNODC, 2015b).

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Another consequence of the debate between legal academic scholars on the definition of human trafficking has been to focus on the prescribed actions and not consider the significance of the second element. As discussed under research Objective 1 above, deception was more likely to be used for the entry into trafficking and for the movement of a victim towards their exploitation. It was important to understand that means were not simply segmented and isolated but operated together like interconnected levers to facilitate offending. Means involving deception were not without danger, as has been inferred from discussion evident in the UNODC Working Party papers on victim consent and vulnerability (UNODC, 2013, 2014). The subtlety of means belied the precarious nature of a victim's position with the prevalence of coercive means once the victim was in End Exploitation. Focusing on the actions and engaging in a debate between academics on their perception of what is important for understanding human trafficking is fundamental to the development of knowledge, but it may also lead to a distorted analysis of what is relevant. For example, empirical analysis identified that very few offenders engaged in Harbouring activity (58 offenders), a prescribed action in the first element. Gallagher (2010, pp. 12-53) has argued that this action facilitates the prosecution of offenders for end exploitation of victims. Data collection of offender methods identified Harbouring activity as the concealment of victims. This is a stricter interpretation of the action than Gallagher would likely argue but this narrower interpretation developed from data collection and a common understanding that victims are held against their will and probably concealed from the public. Empirical analysis revealed that the actual number of offenders performing this activity was low and consequently, the logical inference is that victims of trafficking were more likely to be visible and accessible than is generally appreciated. For street prostitution in Sexual Exploitation and Forced Begging it was necessary that victims would be visible and public. However, in these situations means served as a more effective mechanism for isolating victims from the general public. Offenders engaged in Forced Begging were statistically likely to use means with the

Security action and offenders engaged in End Exploitation in Sexual Exploitation were deploying a significant range of coercive means to ensure victim compliance.

Finally, from analysis of actions across purposes and from subset analysis of actions within Sexual Exploitation, there was an additional process taking place that has not been adequately explored in academic research. Offenders engaged in Transportation were statistically likely to engage in Financial administration whilst offenders involved in Recruitment were unlikely to engage in this activity. Offenders engaged in Financial administration were also statistically likely to engage in Harbouring. Offenders engaged in Transportation, Financial administration and Harbouring were involved in moving and concealing victims and moving and concealing money. This important process that has not been evident in academic literature demonstrates a divergence between an outsider's perspective of what offenders do to victims and what matters to society in making human trafficking an offence but ignores the insider's perspective of what is important to an offender. Moving, managing and concealing money is an essential aspect of offender method that has not been adequately explored in the literature and from an insider's perspective appears to be the most important process and more important than moving people.

There is a risk that the continuing debate on the prescribed actions as a process does not reflect the reality that there is not necessarily one process of movement in trafficking and that once in exploitation there is a continuing cycle of means deployed against victims reflecting a continuing cycle of activity and harm. The offender's perspective in the choice of means used against victims has not been adequately explored in literature, nor has the offender's perspective on what process is most important for them in human trafficking. Academic research has developed from an outsider's perspective, looking in at the situation. By altering perspective and instead considering the choices an offender is likely to prioritise, moving money and concealing it are a priority and means become a mechanism that secures an

outcome, protects an offender and presents a particular quality of skill set to other traffickers.

7.3   Objective 3

To assess if the international definition adequately reflects convicted offender method.

Academic literature has considered the international definition of human trafficking and the negotiation of its terms (Gallagher, 2010; Stoyanova, 2015a). The definition was constructed through three elements: actions, means and purpose (Gallagher, 2010; Stoyanova, 2015). At research Objectives 1 and 2 above, empirical analysis was used to explore the aspects of the international definition that have caused controversy due to the uncertainty of the meaning of terms (UNODC, 2013, 2014, 2015b) and have caused debate within the academic community on whether human trafficking is limited to the process of moving a victim to the point of exploitation (Chuang, 2014; Stoyanova, 2015) or whether it also includes the static exploitation of the victim through the action of harbouring (Gallagher, 2010). In this research Objective 3, empirical analysis explores other problematic aspects of the international definition, not yet explored in other academic literature: the expansion of the prescribed list of actions, the importance of finance in human trafficking and the time order of the definition.

Bivariate logistic regression results in Table 6.6 showed that offenders engaged in Forced Begging were statistically likely to be engaged in Transportation and Security. The structure of the Palermo Protocol definition appeared fulfilled by offenders engaged in human trafficking for Forced Begging from these actions alone with Transportation a prescribed first element action and Security representing the second element means. However, as previously considered, offenders engaged in Forced Labour did not appear to routinely fulfil the structural definition of human trafficking

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with an absence of statistical significance for the performance of any prescribed actions (Recruitment, Transportation, Harbouring), with only End Exploitation as a statistically significant and likely action to be performed by offenders.

Whilst these results establish a symmetry with the Palermo Protocol definition for offenders engaged in Transportation to further Forced Begging, they do not reflect the complete cycle of actions performed by offenders. Subset analysis of the actions and means performed by offenders to fulfil Forced Begging was not possible. As with the case summaries for offenders engaged in Forced Labour, the actions and means used by offenders engaged in Forced Begging may have included additional actions and means present in investigation and prosecution files and information not evident in the case summaries. Further research on this aspect of human trafficking, disaggregating offender methods in detail from a greater number of convictions with quality of depth to the content of the information available on offender method is likely to reveal further insight into offender method to commit Forced Begging.

Exploring research Objective 3 through a closer inspection of the statistically significant results from a subset analysis of offenders engaged in Sexual Exploitation revealed that offenders engaged in the prescribed actions: Recruitment, Transportation and Harbouring were statistically likely to engage in Security. Security related to the second element means and created symmetry with the definition in the Palermo Protocol. Offenders engaged in Transportation were also likely to engage in the Purchase and sale of victims. This activity may relate to the 'transfer' and 'receipt of persons', the two actions in the first element of the definition that were not readily identifiable from the actions disaggregated from the case summaries. Offenders engaged in the Purchase and sale of victims were also statistically likely to engage in Security facilitating the completion of the definition with the addition of means.

These results endorsed the definitional construct of human trafficking through the three elements, supporting prosecutions for human trafficking for Sexual Exploitation and to some extent Forced Begging. However, as discussed at length at research Objective 2, the definitional construct of the three elements did not support prosecutions for Forced Labour.

7.3.1   The addition or removal of prescribed actions in the first element

The important action discussed extensively in research Objective 2 that is absent from the prescribed list of actions is End Exploitation. There were 309 offenders engaged in End Exploitation to further Sexual Exploitation and 184 of those offenders engaged in Security, means. It was statistically significant that offenders engaged in End Exploitation would engage in means and this activity was important with the strongest effect size and a Pearson's correlation coefficient result 0.46. As discussed at research Objective 2, offenders engaged in End Exploitation even with means did not meet the definitional construct of the three elements. It was necessary to establish a prescribed action was present. Offenders engaged in End Exploitation were statistically likely to engage in Transportation and the Purchase and sale of victims, activities which were likely to support a prosecution maintaining the symmetry of the three elements of the definition. However, the necessity of establishing a prescribed action in addition to End Exploitation was unnecessarily complex, assuming the rigid structure of process advocated by Chuang, (2014, pp. 609-649) and Stoyanova, (2015, pp. 32-73) to address the risk of 'exploitation creep'. Empirical evidence did not support the theory that offenders were being prosecuted unnecessarily, in fact, it supported a view that Member States were finding ways to prosecute these offenders precisely because they were likely to be engaged in the greatest harm to victims.

Evidence of the use of means with Harbouring was identified in Table 6.7 within Sexual Exploitation with the bivariate logistic regression for offenders engaged in Security. However, there was no statistical significance for offenders using any specific means to further Harbouring in Sexual

Exploitation. It was unclear whether this presented as a deficiency in the construction of the definition and importantly whether understanding means used by these offenders provided insight into offender perception of risk with respect to the concealment of finance. Further research on the use of Harbouring and means was necessary to draw definitive conclusions about the efficacy of the definition for offenders. Furthermore, research on the use of means to further Harbouring might elicit opportunities for disrupting offenders by identifying what measures they took to conceal finance and what they perceived to be their risk.

In addition, Travel Preparation, the Purchase and sale of victims and Strategy actions were also performed by offenders. These actions were not directly reflected in the first element. The Council of Europe had already identified offenders were engaged in providing fraudulent and procured travel documents and extended the definition of human trafficking to include this activity (Council of Europe Convention on Action Against Trafficking in Human Beings, 2005). Although the activity in this thesis involved a broader definition involving supporting victims with their passport and visa applications by attending meetings with them, purchasing travel documents and tickets and giving money to victims to bribe border guards and officials. Whilst offenders engaged in Travel Preparation were likely to combine this action with Recruitment and Transportation, the first element actions in the definition, there was a sizeable percentage of offenders engaged in the Purchase and sale of victims and Strategy that were not engaged in other first element actions. In Table 4.3, 32.1% (9 of 28) offenders engaged in Strategy across all purposes did not combine this activity with another action, whilst 28.4% (31 of 109) offenders engaged in the Purchase and sale of victims did not combine this activity with other actions. These offenders were of the most serious and dangerous and their activities were not directly reflected in the actions included in the first element of the definition of human trafficking. The Purchase and sale of victims may have been linked to the 'transfer' and 'receipt of persons', the two actions with most

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uncertainty in the first element[24], alternatively this activity may have been a form of human trafficking addressed by 'slavery or practices similar to slavery' in the third element. Offenders engaged in Strategy were most certainly included in Article 5 of the UN OCG Convention but not the prescribed actions in the first element of the definition.

7.3.2 Operational finance and profit

As discussed at research Objective 2, the definition of human trafficking derived from negotiation by Member States has focused on criminalising what is done to victims to achieve their exploitation through human trafficking, but this fails to fully appreciate the importance to offenders of moving and concealing finance to maintain a trafficking operation and profit from exploitation, a process of activity that is essential to trafficking but does not readily resonate with a crime that is committed against victims. This process of activity is logically more important to an offender. Whilst Financial administration is not treated as an action in the definition, the day-to-day financial support to pay offenders and meet other expenditure that may be derived from proceeds from exploitation or from legitimate funds is addressed by Article 5.1 (ii) a. or b. of the UN OCG Convention (knowingly, participating in activity that supports a criminal group) and the movement of profit from exploitation is addressed by Article 6 of UN OCG Convention. Separating the movement of profit or 'money laundering' into a separate Article in the UN OCG Convention that is isolated to the movement of profit reflects the perspective of money laundering in 2000, that it was an identifiable activity in its own right and that the movement of profit from any criminal enterprise into the legitimate financial system required 'placement, layering and integration', a perspective that is now considered

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[24] These terms have been subject to debate and confusion amongst Member States with the second session of the Working Group of the Palermo Protocol in 2010 calling for papers on their meaning and interpretation (UNODC, 2013). A paper on these terms was not subsequently commissioned.

a myth (Levi, 2015). Furthermore, Campana (2016a, pp. 68-86) identified that no 'centralized accounting system', in otherwords, a group of offenders managing the financial costs of human trafficking, meeting expenditure and moving profit across a network of human trafficking existed in a network of West African human trafficking across Europe. However, importantly, the essential activity of meeting the day-to-day financial costs of human trafficking and collecting money from exploitation is not specifically included in the definition of human trafficking (Art. 3 of the Palermo Protocol of the United Nations Convention Against Transnational Organized Crime, 2000).

It is unlikely that an organised human trafficking operation or any organised criminal operation can exist without operational finance. The prosecution of offenders engaged in operational finance is reliant upon adequate domestic implementation of Article 5.1 of the UN OCG Convention. If Financial administration is addressed by other domestic legislation then it does not require means to be established, but in isolating the prosecution of this activity by excluding it from the definition of human trafficking, it facilitates a perception that offenders engaged with finance are remote from criminality and are not harming people directly and correspondingly, it is likely that research will not explore the means used by these offenders to protect this process of activity. Empirical evidence in this thesis indicated that offenders engaged in Financial administration for Sexual Exploitation directly engaged in human trafficking through Transportation, Harbouring and the Purchase and sale of victims. Bivariate logistic regression at Table 6.12, also revealed that offenders were statistically likely to use Physical control to further Sexual Exploitation, a coercive means.

Maintaining a human trafficking operation requires finance to meet day-to-day costs and offenders engaged in moving victims and concealing them were doing so alongside the movement of money and the concealment of money. This direct 'hands-on' perspective of offending, where offenders coerced victims directly through Physical Control to extract earnings from prostitution, has not been explored in academic literature. Petrunov (2011,

pp. 165-183) identified mechanisms in Bulgarian prostitution involved in auditing the pricing of services, maintaining division between prostitutes and moving profit from exploitation into mainstream financial services through the repayment of loans on property and the conversion of profit into other goods that were later sold. Petrunov (2011, pp. 165-183) centred analysis on money laundering rather than offender method to commit human trafficking and analysis focused on the profit from exploitation and not the day-to-day movement of money to meet general expenditure in addition to profit. Petrunov (2011, pp. 165-183) did not focus on who collected the money, what other activity they were commonly involved in and how that connected to the crime of human trafficking.

Petrunov's work (2011, pp. 165-183) reflects the current international legislative environment that has focused on the movement of profit alone, evident from the separation of Article 6 in the UN OCG Convention that criminalises the movement of profit, reflecting the general development of international agreement on money laundering from the G-7 Summit in Paris in 1989 that led to the creation of the Financial Action Task Force, the global standards setter for anti-money laundering and financial crime prevention (FATF, 2020). The day-to-day expenditure and movement of operational finance that may be paid for from earnings from prostitution that is commingled with legitimate proceeds from legitimate businesses or employment, has not been the focus of international agreement on financial crime. In reality there is a necessity to pay other traffickers and meet general expenditure and this aspect of human trafficking has been absent from international discussion and academic research.

7.3.3   Time order to the elements

Analysis of Sexual Exploitation at a subset level revealed that the structure of the elements in the definition of the Palermo Protocol followed the structure of a criminal offence with the actus reus (actions and means) followed by the mens rea (means and purpose) but did not necessarily follow the time order of events. The time order of actions and means was

important as one of the three criteria that must be satisified to determine causation (Agresti, 2018). The order of actions and means was particularly important for developing data analysis for statistical equation modelling, considered below at research Objective 4, to support an understanding of the process of human trafficking.

The entry routes into trafficking through a deceptive Employment Offer, exploiting the Financial Hardship of the victim, 'Loverboy' Romance to further Recruitment and Abduction were all second element means that took place prior to the first element action. In Chapter 4, Tables 4.6, 4.7 and 4.9 confirmed that offenders engaged in Recruitment, Transportation and Travel preparation were difficult to distinguish with a confounding of order of actions.   The means that were clearly entry routes into trafficking facilitated a separation of the order to the first element actions: offenders involved in Travel Preparation were likely to have used a deceptive Employment Offer to further Recruitment for Sexual Exploitation, whilst offenders engaged in Transportation were unlikely to have engaged in this means (multiple logistic regression of Transportation at Table 6.15). Offenders exploiting the Financial Hardship of victims and offenders engaged in Abduction were likely to engage in Transportation and offenders using 'Loverboy' Romance engaged directly in End Exploitation. The means preceded each action and were crucial in building a more accurate understanding of the process of human trafficking. Furthermore, offenders engaged in Abduction were not furthering Transportation by using Abduction as a means, Transportation facilitated Abduction. In this respect Abduction was a first element action and Transportation a second element means to achieve that action.

7.3.4   *Means reflecting offender behaviours and fears*

As discussed at research Objective 2, offenders engaged in End Exploitation were engaged in coercive means to maintain control of victims. The process of exploitation was likely to involve a cycle of means. Offenders were using means as a mechanism to maintain a cycle of exploitation (evidenced at

Table 6.13). The simplicity of identifying one means furthering an action was not evident at this stage of human trafficking. Means appeared to take over to ensure a consistent and continuous flow of profit from the victim and importantly, for offenders means may have also reflected an offender's fear of losing income from a victim's exploitation or being identified as a trafficker by authorities.

Our understanding of the significance of means in human trafficking has focused on establishing evidence of the negation of victim consent to be trafficked (UNODC, 2014). This construct arose from the debate on whether prostitution should be unlawful and whether a prostitute truly gives consent to their trade (Gallagher, 2010). The internal domestic implications of establishing this element in prosecution was a focus of the discussion amongst Member States (UNODC, 2014). Means are perceived as material to persuade a jury or judge of the negation of victim consent. More bluntly, the necessity to establish means as part of a conviction for human trafficking reflects the instinctive judgment made by people about other people and their misfortune. The thought process of: 'This wouldn't happen to me. You were gullible. You brought this on yourself.' a process of 'othering' that we do as humans to maintain a fiction that this misfortune could have been avoided because we are afraid of a dark world where anyone can get lost and where anyone can be a victim. Acknowledging the reality that we may not have control to determine whether we become victims of crime, leaves us feeling helpless and so we need to believe that there was something that the victim did to create this situation or that the victim is different from us. Having personally read 486 conviction case summaries of human trafficking, the necessity of establishing evidence of means in a prosecution to secure a conviction is akin to continuing to harm the victim by making them spell out their vulnerability to a jury to help dispel that human myth in the judge or the members of the jury. It is perfectly understandable why some jurisdictions have made a decision to remove means as a compulsory element of a prosecution. But (and this is an important "BUT"), they are

essential for us to research. They must be recorded because they are an essential component for raising public awareness and improving communication of harmful situations and they provide immense insight if they can be studied empirically to explore opportunities for disruption. Understanding how means are used by offenders to not only further action but to maintain control and dominate victims or manage their own risk is essential for understanding harm and the potential opportunities for intervention and how interventions may be measured for their effectiveness (Kahneman, 2011; Eck, 2013). Whilst prosecution of offenders may be more effective for the absence of establishing means, recording evidence of means is essential for future research on offender method and commonality in offending across jurisdictions.

There has been evidence of research in human trafficking finding an alternative perspective for the use of means. Baarda (2016, pp. 257-273) established in analysis of West African human trafficking, voodoo was also an effective means used against other traffickers in a network, in addition to victims. Viewing means from an offender's perspective is important for identifying opportunities for disruption and measuring offender risk (Kahneman, 2011; Eck, 2013). Coercive means are effective for a prosecutor, as they resonate more easily in the mind of a jury to establish harm and negation of consent (UNODC, 2013, 2014) but that does not mean that they are necessarily more effective for an offender. Deception is an effective means at the outset when the victim has family, friends and safety. There is a greater risk to the offender that someone will see the victim being abducted or that physical assault or intimidation will become too obvious to other people and to the victim. When a victim receives a deceptive Employment Offer and they accept this offer, any fears expressed by family and friends are likely to be alleyed by the victim, as it is the victim's judgment in question. Once the victim has become disabused of the situation, it is likely the victim will experience self blame and recrimination for failing to take further precautions to avoid the situation they find themselves in. This

is a psychological factor that facilitates the offender and not the victim in releasing themselves from their situation. Coercive means are possible when the victim has been moved away from family, friends and a stable environment. Coercive means may require less effort from an offender with more rapid and effective results for the continuing cycle of exploitation. Developing psychological control of a victim when they are out of immediate reach in street prostitution or street begging cannot be achieved by deception. Violence or the threat of violence are necessary tools to maintain authority (Toch, 2017). Another factor may be the threat that victims are taken by other traffickers and displays of physical violence may facilitate the communication of skills to other offenders as well as victims (Toch, 2017). Empirical evidence of means in this thesis indicated that research on means and the levers used by offenders to fulfil human trafficking may present more opportunities for identifying mechanisms for disruption of human trafficking.

To conclude, relying on a 'broad interpretation' of actions (Gallagher, 2010) is an understandable approach when there is an absence of knowledge on the specifics of offending but following further empirical research, it is advisable to revisit the wording of the first element to ensure that it more accurately reflects the actual actions performed by offenders committing this offence. In particular, further research is needed on whether the prescribed actions reflect those performed by offenders to commit Forced Labour. Research needs to repeat the steps undertaken in this thesis but from a broader examination of conviction cases for human trafficking for Forced Labour and an extension of analysis to other court rulings against employers for unpaid wages and other labour infringements.

With respect to the empirical evidence in this thesis, the first element actions need to be amended to include End Exploitation, Financial administration, Strategy and the Purchase and sale of victims as specific actions that are performed by offenders to commit human trafficking and further consideration is necessary about whether 'transfer' and 'receipt of

persons' should remain in the first element. The drafting of the first element should also be regularised to include Travel Preparation and a broader interpretation should be applied than that given in the Council of Europe Convention (Council of Europe Convention on Action Against Trafficking in Human Beings, 2005).

Further research examining human trafficking process from an offender's perspective is necessary. In particular, the process of moving and concealing money and the extent to which means reflect an offender's perception of their own risk. Analysis should also reflect upon any importance to the offender of the time order of the use of means so that the elements of causation are appropriately considered in developing empirical analysis of offender method (Agresti, 2018).

7.4   Objective 4

To determine whether offender method to commit human trafficking has structure and order to it?

At research Objective 4, the elements of the international definition were explored through empirical analysis specifically to develop a model or process of human trafficking. Figures 4.3, 5.1 and 6.4 reproduced below were created
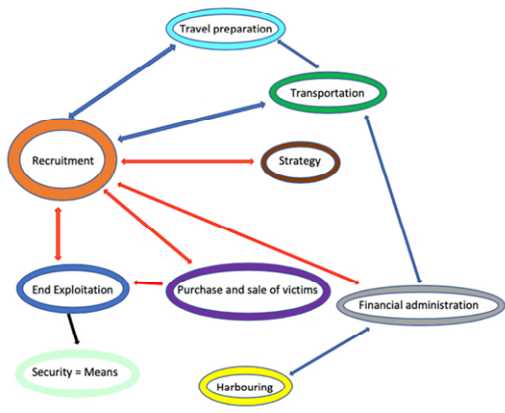
Figure 4.3 Bivariate and multiple logistic regression fulfil analysis results of the performance of actions by offenders
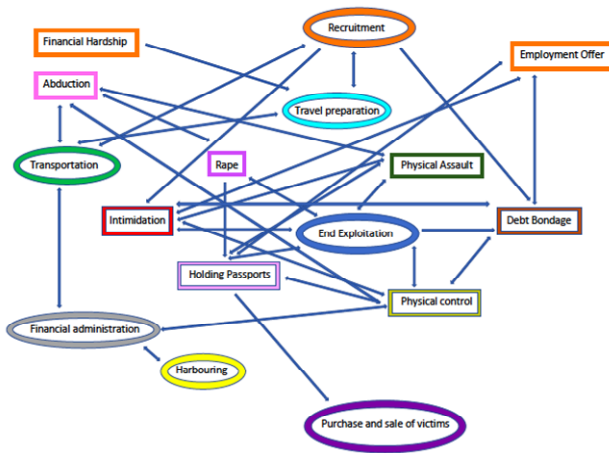
Figure 5.1 Offenders engaged in actions and means developed from bivariate and multiple logistic regression analysis

Figure 6.4 Multiple logistic regression results of actions and means to fulfil Sexual Exploitation

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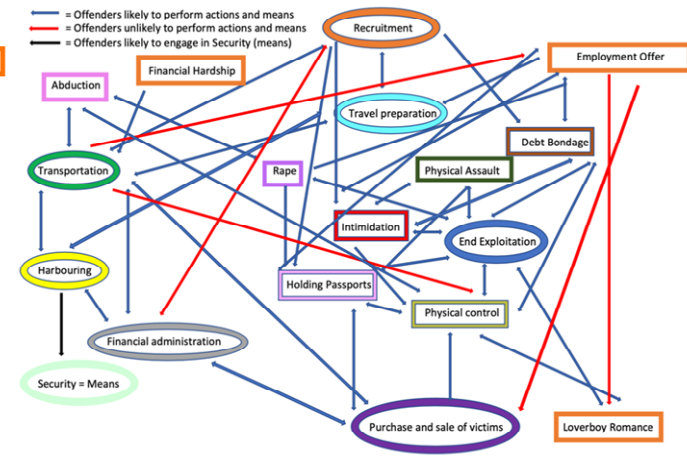
from mapping all of the statistically significant relationships identified from logistic regression analysis. Each of the three empirical chapters (Chapters 4-6) created variation in the snapshot of the picture of offending.

Figures 5.1 and 6.4 show an incredible amount of complexity in trying to fathom any order or structure to the process of human trafficking. Whilst Figure 4.3 is straightforward with little complexity when creating a theoretical model of actions, it shows there are gaps in the process from the data. When the second element is added, a very complex picture of actions and means begins to appear in Figure 5.1 which shows only a partial visual of this complexity. Figure 5.1 includes only the likely actions and means performed by offenders, the actions and means unlikely to be combined by offenders appear in Figure 5.2, not reproduced above. The final model, Figure 6.4, maps the multiple logistic regression results for the actions and means performed by offenders to fulfil Sexual Exploitation and accommodates both the likely actions and means performed by offenders and what was not likely to be performed together by offenders.

It was important to bring theoretical analysis to aid practitioners and to do so, structural equation modelling was a data analysis mechanism giving order to complexity. Generalised structural equation modelling (gsem) was a form of modelling that was suited to the type of data collected in this thesis, categorical data. The equation chosen for inclusion with gsem was Bernoulli. Bernoulli had been used to measure the pressure applied to gas molecules. In the context of offender method to commit human trafficking, the pressure measured was the effect upon the order of other actions and means when an offender performed one action or means and then added another action or means (NASA, 2015). The equations in the models enabled an order to be explored and multiple models were coded and recoded to identify potential possibilities and results (full models for both gsem and sem modelling appear in Appendices 3-5). This was a relatively new form of data analysis for crime science, explored extensively in marketing and business (Martinez - Lopez, 2010). As a result, an additional layer of control to the

significance of findings from gsem analysis was included by modelling the process identified from gsem through structural equation modelling (sem) for indirect effects. By identifying consistency between the two forms of equation modelling, there was a higher level of confidence that the results were giving an accurate picture of the flow and order of actions and means performed by offenders, although the low explanatory power of multiple logistic regression models upon which much of the analysis was based, indicated that there remained unexplained factors (see Table 6.17).   Each strand of process from Figures 4.3, 5.1 and 6.4 reproduced below, was then isolated and the sem verified statistically significant results from gsem analysis were added to the strand of process. This enabled the modification of each strand of process of actions and means removing the connection to any actions or means not supported by structural equation modelling results. The process of analysis and mapping of results created amended visuals reproduced below.

7.5   *It is rocket science: a visual aid and narrative for understanding human trafficking offender method*

The structural equation modelling and the Bernoulli formula that led to the creation of the Figures in this section and the attempt to create some order to offender method to commit human trafficking is, quite literally, rocket science and is used by NASA (NASA, 2015). To avoid being overwhelmed by the information that led to the creation of the Figures appearing at Sections 7.5.1 – 7.5.4 below, a narrative describing what each visualisation tells us about offender method has been developed. The following sections are designed to aid law enforcement in gaining rapid insight from the complexity of data analysis. Sections 7.4.1 – 7.4.4, along with the relevant Figures, help explore information gaps for investigation and evidence gathering of human trafficking activity. To assist in following the visuals, blue arrows indicated that an offender was likely to perform an action or means. Red arrows indicated that offenders were unlikely to perform an action or means and

green arrows identified the action or means influenced by the offender through the performance of other direct actions or means.

7.5.1 General Recruitment and Recruitment using a deceptive Employment Offer in Sexual Exploitation

Figures 6.5 and 6.6 are the relevant visuals below. Offenders engaged in general Recruitment (the means used to recruit the victim is unknown) are likely to be involved in the Transportation of victims and they are also likely to help a victim make arrangements for travel through Travel preparation.

Offenders who have used a deceptive Employment Offer to further Recruitment are not likely to transport the victim (Transportation), they are likely to continue to deceive the victim by assisting him or her to make arrangements to travel (Travel Preparation). This assistance leads to the Transportation of the victim. There is an apparent division in direction for victims brought into trafficking through a deceptive Employment Offer, where Debt Bondage is also used as a means against victims. The division is either towards an end business in which the victim is exploited (End Exploitation) or towards a market for buying and selling people (the Purchase and sale of victims) where victims are sold to another network of traffickers. These offenders may be recruiting victims to order to supply a human market trading in victims.

Offenders engaged in general Recruitment and using a deceptive Employment Offer are not likely to be directly Harbouring victims, but this activity is likely to occur where an offender is supporting a victim making travel arrangements (Travel Preparation). At this stage, the victim may continue to be deceived and may willingly be concealed if the journey to employment means an illegal border crossing. Offenders engaged in both general Recruitment and a deceptive Employment Offer, using Debt Bondage as an additional means are likely to be more closely connected to offenders engaged in End Exploitation. The debt is passed on between offenders as a 'means-in-common'. They may also use Intimidation and be
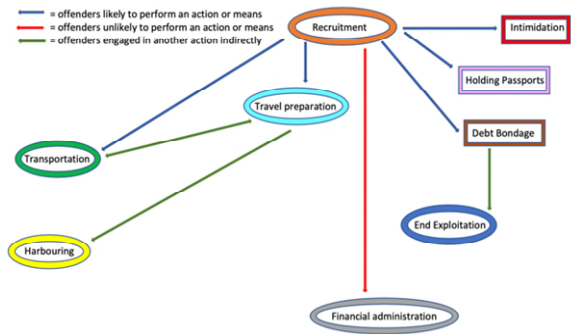
Figure 6.5 Offenders engaged in general Recruitment to further Sexual Exploitation with multiple logistic regression, gsem and sem results.
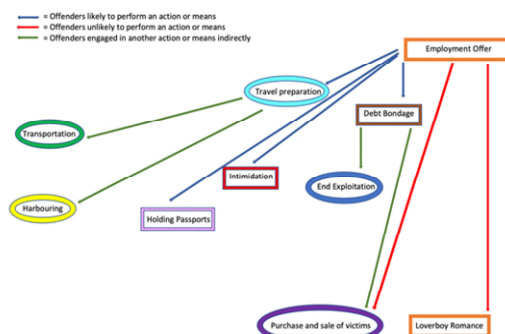
Figure 6.6 Offenders engaged in a deceptive Employment Offer to further Sexual Exploitation with multiple logistic regression, gsem and sem results.

Figure 6.7 Offenders engaged in 'Loverboy' Romance to further Sexual Exploitation with multiple logistic regression, gsem and sem results.

Holding victim Passports, but they are unlikely to engage in more coercive means.

7.5.2   'Loverboy' Romance to further Sexual Exploitation

Figure 6.7 is the relevant visualisation for these offenders. This means is only likely to be used to further human trafficking for Sexual Exploitation.

These offenders have considerable skill. They can sustain a close personal relationship with a victim and are unlikely to become emotionally attached or they can break this attachment once the victim is isolated from family, friends and familiar surroundings. The progression towards coercive means once victims are engaged in prostitution may facilitate the offender's detachment from the victim and the extent of coercive means may indicate both the offender's struggle to create detachment and/or the extent to which the victim has resisted control.   Figure 6.9 below shows other extensive means likely to be used by offenders engaged in directly exploiting victims (End Exploitation). Whilst Rape is not included in Figure 6.7 it was likely to be used by these offenders from data analysis results (Table 6.13 above).

7.5.3   Financial administration – moving money to further human trafficking

Figure 4.6 below is relevant for all forms of human trafficking.

Offenders involved in moving and concealing money are also involved in moving and concealing people. Offenders involved in Transportation and Harbouring have a dual aspect to their activity and moving and concealing money may be a higher priority to them than the victims they are exploiting. Data collected to populate the variable for Harbouring was only focused on identifying offenders concealing people. When this variable was analysed with other variables, it was only statistically significant with Financial administration, not the other 'people' focused activities like Recruitment or Transportation. This was unexpected. Logically, as this is about generating money, there is likely to be an even higher level of security and care taken

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with the movement and concealment of money than with people. Security was a variable created from a combination of different means used by offenders and it was statistically likely to be performed by offenders engaged in Harbouring (see Table 6.7 above). No means in particular stood out from analysis that was used by these offenders indicating a level of flexibility in skill set. The return journey is bringing the money from victim exploitation. The return journey of this offender is likely to be more fruitful for recovery of proceeds of crime, the outward journey for the recovery of victims.

Offenders involved in Financial administration are not connected to Recruitment activity. Financial investigation of offenders engaged in Recruitment is likely to reveal limited value for identifying wider connections to other offenders. Offenders engaged in Financial administration may arrange compensation for offenders that have been involved in Travel Preparation and money is likely to be exchanged when victims are picked up for Transportation.

Figure 6.8 shows the activity of offenders involved in Financial administration to further Sexual Exploitation.

The activity outlined for any type of human trafficking is mirrored in Sexual Exploitation but there are additional aspects to activity that were not visible in Figure 4.6. Offenders may be more closely involved in the market of human beings and directly involved through the Purchase and sale of victims. Buying and selling people increases risk for an offender with the importance of gaining the best price for victims and ensuring that the physical transfer of money and people is done without financial or physical loss to the offender. This market of people is more likely to bring offenders engaged in Financial administration closer to offenders engaged in End Exploitation. The sale of a victim to another network or trafficker means that offenders engaged in Transportation are also crucial for this exchange, moving the victim and the money for the transaction.
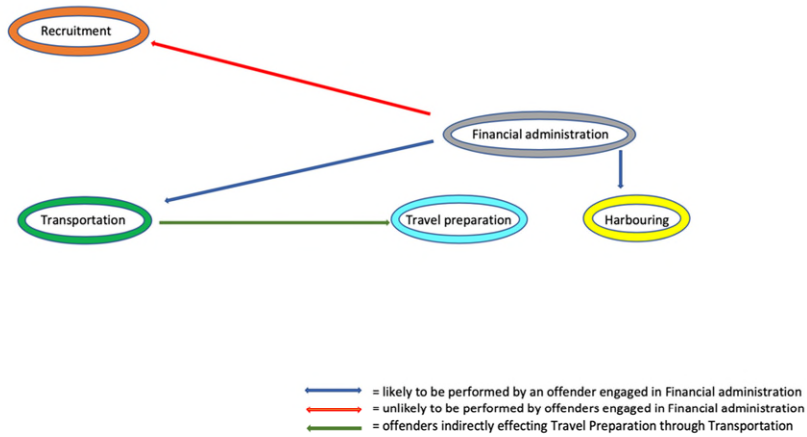
Figure 4.6 Offenders engaged in Financial administration and other actions including gsem and sem results across purposes

Figure 6.8 Offenders engaged in Financial administration to further Sexual Exploitation including multiple logistic regression, gsem and sem results
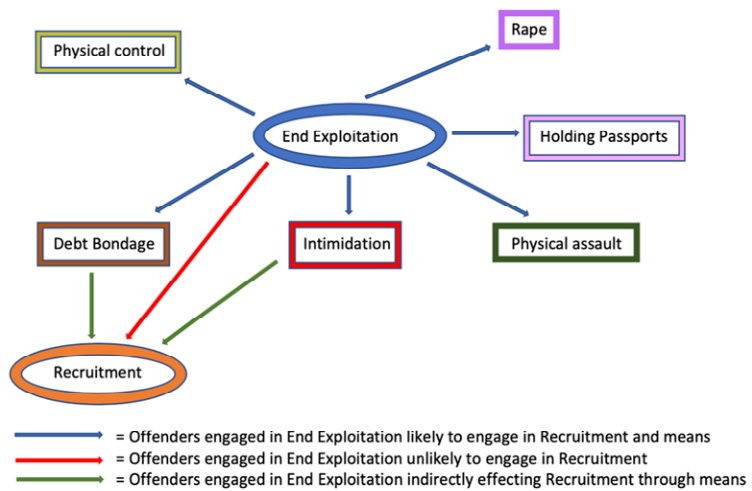
Figure 5.5 Offenders engaged in End Exploitation with multiple logistic regression, gsem and sem analysis of actions and means across purposes
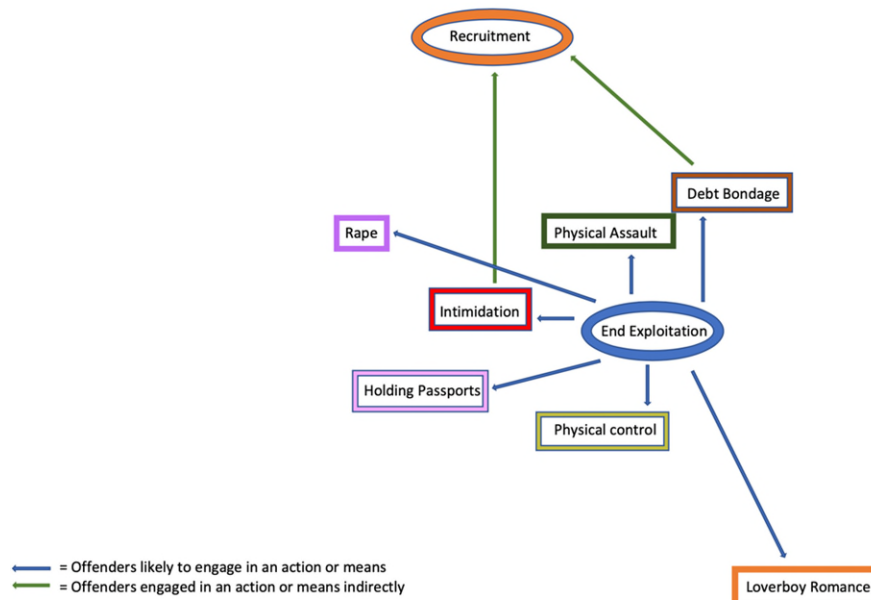
Figure 6.9 Offenders engaged in End Exploitation to further Sexual Exploitation with multiple logistic regression, gsem and sem analysis of actions and means

7.5.4 End Exploitation – the most dangerous offenders using 'any means necessary'

Figure 5.5 above is the visualisation for offenders engaged in End Exploitation for all forms of human trafficking. This is the offender that has the ongoing daily contact with the victim and is immediately supervising the victim's work and exploitation.

There are multiple means evident in Figure 5.5 and used by these offenders to further End Exploitation. This stage of human trafficking may be more visible to the general public when it involves street begging (Forced Begging) and prostitution (Sexual Exploitation). Offenders were more likely to use coercive and violent means against victims at this stage of trafficking.

Figure 6.9 shows offenders engaged in End Exploitation to further Sexual Exploitation and the only difference is the addition of offenders using 'Loverboy' Romance. These offenders are discussed above.

Offenders were engaged in coercive means: Intimidation, Physical Control, Physical Assault and Rape. If they were engaged in Intimidation and Debt Bondage, then they may have had a closer relationship with the victims's Recruitment into trafficking. This means may indicate a lone trafficker.

These offenders were also engaged in Holding victim Passports which passed between offenders, as did Debt Bondage as a 'means-in-common'. However, offenders Holding victim Passports are more likely to be involved in all of the coercive means: Intimidation, Physical Control, Physical Assault and Rape (Table 6.13 bivariate analysis) and involved in the Purchase and sale of victims (Table 6.12 bivariate analysis).

7.5.5 Offender method that remains uncertain

The final visuals created in Chapter 6 did not include, as a starting action, offenders engaged in Travel Preparation, Transportation, Harbouring, the Purchase and sale of victims and Strategy. Offenders engaged in Travel Preparation and Transportation at the beginning of a process were only

showing sem supported statistically significant gsem results in Chapter 4 across purposes and without means. These visuals in Figures 4.4 and 4.5 in Chapter 4 were limited and sparse for information on the flow of actions. Along with Harbouring, which did not support gsem revisions to the process with Harbouring as a starting action, Transportation and Travel Preparation were reflected in other models and all were 'service' actions to other activity performed by offenders. Analysis in Table 4.3 in Chapter 4 showed very few offenders carrying out these actions in isolation: 5.2% of offenders engaged in Harbouring, 7.0% of offenders engaged in Travel preparation and 14.6% of offenders engaged in Transportation performing these actions and doing so with no other activity.

7.6   Limitations

Findings from this thesis needed to be treated with caution. The population of offenders disaggregated from unstructured data from the case summaries selected from SHERLOC, the UNODC trafficking database, did not reflect all of the offenders convicted of human trafficking from the Member States included in SHERLOC. In addition, the controls related to the database itself and the content of the case summaries were uncertain, potentially affecting the validity and reliability of the measurement of actions, means and purposes. Following an audit of the coded data, Kappa analysis of the inter-rater reliability of the coding of variables identified that the data collection process was extensive and successful with respect to identifying the second and third elements of the definition of human trafficking and five of the eight actions related to the first element (Recruitment, Transportation, Travel preparation, Purchase and sale of victims and Strategy). However, with respect to identifying 'Financial administration', an activity that is beyond the mere receiving cash and living off the earnings of crime, the activity proved difficult for the auditor to identify, a non-specialist in financial crime. This indicated that training in financial crime or alternatively engaging a financial crime specialist to audit data may be necessary for focused studies on the interaction between offender method

and finance for future research. Furthermore, there was a higher rate of agreement than expected for variables for 'End Exploitation' and 'Harbouring' from the first element, but the quality of the case summaries, with some cases demonstrating uncertainty when attributing responsibility to an offender, had lowered the rate of agreement, requiring more human judgment than other variables. The quality of the case summaries reflected the academic debate on the definition (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015).

There were 40.4% (393) offenders using no discernible means from the case summaries to traffic adult victims. The conclusion was that either Member States were not consistently applying means to achieve the prosecution of offenders engaged in trafficking adults or there was a deficiency in the quality of the case summaries appearing in SHERLOC. This absence of means, either due to a failure of quality in the case summaries, or as a result of Member States not implementing this element in the structure of the offence in their domestic legislation, was likely to present a fundamental challenge if research was used to support the measurement of risk and to evaluate efforts to counter trafficking activity.

Analysis of offender method through structural equation modelling had limited success for identifying the flow of actions for offenders engaged in the Purchase and sale of victims, Strategy and the entry routes into trafficking: the exploitation of the Financial Hardship of victims and Abduction. Offenders engaged in the Purchase and sale of victims were more likely to isolate their actions with 28.4% of offenders isolating their activity to buying and selling people and no other trafficking activity. Offenders engaged in Strategy were even more remote from other actions in human trafficking with 32.1% of offenders isolating their activity to Strategy. Only 23 offenders performed Strategy in Sexual Exploitation from the disaggregation of the data and both the isolation and the low number of offenders were likely to be factors that restricted results in structural equation modelling. It was unclear why models were not sustained for

offenders engaged in the Purchase and sale of victims with 89 offenders performing this activity, more than engaged in 'Loverboy' Romance (n. 32) and Financial administration (n. 38). It was also unclear why statistically significant results in structural equation modelling were not sustained for exploiting the Financial Hardship of victims (n. 86). Academic researchers have challenged poverty as a means in Sexual Exploitation (Patterson, 2018), alternatively it demonstrated how effective poverty is as a motivator to encourage people to take risks that they would not normally agree to take. In Table 6.12, bivariate logistic regression showed that offenders using Financial Hardship as a means engaged in Transportation after Recruitment but no other action or means. There was minimal effort for the offender.

7.7 Continuing research and Recommendations for change and future research

7.7.1 Continuing research

The data collection exercise for this thesis was extensive. Further insight on offender method is currently being explored by building upon the analysis of offender method in this thesis and applying jurisdictional context and socio-demographics of offenders to further develop insight on offender method to commit human trafficking. The descriptive results at paragraph 3.7 in Chapter 3 showed potential for further insight, exploring the jurisidictional context for the prevalence of actions, means or purpose. The results also showed promise for exploring offender socio-demographics and their propensity for using specific actions, means and purposes. This research will follow Recommendation 1 below and will support the development of Recommendations 2, 5 and 6, also set out below.

The following Recommendations arise from findings and analysis in this thesis:

7.7.2 Recommendation 1: Applying the definition to data collection and structuring analysis of offender method to commit human trafficking for empirical analysis

This thesis found that generally the structure of the international definition into three elements: actions, means and purpose, was present in convictions for human trafficking across 40 Member States. However, there were also flaws with the structure. Future transnational research on offender method to commit human trafficking should be structured in accordance with the elements, but the time order of offender method is unlikely to follow the order of the elements in the definition and this may be relevant for developing an empirical analysis that seeks to explore the causation of aspects of offender method (Agresti, 2018).

Collecting data on the purpose and the means for which trafficking was taking place was not necessarily as complicated as the wording of the definition would suggest. This practical aspect of conducting empirical research may not be consistent, in particular, analysis at country level at Recommendation 2 below, for example when exploring human trafficking for Forced Labour. However, the actions that were included in the first element were partially reflected in offender method and data collected on actions needed to expand beyond the prescribed terms that are listed in the first element. Finally, the third element, purpose for which trafficking was taking place, is a preferential structure within which actions and means should be analysed. It is likely to yield a closer and more specific analysis of offender method. However, where there is limited data available, there is some benefit to cross purpose analysis of actions and means. Analysis of offenders engaged in Financial administration and in End Exploitation, essential aspects for the success of human trafficking, produced significant findings across purposes. Whilst these actions are currently outside the scope of the definition of human trafficking and fall under the provisions of Articles 5 and 6 of the UN OCG Convention, they are part of offender method to commit human trafficking and need to be factored into future research.

Data collection for empirical research on transnational human trafficking offender method should be sufficiently broad to facilitate a critique of the definition across jurisdictions on human trafficking offender methods. However, analysis should be structured in accordance with the international definition or have a valid critique upon which to base a deviation from this structure (Dempsey, 2017). This approach will increase the relevance of academic research for Member States to the UN OCG Convention that ratified and implemented the Palermo Protocol into domestic legislation, by developing commonality of understanding through a body of research that has consistently applied the definition. Dempsey (2017, pp. 61-80) accurately pointed out that research is at risk of becoming biased and loses impartiality if it does not reflect the legally binding definition relevant to the scope of the research. Developing insight on the commonality of human trafficking offending, to facilitate discussion to improve the effectiveness of provisions in the UN OCG Convention designed to facilitate transnational investigation, prosecution of offenders and the confiscation of their financial assets should be a common goal.

7.7.3   Recommendation 2: Data collection, and analysis at country level to support transnational analysis

Further empirical analysis of the three elements: actions, means and purpose, verifying, refuting and building upon the research carried out in this thesis is necessary. Research on the three elements at country level across a number of Member States, collecting data on the actual actions and means performed by offenders and factoring in the approach that a Member State has taken to determine purpose should also be a feature with a view to Recommendation 8 below.

7.7.4   Recommendation 3: Specific research on the prevalence and
application of Harbouring in offender method to commit human
trafficking, exploring both a broader interpretation of the term and
analysis of its significance and usefulness to further offending

Whilst the definition of Harbouring in this thesis focused on offenders
concealing victims, rather than generally accommodating them in some way
in a building or place that was static, the tenuous strength of presence of
this action in data collection suggested that an internationally agreed
definition of Harbouring for all purposes, at best, was necessary. Gallagher's
(2010, pp. 12-53) analysis of Harbouring was argued as the static action that
precedes the exploitation of the victim, enabling offenders at the end of the
process to be prosecuted for human trafficking. This argument necessitates
a very broad interpretation of 'harbouring' to support a prosecution.
However, in this thesis with a narrower interpretation of Harbouring
involving the concealment of victims, analysis unexpectedly revealed that
offenders engaged in Harbouring victims were also involved in concealing
money (Financial administration). Further research is necessary, focused on
the importance of this action from the perspective of the offender, to
develop a more comprehensive understanding for possible future
agreement on the definition of the term.

7.7.5   Recommendation 4: Specific research on End Exploitation as a
potential prescribed action in the first element.

Further research on End Exploitation is necessary, exploring the extent to
which offenders are prosecuted for human trafficking with no other
prescribed action evident. This research should focus on the implications
for understanding offending from an offender perspective and the close
association this action has with the second element, means (see
Recommendation 5 below). Research on this action is best conducted
inconjunction with Recommendations 2 and 3 above and reflecting
Recommendation 6 below.

7.7.6   Research Recommendation 5: Conducting empirical research on
transnational offender method to commit human trafficking and
financial administration to advance research on financial crime.

Prior to this research, this researcher was a practitioner in financial crime.
The following analysis, in support of future research, is based on practitioner
experience.   Traditional money laundering prevention is focused on
detecting proceeds from crime (FATF-APG, 2018). Risk is measured by the
capacity of a financial product to be used by criminals to 'launder' proceeds
(JMLSG, 2014). This perspective of risk needs adjustment as it becomes
increasingly evident that it is possible to measure the operational use of
finance to further crime and identify the activity directly and indirectly
related to harm caused to the public.   Offenders engaged in Financial
administration were supporting all aspects of human trafficking activity, in
particular the movement of victims as well as the movement of profit.
Offenders were directly involved in the Purchase and sale of victims and
Harbouring victims. The perception that money laundering is a 'victim-less'
crime is steadily challenged by research that examines the 'hands on' nature
of offenders traditionally assumed to be detached from the business of
crime.

The development of knowledge on offender methods is relevant and
necessary to support the evolution of financial crime monitoring. Financial
systems can provide a dual benefit.   They can provide a wealth of
information once an offender has been arrested and is being investigated by
financial crime investigators, provided that knowledge is available on the
methods that offenders use to commit a crime. The more remote and rarer
function is to have a sufficiently complex understanding of financial
transactions associated with an action within human trafficking, so that a
pattern of suspicious transactions can be given context and transactions that
have previously been overlooked from investigation develop meaning
enabling the detection of other financial transactions, activity and offenders
across the network.

Ideally, knowledge acquired from studying offender methods should translate to monitoring financial transactions and systems for patterns of activity that mirror offenders engaged in human trafficking. If it is possible to understand what an offender is likely to be involved in from our understanding of how the crime is committed, then it is possible to build a model of financial transactions that becomes associated with a stage of trafficking activity or a particular action that is performed by an offender. Developing knowledge on a recognised financial pattern associated with a given action performed by offenders engaged in human trafficking will take time and repetitive analysis. This type of repeated analysis is necessary to begin to unravel the complexity of financial activity that is likely in human trafficking. For example, in this thesis, 76.5% of offenders involved in Financial administration activity were also likely to aggregate their activity with other actions. Aggregation of action in offending increases the complexity of interpreting financial transactions. For example, do a series of financial transactions indicate the offender is controlling the flow of operational finance to support other offenders and their actions? Are they making payments to finance their own actions? Are they moving funds to move profit away from a network? Aggregation of action is likely to complicate any pattern of financial transactions. Improving our knowledge on offender methods improves our knowledge for interpreting financial transactions and for spotting activity that is currently undetected.

Empirical analysis in this thesis identified that offenders engaged in Recruitment were unlikely to be involved in Financial administration. As a result, offenders in Recruitment are likely to have simple and explicable financial transactions. This makes it difficult to identify recurring financial patterns that are suspicious and related to receiving compensation from another offender either in cash or in kind. The money may never enter the legitimate financial system or when it does it may not be sufficiently unusual to raise further investigation. However, if offenders are also involved in Travel Preparation, then buying tickets on public transport or regularly

buying petrol using payment cards such as pre-paid, debit or credit cards may become noticeable if the offender's recorded or presumed occupation does not match the frequency or volume of transactions. The data collected in this thesis would suggest that an offender with increased expenditure on travel in an occupation that does not necessitate travel may be involved in moving people or goods illegally and this may include victims for human trafficking. This offender is likely to be involved in Recruitment but is primarily involved in moving victims or assisting victims to move themselves. This offender may be carrying cash or goods that have a cash value equivalence on the return journey to pay offenders in Recruitment. This offender may make other journeys once victims are dropped off at the end stage of trafficking to move profit to other offenders or into legitimate businesses or into the financial system.

This thesis provides a starting point for developing an understanding of what is hidden and likely to be connected to an offender engaged in a given activity. Financial transactions need modelling in line with developing knowledge on offender method to commit human trafficking. Offenders in Transportation are likely to move both profit and operational finance, and offenders in Harbouring are likely to hold the profit and operational reserves. Offenders in Recruitment are unlikely to be directly connected to profit or the movement of money.

With greater clarity on offender methods to commit human trafficking, a continuous cycle of research on offender method and other crimes facilitated by finance is possible to bridge a divide between how finance is used, what we know about offender method to commit crime and how that knowledge is applied to monitor financial systems.

7.7.7   Recommendation 6: Changing perspective: Interpreting means as an expression of offender fear and threat

Another important insight into means was gleaned whilst analysing the data. Means were better explained by other means in multiple logistic regression

and the visuals of the results showed means circling End Exploitation. It was possible that means were protecting offenders.   In fact, the early disaggregation of the data had led to their grouping under the action 'Security' and it was an early perception from reading the case summaries that means were used to protect the offender's interests. Whilst the structure of the second element has formed from the perspective of what was done to a victim, it is a perspective gained from standing outside human trafficking and looking in at what is happening to a victim. It comes from the information we have studied about what victims tell us happened to them. But it was not necessarily the perspective of an offender performing means in the moment. Offenders were unlikely to be using means simplistically in a linear process. Once a victim was in trafficking, means may have reflected the offender's perception of fear and harm to themselves or their operation. Gaining a better understanding of what offenders are protective about and what is presenting as reflecting or projecting their fear, is essential for unlocking ways of disrupting activity (Eck, 2013). It is vitally important that we focus research on the means deployed to get people into trafficking and to maintain them in it. Means provide a measure of the harm that offenders are causing to victims but also the threat they present to the wider population. We can communicate the harm and threat more effectively if we know more about the means. Finally, it is essential that we consider means as providing insight into what an offender perceives to be a risk: losing the victim; losing income; prosecution; other traffickers; self hate and loathing and how that fear manifests in the means that are used upon victims. Means demonstrated how offenders achieved results. They were more important than action in unravelling the success of offenders.

7.7.8   Recommendation 7: Research on the viability of mitigating means:
Holding victim Passports and a deceptive Employment Offer, by
offering the use of biometric data as a form of identity in cases of
human trafficking

The offender that was Holding a victim's Passport was also more likely to engage in more coercive means.   The passport moves between offenders and was a means used at the entry into trafficking, in transit, when a victim was sold to other traffickers and at the end stage of trafficking. Taking an offender perspective, the passport was akin to an animal's leash. It may be because offenders recognised the literal and symbolic importance of a passport that they were able to 'other' the victim and move to more coercive means to control victims. A passport reflects your legal status, it says which nation you belong to, it represents your protection and your identity. When it is held by a person who means you harm it is an effective leash. Research on the potential for biometric data to be able to verify a person's identity so that the physical loss of the document has less significance may be worth exploring. At present it is used in conjunction with a passport at an entry point in the UK from the chip embedded in the passport (HMG, 2020). If it is possible to verify a person's identity without the physical document this may reduce the significance of this means over time.   This might be beneficial in other ways such as reducing the market for forged or stolen passports and improving port and airport entry timescales into the home state using biometric data as a rapid method of verifying identity rather than a physical document. This research would need to factor in the implications for cyber security, civil liberties etc. and may not be welcome across large sections of the population, but it may be an approach recommended for students travelling on gap years and generally, people offered employment abroad. The home state would hold the data and visiting your home state Embassy or consulate when abroad to gain a travel document would likely be necessary, but you would be your passport, rather than a physical document that can be taken from you.

7.7.9 Recommendation 8: Research on Forced Labour extending data collection to include actions for unpaid wages and other labour law infringements including convictions for human trafficking and using the structure of the international definition of human trafficking to analyse offender method

Sexual Exploitation was the predominant purpose for human trafficking with 751 offenders, 77.3% of the 972 offenders identified in this study engaged in Sexual Exploitation. Whilst offenders engaged in Forced Labour and Forced Begging were observed performing all of the actions (Recruitment, Travel Preparation, Transportation, Harbouring, the Purchase and sale of victims, Financial administration and Strategy), the predominance of offenders in Sexual Exploitation will have strongly influenced the actions identified and disaggregated from the case summaries and there are likely to be other actions that are essential to the success of offenders engaged in human trafficking that have not been identified from the quality of the case summaries. As previously discussed at research Objective 2, an examination of offender method to commit human trafficking for Forced Labour was revealing for its focus on End Exploitation as a material aspect of offender method. It is likely that other actions necessary to fulfil this purpose of human trafficking would be identified from analysis of prosecution and investigation files for human trafficking for Forced Labour and litigation for unpaid wages and other labour infringements. Future empirical research on a broad range of labour law infringement cases involving employers failing to pay adequate compensation, applying the structure of the three elements of the Palermo Protocol definition to the circumstances of each case, identifying the actions and means actually performed by employers may provide a more comprehensive analysis of the extent to which the prescribed actions are adequately reflecting the actions performed by employers or offenders engaged in Forced Labour and may provide a more accurate measurement of the harm that Forced Labour is causing to victims. At present, the legal academic debate on the process of human trafficking (Gallagher, 2010; Chuang, 2014; Stoyanova, 2015) and the implications for

prosecutions of Forced Labour is delivered with certainty and is persuasive theoretically from both perspectives. However, it is not necessarily an accurate portrayal of circumstances, experiences or harm and further empirical research is necessary to improve our knowledge and understanding of this area of disagreement.

Appendix 1 Data

Table of cases in SHERLOC for States Party to Palermo Protocol connected to the region of Europe plus Nigeria and Vietnam.

State Party	Total no. cases in SHERLOC database	Total cases for analysis	% of 486 cases included	Notes
Albania	17	9	1.9%	
Armenia	6	6	1.2%	
Austria	6	6	1.2%	
Azerbaijan	14	14	2.9%	
Belarus	3	3	0.6%	
Belgium	36	28	5.8%	
Bosnia and Herzegovina	4	4	0.8%	
Bulgaria	11	7	1.4%	
Croatia	2	2	0.4%	
Cyprus	1	1	0.2%	
Czech Republic	31	22	4.5%	
Denmark	15	14	2.9%	One case was appealed creating two entries in SHERLOC
Estonia	7	4	0.8%	
Finland	11	9	1.9%	
France	16	10	2.1%	
Georgia	5	5	1.0%	
Germany	24	15	3.1%	4 cases were appealed creating 2 SHERLOC entries per case
Hungary	6	6	1.2%	

Iceland	1	1	0.2%	
Italy	15	13	2.7%	
Kazakhstan	4	3	0.6%	
Lichtenstein	0	0	0	
Lithuania	5	2	0.4%	
Luxembourg	0	0	0	
Monaco	0	0	0	
Netherlands	8	6	1.2%	
Nigeria	14	11	2.3%	
Norway	13	13	2.7%	
Poland	26	18	3.7%	One case was a duplicate of another, creating two SHERLOC entries
Portugal	4	3	0.6%	
Republic of Ireland	0	0	0	
Republic of Moldova	60	37	7.6%	One case was appealed creating two SHERLOC entries
Romania	52	44	9.1%	2 cases were appealed creating two SHERLOC entries per case
Russian Federation	11	11	2.3%	
Serbia	47	34	7.0%	5 cases were appealed creating two SHERLOC entries per case
Slovakia	49	47	9.7%	2 cases were appealed creating two

				SHERLOC entries per case
Slovenia	1	0	0	
Spain	7	5	1.0%	
Sweden	33	17	3.5%	One case was appealed creating two SHERLOC entries
Switzerland	6	5	1.0%	
The former Yugoslav Republic of Macedonia	8	8	1.6%	
Turkey	11	3	0.6%	
Ukraine	21	21	4.3	
United Kingdom	25	14	2.9%	
Vietnam	5	5	1.0%	
Total	**641**	**486**		

Offenders by 75 jurisidictions including % difference between actual prosecution and offenders linked to the jurisdiction and the % of offenders overall.

Jurisdiction	N. offenders prosecuted	N. linked to a location in jurisdiction	% proportion of offenders prosecuted in another jurisdiction	% of offenders[25] in study n.972
Albanian	17	21	19.0%	2.2%
Armenia	13	7	- 85.7%	1.3%
Austria	19	31	38.7%	3.2%

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[25] Based on greatest number of offenders either prosecuted or connected to a jurisdiction which may include those prosecuted in the jurisdiction

Azerbaijan	19	13	- 46.2%	2.0%
Bahrain	NA	4	NA	0.4%
Belarus	6	No data	NA	0.6%
Belgium	65	58	-12.1%	6.7%
Benin	NA	1	NA	0.1%
Bosnia	14	20	30.0%	2.1%
Brazil	NA	2	NA	0.2%
Bulgaria	16	39	59.0%	4.0%
Burundi	NA	2	NA	0.2%
Cameroon	NA	3	NA	0.3%
China	NA	7	NA	0.7%
Cote d'Ivoire	NA	1	NA	0.1%
Croatia	3	9	66.7%	0.9%
Cyprus	2	6	66.7%	0.6%
Czech Republic	45	81	44.4%	8.3%
Denmark	39	47	17.0%	4.8%
Egypt	NA	1	NA	0.1%
Eritrea	NA	1	NA	0.1%
Estonia	7	12	41.7%	1.2%
Ethiopia	NA	1	NA	0.1%
Finland	19	19	0%	2.0%
France	20	38	47.4%	3.9%
Georgia	5	No data	NA	0.5%
Germany	18	50	64.0%	5.1%
Ghana	NA	3	NA	0.3%
Greece	No data	3	100%	0.3%
Hungary	10	17	41.2%	1.7%
Iceland	5	No data	NA	0.5%

India	NA	3	NA	0.3%
Ireland	No data	1	100%	0.1%
Israel	NA	2	NA	0.2%
Italy	28	85	67.1%	8.7%
Kazakhstan	13	13	0%	1.3%
Kenya	NA	2	NA	0.2%
Kosovo	No data	9	100%	0.9%
Lebanon	NA	1	NA	0.1%
Libya	NA	1	NA	0.1%
Lithuania	4	13	69.2%	1.3%
Montenegro	No data	1	100%	0.1%
Morocco	NA	6	NA	0.6%
Netherlands	6	11	45.5%	1.1%
Niger	NA	1	NA	0.1%
Nigeria	12	25	52.0%	2.6%
Norway	20	24	16.7%	2.5%
Pakistan	NA	1	NA	0.1%
Philippines	NA	1	NA	0.1%
Poland	35	51	31.4%	5.2%
Portugal	9	10	10.0%	1.0%
Republic of Moldova	49	47	- 4.3%	5.0%
Republic of North Macedonia	20	22	9.1%	2.3%
Romania	100	162	38.3%	16.7%
Russia	19	46	58.7%	4.7%
Saudi Arabia	NA	1	NA	0.1%
Senegal	NA	1	NA	0.1%

Serbia	73	77	5.2%	7.9%
Slovakia	96	107	10.3%	11.0%
Somalia	NA	1	NA	0.1%
Spain	14	29	51.7%	3.0%
Sudan	NA	2	NA	0.2%
Sweden	48	52	7.7%	5.3%
Switzerland	7	17	58.8%	1.7%
Syria	NA	1	NA	0.1%
Tanzania	NA	1	NA	0.1%
Thailand	NA	3	NA	0.3%
Togo	NA	5	NA	0.5%
Tunisia	NA	2	NA	0.2%
Turkey	5	54	90.7%	5.6%
UAE	NA	23	NA	2.4%
UK	29	33	12.1%	3.4%
Ukraine	36	46	21.7%	4.7%
Uzbekistan	NA	1	NA	0.1%
Vietnam	7	9	22.2%	9.8%

Greatest frequency

Action one	Action two	Action three	N.
Recruitment	End Exploitation		92
Recruitment	Transportation		47
Recruitment	Transportation	End Exploitation	42
Recruitment	Travel Preparation		34
Transportation	End Exploitation		28

Travel preparation	End Exploitation		18
Recruitment	Transportation	Travel Preparation	15

Action frequency

Action one exclusively	Action two exclusively with action one	N.
Recruitment	Transportation	47
Recruitment	Travel Preparation	34
Recruitment	Harbouring	4
Recruitment	Purchase and sale of victims	10
Recruitment	Financial administration	0
Recruitment	End Exploitation	92
Recruitment	Strategy	1
Transportation	Travel preparation	5
Transportation	Harbouring	3
Transportation	Purchase and sale of victims	7
Transportation	Financial administration	6
Transportation	End Exploitation	28
Transportation	Strategy	1
Travel preparation	Harbouring	5
Travel preparation	Purchase and sale of victims	1
Travel preparation	Financial administration	2
Travel preparation	End Exploitation	18
Travel preparation	Strategy	2
Harbouring	Purchase and sale of victims	0
Harbouring	Financial administration	0
Harbouring	End Exploitation	10

Harbouring	Strategy	0
Purchase and sale of victims	Financial administration	1
Purchase and sale of victims	End Exploitation	0
Purchase and sale of victims	Strategy	0
Financial administration	End Exploitation	0
Financial administration	Strategy	0
End Exploitation	Strategy	8
Total		285

Action 1	Action 2	Action 3	N.
Recruitment	Transportation	Travel Preparation	15
Recruitment	Transportation	Harbouring	4
Recruitment	Transportation	Purchase and sale of victims	5
Recruitment	Transportation	Financial administration	2
Recruitment	Transportation	End Exploitation	42
Recruitment	Transportation	Strategy	2
Recruitment	Travel Preparation	Harbouring	0
Recruitment	Travel Preparation	Purchase and sale of victims	3
Recruitment	Travel Preparation	Financial administration	0
Recruitment	Travel Preparation	End Exploitation	7
Recruitment	Travel Preparation	Strategy	0
Recruitment	Harbouring	Purchase and sale of victims	0
Recruitment	Harbouring	Financial administration	2
Recruitment	Harbouring	End Exploitation	5

Recruitment	Harbouring	Strategy	0
Recruitment	Purchase and sale of victims	Financial administration	0
Recruitment	Purchase and sale of victims	End Exploitation	5
Recruitment	Purchase and sale of victims	Strategy	0
Recruitment	Financial administration	End Exploitation	0
Recruitment	Financial administration	Strategy	0
Recruitment	End Exploitation	Strategy	3
Transportation	Travel Preparation	Harbouring	0
Transportation	Travel Preparation	Purchase and sale of victims	1
Transportation	Travel Preparation	Financial administration	0
Transportation	Travel Preparation	End Exploitation	4
Transportation	Travel Preparation	Strategy	1
Transportation	Harbouring	Purchase and sale of victims	0
Transportation	Harbouring	Financial administration	2
Transportation	Harbouring	End Exploitation	3
Transportation	Harbouring	Strategy	0
Transportation	Purchase and sale of victims	Financial administration	1
Transportation	Purchase and sale of victims	End Exploitation	4
Transportation	Purchase and sale of victims	Strategy	0
Transportation	Financial administration	End Exploitation	0
Transportation	Financial administration	Strategy	0

Transportation	End Exploitation	Strategy	0
Travel Preparation	Harbouring	Purchase and sale of victims	0
Travel Preparation	Harbouring	Financial administration	0
Travel Preparation	Harbouring	End Exploitation	2
Travel Preparation	Harbouring	Strategy	0
Travel Preparation	Purchase and sale of victims	Financial administration	0
Travel Preparation	Purchase and sale of victims	End Exploitation	2
Travel Preparation	Purchase and sale of victims	Strategy	0
Travel Preparation	Financial administration	End Exploitation	0
Travel Preparation	Financial administration	Strategy	0
Travel Preparation	End Exploitation	Strategy	0
Harbouring	Purchase and sale of victims	Financial administration	0
Harbouring	Purchase and sale of victims	End Exploitation	0
Harbouring	Purchase and sale of victims	Strategy	0
Harbouring	Financial administration	End Exploitation	3
Harbouring	Financial administration	Strategy	1
Harbouring	End Exploitation	Strategy	0
Purchase and sale of victims	Financial administration	End Exploitation	3
Purchase and sale of victims	Financial administration	Strategy	0
Purchase and sale of victims	End Exploitation	Strategy	0

Financial administration	End Exploitation	Strategy	0

Action 1	Action 2	Action 3	Action 4	N. of offenders
Recruitment	Transportation	Travel Preparation	Harbouring	3
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	6
Recruitment	Transportation	Travel Preparation	Financial administration	0
Recruitment	Transportation	Travel Preparation	End Exploitation	9
Recruitment	Transportation	Travel Preparation	Strategy	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	0
Recruitment	Transportation	Harbouring	Financial administration	0
Recruitment	Transportation	Harbouring	End Exploitation	3
Recruitment	Transportation	Harbouring	Strategy	0
Recruitment	Transportation	Purchase and sale of victims	Financial administration	0
Recruitment	Transportation	Purchase and sale of victims	End Exploitation	0
Recruitment	Transportation	Purchase and sale of victims	Strategy	0
Recruitment	Transportation	Financial administration	End Exploitation	2
Recruitment	Transportation	Financial administration	Strategy	0
Recruitment	Transportation	End Exploitation	Strategy	0
Recruitment	Travel Preparation	Harbouring	Purchase and sale of victims	0

Recruitment	Travel Preparation	Harbouring	Financial administration	0
Recruitment	Travel Preparation	Harbouring	End Exploitation	0
Recruitment	Travel Preparation	Harbouring	Strategy	0
Recruitment	Travel Preparation	Purchase and sale of victims	Financial administration	0
Recruitment	Travel Preparation	Purchase and sale of victims	End Exploitation	0
Recruitment	Travel Preparation	Purchase and sale of victims	Strategy	0
Recruitment	Travel Preparation	Financial administration	End Exploitation	0
Recruitment	Travel Preparation	Financial administration	Strategy	0
Recruitment	Travel Preparation	End Exploitation	Strategy	0
Recruitment	Harbouring	Purchase and sale of victims	Financial administration	0
Recruitment	Harbouring	Financial administration	End Exploitation	1
Recruitment	Harbouring	Financial administration	Strategy	0
Recruitment	Harbouring	End Exploitation	Strategy	0
Recruitment	Purchase and sale of victims	Financial administration	End Exploitation	0
Recruitment	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Financial administration	End Exploitation	Strategy	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	0
Transportation	Travel Preparation	Harbouring	Financial administration	0

Transportation	Travel Preparation	Harbouring	End Exploitation	2
Transportation	Travel Preparation	Harbouring	Strategy	0
Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	1
Transportation	Travel Preparation	Purchase and sale of victims	End Exploitation	5
Transportation	Travel Preparation	Purchase and sale of victims	Strategy	0
Transportation	Travel Preparation	Financial administration	End Exploitation	0
Transportation	Travel Preparation	Financial administration	Strategy	0
Transportation	Travel Preparation	End Exploitation	Strategy	0
Transportation	Harbouring	Purchase and sale of victims	Financial administration	0
Transportation	Harbouring	Purchase and sale of victims	End Exploitation	0
Transportation	Harbouring	Purchase and sale of victims	Strategy	0
Transportation	Harbouring	Financial administration	End Exploitation	0
Transportation	Harbouring	Financial administration	Strategy	0
Transportation	Harbouring	End Exploitation	Strategy	0
Transportation	Purchase and sale of victims	Financial administration	End Exploitation	1
Transportation	Purchase and sale of victims	Financial administration	Strategy	0
Transportation	Financial administration	End Exploitation	Strategy	0
Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	0

Travel Preparation	Harbouring	Purchase and sale of victims	End Exploitation	0
Travel Preparation	Harbouring	Purchase and sale of victims	Strategy	0
Travel Preparation	Harbouring	Financial administration	End Exploitation	0
Travel Preparation	Harbouring	Financial administration	Strategy	0
Travel Preparation	Harbouring	End Exploitation	Strategy	0
Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	0
Travel Preparation	Purchase and sale of victims	Financial administration	Strategy	0
Travel Preparation	Purchase and sale of victims	End Exploitation	Strategy	0
Travel Preparation	Financial administration	End Exploitation	Strategy	0
Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0
Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Harbouring	Purchase and sale of victims	End Exploitation	Strategy	0
Harbouring	Financial administration	End Exploitation	Strategy	0
Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0

Action 1	Action 2	Action 3	Action 4	Action 5	N. of offenders
Recruitment	Transportation	Travel preparation	Harbouring	Purchase and sale of victims	0

Recruitment	Transportation	Travel Preparation	Harbouring	Financial administration	0
Recruitment	Transportation	Travel Preparation	Harbouring	End exploitation	0
Recruitment	Transportation	Travel preparation	Harbouring	Strategy	0
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	0
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	End Exploitation	2
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	Strategy	0
Recruitment	Transportation	Travel Preparation	Financial administration	End Exploitation	5
Recruitment	Transportation	Travel Preparation	Financial administration	Strategy	0
Recruitment	Transportation	Travel Preparation	End Exploitation	Strategy	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	Financial administration	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	End Exploitation	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	Strategy	0
Recruitment	Transportation	Harbouring	Financial administration	End Exploitation	0
Recruitment	Transportation	Harbouring	Financial administration	Strategy	0
Recruitment	Transportation	Harbouring	End Exploitation	Strategy	0

Recruitment	Transportation	Purchase and sale of victims	Financial administration	End Exploitation	2
Recruitment	Transportation	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Transportation	Purchase and sale of victims	End Exploitation	Strategy	0
Recruitment	Transportation	Financial administration	End Exploitation	Strategy	0
Recruitment	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	0
Recruitment	Travel Preparation	Harbouring	Purchase and sale of victims	End Exploitation	0
Recruitment	Travel Preparation	Harbouring	Purchase and sale of victims	Strategy	0
Recruitment	Travel Preparation	Harbouring	Financial administration	End Exploitation	0
Recruitment	Travel Preparation	Harbouring	Financial administration	Strategy	0
Recruitment	Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	0
Recruitment	Travel Preparation	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Travel Preparation	Purchase and sale of victims	End Exploitation	Strategy	0
Recruitment	Travel Preparation	Financial administration	End Exploitation	Strategy	0
Recruitment	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0

Recruitment	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Harbouring	Purchase and sale of victims	End Exploitation	Strategy	0
Recruitment	Harbouring	Financial administration	End Exploitation	Strategy	0
Recruitment	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	End Exploitation	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Strategy	0
Transportation	Travel Preparation	Harbouring	Financial administration	End Exploitation	0
Transportation	Travel Preparation	Harbouring	Financial administration	Strategy	0
Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	0
Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	Strategy	0
Transportation	Travel Preparation	Purchase and sale of victims	End Exploitation	Strategy	0
Transportation	Travel Preparation	Financial administration	End Exploitation	Strategy	0
Transportation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0

Transportation	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Transportation	Harbouring	Financial administration	End Exploitation	Strategy	0
Transportation	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0
Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Travel Preparation	Harbouring	Financial administration	End Exploitation	Strategy	0
Travel Preparation	Purchase and sale of victims	Financial administration	End exploitation	Strategy	0
Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0

Action 1	Action 2	Action 3	Action 4	Action 5	Action 6	N.
Recruitment	Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	0
Recruitment	Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	End exploitation	0
Recruitment	Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Strategy	0
Recruitment	Transportation	Travel Preparation	Harbouring	Financial administration	End Exploitation	0
Recruitment	Transportation	Travel Preparation	Harbouring	Financial administration	Strategy	0
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	0
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	Strategy	0

Recruitment	Transportation	Travel Preparation	Financial administration	End Exploitation	Strategy	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Transportation	Harbouring	Financial administration	End Exploitation	Strategy	0
Recruitment	Transportation	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Recruitment	Travel preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0
Recruitment	Travel preparation	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Travel preparation	Harbouring	Purchase and sale of victims	End Exploitation	Strategy	0
Recruitment	Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Recruitment	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	End Exploitation	Strategy	0
Transportation	Travel Preparation	Harbouring	Financial administration	End Exploitation	Strategy	0
Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Transportation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0

Action 1	Action 2	Action 3	Action 4	Action 5	Action 6	Action 7	N.

Recruitment	Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	0
Recruitment	Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	Strategy	0
Recruitment	Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	End Exploitation	Strategy	0
Recruitment	Transportation	Travel Preparation	Harbouring	Financial administration	End Exploitation	Strategy	0
Recruitment	Transportation	Travel Preparation	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Recruitment	Transportation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Recruitment	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0
Transportation	Travel Preparation	Harbouring	Purchase and sale of victims	Financial administration	End Exploitation	Strategy	0

Appendix 2 Codebook

Chapter 4   Variables and coding

1. Excel variables imported into STATA 15SE:

Recruitmentrole; Exploitationrole; Securityrole; Transportationrole; Travelpreparationrole; SaleandPurchaseroles; Harbouringrole; Financialadministrationrole; Strategicrole

2. Using STATA commands to create new indicator variables from imported Excel variables, the following categorical variables were created for analysis:

'Traffickingrole'; 'Recruiter'; 'Exploitation'; 'Security'; 'Transporter'; 'Travelprep'; 'Harbours'; 'Salepurchcomb'; 'Financialadministrator'; 'Strategic'.

Example of coding logic for each categorical variable:

'Strategic'

1 = yes

0 = no

3. Dummy coded variables created removing offenders involved in other activity

Example of coding used:

generate Recruitmentonly=.

replace Recruitmentonly=1 if Recruiter==1

replace Recruitmentonly=0 if Recruiter==0

replace Recruitmentonly=0 if Exploitation==1

replace Recruitmentonly=0 if Transporter==1

replace Recruitmentonly=0 if Travelprep==1

replace Recruitmentonly=0 if Salepurchcomb==1

replace Recruitmentonly=0 if Harbours==1

replace Recruitmentonly=0 if Financialadmin==1

replace Recruitmentonly=0 if Strategic==1

To create a variable in which offenders involved in only one action are appearing:

'Recruitmentonly'; 'Exploitationonly'; 'Transportationonly';
'Travelpreponly'; 'Salepurchonly'; 'Harboursonly'; 'Financialadminonly';
'Strategiconly'

Example of coding logic for each categorical variable created:

'Strategiconly'

1 = yes

0 = no

4. GENERALIZED STRUCTURAL EQUATION MODELING

Variables were latent if they were capitalized and observed if they were lower case. All categorical variables renamed to lower case letters.

Command structure:

gsem (observed variables <- *arrow flow* CAPS FOR LATENT VARIABLE, family(bernoulli) link(logit))

Example of actual command used:

gsem (transporter travelprep harbours financialadministrator <- RECRUITER, family(bernoulli) link(logit))

5. STRUCTURED EQUATION MODELING

STATA commands for moderated mediation Model 12 in STATA, 2013

sem (variable receiving the indirect effect <- variable through which the effects flow variable causing the effect) (variable through which effects flow <- variable causing effect)

followed by STATA command:

estat teffects

Example of actual command used:

sem(recruiter <- transporter harbours) (transporter <- harbours)

estat teffects

Chapter 5 Variables and Coding

1. Excel variables imported into STATA 15SE:

Recruitmentmethodbreakdownca; Securitygen; SecurityIntimidation; SecurityAbduction; SecuritybreakdownPhysicalcont; SecurityHoldingPassport; Securityrape; SecurityDebtbondage; Victimagegroup

2. Using STATA commands to create new indicator variables from imported Excel variables, the following categorical variables were created for analysis:

'RecruitEmploymentcomb'; 'RecruitFinancialhardcomb';

'RecruitRomancecomb'; 'SecmethIntimidate'; 'SecmethPhyscontrol';

'Securityphysicalassaultcomb'; 'SecmethDebtbondage';

'SecmethHoldPassport'; 'SecmethAbduction'; 'SecmethRape'; 'Childcomb'

Example of coding logic for each categorical variable:

'SecmethRape'

1 = yes

0 = no

3. To create categorical variable for all *'Means'*: all offenders involved in a Recruitment or Security means (excluding financial layering) were added into a dummy variable: *'Means'*

4. *'Meanspluschild'* was created by adding the content of *'Means'* with the content of *'Childcomb'* to add all offenders trafficking children.

Example of coding logic:

'Meanspluschild'

1 = yes

0 = no

5. Generalised structural equation modelling and structural equation modelling as with Chapter 4 coding on variables.

Chapter 6   Variables and Coding

1. Excel variables imported into STATA SE15:

Typeoftrafficking

2. Using STATA commands to create new indicator variables from imported Excel variable, the following categorical variables were created for analysis:

'Sexcomb'; 'Forcedbeggingcomb'; 'Labourcomb'

Example of coding logic:

'Labourcomb'

1 = yes

0 = no

3. Creating a subset of variables for Sexual Exploitation, Forced Labour and Forced Begging:

Dummy coded variables formed from trafficking type, and Chapter 4 variables for actions and Chapter 5 variables for means:

'SextraffRecruiter'; 'SextraffExploiter'; 'SextraffSecurity'; 'SextraffTrans';
'SextraffTravelprep'; 'SextraffSalePurch'; 'SextraffHarbours'
'SextraffFinancialadministrator'; 'SextraffStrategic';
'SextraffRecruitEmploy'; 'SextraffRecruitFinance';
'SextraffRecruitRomance'; 'SextraffSecmethIntimidate' ;
'SextraffSecmethPhyscontrol'; 'SextraffSecmethPhysicalassault';
'SextraffSecmethHoldPassp'; 'SextraffSecmethDebtbond'; 'LabourRecruit';
'LabourExploiter'; 'LabourSecurity'; 'LabourRecmethEmploy';
'ForBegRecruit'; 'ForBegExploit'; 'ForBegSecurity'

Example of coding logic:

'ForBegSecurity'

1 = yes

0 = no

4. Generalised structural equation modelling and structural equation modelling as with Chapter 4 coding on variables.

Appendix 3 Chapter 4 Data Results

Number of offenders observed performing actions

	Recruitment	End Exploitation	Security	Transportation	Travel preparation	Purchase and sale of victims	Harbouring	Financial administration
End Exploitation	178							
Security	176	251						
Transportation	149	110	105					
Travel preparation	84	54	48	57				
Purchase and sale of victims	33	40	46	33	19			
Harbouring	22	29	29	20	12	2		
Financial administration	14	22	25	22	8	9	9	
Strategy	6	11	8	4	3	0	1	1

n. 869

Pearson's chi-squared and Fisher's Exact one-sided results

	Recruitment	End Exploitation	Security	Transportation	Travel preparation	Purchase and sale of victims	Harbouring	Financial administration
End Exploitation	0.02**							
Security	0.97	0.00***						
Transportation	0.00***	0.70	0.59					
Travel preparation	0.00***	0.15	0.15	0.00***				
Purchase and sale of victims	0.00***	0.14	0.47	0.38	0.40			
Harbouring	0.18 (FE 0.11)	0.29	0.08(FE 0.05)	0.17 (FE 0.11)	0.185	0.05 (FE 0.03**)		
Financial administration	0.01*** (FE 0.00***)	0.98	0.13 (FE 0.09)	0.01*** (FE 0.01***)	0.84	0.14 (FE 0.11)	0.00*** (FE 0.00***)	
Strategy	0.01*** (FE 0.01***)	0.66	0.25	0.13 (FE 0.13)	0.55	0.06 (FE 0.06)	0.59	0.69

n. 972 (FE = Fisher's Exact one-sided)

Correlation coefficient results:

	Recruitment	End Exploitation	Security	Transportation	Travel preparation	Purchase and sale of victims	Harbouring	Financial administration	Strategy

Recruitment	1.0000							
End Exploitation	-0.0740	1.0000						
Security	-0.0010	0.3697	1.0000					
Transportation	0.1309	-0.0123	0.0173	1.0000				
Travel preparation	0.1019	-0.0465	-0.0462	0.1230	1.0000			
Purchase and sale of victims	-0.1156	-0.0474	0.0234	0.0283	0.0273	1.0000		
Harbouring	-0.0433	0.0340	0.0569	0.0440	0.0425	-0.0620	1.0000	
Financial administration	-0.0899	-0.0008	0.0484	0.0871	0.0065	0.0480	0.1160	1.0000	
Strategy	-0.0866	-0.0140	-0.0368	-0.0485	-0.0194	-0.0612	-0.0174	-0.0129	1.0000

Multiple logistic regression models

Multiple logistic regression of Recruitment

Recruitment dependent variable	Coefficient	Standard Error	z stat	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	-.3295262	.1346397	-2.45	0.014**	-.5934151	-.0656373
Transportation	.6078518	.152182	3.99	0.000***	.3095806	.9061229
Travel preparation	.5138395	.1896555	2.71	0.007***	.1421216	.8855574
Purchase and sale of victims	-.8880395	.2264616	-3.92	0.000***	-1.331896	-.444183
Financial administration	-1.000599	.3315989	-3.02	0.003***	-1.650521	-.3506766
Strategy	-1.262347	.4742429	-2.66	0.008***	-2.191845	-.3328476
Constrained	-.0633286	.1034087	-0.61	0.540	-.266006	.1393488

Model chi-square p-value 0.0000*** Pseudo R-squared = 0.0470 Log likelihood = -639.78729 LR chi2(6) = 63.14 n. 972

Multiple Logistic regression of Travel preparation

Travel preparation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	.502858	.186112	2.70	0.007***	.1380852	.8676307
Transportation	.6469188	.1911297	3.38	0.001***	.2723115	1.021526
Constrained	-2.222632	.1505737	-14.76	0.000***	-2.517751	-1.927513

Model chi-square p-value 0.0000*** Pseudo R-squared = 0.0260 Log likelihood = -395.41223 LR chi2(2) = 21.14 n. 972

Multiple Logistic regression of Transportation

Transportation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	.5989387	.1500099	3.99	0.000***	.3049246	.8929527
Travel preparation	.6429459	.1924444	3.34	0.001***	.2657618	1.02013
Financial administration	.9228767	.301336	3.06	0.002***	.3322689	1.513484
Constrained	-1.468799	.1159748	-12.66	0.000***	-1.696106	-1.241493

Model chi-square p-value 0.0000*** Pseudo R-squared = 0.0324 Log likelihood = -546.18345 LR chi2(3) = 36.60 n. 972

Multiple Logistic regression of Purchase and sale of victims

Purchase and sale of victims dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	-.7762721	.2193167	-3.54	0.000***	-1.206125	-.3464193
Constrained	-1.765091	.1241376	-14.22	0.000***	-2.008396	-1.521786

Model chi-square p-value 0.0003*** Pseudo R-squared = 0.0196 Log likelihood = -334.44082 LR chi2(1) = 13.40 n. 972

Multiple Logistic regression of Harbouring

Harbouring dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	1.338524	.3955699	3.38	0.001***	.5632216	2.113827
Constrained	-2.878969	.146816	-19.61	0.000***	-3.166723	-2.591215

Model chi-square p-value 0.0026*** Pseudo R-squared = 0.0207 Log likelihood = -215.18708 LR chi2(1) = 9.09 n. 972

Multiple Logistic regression of Financial administration

Financial administration dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	-.9755437	.3281702	-2.97	0.003***	-1.618746	-.3323419
Transportation	.8920421	.3011706	2.96	0.003***	.3017586	1.482326
Harbouring	1.22055	.4036362	3.02	0.002***	.4294377	2.011663
Constrained	-2.962693	.2139316	-13.85	0.000***	-3.381992	-2.543395

Model chi-square p-value 0.0000*** Pseudo R-squared = 0.0622 Log likelihood = -187.52519 LR chi2(3) = 24.87 n. 972

Multiple Logistic regression of Strategy

Strategy dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	-1.189002	.4651574	-2.56	0.011**	-2.100694	-.2773101
Constrained	-3.119558	.2178591	-14.32	0.000***	-3.546554	-2.692562

Model chi-square p-value 0.0052*** Pseudo R-squared = 0.0308 Log likelihood = -123.00075 LR chi2(1) = 7.82 n. 972

Table of multiple logistic regression p-values and Pseudo R-squared for comparison

Dependent Action	Model chi-squared p-value	Pseudo R-squared	Model % explanation of action
Recruitment	0.00***	0.05	5%
Travel preparation	0.00***	0.03	3%

Transportation	0.00***	0.03	3%
Harbouring	0.00***	0.02	2%
Purchase and sale of victims	0.00***	0.02	2%
Financial administration	0.00***	0.06	6%
End Exploitation	0.00***	0.11	11%
Strategy	0.01***	0.03	3%

Generalised structural equation models with no statistical significance or distorted results:

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
End Exploitation	-.0843102	.1277736	-0.66	0.509	-.3347418	.1661214
Travel preparation	.6575373	.3592489	1.83	0.067	-.0465776	1.361652
Purchase and sale of victims	.2637133	.2366308	1.11	0.265	-.2000746	.7275013
Harbouring	.5763813	.4374149	1.32	0.188	-.2809362	1.433699
Financial administration	.8519361	.5749275	1.48	0.138	-.2749011	1.978773
Strategy	-.7894543	.5935063	-1.33	0.183	-1.952705	.3737967

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	1.520911	.8313104	1.83	0.067	-.1084273	3.15025
End Exploitation	-.1282215	.1829654	-0.70	0.483	-.4868272	.2303842
Purchase and sale of victims	.4010589	.3241825	1.24	0.216	-.2343272	1.036445
Harbouring	.8765537	.54729	1.60	0.109	-.196115	1.949222
Financial administration	1.295623	.7520761	1.72	0.085	-.1784194	2.769665
Strategy	-1.200614	.8234001	-1.46	0.145	-2.814448	.4132206

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Harbouring	Constrained					
Travel preparation	1.140791	.7121679	1.60	0.109	-.2550326	2.536614
Transportation	1.735034	1.317004	1.32	0.188	-.8462464	4.316315
End Exploitation	-.1462718	.2338283	-0.63	0.532	-.604567	.3120233
Purchase and sale of victims	.4575196	.4423069	1.03	0.301	-.409386	1.324425

Financial administration	1.478045	.7772203	1.90	0.057	-.0452791	3.001369
Strategy	-1.369647	1.057185	-1.30	0.195	-3.441691	.7023969

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	Constrained					
Travel preparation	.7718094	.4479365	1.72	0.085	-.10613	1.649749
Transportation	1.173842	.7923228	1.48	0.138	-.3790824	2.726766
End Exploitation	-.098963	.1509336	-0.66	0.512	-.3947874	.1968613
Purchase and sale of victims	.309544	.2561045	1.21	0.227	-.1924116	.8114997
Harbouring	.6765489	.3557821	1.90	0.057	-.0207713	1.373869
Strategy	-.9266439	.6512844	-1.42	0.155	-2.203138	.3498502

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
End Exploitation	Constrained value 1.					
Transportation	-11.86096	17.72085	-0.67	0.503	-46.59319	22.87126
Travel preparation	-7.798622	10.96868	-0.71	0.477	-29.29683	13.69959

Purchase and Sale of victims	-3.127712	4.70328	-0.67	0.506	-12.34597	6.090547
Harbouring	-6.835883	10.7797	-0.63	0.526	-27.9637	14.29193
Financial administration	-10.10404	15.19402	-0.67	0.506	-39.88377	19.67569
Strategy	9.363103	14.6899	0.64	0.524	-19.42856	38.15477

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Purchase and sale of victims	Constrained					
Travel preparation	2.493402	2.014799	1.24	0.216	-1.455532	6.442335
Transportation	3.792248	3.402371	1.11	0.265	-2.876277	10.46077
End Exploitation	-.3197076	.486364	-0.66	0.511	-1.272964	.6335483
Harbouring	2.185598	2.112487	1.03	0.301	-1.954801	6.325996
Financial administration	3.230503	2.672115	1.21	0.227	-2.006746	8.467752
Strategy	-2.99361	2.54702	-1.18	0.240	-7.985678	1.998457

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Strategy	Constrained					

Travel preparation	-.8329072	.5712139	-1.46	0.145	-1.952466	.2866515
Transportation	-1.266777	.9525793	-1.33	0.184	-3.133798	.6002444
End Exploitation	.1067966	.1697914	0.63	0.529	-.2259885	.4395817
Purchase and Sale	-.3340447	.284273	-1.18	0.240	-.8912095	.2231201
Harbouring	-.7300877	.5635758	-1.30	0.195	-1.834676	.3745007
Financial administration	-1.079133	.7585105	-1.42	0.155	-2.565786	.4075204

Recruitment descriptive statistics

Recruitment Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Transportation	1.214948	.9173282	.2766119	5.336354
Travel preparation	.5252997	.3451109	.1449391	1.903833
Harbouring	.4036367	.4198202	.0525607	3.099706
Financial administration	.8818136	.7407373	.1699629	4.575088
End Exploitation	.0086366	.0245413	.0000329	2.265039
Purchase and sale of victims	.0844928	.1259107	.0045537	1.567744
Strategy	.7572061	.8846563	.0766905	7.476302

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
End Exploitation	-.0903916	.0500392	-1.81	0.071	-.1884666	.0076833
Travel preparation	.1785556	.079031	2.26	0.024**	.0236577	.3334534
Purchase and sale of victims	-.2101067	.0897255	-2.34	0.019**	-.3859654	-.0342481
Harbouring	-.1208208	.0989935	-1.22	0.222	-.3148446	.073203
Financial administration	-.3006298	.1400977	-2.15	0.032**	-.5752161	-.0260434
Strategy	-.2876788	.1533203	-1.88	0.061	-.5881811	.0128235

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
End Exploitation	-.5062378	.2971315	-1.70	0.088	-1.088605	.0761293
Recruitment	5.600546	2.478296	2.26	0.024**	.7431742	10.45792
Purchase and sale of victims	-1.176702	.6113413	-1.92	0.054	-2.374909	.0215047
Harbouring	-.6766555	.5866995	-1.15	0.249	-1.826565	.4732544

Financial administration	-1.683673	.8774069	-1.92	0.055	-3.403359	.0360126
Strategy	-1.611146	.9608851	-1.68	0.094	-3.494446	.2721547

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Travel preparation	-.8498276	.4415607	-1.92	0.054	-1.715271	.0156154
End Exploitation	.4302146	.2697615	1.59	0.111	-.0985081	.9589373
Recruitment	-4.75981	2.032525	-2.34	0.019**	-8.743486	-.776134
Harbouring	.5750367	.504381	1.14	0.254	-.4135319	1.563605
Financial administration	1.430821	.7183934	1.99	0.046**	.0227957	2.838846
Strategy	1.369208	.8718088	1.57	0.116	-.3395055	3.077922

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	Constrained					
Harbouring	.4018924	.3184507	1.26	0.207	-.2222595	1.026044
Purchase and sale of victims	.6988912	.3508698	1.99	0.046**	.0111989	1.386583

Travel preparation	-.5939397	.3095155	-1.92	0.055	-1.200579	.0126995
End Exploitation	.3006748	.1845899	1.63	0.103	-.0611147	.6624643
Recruitment	-3.326422	1.549805	-2.15	0.032**	-6.363985	-.2888599
Strategy	.956925	.6012196	1.59	0.111	-.2214437	2.135294

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					
Recruitment	-11.06315	6.121814	-1.81	0.071	-23.06168	.9353885
Travel preparation	-1.975354	1.15919	-1.70	0.088	-4.247324	.2966154
Purchase and sale of victims	2.324406	1.457103	1.60	0.111	-.5314623	5.180275
Harbouring	1.336634	1.191311	1.12	0.262	-.9982934	3.671562
Financial administration	3.32585	2.041428	1.63	0.103	-.6752759	7.326976
Strategy	3.182588	2.211102	1.44	0.150	-1.151093	7.516268

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Strategy	Constrained					

Financial administration	1.044999	.656567	1.59	0.111	-.2418485	2.331847
Harbouring	.4199777	.3873987	1.08	0.278	-.3393099	1.179265
Purchase and sale of victims	.730349	.4650055	1.57	0.116	-.181045	1.641743
Travel preparation	-.6206709	.3701696	-1.68	0.094	-1.34619	.1048482
End Exploitation	.3142069	.2183304	1.44	0.150	-.1137129	.7421267
Recruitment	-3.476316	1.852496	-1.88	0.061	-7.10714	.1545087

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Harbouring	Constrained					
Purchase and sale of victims	1.739016	1.524866	1.14	0.254	-1.249667	4.727699
Travel preparation	-1.477865	1.281049	-1.15	0.249	-3.988674	1.032944
End Exploitation	.7481508	.666702	1.12	0.262	-.5585611	2.054863
Recruitment	-8.277324	6.779358	-1.22	0.222	-21.56462	5.009973
Financial administration	2.488225	1.971064	1.26	0.207	-1.374988	6.351439
Strategy	2.381075	2.195826	1.08	0.278	-1.922665	6.684815

Gsem model results for Transportation:

Transportation Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
End Exploitation	.0431563	.0420898	.0063808	.2918846
Strategy	.4371233	.4227772	.0656657	2.909843
Recruitment	5.281885	2.297613	2.251736	12.38969
Travel preparation	.1683973	.1206723	.04134	.6859616
Purchase and sale of victims	.2331657	.1650809	.0582124	.9339288
Financial administration	.477363	.3522903	.1123747	2.027818
Harbouring	.0771006	.1186577	.0037763	1.574182

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Recruitment	6.337865	2.359571	2.69	0.007***	1.713191	10.96254
End Exploitation	-.488485	.2905313	-1.68	0.093	-1.057916	.0809459
Purchase and sale of victims	-1.187169	.5744673	-2.07	0.039**	-2.313105	-.061234
Harbouring	-.6256184	.5784802	-1.08	0.279	-1.759419	.508182

Financial administration	-1.444529	.8002763	-1.81	0.071	-3.013041	.123984
Strategy	-1.837285	.9574085	-1.92	0.055	-3.713772	.0392008

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Transportation	-.8423391	.4075847	-2.07	0.039**	-1.64119	-.0434877
Recruitment	-5.338691	2.196306	-2.43	0.015**	-9.643372	-1.03401
End Exploitation	.4114701	.2665605	1.54	0.123	-.1109788	.933919
Harbouring	.5269828	.4993516	1.06	0.291	-.4517283	1.505694
Financial administration	1.216783	.6542127	1.86	0.063	-.0654502	2.499016
Strategy	1.547618	.9418094	1.64	0.100	-.2982949	3.39353

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	Constrained					
Harbouring	.4330951	.3834309	1.13	0.259	-.3184156	1.184606
Purchase and sale of victims	.8218388	.4418259	1.86	0.063	-.044124	1.687802

Transportation	-.6922671	.383463	-1.81	0.071	-1.443841	.0593066
Recruitment	-4.387535	2.072146	-2.12	0.034**	-8.448867	-.3262027
End Exploitation	.3381622	.2260183	1.50	0.135	-.1048255	.7811499
Strategy	1.271893	.8071052	1.58	0.115	-.3100046	2.85379

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Strategy	Constrained					
Financial administration	.7862297	.498895	1.58	0.115	-.1915865	1.764046
Harbouring	.3405123	.3315013	1.03	0.304	-.3092184	.9902429
Purchase and sale of victims	.6461541	.393164	1.64	0.100	-.1244331	1.416741
Transportation	-.544281	.2835687	-1.92	0.055	-1.100065	.0115033
Recruitment	-3.449607	1.71186	-2.02	0.044**	-6.804792	-.0944229
End Exploitation	.2658732	.1836061	1.45	0.148	-.0939882	.6257345

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					

Recruitment	-12.97464	7.23209	-1.79	0.073	-27.14928	1.199994
Transportation	-2.047145	1.217179	-1.68	0.093	-4.432772	.3384821
Purchase and sale of victims	2.430309	1.57401	1.54	0.123	-.6546942	5.515313
Harbouring	1.280732	1.246783	1.03	0.304	-1.162918	3.724381
Financial administration	2.95716	1.976165	1.50	0.135	-.9160522	6.830372
Strategy	3.76119	2.597092	1.45	0.148	-1.329018	8.851398

Travel preparation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Harbouring	Constrained					
Purchase and sale of victims	1.897599	1.797241	1.06	0.291	-1.624928	5.420126
Transportation	-1.598419	1.477222	-1.08	0.279	-4.49372	1.296883
Recruitment	-10.13099	8.875723	-1.14	0.254	-27.52709	7.26511
End Exploitation	.7808039	.7598619	1.03	0.304	-.708498	2.270106
Financial administration	2.308963	2.043288	1.13	0.258	-1.695809	6.313734
Strategy	2.936753	2.857917	1.03	0.304	-2.664662	8.538168

gsem Travel preparation descriptive statistics

Travel preparation Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Transportation	.1532231	.0922925	.0470555	.4989277
Purchase and sale of victims	.2159479	.1539432	.0534012	.8732665
Financial administration	.3197244	.2683801	.0616976	1.656851
Strategy	.5172218	.4624631	.0896588	2.983739
End Exploitation	.0365617	.0375691	.0048794	.2739567
Harbouring	.0599706	.1017506	.0021564	1.667825

Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
End Exploitation	-.0854982	.0478005	-1.79	0.074	-.1791854	.008189
Transportation	.1950823	.0806386	2.42	0.016**	.0370335	.3531311
Travel preparation	.210176	.0938054	2.24	0.025**	.0263208	.3940312
Purchase and sale of victims	-.1816975	.0789117	-2.30	0.021**	-.3363616	-.0270333
Financial administration	-.2005731	.1043873	-1.92	0.055	-.4051684	.0040221

Strategy	-.3181263	.1635999	-1.94	0.052	-.6387761	.0025236

Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
End Exploitation	-.4382638	.2413304	-1.82	0.069	-.9112627	.0347352
Recruitment	5.125692	2.118519	2.42	0.016**	.9734702	9.277914
Travel preparation	1.077374	.3953064	2.73	0.006***	.3025877	1.85216
Purchase and sale of victims	-.9313683	.4615747	-2.02	0.044**	-1.836038	-.0266985
Financial administration	-1.028121	.6127733	-1.68	0.093	-2.229135	.1728926
Strategy	-1.630717	.7982727	-2.04	0.041**	-3.195302	-.0661311
Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	.9281815	.3405437	2.73	0.006***	.2607282	1.595635
End Exploitation	-.4067877	.2265467	-1.80	0.073	-.8508111	.0372358
Recruitment	4.757495	2.122978	2.24	0.025**	.596535	8.918455
Purchase and sale of victims	-.8644743	.4463492	-1.94	0.053	-1.739303	.0103542

Financial administration	-.9542774	.567099	-1.68	0.092	-2.065771	.1572161
Strategy	-1.513599	.7851149	-1.93	0.054	-3.052396	.0251981

Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Travel preparation	-1.156756	.5972436	-1.94	0.053	-2.327332	.0138197
Transportation	-1.073682	.5972436	-2.02	0.044**	-2.116496	-.030868
End Exploitation	.4705571	.3023131	1.56	0.120	-.1219658	1.06308
Recruitment	-5.503469	2.38972	-2.30	0.021**	-10.18723	-.819703
Financial administration	1.103883	.6544396	1.69	0.092	-.1787951	2.386561
Strategy	1.750875	1.081234	1.62	0.105	-.3683043	3.870055

Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Strategy	Constrained					
Financial administration	.6302929	.4227192	1.49	0.136	-.1982215	1.458807
Purchase and sale of victims	.5709733	.3523857	1.62	0.105	-.11969	1.261637

Travel preparation	-.660519	.3423737	-1.93	0.054	-1.331559	.010521
Transportation	-.6130818	.2998741	-2.04	0.041**	-1.200824	-.0253393
End Exploitation	.2686875	.1759645	1.53	0.127	-.0761967	.6135717
Recruitment	-3.142378	1.614476	-1.95	0.052	-6.306692	.0219371

Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					
Recruitment	-11.69579	6.536973	-1.79	0.074	-24.50802	1.116447
Transportation	-2.281721	1.256176	-1.82	0.069	-4.743781	.1803387
Travel preparation	-2.458264	1.36883	-1.80	0.073	-5.141122	.2245943
Purchase and sale of victims	2.125146	1.36515	1.56	0.120	-.5504989	4.80079
Financial administration	2.345914	1.626862	1.44	0.149	-.8426776	5.534505
Strategy	3.720854	2.437635	1.53	0.127	-1.056824	8.498532

Harbouring latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	Constrained					

Purchase and sale of victims	.9058913	.537057	1.69	0.092	-.146721	1.958504
Travel preparation	-1.047875	.6227051	-1.68	0.092	-2.268354	.1726046
Transportation	-.9726225	.5796618	-1.68	0.093	-2.108739	.1634937
End Exploitation	.4262688	.2956426	1.44	0.149	-.1531801	1.005718
Recruitment	-4.985729	2.594503	-1.92	0.055	-10.07086	.0994036
Strategy	1.586084	1.064235	1.49	0.136	-.4997792	3.671947

Harbouring descriptive statistics

Harbouring Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	CI Max
Recruitment	5.683407	2.642684	2.284626	14.13847
Transportation	.2163013	.1190313	.0735598	.6360305
Travel preparation	.2510711	.1564559	.0740231	.8515814
Purchase and sale of victims	.1876305	.1429759	.0421387	.8354595
Strategy	.5754512	.4959758	.1062591	3.116383
End Exploitation	.0415458	.0403387	.0061952	.2786104
Financial administration	.2286414	.220578	.0345122	1.514738

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
End Exploitation	-.4451652	.2426262	-1.83	0.067	-.9207038	.0303734
Recruitment	3.30311	2.800491	1.18	0.238	-2.185751	8.791972
Travel preparation	1.095033	.3821489	2.87	0.004***	.3460347	1.844031
Harbouring	-.3655588	.5136116	-0.71	0.477	-1.372219	.6411015
Financial administration	-.7822547	.736016	-1.06	0.288	-2.22482	.6603102
Strategy	-1.702351	.8112248	-2.10	0.036**	-3.292322	-.1123795

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	.9132666	.3186655	2.87	0.004***	.2886937	1.53784
End Exploitation	-.4064101	.2224987	-1.83	0.068	-.8424995	.0296793
Recruitment	3.012601	2.629756	1.15	0.252	-2.141625	8.166828
Harbouring	-.333429	.4714047	-0.71	0.479	-1.257365	.5905071

Financial administration	-.7136153	.6698163	-1.07	0.287	-2.026431	.5992005
Strategy	-1.554195	.7854998	-1.98	0.048**	-3.093747	-.0146439

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Strategy	Constrained					
Financial administration	.4592923	.4135872	1.11	0.267	-.3513237	1.269908
Harbouring	.2146158	.294123	0.73	0.466	-.3618547	.7910863
Travel preparation	-.6432959	.3249564	-1.98	0.048**	-1.280199	-.0063931
Transportation	-.5875134	.279847	-2.10	0.036**	-1.136003	-.0390233
End Exploitation	.2614794	.1613066	1.62	0.105	-.0546758	.5776345
Recruitment	-1.939195	1.536616	-1.26	0.207	-4.950908	1.072517

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					
Recruitment	-7.411577	5.768058	-1.28	0.199	-18.71676	3.893609
Transportation	-2.247247	1.225174	-1.83	0.067	-4.648544	.1540505

Travel preparation	-2.460672	1.347163	-1.83	0.068	-5.101062	.1797187
Harbouring	.8203108	1.083843	0.76	0.449	-1.303983	2.944604
Financial administration	1.755699	1.530461	1.15	0.251	-1.243949	4.755347
Strategy	3.824249	2.359813	1.62	0.105	-.8009002	8.449397

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Recruitment	Constrained					
End Exploitation	-.1347753	.1044972	-1.29	0.197	-.3395861	.0700354
Transportation	.3027755	.2557399	1.18	0.236	-.1984654	.8040164
Travel preparation	.3315208	.2878659	1.15	0.249	-.2326861	.8957276
Harbouring	-.1106764	.1253571	-0.88	0.377	-.3563719	.1350191
Financial administration	-.2368291	.1462779	-1.62	0.105	-.5235286	.0498703
Strategy	-.5153625	.4070641	-1.27	0.205	-1.313193	.2824684

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Harbouring	Constrained					

Travel preparation	482.4024	1866.503	0.26	0.796	-3175.876	4140.681
Transportation	453.9595	1757.439	0.26	0.796	-2990.558	3898.477
End Exploitation	-147.841	575.9981	-0.26	0.797	-1276.777	981.0945
Recruitment	668.3947	2614.014	0.26	0.798	-4454.978	5791.767
Financial administration	-95.01877	443.2247	-0.21	0.830	-963.7232	773.6856
Strategy	-636.993	2471.157	-0.26	0.797	-5480.372	4206.386

Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Financial administration	Constrained					
Harbouring	48.24647	232.2408	0.21	0.835	-406.9372	503.4301
Travel preparation	501.8684	1851.108	0.27	0.786	-3126.236	4129.973
Transportation	500.3152	1844.216	0.27	0.786	-3114.282	4114.913
End Exploitation	-135.221	503.3404	-0.27	0.788	-1121.75	851.3079
Recruitment	541.5796	2004.072	0.27	0.787	-3386.328	4469.488
Strategy	-626.2115	2318.074	-0.27	0.787	-5169.553	3917.13

Purchase and sale of victims Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Transportation	.3009847	.2313755	.0667117	1.357961
Travel preparation	.3612525	.2979602	.0717368	1.819198
Strategy	.8724644	.7482243	.1624645	4.685296
End Exploitation	.0596712	.0544341	.0099832	.3566644
Recruitment	3.283384	3.412393	.4282279	25.17493
Harbouring	2.85e-06	.000022	7.57e-13	10.73181
Financial administration	3.08e-06	.0000227	1.66e-12	5.688765

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
End Exploitation	-.1044117	.0682101	-1.53	0.126	-.238101	.0292776
Transportation	.2590658	.156233	1.66	0.097	-.0471454	.5652769
Travel preparation	.2665882	.1682332	1.58	0.113	-.0631428	.5963191
Purchase and sale of victims	-.1877884	.094773	-1.98	0.048**	-.3735401	-.0020367
Harbouring	-.0479783	.1023302	-0.47	0.639	-.2485419	.1525852

Strategy	-.4000369	.2530131	-1.58	0.114	-.8959334	.0958596

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
End Exploitation	-.4030158	.2217406	-1.82	0.069	-.8376194	.0315878
Recruitment	3.859248	2.327705	1.66	0.097	-.7029709	8.421466
Travel preparation	1.029044	.3587076	2.87	0.004***	.32599	1.732098
Purchase and sale of victims	-.7247843	.4387033	-1.65	0.099	-1.584627	.1350583
Harbouring	-.1851427	.4240915	-0.44	0.662	-1.016347	.6460614
Strategy	-1.54411	.7423377	-2.08	0.038**	-2.999065	-.0891551

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	.9717787	.3387475	2.87	0.004***	.3078459	1.635712
End Exploitation	-.3916538	.218824	-1.79	0.073	-.8205409	.0372334
Recruitment	3.750869	2.367068	1.58	0.113	-.8884989	8.390236

Purchase and sale of victims	-.7043896	.4429927	-1.59	0.112	-1.572639	.1638602
Harbouring	-.1799573	.4137538	-0.43	0.664	-.9908998	.6309853
Strategy	-1.500561	.7697403	-1.95	0.051	-3.009225	.0081021

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Travel preparation	-1.419659	.892834	-1.59	0.112	-3.169582	.3302632
Transportation	-1.379599	.83498	-1.65	0.098	-3.016129	.2569321
End Exploitation	.5560166	.3927195	1.42	0.157	-.2136995	1.325733
Recruitment	-5.325055	2.687393	-1.98	0.048**	-10.59225	-.0578607
Harbouring	.2554811	.5750326	0.44	0.657	-.8715621	1.382524
Strategy	2.130296	1.472307	1.45	0.148	-.7553723	5.015965

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Strategy	Constrained					
Harbouring	.1199367	.2735627	0.44	0.661	-.4162362	.6561097

Purchase and sale of victims	.4694279	.3244171	1.45	0.148	-.1664179	1.105274
Travel preparation	-.6664035	.3418303	-1.95	0.051	-1.336379	.0035717
Transportation	-.6476001	.3113216	-2.08	0.038**	-1.257779	-.037421
End Exploitation	.2610042	.1695808	1.54	0.124	-.071368	.5933765
Recruitment	-2.499757	1.580932	-1.58	0.114	-5.598327	.5988136

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					
Recruitment	-9.577405	6.25679	-1.53	0.126	-21.84049	2.685678
Transportation	-2.481203	1.365171	-1.82	0.069	-5.156888	.1944825
Travel preparation	-2.55325	1.426561	-1.79	0.073	-5.349257	.2427574
Purchase and sale of victims	1.798529	1.270322	1.42	0.157	-.6912564	4.288314
Harbouring	.459503	1.034909	0.44	0.657	-1.568881	2.487886
Strategy	3.831348	2.489415	1.54	0.124	-1.047817	8.710512

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max

Harbouring	Constrained					
Purchase and sale of victims	3.911812	8.681537	0.45	0.652	-13.10369	20.92731
Travel preparation	-5.553931	12.58898	-0.44	0.659	-30.22787	19.12001
Transportation	-5.397189	12.18464	-0.44	0.658	-29.27864	18.48426
End Exploitation	2.175189	4.831502	0.45	0.653	-7.29438	11.64476
Recruitment	-20.82955	43.79355	-0.48	0.634	-106.6633	65.00423
Strategy	8.333891	18.74469	0.44	0.657	-28.40503	45.07281

Financial administration descriptive statistics

Financial administration Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Recruitment	4.271112	3.130833	1.015287	17.96773
Transportation	.2866949	.175052	.0866339	.9487506
Travel preparation	.3035586	.2098672	.0782995	1.176864
Purchase and sale of victims	.1506155	.137074	.0253045	.8964825
Strategy	.6835079	.5914729	.1253594	3.726748
End Exploitation	.046563	.0450899	.0069786	.3106794
Harbouring	.0098417	.0427134	1.99e-06	48.67858

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
Transportation	.1898532	.0770802	2.46	0.014**	.0387788	.3409276
Travel preparation	.1993797	.0880058	2.27	0.023**	.0268916	.3718679
Purchase and sale of victims	-.1887013	.0807406	-2.34	0.019**	-.3469499	-.0304527
Harbouring	-.0731537	.0868537	-0.84	0.400	-.2433839	.0970765
Financial administration	-.2174051	.1088249	-2.00	0.046**	-.430698	-.0041122
Strategy	-.320794	.1624615	-1.97	0.048**	-.6392126	-.0023754

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Recruitment	5.267198	2.13839	2.46	0.014**	1.076031	9.458365
Travel preparation	1.050179	.3983267	2.64	0.008***	.2694727	1.830885
Purchase and sale of victims	-.9939311	.4804891	-2.07	0.039**	-1.935672	-.0521897
Harbouring	-.3853159	.4813917	-0.80	0.423	-1.328826	.5581945

Financial administration	-1.14512	.6624034	-1.73	0.084	-2.443407	.1531665
Strategy	-1.689694	.8265607	-2.04	0.041**	-3.309724	-.069665

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	.9522184	.3611611	2.64	0.008***	.2443558	1.660081
Recruitment	5.015475	2.213654	2.27	0.023**	.6767928	9.354156
Purchase and sale of victims	-.9464371	.4800935	-1.97	0.049**	-1.887403	-.0054711
Harbouring	-.366903	.4611127	-0.80	0.426	-1.270667	.5368613
Financial administration	-1.090402	.6314375	-1.73	0.084	-2.327996	.1471933
Strategy	-1.608957	.8409247	-1.91	0.056	-3.257139	.0392254

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Travel preparation	-1.056598	.5359578	-1.97	0.049**	-2.107056	-.0061397
Transportation	-1.006111	.4863488	-2.07	0.039**	-1.959337	-.0528854

Recruitment	-5.29928	2.267167	-2.34	0.019**	-9.742846	-.8557145
Harbouring	.3876664	.4895863	0.79	0.428	-.571905	1.347238
Financial administration	1.152111	.6579828	1.75	0.080	-.1375112	2.441734
Strategy	1.700018	1.029536	1.65	0.099	-.3178355	3.717871

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Strategy	Constrained					
Financial administration	.6777024	.4416627	1.53	0.125	-.1879406	1.543346
Harbouring	.2280346	.2911156	0.78	0.433	-.3425416	.7986108
Purchase and sale of victims	.5882268	.3561923	1.65	0.099	-.1098972	1.286351
Travel preparation	-.621523	.3247954	-1.91	0.056	-1.25811	.0150643
Transportation	-.591825	.2894581	-2.04	0.041**	-1.159152	-.0244975
Recruitment	-3.117129	1.578231	-1.98	0.048**	-6.210405	-.0238537

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Harbouring	Constrained					

Purchase and sale of victims	-3058.691	12084.2	-0.25	0.800	-26743.28	20625.9
Travel preparation	3273.48	12919.61	0.25	0.800	-22048.5	28595.46
Transportation	3122.267	12313.43	0.25	0.800	-21011.61	27256.14
Recruitment	15419.39	60774.55	0.25	0.800	-103696.5	134535.3
Financial administration	-3224.52	12780.79	-0.25	0.801	-28274.4	21825.36
Strategy	-5193.862	20547.96	-0.25	0.800	-45467.13	35079.41

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Financial administration	Constrained					
Harbouring	-887.9797	4896.894	-0.18	0.856	-10485.72	8709.756
Purchase and sale of victims	-5805.229	23565.5	-0.25	0.805	-51992.77	40382.31
Travel preparation	7789.177	31564.46	0.25	0.805	-54076.03	69654.38
Transportation	7825.243	31686.13	0.25	0.805	-54278.43	69928.92
Recruitment	27083.89	110046.3	0.25	0.806	-188602.9	242770.7
Strategy	-12222.07	49580.82	-0.25	0.805	-109398.7	84954.56

End Exploitation descriptive statistics

End Exploitation Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Recruitment	5.713357	2.54987	2.382321	13.70195
Transportation	.2059341	.1155678	.0685558	.618604
Travel preparation	.2271209	.1462619	.0642833	.8024462
Purchase and sale of victims	.2034419	.1495064	.0481843	.8589654
Strategy	.5879633	.5040632	.1095499	3.155648
Harbouring	2.26e-08	1.78e-07	4.52e-15	.1128664
Financial administration	5.09e-09	4.10e-08	6.88e-16	.0376136

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					
Recruitment	-10.98029	5.975303	-1.84	0.066	-22.69167	.7310883
Transportation	-2.043112	1.107522	-1.84	0.065	-4.213816	.1275918
Travel preparation	-2.26878	1.240528	-1.83	0.067	-4.700169	.1626096
Purchase and sale of victims	2.2043	1.352446	1.63	0.103	-.4464454	4.855046

Harbouring	.9634644	1.060982	0.91	0.364	-1.116022	3.04295
Financial administration	2.554476	1.653624	1.54	0.122	-.6865674	5.79552

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
End Exploitation	-.0910763	.049572	-1.84	0.066	-.1882357	.0060831
Transportation	.1860795	.0758708	2.45	0.014**	.0373754	.3347837
Travel preparation	.2066332	.0916495	2.25	0.024**	.0270035	.386263
Purchase and sale of victims	-.200758	.084944	-2.36	0.018**	-.3672453	-.0342708
Harbouring	-.0877477	.0905057	-0.97	0.332	-.2651356	.0896401
Financial administration	-.2326505	.1149276	-2.02	0.043**	-.4579044	-.0073966

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Travel preparation	-1.029248	.5093273	-2.02	0.043**	-2.027511	-.0309851
Transportation	-.9268734	.4394366	-2.11	0.035**	-1.788153	-.0655934

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End Exploitation	.4536578	.27837	1.63	0.103	-.0919375	.999253
Recruitment	-4.981348	2.107519	-2.36	0.018**	-9.112009	-.8506864
Harbouring	.4370844	.4814408	0.91	0.364	-.5065222	1.380691
Financial administration	1.15886	.6402047	1.81	0.070	-.0959179	2.413638

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Harbouring	Constrained					
Purchase and sale of victims	-4258.91	19022.65	-0.22	0.823	-41542.62	33024.8
Travel preparation	4409.038	19684.65	0.22	0.823	-34172.17	42990.24
Transportation	3978.722	17754.71	0.22	0.823	-30819.88	38777.32
End Exploitation	-1854.856	8307.883	-0.22	0.823	-18138.01	14428.29
Recruitment	20057.76	89445.22	0.22	0.823	-155251.6	195367.2
Financial administration	-4448.423	19916.67	-0.22	0.823	-43484.38	34587.54

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					

End Exploitation	-.4894479	.2653457	-1.84	0.065	-1.009516	.03062
Recruitment	5.374006	2.190844	2.45	0.014**	1.08003	9.667982
Travel preparation	1.110457	.4254125	2.61	0.009***	.2766635	1.94425
Purchase and sale of victims	-1.078881	.5114962	-2.11	0.035**	-2.081395	-.0763671
Harbouring	-.4715594	.5105211	-0.92	0.356	-1.472162	.5290436
Financial administration	-1.250273	.7045095	-1.77	0.076	-2.631086	.1305407

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	.9005323	.3449881	2.61	0.009***	.2243681	1.576696
End Exploitation	-.4407645	.2410246	-1.83	0.067	-.913164	.0316351
Recruitment	4.83964	2.146282	2.25	0.024**	.6330044	9.046275
Purchase and sale of victims	-.9715747	.4807778	-2.02	0.043**	-1.913882	-.0292676
Harbouring	-.424659	.462086	-0.92	0.358	-1.330331	.481013
Financial administration	-1.125919	.629705	-1.79	0.074	-2.360118	.1082799

Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Financial administration	Constrained					
Harbouring	-1739.734	9015.687	-0.19	0.847	-19410.16	15930.69
Purchase and sale of victims	-7434.894	35160.66	-0.21	0.833	-76348.52	61478.74
Travel preparation	9303.057	43962.81	0.21	0.832	-76862.46	95468.58
Transportation	8808.578	41599.56	0.21	0.832	-72725.07	90342.23
End Exploitation	-3785.043	17926.58	-0.21	0.833	-38920.49	31350.41
Recruitment	32869.41	155446.9	0.21	0.833	-271801	337539.8

Strategy descriptive statistics

Strategy Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Recruitment	5.531563	2.511421	2.271895	13.46813
Transportation	.1915343	.1099282	.0621888	.5899033
Travel preparation	.2361791	.1510323	.0674393	.8271222
Purchase and sale of victims	.222943	.1578489	.0556575	.8930269
Harbouring	1.30e-08	1.16e-07	3.40e-16	.497447

Financial administration	3.60e-09	3.40e-08	3.41e-17	.3802813
End Exploitation	.0458831	.0429822	.0073159	.2877652

Structural equation modelling – indirect effects analysis of actions

Variable creating indirect effect	Variable through which the flow of the indirect effect travels	Variable indirectly affected	Coefficient (Standard Error)	Z-statistic	P-value of Z	95% Confidence Intervals
Recruitment	Transportation	Travel preparation	.010 (.00)	2.66	0.01***	.00 .02
Recruitment	Travel preparation	Transportation	.01 (.00)	2.36	0.02**	.00 .02
Recruitment	Transportation	Financial administration	.01 (.00)	2.50	0.01**	.00 .01
Recruitment	Financial administration	Harbouring	-.00 (.00)	-2.20	0.03**	-.01 -.00
Recruitment	Financial administration	Transportation	-.01 (.00)	-2.09	0.04**	-.02 -.00
Recruitment	Purchase and sale of victims	End Exploitation	.01 (.00)	1.59	0.11	-.00 .01
Recruitment	End Exploitation	Purchase and sale of victims	.00 (.00)	1.40	0.16	-.00 .01
Transportation	Recruitment	Travel preparation	.01 (.00)	2.27	0.02**	.00 .02
Transportation	Travel preparation	Recruitment	.01 (.01)	2.23	0.03**	.00 .02

Transportation	Recruitment	Financial administration	-.01 (.00)	-2.53	0.01**	-.01 -.00
Transportation	Financial administration	Recruitment	-.01 (.00)	-2.08	0.04**	-.02 -.00
Transportation	Financial administration	Harbouring	.01 (.00)	2.16	0.03**	.00 .01
Transportation	Recruitment	Purchase and sale of victims	-.01 (.00)	-2.79	0.01***	-.02 -.00
Transportation	Purchase and sale of victims	Recruitment	-.00 (.00)	-0.86	0.39	-.01 .00
Transportation	Financial administration	Purchase and sale of victims	.00 (.00)	1.26	0.21	-.00 .01
Transportation	Purchase and sale of victims	Financial administration	.00 (.00)	0.75	0.45	-.00 .00
Transportation	Recruitment	Strategy	-.00 (.00)	-2.16	0.03**	-.01 -.00
Transportation	Recruitment	End Exploitation	-.01 (.01)	-2.00	0.05**	-.02 -.00
Travel preparation	Recruitment	Transportation	.02 (.01)	2.44	0.02**	.00 .03
Travel preparation	Transportation	Recruitment	.02 (.01)	2.70	0.01***	.01 .04
Travel preparation	Recruitment	Financial administration	-.01 (.00)	-2.13	0.03**	-.01 -.00
Travel preparation	Transportation	Financial administration	.01 (.00)	2.23	0.02**	.00 .01
Travel preparation	Purchase and sale of victims	Recruitment	-.00 (.01)	-0.83	0.41	-.02 .01
Travel preparation	Financial administration	Recruitment	-.00 (.00)	-0.20	0.84	-.01 .01

Travel preparation	Strategy	Recruitment	.00 (.00)	0.59	0.56	-.01 .01
Travel preparation	Purchase and sale of victims	Transportation	.00 (.00)	0.58	0.56	-.00 .00
Travel preparation	Transportation	Purchase and sale of victims	.00 (.00)	0.77	0.44	-.00 .01
Travel preparation	Recruitment	Strategy	-.00 (.00)	-2.04	0.04**	-.01 -.00
Travel preparation	Recruitment	End Exploitation	-.01 (.01)	-1.80	0.07	-.02 .00
Travel preparation	Recruitment	Purchase and sale of victims	-.01 (.00)	-2.43	0.02**	-.02 -.00
Harbouring	Recruitment	Travel preparation	-.01 (.01)	-1.25	0.21	-.02 .00
Harbouring	Recruitment	Transportation	-.01 (.01)	-1.29	0.20	-.03 .01
Harbouring	Transportation	Travel preparation	.01 (.01)	1.29	0.20	-.00 .02
Harbouring	Transportation	Recruitment	.01 (.01)	1.31	0.19	-.01 .03
Harbouring	Travel preparation	Transportation	.01 (.01)	1.25	0.21	-.01 .02
Harbouring	Travel preparation	Recruitment	.01 (.01)	1.23	0.22	-.01 .02
Harbouring	Recruitment	Purchase and sale of victims	.01 (.01)	1.27	0.20	-.00 .02
Harbouring	Transportation	Purchase and sale of victims	.00 (.00)	0.79	0.43	-.00 .01

Harbouring	Transportation	Strategy	-.00 (.00)	-1.01	0.31	-.00 .00
Harbouring	Purchase and sale of victims	Recruitment	.02 (.01)	1.72	0.09	-.00 .03
Harbouring	Strategy	Recruitment	.00 (.01)	0.53	0.59	-.01 .01
Harbouring	Strategy	Transportation	.00 (.00)	0.51	0.61	-.00 .01
Harbouring	Purchase and sale of victims	Transportation	-.00 (.00)	-0.87	0.39	-.01 .00
Harbouring	Financial administration	Recruitment	-.02 (.01)	-2.16	0.03**	-.04 -.00
Harbouring	Financial administration	Transportation	.02 (.01)	2.11	0.04**	.00 .03
Purchase and sale of victims	Transportation	Travel preparation	.00 (.00)	0.86	0.39	-.00 .01
Purchase and sale of victims	Transportation	Strategy	-.00 (.00)	-0.76	0.45	-.00 .00
Purchase and sale of victims	Travel preparation	Transportation	.00 (.01)	0.83	0.41	-.01 .02
Purchase and sale of victims	Travel preparation	Strategy	-.00 (.00)	-0.47	0.64	-.00 .00
Purchase and sale of victims	Strategy	Transportation	.00 (.00)	1.16	0.25	-.00 .01
Purchase and sale of victims	Strategy	Travel preparation	.00 (.00)	0.53	0.59	-.00 .01

Purchase and sale of victims	Recruitment	End Exploitation	.01 (.00)	2.06	0.04**	.00 .03
Purchase and sale of victims	Recruitment	Financial administration	.01 (.00)	2.15	0.03**	.00 .01
Purchase and sale of victims	Recruitment	Strategy	.01 (.00)	2.29	0.02**	.00 .01
Purchase and sale of victims	Recruitment	Transportation	-.02 (.01)	-2.76	0.01***	-.04 -.01
Purchase and sale of victims	Recruitment	Travel preparation	-.01 (.01)	-2.45	0.01**	-.02 -.00
Financial administration	Recruitment	Purchase and sale of victims	.01 (.01)	2.20	0.03**	.00 .03
Financial administration	Recruitment	Travel preparation	-.01 (.01)	-2.12	0.03**	-.03 -.00
Financial administration	Recruitment	Transportation	-.02 (.01)	-2.37	0.02**	-.05 -.00
Financial administration	Transportation	Recruitment	.03 (.01)	2.32	0.02**	.00 .05
Financial administration	Transportation	Travel Preparation	.02 (.01)	2.23	0.03**	.00 .03
Financial administration	Transportation	Strategy	-.00 (.00)	-1.30	0.19	-.01 .00
Financial administration	Purchase and sale of victims	Recruitment	-.01 (.01)	-1.38	0.17	-.03 .01
Financial administration	Strategy	Transportation	.00 (.00)	0.39	0.70	-.00 .01

Financial administration	Travel preparation	Transportation	.00 (.01)	0.20	0.84	-.01 .02
Financial administration	Recruitment	End Exploitation	.01 (.01)	1.79	0.07	-.00 .03
Financial administration	Recruitment	Strategy	.01 (.00)	1.97	0.05**	.00 .01
End Exploitation	Recruitment	Financial administration	.00 (.00)	1.79	0.07	-.00 .01
End Exploitation	Recruitment	Travel preparation	-.01 (.00)	-1.85	0.06	-.01 .00
End Exploitation	Recruitment	Transportation	-.01 (.00)	-2.01	0.04**	-.02 -.00
End Exploitation	Recruitment	Purchase and sale of victims	.01 (.00)	1.97	0.05**	.00 .01
End Exploitation	Recruitment	Strategy	.00 (.00	1.77	0.08	-.00 .00
End Exploitation	Transportation	Strategy	.00 (.00)	0.37	0.71	-.00 .00
End Exploitation	Purchase and sale of victims	Recruitment	.01 (.00)	1.38	0.17	-.00 .01
End Exploitation	Travel preparation	Recruitment	-.00 (.00)	-0.38	0.70	-.01 .01
End Exploitation	Travel preparation	Transportation	-.01 (.00)	-1.36	0.17	-.01 .00
End Exploitation	Travel preparation	Purchase and sale of victims	-.00 (.00)	-0.69	0.49	-.00 .00
End Exploitation	Transportation	Recruitment	-.00 (.00)	-1.31	0.19	-.01 .00
End Exploitation	Transportation	Travel preparation	-.00 (.00)	-0.38	0.70	-.01 .00

End Exploitation	Transportation	Purchase and sale of victims	-.00 (.00)	-0.35	0.73	-.00	.00
End Exploitation	Purchase and sale of victims	Travel preparation	-.00 (.00)	-0.69	0.49	-.00	.00
End Exploitation	Purchase and sale of victims	Transportation	-.00 (.00)	-0.75	0.46	-.00	.00
End Exploitation	Strategy	Transportation	.00 (.00)	0.42	0.68	-.00	.00
End Exploitation	Strategy	Recruitment	.00 (.00)	0.43	0.67	-.00	.01
Strategy	Recruitment	Financial administration	.01 (.01)	1.97	0.05**	.00	.02
Strategy	Recruitment	Travel preparation	-.02 (.01)	-2.06	0.04**	-.04	-.00
Strategy	Recruitment	Transportation	-.03 (.01)	-2.24	0.03**	-.05	-.00
Strategy	Recruitment	Purchase and sale of victims	.02 (.01)	2.21	0.03**	.00	.04
Strategy	Recruitment	End Exploitation	.00 (.00)	1.77	0.08	-.00	.00
Strategy	Purchase and sale of victims	Transportation	-.00 (.01)	-0.73	0.46	-.02	.01
Strategy	Purchase and sale of victims	Travel preparation	-.00 (.00)	-0.75	0.45	-.01	.01
Strategy	Purchase and sale of victims	Recruitment	.02 (.01)	1.71	0.09	-.00	.05
Strategy	Transportation	Recruitment	-.02 (.01)	-1.42	0.16	-.04	.01
Strategy	Transportation	Travel preparation	-.01 (.01)	-1.41	0.16	-.03	.00

Strategy	Transportation	Purchase and sale of victims	-.00 (.00)	-0.70	0.48	-.01	.00
Strategy	Travel preparation	Recruitment	-.01 (.01)	-0.60	0.55	-.02	.01
Strategy	Travel preparation	Transportation	-.01 (.01)	-0.60	0.55	-.03	.01
Strategy	Travel preparation	Purchase and sale of victims	-.00 (.00)	-0.49	0.63	-.00	.00

Appendix 4 Chapter 5 Data Results

Security identified from disaggregated actions in Chapter 4 and bivariate analysis p-value results.

Variable	N.	Pearson's chi2 p-value	one-sided Fisher's exact – p-value
Recruitment	176	0.97	
End Exploitation	251	0.00***	
Transportation	105	0.59	
Travel preparation	48	0.15	
Purchase and sale of victims	46	0.47	
Harbouring	29	0.08	0.05
Financial administration	25	0.13	0.09
Strategy	8	0.25	0.17

Observations of offenders performing actions and means

	Employment Offer n. 236	Intimidation n. 141	Physical control n. 125	Physical assault n. 121	Financial Hardship n. 103	Debt Bondage n. 75	Holding Passports n. 63	Loverboy Romance n. 36	Abduction n. 33	Rape n. 31
Recruitment n. 452	NA	87	50	66	NA	47	33	NA	9	13
End Exploitation n. 421	92	105	80	91	40	49	50	19	16	23
Transportation n. 260	61	37	33	39	36	22	14	10	20	9
Travel preparation n. 143	43	20	19	12	26	16	5	5	1	2
Purchase and Sale of victims n. 109	12	15	20	10	8	12	11	0	6	6
Harbouring n. 58	13	6	9	7	5	4	2	1	3	1
Financial administration n. 51	4	11	15	4	8	7	2	1	1	0
Strategy n. 28	3	5	2	3	2	0	3	2	1	0

NA – Not applicable

Pearson's chi-squared and Fisher's Exact one-sided test results on offenders using means and actions

	Employment Offer	Intimidation	Physical control	Physical assault	Financial Hardship	Debt Bondage	Holding Passports	Loverboy Romance	Abduction	Rape
Recruitment	NA	0.00***	0.12 (FE 0.07)	0.06 (FE 0.04**)	NA	0.00***	0.33	NA	0.02** (FE 0.02**)	0.60
End Exploitation	0.12 (FE 0.07)	0.00***	0.00***	0.00***	0.33	0.00***	0.00***	0.24	0.54	0.00*** (FE 0.00***)
Transportation	0.72	0.88	0.93	0.15 (FE 0.09)	0.05** (FE 0.03**)	0.60	0.40	0.89	0.00*** (FE 0.00***)	0.77
Travel preparation	0.08 (FE 0.05)	0.85	0.87	0.11 (FE 0.07)	0.00*** (FE 0.00***)	0.09 (FE 0.07)	0.12 (FE 0.08)	0.89	0.05 (FE 0.03**)	0.19 (FE 0.14)
Purchase and Sale of victims	0.00*** (FE 0.00***)	0.82	0.07 (FE 0.05)	0.27	0.24	0.17 (FE 0.12)	0.10 (FE 0.08)	0.03** (FE 0.01**)	0.20	0.14 (FE 0.12)
Harbouring	0.73	0.35	0.53	0.93	0.61	0.81	0.33	0.41	0.44	0.51
Financial administration	0.01*** (FE 0.00***)	0.14 (FE 0.11)	0.00*** (FE 0.00***)	0.31	0.23	0.10 (FE 0.09)	0.45	0.50	0.56	0.18 (FE 0.18)
Strategy	0.09 (FE 0.06)	0.61	0.36	0.78	0.55	0.12 (FE 0.10)	0.36	0.33	0.96	0.33

n. 972 (FE - Fisher's Exact one-sided)

Correlation coefficient results:

	Debt Bondage	Rape	Intimidation	Holding Passports	Physical control	Physical assault	Abduction	Employment offer	Financial hardship	'Loverboy Romance	Recruitment	End Exploitation	Transportation	Travel preparation	Purchase and sale of victims	Harbouring	Financial administration	Strategy
Debt bondage	1.0000																	
Rape	-0.0305	1.0000																
Intimidation	0.2422	-0.0083	1.0000															
Holding passports	0.0492	0.0949	0.1407	1.0000														
Physical control	0.1538	0.0702	0.1472	0.0986	1.0000													
Physical assault	0.0311	0.0202	0.3933	0.1792	0.0134	1.0000												
Abduction	-0.0329	0.2569	0.0034	-0.0263	0.0637	0.1186	1.0000											
Employment Offer	0.1240	0.0201	0.1483	0.0848	-0.0742	0.0263	-0.0664	1.0000										
Financial hardship	0.0132	-0.0435	0.0100	-0.0363	0.0175	0.0221	-0.0276	-0.0624	1.0000									
'Loverboy' Romance	-0.0159	0.0574	-0.0034	-0.0516	0.0548	0.0251	0.0535	-0.0856	-0.0498	1.0000								
Recruitment	0.0937	-0.0166	0.1255	0.0310	-0.0501	0.0608	-0.0723	0.6074	0.3693	0.2104	1.0000							
End Exploitation	0.1285	0.1131	0.2590	0.1915	0.1604	0.2427	0.0196	-0.0495	-0.0311	0.0375	-0.0740	1.0000						
Transportation	0.0169	0.0094	-0.0047	-0.0269	-0.0030	0.0467	0.1434	-0.0115	0.0638	0.0046	0.1309	-0.0123	1.0000					
Travel preparation	0.0541	-0.0423	-0.0061	-0.0504	0.0053	-0.0510	-0.0618	0.0561	0.1024	-0.0046	0.1019	-0.0465	0.1230	1.0000				
Purchase and sale of victims	0.0439	0.0468	-0.0075	0.0521	0.0583	-0.0352	0.0414	-0.1100	-0.0376	-0.0697	-0.1156	-0.0474	0.0283	0.0273	1.0000			

Harbouring	-0.0077	-0.0210	-0.0298	-0.0310	0.0200	-0.0029	0.0247	-0.0110	-0.0162	-0.0264	-0.0433	0.0340	0.0440	0.0425	-0.0620	1.0000		
Financial administration	0.0530	-0.0427	0.0472	-0.0245	0.1164	-0.0328	-0.0186	-0.0902	0.0389	-0.0217	-0.0899	-0.0008	0.0871	0.0065	0.0480	0.1160	1.0000	
Strategy	-0.0498	-0.0313	0.0164	0.0296	-0.0294	-0.0090	0.0017	-0.0545	-0.0193	0.0314	-0.0866	-0.0140	-0.0485	-0.0194	-0.0612	-0.0174	-0.0129	1.0000

Observations of offenders performing means with other means

	Employment Offer	Intimidation	Physical control	Physical assault	Financial Hardship	Debt Bondage	Holding Passports	'Loverboy' Romance	Abduction
Intimidation	56								
Physical control	20	35							
Physical assault	33	62	17						
Financial Hardship	17	16	15	15					
Debt Bondage	32	33	23	12	9				
Holding Passports	24	21	16	22	4	8			
'Loverboy' Romance	2	5	8	6	1	2	0		
Abduction	3	5	8	11	2	1	1	3	

Rape	9	4	8	5	1	1	6	3	9

Pearson's chi-squared and Fisher's Exact one-sided test results on offenders using means with other means

	Employment Offer	Intimidation	Physical control	Physical assault	Financial Hardship	Debt Bondage	Holding Passports	'Loverboy' Romance	Abduction
Intimidation	0.00*** (FE 0.00***)								
Physical control	0.02** (FE 0.01**)	0.00*** (FE 0.00***)							
Physical assault	0.41	0.00*** (FE 0.00***)	0.68						
Financial Hardship	0.05 (FE 0.05)	0.75	0.59	0.49					
Debt Bondage	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.33	0.68				
Holding Passports	0.01*** (FE 0.01***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.26	0.13 (FE 0.10)			
'Loverboy' Romance	0.01*** (FE 0.01***)	0.92	0.09 (FE 0.08)	0.44	0.12 (FE 0.09)	0.62	0.11 (FE 0.09)		

Abduction	0.04** (FE 0.02**)	0.92	0.05** (FE 0.05)	0.00*** (FE 0.00***)	0.39	0.31	0.41	0.10 (FE 0.12)	
Rape	0.53	0.80	0.03** (FE 0.04**)	0.53	0.18	0.34	0.00*** (FE 0.01**)	0.07 (FE 0.10)	0.00*** (FE 0.00***)

n. 972 FE – Fisher's Exact one-sided

Multiple logistic regression models

Dependent Means	Model chi-squared p-value	Pseudo R-squared	Model % explanation of variable
Employment Offer	0.00***	0.08	8%
Intimidation	0.00***	0.26	26%
Physical control	0.00***	0.09	9%
Physical assault	0.00***	0.22	22%
Holding Passports	0.00***	0.14	14%
Abduction	0.00***	0.21	21%
Rape	0.00***	0.16	16%
Financial Hardship	0.00***	0.01	1%
Debt Bondage	0.00***	0.12	12%

'Loverboy' Romance	0.11	0.01	1%

Financial Hardship dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Travel Preparation	.7748535	.2476396	3.13	0.002***	.2894889	1.260218
Constrained	-2.278931	.1196528	-19.05	0.000	-2.513446	-2.044416

Model chi-squared p-value 0.0029*** Pseudo R-squared = 0.0135 LR chi2(1) = 8.88 Log likelihood = -324.0937 n. 972

Intimidation dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Physical control	.93	.28	3.36	0.00***	.39	1.47
Physical assault	2.25	.24	9.18	0.00***	1.77	2.73
End Exploitation	1.12	.23	4.79	0.00***	.66	1.57
Debt Bondage	1.51	.29	5.16	0.00***	.93	2.08
Employment Offer	1.05	.23	4.50	0.00***	.59	1.50
Constrained	-3.57	.23	-15.56	0.00	-4.02	-3.12

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.26 LR chi2(5) = 209.80 Log likelihood = -297.55 n. 972

Physical control dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	1.00	.35	2.87	0.00***	.32	1.69

End Exploitation	.69	.21	3.21	0.00***	.27	1.11
Abduction	.88	.43	2.03	0.04**	.03	1.73
Holding Passports	.73	.33	2.20	0.03**	.08	1.37
Intimidation	.62	.26	2.41	0.02**	.12	1.12
Debt Bondage	1.01	.31	3.29	0.00***	.41	1.61
Employment Offer	-.78	.28	-2.79	0.01***	-1.33	-.23
Constrained	-2.52	.17	-14.56	0.00	-2.86	-2.18

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.09 LR chi2(7) = 67.57 Log likelihood = -339.19 n. 972

Debt Bondage dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Intimidation	1.462879	.2655461	5.51	0.000***	.9424182	1.98334
Physical control	1.138019	.2943835	3.87	0.000***	.5610383	1.715
Employment Offer	.8540845	.2659687	3.21	0.001***	.3327954	1.375374
Constrained	-3.3577	.2022944	-16.60	0.000	-3.75419	-2.96121

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.1190 LR chi2(3) = 62.89 Log likelihood = -232.72573 n. 972

Rape dependent Means	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Holding Passports	1.19	.51	2.32	0.02**	.19	2.20

End Exploitation	1.25	.44	2.83	0.01***	.38	2.11
Abduction	2.91	.48	6.13	0.00***	1.98	3.84
Constrained	-4.63	.39	-11.82	0.00	-5.40	-3.87

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.16 LR chi2(3) = 44.14 Log likelihood = -115.23 n. 972

Recruitment dependent Action	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
End Exploitation	-.55	.14	-3.81	0.00***	-.83	-.27
Transportation	.70	.16	4.43	0.00***	.39	1.01
Travel preparation	.46	.19	2.36	0.02**	.08	.84
Strategy	-1.29	.48	-2.70	0.01***	-2.23	-.35
Purchase and sale of victims	-.92	.23	-3.96	0.00***	-1.37	-.46
Financial administration	-1.14	.33	-3.40	0.00***	-1.79	-.48
Abduction	-1.09	.42	-2.57	0.01**	-1.93	-.26
Intimidation	.93	.21	4.44	0.00***	.52	1.35
Debt Bondage	.60	.27	2.22	0.03**	.07	1.13
Constrained	-.12	.11	-1.14	0.25	-.33	.09

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.08 LR chi2(9) = 101.35 Log likelihood = -620.68 n. 972

Transportation dependent Action	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	.67	.15	4.38	0.00***	.37	.97
Abduction	1.82	.38	4.85	0.00***	1.08	2.56
Travel preparation	.71	.19	3.65	0.00***	.33	1.09
Financial administration	.99	.31	3.24	0.00***	.39	1.59
Constrained	-1.60	.12	-13.06	0.00	-1.84	-1.36

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.05 LR chi2(4) = 60.34 Log likelihood = -534.31 n. 972

Financial administration dependent Action	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Harbouring	1.21	.41	2.97	0.00***	.41	2.01
Transportation	.93	.30	3.05	0.00***	.33	1.53
Recruitment	-.95	.33	-2.86	0.00***	-1.60	-.30
Physical control	1.10	.33	3.31	0.00***	.45	1.75
Constrained	-3.20	.24	-13.46	0.00	-3.67	-2.74

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.09 LR chi2(4) = 34.47 Log likelihood = -182.73 n. 972

End Exploitation dependent Action	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	-.50	.14	-3.47	0.00***	-.78	-.22

Physical assault	1.12	.25	4.57	0.00***	.64	1.60
Physical control	.66	.22	3.05	0.00***	.24	1.08
Holding passports	1.24	.34	3.69	0.00***	.58	1.89
Intimidation	1.05	.23	4.50	0.00***	.59	1.51
Rape	1.18	.43	2.73	0.01***	.34	2.03
Debt Bondage	.69	.28	2.45	0.01**	.14	1.25
Constrained	-.57	.10	-5.64	0.00	-.77	-.37

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.11 LR chi2(7) = 152.45 Log likelihood = -588.79 n. 972

Generalised structural equation modelling

gsem models producing an error message 'not concave' or error results

Variable	Constraining variable	Coefficient for model	Standard Error for model	95% Confidence Intervals minimum	Conf. Int. max
Recruitment	End Exploitation with Abduction, Intimidation and Debt Bondage in model	Not concave result			
Recruitment	End Exploitation with Abduction only in model	Not concave result			
Recruitment	Employment Offer	Not concave result			

Recruitment	End Exploitation with Intimidation in the model	4.212849	3.38309	.873024	20.32944
Recruitment	Intimidation	2.150207	1.324468	.6429301	7.191126
Recruitment	Debt Bondage	.306743	.339369	.0350782	2.68233
Recruitment	'Loverboy' Romance	.1580318	.3154041	.0031615	7.899417
Employment Offer	Physical control	.6259614	.5674341	.1059091	3.699661
Employment Offer	Debt Bondage	.306743	.339369	.0350782	2.68233
Employment Offer	Strategy	.7572061	.8846563	.0766905	7.476302
Employment Offer	Purchase and sale of victims	.0844928	.1259107	.0045537	1.567744
Employment Offer	End Exploitation	.0086366	.0245413	.0000329	2.265039
Abduction	Transportation	Not concave results			
Abduction	Physical assault	Not concave results			
Abduction	Rape	.1419873	.3882979	.0006675	30.2038
End Exploitation	Rape	.0182227	.0730958	7.02e-06	47.314

End Exploitation	Holding Passports				.0736245	.1387548	.0018316	2.959516
End Exploitation	Physical control				.0794535	.084628	.0098509	.6408409

gsem models

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Debt Bondage	Constrained					
End Exploitation	.0542619	.2660695	0.20	0.838	-.4672247	.5757484
Transportation	1.580457	1.222093	1.29	0.196	-.8148014	3.975716
Travel preparation	1.27385	.9048546	1.41	0.159	-.4996322	3.047333
Purchase and sale of victims	.6205085	.5042545	1.23	0.218	-.3678121	1.608829
Harbouring	1.242825	.9032602	1.38	0.169	-.5275322	3.013183
Financial administration	2.012986	1.289803	1.56	0.119	-.5149807	4.540953
Strategy	-2.069676	1.393391	-1.49	0.137	-4.800673	.6613213

Recruitment constrained by Debt Bondage Coefficient .306743 SE .339369 CI .0350782 2.68233 Log likelihood = -2770.2555

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
End Exploitation	Constrained					

Transportation	-.0287482	.0565674	-0.51	0.611	-.1396183	.082122
Travel preparation	-.091789	.0793483	-1.16	0.247	-.2473089	.0637308
Purchase and sale of victims	-.1071588	.0896503	-1.20	0.232	-.2828702	.0685527
Harbouring	.0541329	.1004509	0.54	0.590	-.1427473	.2510131
Financial administration	.0545984	.1175807	0.46	0.642	-.1758555	.2850523
Strategy	-.0018075	.1443904	-0.01	0.990	-.2848074	.2811925
Intimidation	.7144632	.4823719	1.48	0.139	-.2309683	1.659895

Recruitment constrained by End Exploitation including Intimidation in model Coefficient 4.212849 SE 3.38309 CI .873024 20.32944 Log likelihood = -2890.6234

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Intimidation	Constrained					
End Exploitation	1.399885	.9449798	1.48	0.139	-.4522416	3.252011
Transportation	-.0402392	.0774245	-0.52	0.603	-.1919883	.11151
Travel preparation	-.1284807	.1052734	-1.22	0.222	-.3348128	.0778514
Purchase and sale of victims	-.1499945	.1191515	-1.26	0.208	-.3835272	.0835383
Harbouring	.0757787	.1490629	0.51	0.611	-.2163792	.3679366
Financial administration	.0764142	.150439	0.51	0.611	-.2184408	.3712691

| Strategy | -.0025368 | .202337 | -0.01 | 0.990 | -.39911 | .3940365 |

Recruitment constrained by Intimidation Coefficient 2.150207 SE 1.324468 CI .6429301 7.191126 Log likelihood = -2890.6233

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
'Loverboy' Romance	Constrained					
End Exploitation	.2790469	.4187044	0.67	0.505	-.5415986	1.099692
Transportation	-2.428934	2.888458	-0.84	0.400	-8.090207	3.232339
Travel preparation	-1.798172	1.959264	-0.92	0.359	-5.638259	2.041916
Purchase and sale of victims	-.9064446	.9243649	-0.98	0.327	-2.718166	.9052773
Harbouring	-1.703375	1.817794	-0.94	0.349	-5.266186	1.859435
Financial administration	-2.565211	2.587345	-0.99	0.321	-7.636314	2.505892
Strategy	2.432076	2.612225	0.93	0.352	-2.687791	7.551942

Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial Hardship	Constrained					
End Exploitation	-.2250193	.2275497	-0.99	0.323	-.6710085	.2209698
Transportation	1.668687	.9447998	1.77	0.077*	-.1830867	3.52046

Travel preparation	1.458091	.6521208	2.24	0.025**	.1799581	2.736224
Purchase and sale of victims	.3732729	.3849522	0.97	0.332	-.3812196	1.127765
Harbouring	.8784102	.6128759	1.43	0.152	-.3228044	2.079625
Financial administration	1.373818	.8067655	1.70	0.089*	-.2074132	2.955049
Strategy	-1.367964	.9760879	-1.40	0.161	-3.281061	.5451331

Coefficient: .3690434 Standard Error: .2846433 Confidence Intervals: .0813852 to 1.673437 Log likelihood = -2832.5347

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
End Exploitation	-.0841586	.0457943	-1.84	0.066	-.1739139	.0055966
Transportation	.1836185	.072913	2.52	0.012**	.0407116	.3265254
Travel preparation	.1982864	.0855009	2.32	0.020**	.0307078	.3658651
Purchase and sale of victims	-.1730333	.0749887	-2.31	0.021**	-.3200085	-.0260582
Harbouring	-.0787069	.084741	-0.93	0.353	-.2447963	.0873824
Financial administration	-.2100224	.1044115	-2.01	0.044**	-.4146652	-.0053797
Strategy	-.3039267	.1534602	-1.98	0.048**	-.6047032	-.0031502

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial administration	Constrained					
Strategy	-.9266439	.6512844	-1.42	0.155	-2.203138	.3498502
End Exploitation	-.098963	.1509336	-0.66	0.512	-.3947874	.1968613
Transportation	1.173842	.7923228	1.48	0.138	-.3790824	2.726766
Travel preparation	.7718094	.4479365	1.72	0.085	-.10613	1.649749
Purchase and sale of victims	.309544	.2561045	1.21	0.227	-.1924116	.8114997
Harbouring	.6765489	.3557821	1.90	0.057	-.0207713	1.373869

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Purchase and sale of victims	.4010589	.3241825	1.24	0.216	-.2343272	1.036445
Harbouring	.8765537	.54729	1.60	0.109	-.196115	1.949222
Financial administration	1.295623	.7520761	1.72	0.085	-.1784194	2.769665
Strategy	-1.200614	.8234001	-1.46	0.145	-2.814448	.4132206
End Exploitation	-.1282215	.1829654	-0.70	0.483	-.4868272	.2303842

Transportation	1.520911	.8313104	1.83	0.067	-.1084273	3.15025

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Travel preparation	.6575373	.3592489	1.83	0.067	-.0465776	1.361652
Purchase and sale of victims	.2637133	.2366308	1.11	0.265	-.2000746	.7275013
Harbouring	.5763813	.4374149	1.32	0.188	-.2809362	1.433699
Financial administration	.8519361	.5749275	1.48	0.138	-.2749011	1.978773
Strategy	-.7894543	.5935063	-1.33	0.183	-1.952705	.3737967
End Exploitation	-.0843102	.1277736	-0.66	0.509	-.3347418	.1661214

Employment Offer Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Recruitment	5.998647	2.610615	2.556289	14.07657
Financial administration	.8818136	.7407373	.1699629	4.575088
Travel preparation	.5252997	.3451109	.1449391	1.903833
Transportation	1.214948	.9173282	.2766119	5.336354

All gsem models Log likelihood = -2507.9733 except constrained by Recruitment Log likelihood = -3166.1688

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Physical control	Constrained					
End Exploitation	.2862167	.1981166	1.44	0.149	-.1020846	.674518
Transportation	.618574	.489077	1.26	0.206	-.3399993	1.577147
Travel preparation	.3881915	.394705	0.98	0.325	-.3854159	1.161799
Purchase and sale of victims	.4277428	.3473769	1.23	0.218	-.2531034	1.108589
Harbouring	1.062533	.6679887	1.59	0.112	-.2467006	2.371767
Financial administration	2.424655	1.821878	1.33	0.183	-1.146161	5.995471
Strategy	-1.314045	.9828509	-1.34	0.181	-3.240398	.6123073

Employment Offer constrained by Physical control Coefficient .6259614 SE .5674341 CI .1059091 3.699661 Log likelihood = -2877.8774

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Debt Bondage	Constrained					
End Exploitation	.0542619	.2660695	0.20	0.838	-.4672247	.5757484
Transportation	1.580457	1.222093	1.29	0.196	-.8148014	3.975716
Travel preparation	1.27385	.9048546	1.41	0.159	-.4996322	3.047333

Purchase and sale of victims	.6205085	.5042545	1.23	0.218	-.3678121	1.608829
Harbouring	1.242825	.9032602	1.38	0.169	-.5275322	3.013183
Financial administration	2.012986	1.289803	1.56	0.119	-.5149807	4.540953
Strategy	-2.069676	1.393391	-1.49	0.137	-4.800673	.6613213

Employment Offer constrained by Debt Bondage Coefficient .306743 SE .339369 CI   .0350782   2.68233 Log likelihood = -2770.2555

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Strategy	Constrained					
End Exploitation	.1067966	.1697914	0.63	0.529	-.2259885	.4395817
Transportation	-1.266777	.9525793	-1.33	0.184	-3.133798	.6002444
Travel preparation	-.8329072	.5712139	-1.46	0.145	-1.952466	.2866515
Purchase and sale of victims	-.3340447	.284273	-1.18	0.240	-.8912095	.2231201
Harbouring	-.7300877	.5635758	-1.30	0.195	-1.834676	.3745007
Financial administration	-1.079133	.7585105	-1.42	0.155	-2.565786	.4075204

Employment Offer constrained by Strategy Coefficient .7572061 SE .8846563 CI .0766905 7.476302 Log likelihood = -2507.9733

Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
End Exploitation	Constrained					

Transportation	-11.86096	17.72085	-0.67	0.503	-46.59319	22.87126
Travel preparation	-7.798622	10.96868	-0.71	0.477	-29.29683	13.69959
Purchase and sale of victims	-3.127712	4.70328	-0.67	0.506	-12.34597	6.090547
Harbouring	-6.835883	10.7797	-0.63	0.526	-27.9637	14.29193
Financial administration	-10.10404	15.19402	-0.67	0.506	-39.88377	19.67569
Strategy	9.363103	14.6899	0.64	0.524	-19.42856	38.15477

Employment Offer constrained by End Exploitation Coefficient .0086366 SE .0245413 CI .0000329 2.265039 Log likelihood = -2507.9733

Financial Hardship Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Travel preparation	.5252997	.3451109	.1449391	1.903833

gsem Log likelihood = -2507.9733

Abduction latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Travel preparation	.6575373	.3592489	1.83	0.067	-.0465776	1.361652
Purchase and sale of victims	.2637133	.2366308	1.11	0.265	-.2000746	.7275013
Harbouring	.5763813	.4374149	1.32	0.188	-.2809362	1.433699
Financial administration	.8519361	.5749275	1.48	0.138	-.2749011	1.978773

Strategy	-.7894543	.5935063	-1.33	0.183	-1.952705	.3737967
End Exploitation	-.0843102	.1277736	-0.66	0.509	-.3347418	.1661214

Abduction Constrained by variable	Coefficient	Standard Error	95% Confidence Interval	Conf. Int. Max
Transportation	1.214948	.9173282	.2766119	5.336354

All gsem models Log likelihood = -2507.9733

Abduction latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Rape	Constrained					
End Exploitation	.386769	.4955475	0.78	0.435	-.5844862	1.358024
Transportation	-2.613921	4.122016	-0.63	0.526	-10.69292	5.465082
Travel preparation	-2.046792	2.738728	-0.75	0.455	-7.414601	3.321017
Purchase and sale of victims	-.7011921	1.219611	-0.57	0.565	-3.091586	1.689202
Harbouring	-1.820609	2.482867	-0.73	0.463	-6.686939	3.045721
Financial administration	-2.673384	3.596212	-0.74	0.457	-9.721831	4.375063
Strategy	2.030489	3.483505	0.58	0.560	-4.797055	8.858033

Abduction constrained by Rape Coefficient .1419873 SE .3882979 CI .0006675 30.2038 Log likelihood = -2644.9671

Transportation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Abduction	Constrained					
Recruitment	-3.229289	1.69826	-1.90	0.057	-6.557817	.0992394
End Exploitation	.2999201	.1899239	1.58	0.114	-.0723238	.672164
Travel preparation	-.6162284	.3228698	-1.91	0.056	-1.249042	.0165849
Purchase and sale of victims	.6978641	.3815023	1.83	0.067	-.0498668	1.445595
Harbouring	.401387	.3448328	1.16	0.244	-.274473	1.077247
Financial administration	.9203197	.5453265	1.69	0.091	-.1485006	1.98914
Strategy	.9205971	.6057843	1.52	0.129	-.2667183	2.107913

(Transportation constrained by Abduction: Coefficient .4970543 Standard Error .4286941 Confidence Intervals .0916787 to 2.694878 Log likelihood = -2750.6028)

Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Physical control	Constrained					
Recruitment	-6.471467	4.906142	-1.32	0.187	-16.08733	3.144394
End Exploitation	.8559671	.5000434	1.71	0.087	-.1240998	1.836034
Transportation	-1.720854	1.009902	-1.70	0.088	-3.700224	.2585171
Travel preparation	-1.776806	1.074844	-1.65	0.098	-3.883462	.3298504

Harbouring	.3586616	.7428689	0.48	0.629	-1.097335	1.814658
Purchase and sale of victims	1.321527	.9240625	1.43	0.153	-.4896025	3.132656
Strategy	2.481028	1.802766	1.38	0.169	-1.052328	6.014385

(Financial administration constrained by Physical control: Coefficient .0949283 Standard Error .1029202 Confidence Intervals .0113379 to .7948013 Log likelihood = -3339.755)

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Physical assault	Constrained					
Recruitment	8.453086	4.891088	1.73	0.084	-1.133271	18.03944
Financial administration	-1.862217	1.241582	-1.50	0.134	-4.295673	.5712388
Transportation	1.588315	.9068844	1.75	0.080	-.1891459	3.365776
Travel preparation	1.566195	.9817965	1.60	0.111	-.3580903	3.490481
Harbouring	-.6181408	.782143	-0.79	0.429	-2.151113	.9148313
Purchase and sale of victims	-1.606611	.9887238	-1.62	0.104	-3.544474	.3312517
Strategy	-2.659003	1.765932	-1.51	0.132	-6.120167	.802161

(End Exploitation constrained by Physical assault: Coefficient .0825088 Standard Error .084603 Confidence Intervals .0110584 to .6156116 Log likelihood = -2866.7029)

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

Debt Bondage	Constrained					
Recruitment	4.774281	2.24798	2.12	0.034**	.3683203	9.180241
Financial administration	-.8852125	.5915351	-1.50	0.135	-2.0446	.274175
Transportation	.8929149	.4039721	2.21	0.027**	.1011441	1.684686
Travel preparation	.9622543	.4485458	2.15	0.032**	.0831206	1.841388
Harbouring	-.3336551	.4212804	-0.79	0.428	-1.159349	.4920393
Purchase and sale of victims	-.798485	.4604851	-1.73	0.083	-1.701019	.1040492
Strategy	-1.623203	.8537892	-1.90	0.057	-3.296599	.0501933

(End Exploitation constrained by Debt Bondage: Coefficient .2614219 Standard Error .1961376 Confidence Intervals .0600771 to 1.137561 Log likelihood = -2763.6659)

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Intimidation	Constrained					
Recruitment	5.882534	2.205473	2.67	0.008***	1.559886	10.20518
Financial administration	-1.028967	.6087156	-1.69	0.091	-2.222028	.1640938
Transportation	.9296711	.3937356	2.36	0.018**	.1579636	1.701379
Travel preparation	.9677475	.4406839	2.20	0.028**	.104023	1.831472
Harbouring	-.4322863	.4552378	-0.95	0.342	-1.324536	.4599634

Purchase and sale of victims	-.9774897	.4659678	-2.10	0.036**	-1.89077	-.0642095
Strategy	-1.575719	.8563137	-1.84	0.066	-3.254063	.1026253

(End Exploitation constrained by Intimidation: Coefficient .2063051 Standard Error .1279871 Confidence Intervals .0611566 to .6959473 Log likelihood = -2900.1451)

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Rape	Constrained					
Recruitment	-17.69953	35.87616	-0.49	0.622	-88.01551	52.61644
Financial administration	3.797	7.922469	0.48	0.632	-11.73075	19.32475
Transportation	-3.358766	6.798967	-0.49	0.621	-16.6845	9.966964
Travel preparation	-3.555662	7.15963	-0.50	0.619	-17.58828	10.47696
Harbouring	1.263352	3.021681	0.42	0.676	-4.659034	7.185739
Purchase and sale of victims	3.378916	6.813427	0.50	0.620	-9.975155	16.73299
Strategy	5.617966	11.64172	0.48	0.629	-17.19939	28.43532

Exploitation constrained by Rape Coefficient .0182227 SE .0730958 CI 7.02e-06 47.314 Log likelihood = -2640.6677

End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Holding Passports	Constrained					
Recruitment	-2.444643	2.813067	-0.87	0.385	-7.958154	3.068867
Financial administration	-1.039478	1.696477	-0.61	0.540	-4.364512	2.285556
Transportation	-4.329718	4.384677	-0.99	0.323	-12.92353	4.264092
Travel preparation	-3.203644	3.155347	-1.02	0.310	-9.388011	2.980722
Harbouring	-1.218891	1.419705	-0.86	0.391	-4.001461	1.563679
Purchase and sale of victims	.2499667	.9737412	0.26	0.797	-1.658531	2.158464
Strategy	4.212454	4.388681	0.96	0.337	-4.389202	12.81411

Exploitation constrained by Holding Passports Coefficient .0736245 SE .1387548 CI .0018316 2.959516 Log likelihood = -2738.9962

Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Physical control	Constrained					
Recruitment	-8.443088	5.135546	-1.64	0.100	-18.50857	1.622397
Financial administration	2.120462	1.299306	1.63	0.103	-.4261316	4.667056
Transportation	-1.560703	.9521215	-1.64	0.101	-3.426827	.3054206
Travel preparation	-1.647355	1.032492	-1.60	0.111	-3.671002	.3762922

Harbouring	.6872697	.8060875	0.85	0.394	-.8926327	2.267172
Purchase and sale of victims	1.693632	1.036357	1.63	0.102	-.3375902	3.724854
Strategy	2.534632	1.830104	1.38	0.166	-1.052306	6.121571

Exploitation constrained by Physical control Coefficient .0794535 SE .084628 CI .0098509 .6408409 Log likelihood = -2874.581

Structural equation modelling results

Variable creating indirect effect	Variable through which the flow of the indirect effect travels	Variable indirectly affected	Coefficient (Standard Error)	Z-statistic	P-value of Z	95% Confidence Intervals
Recruitment	Transportation	Abduction	.01 (.00)	3.15	0.00***	-.00 .01
Recruitment	Intimidation	End Exploitation	.03 (.01)	3.60	0.00***	.02 .05
Recruitment	Intimidation	Debt Bondage	.02 (.00)	3.49	0.00***	.01 .02
Recruitment	Intimidation	Employment Offer	.01 (.00)	2.32	0.02**	.00 .01
Recruitment	Intimidation	Physical assault	.03 (.01)	3.78	0.00***	.02 .05
Recruitment	Intimidation	Physical control	.01 (.00)	3.07	0.00***	.00 .02
Recruitment	Debt Bondage	Employment Offer	.01 (.00)	1.97	0.05**	.00 .01
Recruitment	Debt Bondage	Intimidation	.02 (.01)	2.73	0.01***	.00 .03
Recruitment	Debt Bondage	Physical control	.01 (.00)	2.54	0.01**	.00 .02

Recruitment	Abduction	Employment Offer	.00 (.00)	0.82	0.41	-.00 .00
Recruitment	Abduction	Travel preparation	.00 (.00)	1.37	0.17	-.00 .01
Recruitment	Purchase and sale of victims	Harbouring	.00 (.00)	1.82	0.07	-.00 .00
Employment Offer	Recruitment	Transportation	.14 (.03)	5.36	0.00***	.087 .19
Employment Offer	Recruitment	Travel preparation	.05 (.02)	2.66	0.01***	.01 .09
Employment offer	Recruitment	Purchase and sale of victims	-.03 (.02)	-1.92	0.05	-.07 .00
Employment Offer	Recruitment	Financial administration	-.02 (.01)	-1.38	0.17	-.04 .01
Employment Offer	Recruitment	Strategy	-.02 (.01)	-2.10	0.04**	-.04 -.00
Employment Offer	Holding Passports	End Exploitation	.02 (.01)	2.44	0.02**	.00 .03
Employment offer	Holding Passports	Physical assault	.01 (.00)	2.40	0.02**	.00 .02
Employment Offer	Holding Passports	Physical control	.01 (.00)	2.07	0.04**	.00 .01
Employment Offer	Holding Passports	Purchase and sale of victims	.00 (.00)	1.57	0.12	-.00 .01
Employment Offer	Intimidation	Debt Bondage	.02 (.01)	3.94	0.00***	.011 .03
Employment Offer	Intimidation	Physical assault	.05 (.01)	4.41	0.00***	.03 .07
Employment Offer	Intimidation	Physical control	.02 (.01)	3.44	0.00***	.01 .03

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Employment Offer	Intimidation	End Exploitation	.05 (.01)	4.12	0.00***	.02 .07
Employment Offer	Debt Bondage	Physical control	.02 (.01)	3.12	0.00***	.01 .03
Employment Offer	Debt Bondage	Intimidation	.02 (.01)	3.44	0.00***	.01 .04
Employment Offer	Debt Bondage	Physical control	.02 (.01)	3.12	0.00***	.01 .03
Employment Offer	End Exploitation	Recruitment	.00 (.00)	1.15	0.25	-.00 .01
Financial hardship	Travel preparation	Recruitment	.01 (.01)	1.80	0.07	-.00 .02
Financial hardship	Travel preparation	Transportation	.02 (.01)	2.42	0.02**	.00 .03
Abduction	Transportation	Financial administration	.02 (.01)	2.40	0.02**	.00 .03
Abduction	Transportation	Travel preparation	.04 (.01)	3.08	0.00***	.01 .06
Abduction	Transportation	Recruitment	.06 (.02)	3.19	0.00***	.02 .09
Abduction	Physical control	Financial administration	.01 (.01)	1.75	0.08	-.00 .02
Abduction	Physical control	Holding Passports	.01 (.01)	1.68	0.09	-.00 .02
Abduction	Physical control	Intimidation	.02 (.01)	1.83	0.07	-.00 .04
Abduction	Physical control	End Exploitation	.03 (.02)	1.85	0.06	-.00 .06
Abduction	Physical control	Debt Bondage	.01 (.01)	1.85	0.07	-.00 .03

Abduction	Rape	End Exploitation	.08 (.03)	3.23	0.00***	.03 .13
Abduction	Rape	Holding Passports	.04 (.01)	3.07	0.00***	.01 .06
Abduction	Physical assault	Intimidation	.09 (.03)	3.59	0.00***	.04 .14
Abduction	Physical assault	Holding Passports	.03 (.01)	3.14	0.00***	.01 .05
Abduction	Physical assault	End Exploitation	.08 (.02)	3.36	0.00***	.03 .13
Abduction	Employment Offer	Purchase and sale of victims	.01 (.01)	1.77	0.08	-.00 .03
Abduction	Employment Offer	Strategy	.00 (.00)	1.32	0.19	-.00 .01
Abduction	Employment Offer	Financial administration	.01 (.00)	1.68	0.09	-.00 .02
Abduction	Employment Offer	End Exploitation	.01 (.01)	1.22	0.22	-.01 .02
Abduction	Employment Offer	Physical control	.01 (.01)	1.51	0.13	-.00 .02
Abduction	Travel preparation	Physical assault	.00 (.00)	1.12	0.26	-.00 .01
Travel preparation	Transportation	Abduction	.01 (.00)	3.01	0.00***	-.00 .02
Travel preparation	Recruitment	Debt Bondage	.01 (.00)	2.10	0.04**	.00 .01
Travel preparation	Recruitment	Intimidation	.01 (.01)	2.49	0.01**	.00 .02
Travel preparation	Physical assault	Debt Bondage	-.00 (.00)	-0.88	0.38	-.00 .00

Travel preparation	Abduction	Employment Offer	.00 (.00)	1.38	0.17	-.00 .01
Transportation	Abduction	Physical assault	.01 (.00)	2.79	0.01***	.00 .02
Transportation	Abduction	Rape	.01 (.00)	3.97	0.00***	.01 .02
Transportation	Abduction	Physical control	.01 (.00)	1.85	0.07	-.00 .01
Transportation	Financial administration	Physical control	.01 (.00)	2.19	0.03**	.00 .01
Rape	Holding Passports	Purchase and sale of victims	.01 (.01)	1.34	0.18	-.00 .02
Physical assault	Holding Passports	Purchase and sale of victims	.01 (.01)	1.76	0.08	-.00 .02
Physical control	Holding Passports	Purchase and sale of victims	.00 (.00)	1.32	0.19	-.00 .01
Employment offer	Holding Passports	Purchase and sale of victims	.00 (.00)	1.57	0.12	-.00 .01
Purchase and sale of victims	Holding Passports	End Exploitation	.02 (.01)	1.57	0.12	-.00 .04
Harbouring	Financial administration	Physical control	.02 (.01)	2.56	0.01**	.00 .03
Harbouring	Purchase and sale of victims	Employment Offer	.01 (.01)	1.69	0.09	-.00 .03
Financial administration	Physical control	Holding Passports	.01 (.01)	2.41	0.02**	.00 .02
Financial administration	Physical control	Abduction	.01 (.00)	1.80	0.07	-.00 .01

Financial administration	Physical control	Intimidation	.03 (.01)	2.84	0.01***	.01 .04
Financial administration	Physical control	End Exploitation	.04 (.01)	2.97	0.00***	.00 .07
Financial administration	Physical control	Debt Bondage	.02 (.01)	2.88	0.00***	.01 .04
Financial administration	Transportation	Abduction	.01 (.00)	2.34	0.02**	.00 .02
Financial administration	Recruitment	Abduction	.01 (.00)	1.79	0.07	-.00 .01
End Exploitation	Debt Bondage	Recruitment	.01 (.01)	2.54	0.01**	.00 .02
End Exploitaiton	Debt Bondage	Transportation	.00 (.00)	0.57	0.57	-.01 .01
End Exploitation	Debt Bondage	Travel preparation	.01 (.00)	1.71	0.09	-.00 .01
End Exploitation	Intimidation	Recruitment	.04 (.01)	4.12	0.00***	.02 .06
End Exploitation	Intimidation	Transportation	-.00 (.01)	-0.05	0.96	-.02 .01
End Exploitation	Intimidation	Travel preparation	.00 (.01)	0.19	0.85	-.01 .01
End Exploitation	Intimidation	Purchase and sale of victims	.00 (.01)	0.15	0.88	-.01 .01
End Exploitation	Debt Bondage	Employment Offer	.01 (.01)	2.89	0.00***	.00 .02
End Exploitation	Debt Bondage	Physical control	.01 (.00)	2.94	0.00***	.00 .02
End Exploitation	Physical control	Financial administration	.01 (.00)	2.99	0.00***	.00 .01

End Exploitation	Physical control	Holding Passports	.01 (.00)	2.01	0.04**	.00 .01
End Exploitation	Physical control	Abduction	.00 (.00)	1.79	0.07	-.00 .01
End Exploitation	Physical control	Intimidation	.01 (.00)	2.87	0.00***	.00 .02
End Exploitation	Holding passports	Rape	.01 (.00)	2.19	0.03**	.00 .01
End Exploitation	Holding Passports	Physical assault	.02 (.00)	3.56	0.00***	.01 .03
End Exploitation	Holding Passports	Employment Offer	.02 (.01)	2.70	0.01***	.00 .03
End Exploitation	Holding Passports	Physical control	.01 (.00)	2.06	0.04**	.00 .02
End Exploitation	Holding Passports	Purchase and sale of victims	.01 (.00)	1.86	0.06	-.00 .02
End Exploitation	Intimidation	Debt Bondage	.03 (.01)	5.35	0.00***	.02 .04
End Exploitation	Intimidation	Employment Offer	.04 (.01)	4.46	0.00***	.02 .06
End Exploitation	Intimidation	Physical assault	.06 (.01)	6.81	0.00***	.04 .08
End Exploitation	Intimidation	Physical control	.02 (.01)	3.21	0.00***	.01 .03
End Exploitation	Rape	Abduction	.01 (.00)	3.26	0.00***	.00 .02
End Exploitation	Rape	Holding Passports	.00 (.00)	1.96	0.05	-3.44 .01
End Exploitation	Physical assault	Abduction	.01 (.00)	3.33	0.00***	.00 .02
End Exploitation	Physical assault	Intimidation	.06 (.01)	6.50	0.00***	.04 .08

End Exploitation	Physical assault	Holding Passports	.02 (.00)	3.82	0.00***	.01 .03
End Exploitation	Debt Bondage	Intimidation	.02 (.01)	3.49	0.00***	.01 .03
End Exploitation	Physical control	Debt Bondage	.01 (.00)	3.27	0.00***	.00 .02
End Exploitation	Recruitment	Abduction	.00 (.00)	1.60	0.11	-.00 .00

Appendix 5 Chapter 6 Data results

Observations

	Sexual Exploitation (n. 751)	Forced Labour (n. 115)	Forced Begging (n. 62)
Recruitment (n. 452)	381	37	31
End exploitation (n. 421)	309	64	34
Security (n. 379)	283	44	34
Transportation (n. 260)	206	16	29
Travel preparation (n. 143)	125	7	6
Purchase and Sale of victims (n. 109)	89	2	1
Harbouring (n. 58)	45	6	4
Financial administration (n. 51)	38	4	3
Strategy (n. 28)	23	2	1

	Sex Recruitment	Sex End Exploitation	Sex Security	Sex Transportation	Sex Travel preparation	Sex Purchase and sale of victims	Sex Harbouring	Sex Financial administration

Sex End Exploitation	134							
Sex Security	142	184						
Sex Transportation	117	79	74					
Sex Travel preparation	71	42	38	44				
Sex Purchase and sale of victims	32	39	40	31	17			
Sex Harbouring	20	18	20	20	12	2		
Sex Financial administration	8	12	15	16	3	9	6	
Sex Strategy	6	7	6	3	2	0	1	1

n. 751

	Labour Recruitment	Labour End Exploitation
Labour End Exploitation	21	
Labour Security	17	35

n. 115

	Forced Begging Recruitment	Forced Begging End Exploitation	Forced Begging Security

Forced Begging End Exploitation	22		
Forced Begging Security	15	20	
Forced Begging Transportation	15	18	16

n. 62

	Sexual Exploitation % of 751 offenders (number of offenders observed)	Forced Labour % of 115 offenders (number of offenders observed)	Forced Begging % of 62 offenders (number of offenders observed)
Recruitment (n. 452)	50.7% (371)	32.2% (37)	50.0% (31)
End Exploitation (n. 421)	41.1% (309)	55.7% (64)	54.8% (34)
Security (n. 379)	37.7% (283)	38.3% (44)	54.8% (34)
Transportation (n. 260)	27.4% (206)	13.9% (16)	46.8% (29)
Travel preparation (n. 143)	16.6% (125)	6.1% (7)	9.7% (6)
Purchase and Sale of victims (n. 109)	11.9% (89)	1.7% (2)	1.6% (1)
Harbouring (n. 58)	6.0% (45)	5.2% (6)	6.5% (4)
Financial administration (n. 51)	5.1% (38)	3.5% (4)	4.8% (3)
Strategy (n. 28)	3.1% (23)	1.7% (2)	1.6% (1)

Exclusive actions across all purposes	% of offenders involved in Sexual Exploitation (n. 751)	% of all offenders involved in Forced Labour (n. 115)	% of all offenders involved in Forced Begging (n. 62)
Recruitment only	15.8% (n. 119)	8.7% (n. 10)	8.1% (n. 5)
End Exploitation only	11.05% (n. 83)	27% (n. 31)	6.5% (n. 4)
Transportation only	3.2% (n. 24)	NA	14.5% (n. 9)
Travel preparation only	1.3% (n. 10)	NA	NA
Purchase and sale of victims only	1.7% (n. 13)	NA	NA
Harbouring only	0.1% (n. 1)	NA	NA
Financial administration only	1.3% (n. 10)	NA	NA
Strategy only	1.2% (n. 9)	NA	NA

NA – Not Available

Purpose	Recruitment only % of n. 136	End Exploitation only % of n. 129	Transportation only % of n. 38	Travel preparation only % of n. 10	Purchase and sale of victims % of n. 31	Harbouring % of n. 3	Financial administration % of n. 12	Strategy % of n. 9
Sexual Exploitation	87.5%	64.3%	63.2%	100%	41.9%	33.3%	83.3%	100%

Forced Labour	7.4%	24%	NA	NA	NA	NA	NA	NA
Forced Begging	3.7%	3.1%	23.7%	NA	NA	NA	NA	NA

NA – Not Available

	Sexual Exploitation (n. 751)	Forced Labour (n. 115)	Forced Begging (n. 62)
Employment Offer (n. 236)	198	30	12
Intimidation (n. 141)	108	18	14
Physical control (n. 125)	94	8	13
Physical assault (n. 121)	87	17	10
Financial Hardship (n. 103)	86	8	3
Debt Bondage (n. 75)	63	5	5
Holding Passports (n. 63)	47	8	3
'Loverboy' Romance (n. 36)	33	1	1

Abduction (n. 33)	23	3	7
Rape (n. 31)	28	3	1

	Sex Employment offer (n. 198)	Sex Intimidation (n. 108)	Sex Physical control (n. 94)	Sex Physical assault (n. 87)	Sex Financial Hardship (n. 86)	Sex Debt Bondage (n. 63)	Sex Holding Passports (n. 47)	Sex 'Loverboy' Romance (n. 33)	Sex Rape (n. 28)	Sex Abduction (n. 23)
Sex Recruitment (n. 381)	NA	69	36	51	NA	41	28	NA	13	6
Sex End Exploitation (n. 309)	67	80	59	68	27	39	36	18	20	14
Sex Transportation (n. 206)	49	28	17	25	26	17	9	10	9	14
Sex Travel preparation (n. 125)	40	18	12	11	16	13	4	5	2	1
Sex Purchase and sale of victims (n. 89)	12	15	17	9	7	10	11	0	6	5
Sex Harbouring (n. 45)	12	4	7	5	5	3	1	1	1	3

Sex Financial administration (n. 38)	4	7	8	2	3	5	2	1	0	1
Sex Strategy (n. 23)	3	4	2	3	2	0	3	2	0	1

	Sex Employment offer	Sex Intimidation	Sex Physical control	Sex Physical assault	Sex Financial Hardship	Sex Debt Bondage	Sex Holding Passports	Sex 'Loverboy' Romance	Sex Rape
Sex Intimidation	44								
Sex Physical control	14	28							
Sex Physical assault	24	49	14						
Sex Financial Hardship	13	8	9	8					
Sex Debt Bondage	28	24	20	10	7				
Sex Holding Passports	21	20	13	18	4	8			

Sex 'Loverboy' Romance	2	4	8	6	1	2	0		
Sex Rape	9	4	7	3	1	1	6	3	
Sex Abduction	3	3	8	5	0	1	1	2	9

Pearson's Chi-squared and Fisher's Exact one-sided results

	Sexual Exploitation	Forced Labour	Forced Begging
Recruitment	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.57
End Exploitation	0.01** (FE 0.01***)	0.00*** (FE 0.00***)	0.06 (FE 0.04**)
Security	0.12 (FE 0.07)	0.86	0.01*** (FE 0.01***)
Transportation	0.38	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)
Travel preparation	0.00*** (FE 0.00***)	0.01*** (FE 0.00***)	0.25
Purchase and Sale of victims	0.25	0.00*** (FE 0.00***)	0.01** (FE 0.01***)
Harbouring	0.95	0.72	0.87
Financial administration	0.63	0.37	0.88
Strategy	FE 0.36	0.44	0.54

n. 972 FE – Fisher's Exact one-sided

	Sex Recruitment	Sex End Exploitation	Sex Security	Sex Transportation	Sex Travel preparation	Sex Purchase and sale of victims	Sex Harbouring	Sex Financial administration
Sex End Exploitation	0.07 (FE 0.04**)							
Sex Security	0.00***	0.00***						
Sex Transportation	0.00***	0.02**	0.02**					
Sex Travel preparation	0.00***	0.64	0.74	0.00*** (FE 0.00***)				
Sex Purchase and sale of victims	0.51	0.01** (FE 0.01***)	0.00***	0.00*** (FE 0.00***)	0.07 (FE 0.05)			
Sex Harbouring	0.46	0.23	0.02** (FE 0.02**)	0.00*** (FE 0.00***)	0.01*** (FE 0.01***)	0.26		
Sex Financial administration	0.02** (FE 0.01**)	0.98	0.15 (FE 0.11)	0.00*** (FE 0.00***)	0.35	0.00*** (FE 0.01***)	0.00*** (FE 0.01***)	
Sex Strategy	0.19	0.89	0.75	0.33	0.55	0.12 (FE 0.11)	0.95	0.91

n. 972 FE – Fisher's Exact one-sided

	Labour Recruitment	Labour End Exploitation	Forced Begging Recruitment	Forced Begging End Exploitation	Forced Begging Security

Labour End Exploitation	0.00***				
Labour Security	0.00***	0.00***			
Forced Begging End Exploitation			0.00***		
Forced Begging Security			0.00***	0.00***	
Forced Begging Transportation			0.00***	0.00***	0.00***

n. 972

	Sexual Exploitation	Forced Labour	Forced Begging
Employment Offer	0.01*** (FE 0.00***)	0.63	0.35
Financial Hardship	0.11 (FE 0.07)	0.18 (FE 0.11)	0.13 (FE 0.09)
'Loverboy' Romance	0.04** (FE 0.02**)	0.09 (FE 0.06)	0.37
Intimidation	0.84	0.71	0.06 (FE 0.05)
Physical control	0.56	0.04** (FE 0.03**)	0.05** (FE 0.04**)
Physical assault	0.13 (FE 0.08)	0.42	0.36
Debt Bondage	0.15	0.15 (FE 0.10)	0.92
Holding Passports	0.60	0.83	0.59

Abduction	0.29	0.62	0.00*** (FE 0.00***)
Rape	0.08 (FE 0.05)	0.71	0.47

	Sex Employment offer	Sex Intimidation	Sex Physical control	Sex Physical assault	Sex Financial Hardship	Sex Debt Bondage	Sex Holding Passports	Sex 'Loverboy' Romance	Sex Rape	Sex Abduction
Sex Recruitment	NA	0.00***	0.85	0.00***	NA	0.00***	0.00*** (FE 0.00***)	NA	0.43	0.19
Sex End Exploitation	0.49	0.00***	0.00***	0.00***	0.93	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.00*** (FE 0.01***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)
Sex Transportation	0.17	0.20	0.44	0.07 (FE 0.05)	0.03** (FE 0.03**)	0.25	0.73	0.19 (FE 0.14)	0.15 (FE 0.12)	0.00*** (FE 0.00***)
Sex Travel preparation	0.00*** (FE 0.00***)	0.21	0.98	0.95	0.10 (FE 0.07)	0.06 (FE 0.05)	0.36	0.69	0.36	0.22
Sex Purchase and sale of victims	0.09 (FE 0.06)	0.07 (FE 0.06)	0.00*** (FE 0.00***)	0.69	0.73	0.06 (FE 0.05)	0.00*** (FE 0.00***)	0.06 (FE 0.04**)	0.02** (FE 0.04**)	0.03** (FE 0.05)
Sex Harbouring	0.28 (FE 0.19)	0.63	0.17 (FE 0.14)	0.60	0.58	0.96	0.40	0.66	0.79	0.05 (FE 0.09)
Sex Financial administration	0.12 (FE 0.09)	0.14 (FE 0.12)	0.02** (FE 0.02**)	0.42	0.83	0.09 (FE 0.09)	0.90	0.79	0.28	0.91

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Sex Strategy	0.38	0.33	0.87	0.49	0.98	0.20	0.06 (FE 0.09)	0.16 (FE 0.18)	0.40	0.53

n. 972

	Sex Employment offer	Sex Intimidation	Sex Physical control	Sex Physical assault	Sex Financial Hardship	Sex Debt Bondage	Sex Holding Passports	Sex 'Loverboy' Romance	Sex Rape
Sex Intimidation	0.00*** (FE 0.00***)								
Sex Physical control	0.17 (FE 0.10)	0.00*** (FE 0.00***)							
Sex Physical assault	0.08 (FE 0.06)	0.00*** (FE 0.00***)	0.03** (FE 0.03**)						
Sex Financial Hardship	0.21	0.58	0.79	0.91					
Sex Debt Bondage	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.05** (FE 0.05**)	0.51				
Sex Holding Passports	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.00*** (FE 0.00***)	0.93	0.00*** (FE 0.01***)			
Sex 'Loverboy' Romance	0.04** (FE 0.02**	0.85	0.00*** (FE 0.01**)	0.06 (FE 0.07)	0.23	0.92	0.19		

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Sex Rape	0.12 (FE 0.10)	0.59	0.01*** (FE 0.01**)	0.74	0.32	0.53	0.00*** (FE 0.00***)	0.03** (FE 0.07)	
Sex Abduction	0.38	0.77	0.00*** (FE 0.00***)	0.03** (FE 0.05**)	0.13 (FE 0.12)	0.67	0.91	0.16 (FE 0.18)	0.00*** (FE 0.00***)

n. 972 FE – Fisher's Exact one-sided

Correlation results

Pearson's correlations coefficient of actions and purpose

	Sexual Exploitation	Forced Labour	Forced Begging
Recruitment	0.1563	-0.1052	0.0183
End Exploitation	-0.0806	0.0912	0.0607
Security	-0.0495	-0.0055	0.0848
Transportation	0.0284	-0.1062	0.1181
Travel preparation	0.1006	-0.0892	-0.0371
Purchase and sale of victims	0.0372	-0.1100	-0.0794
Harbouring	0.0019	-0.0116	0.0053
Financial administration	-0.0155	-0.0291	-0.0048
Strategy	0.0201	-0.0250	-0.0198

Correlation of actions within Sexual Exploitation

Action 1	Action 2	Pearson's correlation coefficient
Sex Recruitment	Sex End Exploitation	0.0583
Sex Recruitment	Sex Security	0.1441
Sex Recruitment	Sex Transportation	0.1869
Sex Recruitment	Sex Travel preparation	0.1385
Sex Recruitment	Sex Financial administration	-0.0750
Sex End Exploitation	Sex Security	0.4573
Sex End Exploitation	Sex Transportation	0.0730
Sex End Exploitation	Sex Purchase and sale of victims	0.0820
Sex Security	Sex Transportation	0.0777
Sex Security	Sex Purchase and sale of victims	0.1106
Sex Security	Sex Harbouring	0.0743
Sex Transportation	Sex Travel preparation	0.1317
Sex Transportation	Sex Purchase and sale of victims	0.1059

Sex Transportation	Sex Harbouring	0.1254
Sex Transportation	Sex Financial administration	0.1032
Sex Travel preparation	Sex Purchase and sale of victims	0.0592
Sex Travel preparation	Sex Harbouring	0.0909
Sex Purchase and sale of victims	Sex Financial administration	0.1016
Sex Harbouring	Sex Financial administration	0.1071

Correlation of actions within Forced Labour

Action 1	Action 2	Pearson's correlation coefficient
Labour Recruitment	Labour End Exploitation	0.4024
Labour Recruitment	Labour Security	0.3963
Labour End Exploitation	Labour Security	0.6406

Correlation of actions within Forced Begging

Action 1	Action 2	Pearson's correlation coefficient
Forced Begging Recruitment	Forced Begging End Exploitation	0.6665

Forced Begging Recruitment	Forced Begging Transportation	0.4844
Forced Begging Recruitment	Forced Begging Security	0.4435
Forced Begging End Exploitation	Forced Begging Transportation	0.5591
Forced Begging End Exploitation	Forced Begging Security	0.5733
Forced Begging Transportation	Forced Begging Security	0.4932

Pearson's correlations coefficient of means with purpose

	Sexual Exploitation	Forced Labour	Forced Begging
Employment Offer	0.0896	0.0154	-0.0300
Financial Hardship	0.0512	-0.0433	-0.0488
'Loverboy' Romance	0.0674	-0.0550	-0.0289
Intimidation	-0.0066	0.0119	0.0598
Physical control	-0.0189	-0.0646	0.0632
Physical assault	-0.0482	0.0259	0.0291
Debt Bondage	0.0465	-0.0462	0.0034
Holding Passports	-0.0167	0.0071	-0.0174

Abduction	-0.0338	-0.0159	0.1138
Rape	0.0566	-0.0121	-0.0234

Correlation of means and actions within Sexual Exploitation

Sex Means	Sex Action	Pearson's correlation coefficient
Employment Offer	Travel preparation	0.1109
Employment Offer	Purchase and sale of victims	-0.0543
Employment Offer	Financial administration	-0.0493
Financial Hardship	Transportation	0.0689
Financial Hardship	Travel preparation	0.0535
'Loverboy' Romance	End Exploitation	0.0916
'Loverboy' Romance	Purchase and sale of victims	-0.0595
Intimidation	Recruitment	0.1788
Intimidation	End Exploitation	0.3210
Intimidation	Purchase and sale of victims	0.0580
Physical control	End Exploitation	0.2177
Physical control	Purchase and sale of victims	0.1013

Physical control	Financial administration	0.0777
Physical assault	Recruitment	0.1247
Physical assault	End Exploitation	0.3122
Physical assault	Transportation	0.0579
Debt Bondage	Recruitment	0.1396
Debt Bondage	End Exploitation	0.1703
Debt Bondage	Travel preparation	0.0611
Debt Bondage	Purchase and sale of victims	0.0613
Debt Bondage	Financial administration	0.0547
Holding Passports	Recruitment	0.0941
Holding Passports	End Exploitation	0.2169
Holding Passports	Purchase and sale of victims	0.1114
Holding Passports	Strategy	0.0596
Rape	End Exploitation	0.1466
Rape	Purchase and sale of victims	0.0733
Abduction	End Exploitation	0.0972

Abduction	Transportation	0.1511
Abduction	Purchase and sale of victims	0.0679
Abduction	Harbouring	0.0623

Correlation of means with means within Sexual Exploitation

Sex Means	Sex Means	Pearson's correlation coefficient
Sex Employment Offer	Sex 'Loverboy' Romance	-0.0666
Sex Employment Offer	Sex Intimidation	0.1788
Sex Employment Offer	Sex Physical assault	0.0562
Sex Employment Offer	Sex Debt Bondage	0.2260
Sex Employment Offer	Sex Holding Passports	0.1361
Sex Employment Offer	Sex Rape	0.0174
Sex 'Loverboy' Romance	Sex Physical control	0.0924
Sex 'Loverboy' Romance	Sex Physical assault	0.0606
Sex 'Loverboy' Romance	Sex Rape	0.0696
Sex Intimidation	Sex Physical control	0.1944

Sex Intimidation	Sex Physical assault	0.4511
Sex Intimidation	Sex Debt Bondage	0.2260
Sex Intimidation	Sex Holding Passports	0.2255
Sex Physical control	Sex Physical assault	0.0681
Sex Physical control	Sex Debt Bondage	0.1966
Sex Physical control	Sex Holding Passports	0.1372
Sex Physical control	Sex Rape	0.0893
Sex Physical control	Sex Abduction	0.1323
Sex Physical assault	Sex Debt Bondage	0.0638
Sex Physical assault	Sex Holding Passports	0.2317
Sex Physical assault	Sex Abduction	0.0697
Sex Debt Bondage	Sex Holding Passports	0.0965
Sex Holding Passports	Sex Rape	0.1332
Sex Rape	Sex Abduction	0.3374

Bivariate logistic regression

Action 1	Action 2	Logistic Regression Odds Ratio (Standard Error)	Z-statistic	Logistic Regression p-value of z - statistic	Confidence Intervals Min	Confidence intervals Max
Labour Recruitment	Labour End Exploitation	27.23 (9.99)	9.01	0.00***	13.27	55.87
Labour Recruitment	Labour Security	28.59 (10.96)	8.75	0.00***	13.48	60.60
Labour End Exploitation	Labour Security	120.56 (50.47)	11.45	0.00***	53.07	273.88
Forced Begging Recruitment	Forced Begging Exploitation	189.24 (92.90)	10.68	0.00***	72.30	495.29
Forced Begging Recruitment	Forced Begging Security	45.49 (19.46)	8.93	0.00***	19.68	105.19
Forced Begging Recruitment	Forced Begging Transportation	62.08 (27.88)	9.19	0.00***	25.74	149.69
Forced Begging Exploitation	Forced Begging Security	94.29 (41.52)	10.32	0.00***	39.77	223.51
Forced Begging Exploitation	Forced Begging Transportation	94.81 (43.45)	9.93	0.00***	38.61	232.78
Forced Begging Security	Forced Begging Transportation	63.25 (28.01)	9.37	0.00***	26.55	150.64

n. 972

Multiple logistic regression models

Forced Begging dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	.87	.27	3.15	0.00***	.33	1.40
Purchase and sale of victims	-2.25	1.02	-2.21	0.03**	-4.25	-.26
Abduction	1.22	.47	2.56	0.01**	.29	2.15
Physical control	.67	.34	1.98	0.05**	.01	1.33

Model chi-squared p-value 0.00*** Pseudo R-squared = 0.07 LR chi2(4) = 31.26 Log likelihood = -214.99 n. 972

Sex Financial hardship dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf Int. max
Sex Transportation	.5304104	.2491991	2.13	0.033**	.0419891	1.018832

Model chi-squared p-value 0.0389** Pseudo R-squared = 0.0073 LR chi2(1) = 4.26 Log likelihood = -288.49626 n. 972

Sex 'Loverboy' Romance dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	.8248949	.3705896	2.23	0.026**	.0985526	1.551237
Sex Physical control	.8810874	.4387961	2.01	0.045**	.0210628	1.741112

Model chi-squared p-value 0.0039*** Pseudo R-squared = 0.0385 LR chi2(2) = 11.10 Log likelihood = -138.51701 n. 972

Sex Abduction dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

Sex Transportation	1.985004	.4886348	4.06	0.000***	1.027298	2.942711
Sex Physical control	1.649006	.5252358	3.14	0.002***	.6195632	2.67845
Sex Rape	3.320557	.542663	6.12	0.000***	2.256957	4.384156

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.2798 LR chi2(3) = 60.91 Log likelihood = -78.381265 n. 972

Sex Physical control dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	1.093372	.2419758	4.52	0.000***	.6191079	1.567636
Sex Purchase and sale of victims	.7184501	.3166296	2.27	0.023**	.0978675	1.339033
Sex 'Loverboy' Romance	1.100824	.4604921	2.39	0.017**	.1982758	2.003372
Sex Abduction	1.467449	.4776221	3.07	0.002***	.5313273	2.403571
Sex Holding Passports	.8014048	.3828882	2.09	0.036**	.0509578	1.551852
Sex Debt Bondage	1.354022	.3163664	4.28	0.000***	.7339554	1.974089

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.1299 LR chi2(6) = 80.27 Log likelihood = -268.7536 n. 972

Sex Intimidation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	1.403412	.270368	5.19	0.000***	.8735005	1.933324
Sex Employment Offer	1.38001	.2720664	5.07	0.000***	.84677	1.913251
Sex Physical assault	2.552622	.2943064	8.67	0.000***	1.975792	3.129452

Sex Physical control	1.221075	.3215498	3.80	0.000***	.5908486	1.851301
Sex Debt Bondage	1.193085	.3377303	3.53	0.000***	.5311457	1.855024

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.3290 LR chi2(5) = 223.13 Log likelihood = -227.49834 n. 972

Sex Physical assault dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	1.586711	.2945529	5.39	0.000***	1.009398	2.164024
Sex Holding Passports	.9791198	.3907639	2.51	0.012**	.2132368	1.745003
Sex Intimidation	2.238929	.2748786	8.15	0.000***	1.700177	2.777681

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.2856 LR chi2(3) = 167.35Log likelihood = -209.28161 n. 972

Sex Debt Bondage dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	.8476416	.3052893	2.78	0.005***	.2492856	1.445998
Sex Employment offer	1.27926	.2960611	4.32	0.000***	.6989906	1.859529
Sex Physical control	1.424575	.3316598	4.30	0.000***	.7745339	2.074616
Sex Intimidation	.9455705	.3247623	2.91	0.004***	.3090481	1.582093

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.1590 LR chi2(4) = 74.21 Log likelihood = -196.19108 n. 972

Sex Holding Passports dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	1.571117	.3826584	4.11	0.000***	.8211204	2.321114
Sex Purchase and sale of victims	1.361343	.4043499	3.37	0.001***	.568832	2.153855
Sex Employment Offer	1.523842	.3457621	4.41	0.000***	.8461606	2.201523
Sex Physical assault	1.438879	.3625621	3.97	0.000***	.7282701	2.149488
Sex Physical control	1.083254	.3877685	2.79	0.005***	.3232417	1.843266

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.2306 LR chi2(5) = 86.82 Log likelihood = -144.80996 n. 972

Sex Rape dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	1.28728	.4615531	2.79	0.005***	.382653	2.191908
Sex Abduction	3.376211	.5260831	6.42	0.000***	2.345107	4.407314
Sex Holding Passports	1.575076	.5522525	2.85	0.004***	.4926807	2.657471

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.2236 LR chi2(3) = 56.75 Log likelihood = -98.540452 n. 972

Sex Travel preparation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Recruitment	.7174738	.1989687	3.61	0.000***	.3275024	1.107445
Sex Transportation	.6279107	.2143362	2.93	0.003***	.2078194	1.048002
Sex Harbouring	.799652	.3630532	2.20	0.028**	.0880808	1.511223

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.0435 LR chi2(3) = 32.45 Log likelihood = -356.7508 n. 972

Sex Purchase and sale of victims dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	.7610458	.2448401	3.11	0.002***	.2811681	1.240924
Sex Financial administration	.9716307	.4125549	2.36	0.019**	.1630379	1.780224
Sex Physical control	.7727819	.3078761	2.51	0.012**	.1693559	1.376208
Sex Holding Passports	1.098194	.3784074	2.90	0.004***	.3565292	1.839859
Constrained	-2.74412	.1553941	-17.66	0.000	-3.048687	-2.439553

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.0511 LR chi2(4) = 30.43 Log likelihood = -282.35562 n. 972

Sex Harbouring dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Security	.624112	.3146806	1.98	0.047**	.0073493	1.240875
Sex Transportation	.9340638	.3206201	2.91	0.004***	.30566	1.562468
Sex Travel preparation	.8769475	.3649946	2.40	0.016**	.1615713	1.592324
Sex Financial administration	1.34516	.4886897	2.75	0.006***	.3873457	2.302974

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.0738 LR chi2(4) = 26.89 Log likelihood = -168.76995 n. 972

Sex Financial administration dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Recruitment	-1.128678	.4176667	-2.70	0.007***	-1.94729	-.3100666
Sex Transportation	1.051812	.3606315	2.92	0.004***	.3449876	1.758637

Sex Purchase and sale of victims	1.098532	.4160313	2.64	0.008***	.283126	1.913939
Sex Harbouring	1.381705	.4996133	2.77	0.006***	.4024805	2.360929
Constrained	-3.471609	.2483511	-13.98	0.000	-3.958368	-2.984849

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.0917LR chi2(4) = 29.44 Log likelihood = -145.71689 n. 972

Sex End Exploitation dependent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex 'Loverboy' Romance	.9056122	.397162	2.28	0.023**	.1271889	1.684035
Sex Physical assault	1.636681	.3041835	5.38	0.000***	1.040493	2.23287
Sex Physical control	.9862972	.2546054	3.87	0.000***	.4872797	1.485315
Sex Holding Passports	1.079019	.3918758	2.75	0.006***	.3109569	1.847082
Sex Intimidation	1.155006	.2710356	4.26	0.000***	.6237857	1.686226
Sex Rape	1.532847	.4557161	3.36	0.001***	.6396603	2.426034
Sex Debt Bondage	.8888679	.3094883	2.87	0.004***	.282282	1.495454
Constrained	-1.367335	.091027	-15.02	0.000	-1.545745	-1.188926

Model chi-squared p-value 0.0000*** Pseudo R-squared = 0.1577 LR chi2(7) = 191.72 Log likelihood = -511.91127 n. 972

gsem analysis

gsem models with error or distorted results:

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Variable	Constraining variable	Coefficient for model	Standard Error for model	95% Confidence Intervals minimum	Conf. Int. max
Sexual Exploitation	Employment Offer	Not concave			
Sexual Exploitation	'Loverboy' Romance	.1580318	.3154041	.0031615	7.899417
Sexual Exploitation	Harbouring	1.15e-08	8.34e-08	7.31e-15	.0179771
Sexual Exploitation	Financial administration	3.62e-09	2.80e-08	9.14e-16	.0143036
Forced Labour	Employment Offer	Not concave			
Forced Begging	Abduction	.2243507	.2598707	.0231718	2.172173
Sex Recruitment	Sex Intimidation	Not concave			
Sex Employment Offer	Sex Rape	Not concave			
Sex Abduction	Sex Transportation	Not concave			
Sex Abduction	Sex Physical control	.0902657	.131912	.0051475	1.582875
Sex Abduction	Sex Rape	Not concave			
Sex Transportation	Sex Recruitment	Not concave			
Sex Transportation	Sex Travel preparation	Not concave			
Sex Transportation	Sex Purchase and sale of victims	Not concave			

Sex Transportation	Sex Harbouring	Not concave			
Sex Transportation	Sex Financial administration	Not concave			
Sex Transportation	Sex Abduction	Not concave			
Sex Travel preparation	Sex Recruitment	Not concave			
Sex Travel preparation	Sex Transportation	Not concave			
Sex Travel preparation	Sex Harbouring	Not concave			
Sex Purchase and sale of victims	Sex Physical control	.0385843	.0776511	.0007471	1.992769
Sex Purchase and sale of victims	Sex Rape	.2572815	.3065206	.0249059	2.657754
Sex Harbouring	Sex Transportation	Not concave			
Sex Harbouring	Sex Travel preparation	Not concave			
Sex Harbouring	Sex Financial administration	Not concave			
Sex Financial administration	Sex Physical control	.0788622	.1144364	.0045888	1.35532
Sex End Exploitation	Sex 'Loverboy' Romance	Not concave			
Sex End Exploitation	Sex Physical assault	Not concave			
Sex End Exploitation	Sex Physical control	Not concave			

Sex End Exploitation	Sex Holding Passports	Not concave			
Sex End Exploitation	Sex Rape	Not concave			
Sex Recruitment	Sex Employment Offer	.0631763	.0735645	.0064475	.6190426
Sex Recruitment	Sex Financial Hardship	.1375711	.1403647	.0186226	1.016281
Sex Employment Offer	Sex Holding Passports	.2729163	.3072019	.0300535	2.478361
Sex Employment Offer	Sex Intimidation	109.8312	76.68268	27.953	431.5422
Sex Purchase and sale of victims	Sex Financial administration	.2301489	.2842365	.0204534	2.589719
Sex Purchase and sale of victims	Sex Holding Passports	.2007079	.2532633	.0169229	2.380419
Sex Strategy	Sex Holding Passports	.313649	.3387734	.0377623	2.605131

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Recruitment	Constrained					
End Exploitation	-.0841586	.0457943	-1.84	0.066	-.1739139	.0055966
Transportation	.1836185	.072913	2.52	0.012**	.0407116	.3265254
Travel preparation	.1982864	.0855009	2.32	0.020**	.0307078	.3658651

Purchase and sale of victims	-.1730333	.0749887	-2.31	0.021**	-.3200085	-.0260582
Harbouring	-.0787069	.084741	-0.93	0.353	-.2447963	.0873824
Financial administration	-.2100224	.1044115	-2.01	0.044**	-.4146652	-.0053797
Strategy	-.3039267	.1534602	-1.98	0.048**	-.6047032	-.0031502

Sexual Exploitation constrained by Recruitment Coefficient 5.998647 SE 2.610615 Conf. Int. 2.556289 14.07657 Log likelihood = -3166.1688

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Financial Hardship	Constrained					
End Exploitation	-.2250193	.2275497	-0.99	0.323	-.6710085	.2209698
Transportation	1.668687	.9447998	1.77	0.077	-.1830867	3.52046
Travel preparation	1.458091	.6521208	2.24	0.025**	.1799581	2.736224
Purchase and sale of victims	.3732729	.3849522	0.97	0.332	-.3812196	1.127765
Harbouring	.8784102	.6128759	1.43	0.152	-.3228044	2.079625
Financial administration	1.373818	.8067655	1.70	0.089	-.2074132	2.955049
Strategy	-1.367964	.9760879	-1.40	0.161	-3.281061	.5451331

Sexual Exploitation constrained by Financial Hardship Coefficient .3690434 SE .2846433 Conf. Int. .0813852 1.673437 Log likelihood = -2832.5347

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max

'Loverboy' Romance	Constrained					
End Exploitation	.2790469	.4187044	0.67	0.505	-.5415986	1.099692
Transportation	-2.428934	2.888458	-0.84	0.400	-8.090207	3.232339
Travel preparation	-1.798172	1.959264	-0.92	0.359	-5.638259	2.041916
Purchase and sale of victims	-.9064446	.9243649	-0.98	0.327	-2.718166	.9052773
Harbouring	-1.703375	1.817794	-0.94	0.349	-5.266186	1.859435
Financial administration	-2.565211	2.587345	-0.99	0.321	-7.636314	2.505892
Strategy	2.432076	2.612225	0.93	0.352	-2.687791	7.551942

Log likelihood = -2661.4386

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Transportation	Constrained					
Recruitment	5.445497	2.162178	2.52	0.012**	1.207707	9.683288
End Exploitation	-.45833	.2504538	-1.83	0.067	-.9492103	.0325504
Travel preparation	1.079888	.4040993	2.67	0.008***	.2878683	1.871908
Purchase and sale of victims	-.9423225	.4683772	-2.01	0.044**	-1.860325	-.0243201
Harbouring	-.4286259	.4842545	-0.89	0.376	-1.377747	.5204955

Financial administration	-1.143763	.6543798	-1.75	0.080	-2.426324	.1387975
Strategy	-1.655191	.8173342	-2.03	0.043**	-3.257137	-.0532455

Sexual Exploitation constrained by Transportation Coefficient .2022586 SE .1122746 CI .0681399 .6003612 Log likelihood = -3166.1689

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Travel preparation	Constrained					
Transportation	.9260233	.3465234	2.67	0.008***	.2468499	1.605197
Recruitment	5.042857	2.174349	2.32	0.020**	.7812107	9.304503
End Exploitation	-.4244257	.2347543	-1.81	0.071	-.8845358	.0356843
Purchase and sale of victims	-.872623	.4521979	-1.93	0.054	-1.758915	.0136685
Harbouring	-.3969238	.4509019	-0.88	0.379	-1.280675	.4868276
Financial administration	-1.059164	.6045335	-1.75	0.080	-2.244027	.1257003
Strategy	-1.532751	.8018913	-1.91	0.056	-3.104429	.0389268

Sexual Exploitation constrained by Travel preparation Coefficient .2358606 SE .1481566 CI .0688606 .8078677 Log likelihood = -3166.1689

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Purchase and sale of victims	Constrained					
Travel preparation	.9689546	.3195155	3.03	0.002***	.3427156	1.595194

Transportation	.7231078	.2535703	2.85	0.004***	.2261191	1.220096
Recruitment	2.239303	1.410151	1.59	0.112	-.5245424	-1.03401
End Exploitation	-.4112042	.1654052	-2.49	0.013**	-.7353924	-.087016
Harbouring	-.2272699	.338043	-0.67	0.501	-.8898221	.4352823
Financial administration	-.5247767	.4269149	-1.23	0.219	-1.361515	.3119611
Strategy	-.9419575	.5582322	-1.69	0.092	-2.036073	.1521575

Sexual Exploitation constrained by Purchase and sale of victims Coefficient .5463947 SE .2956801 CI .1891825 1.578091 Log likelihood = -3335.1894

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Harbouring	Constrained					
Transportation	4343.511	15847.33	0.27	0.784	-26716.69	35403.71
Recruitment	22264.92	81188.38	0.27	0.784	-136861.4	181391.2
End Exploitation	-1903.544	6987.33	-0.27	0.785	-15598.46	11791.37
Travel preparation	4679.615	17086.72	0.27	0.784	-28809.74	38168.97
Purchase and sale of victims	-4045.355	14798.64	-0.27	0.785	-33050.16	24959.45
Financial administration	-4465.359	16388.43	-0.27	0.785	-36586.1	27655.38
Strategy	-7082.994	25942.09	-0.27	0.785	-57928.56	43762.57

Log likelihood = -3166.6266

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Financial administration	Constrained					
Harbouring	-1647.754	7346.789	-0.22	0.823	-16047.2	12751.69
Transportation	8903.236	34598.51	0.26	0.797	-58908.6	76715.07
Recruitment	34354.85	133721.3	0.26	0.797	-227734.1	296443.8
End Exploitation	-3587.955	14009.52	-0.26	0.798	-31046.1	23870.19
Travel preparation	9161.82	35633.51	0.26	0.797	-60678.59	79002.23
Purchase and sale of victims	-6452.11	25171.96	-0.26	0.798	-55788.24	42884.02
Strategy	-13747.29	53573.21	-0.26	0.797	-118748.9	91254.28

Log likelihood = -3168.7016

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
End Exploitation	Constrained					
Transportation	-2.181835	1.191909	-1.83	0.067	-4.517933	.154263
Recruitment	-11.88104	6.462364	-1.84	0.066	-24.54704	.7849574
Travel preparation	-2.35614	1.302849	-1.81	0.071	-4.909677	.1973975

Purchase and sale of victims	2.055985	1.312691	1.57	0.117	-.5168426	4.628813
Harbouring	.935187	1.078595	0.87	0.386	-1.178821	3.049195
Financial administration	2.495495	1.658596	1.50	0.132	-.7552938	5.746284
Strategy	3.61135	2.351271	1.54	0.125	-.9970557	8.219757

Sexual Exploitation constrained by End Exploitation Coefficient .0424879 SE .040548 CI .0065453 .2758049 Log likelihood = -3166.1689

Sexual Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Strategy	Constrained					
Financial administration	.6910132	.4496744	1.54	0.124	-.1903325	1.572359
Harbouring	.258957	.3020039	0.86	0.391	-.3329596	.8508737
Transportation	-.6041605	.2982651	-2.03	0.043**	-1.188749	-.0195716
Recruitment	-3.289896	1.660579	-1.98	0.048**	-6.544571	-.0352212
End Exploitation	.2769045	.1802986	1.54	0.125	-.0764743	.6302833
Travel preparation	-.6524265	.3412569	-1.91	0.056	-1.321278	.0164247
Purchase and sale of victims	.569311	.3524478	1.62	0.106	-.1214741	1.260096

Sexual exploitation constrained by Strategy Coefficient .5541227 SE .4801188 CI .1014106 3.027808 Log likelihood = -3166.1689

Forced Labour latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

End Exploitation	Constrained					
Recruitment	-11.88104	6.462364	-1.84	0.066	-24.54704	.7849574
Transportation	-2.181835	1.191909	-1.83	0.067	-4.517933	.154263
Travel preparation	-2.35614	1.302849	-1.81	0.071	-4.909677	.1973975
Purchase and sale of victims	2.055985	1.312691	1.57	0.117	-.5168426	4.628813
Harbouring	.935187	1.078595	0.87	0.386	-1.178821	3.049195
Financial administration	2.495495	1.658596	1.50	0.132	-.7552938	5.746284
Strategy	3.61135	2.351271	1.54	0.125	-.9970557	8.219757

Forced Labour constrained by End Exploitation Coefficient .0424879 SE .040548 CI .0065453 .2758049 Log likelihood = -3166.1689

Forced Begging latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Physical control	Constrained					
End Exploitation	.7098146	.3803517	1.87	0.062	-.0356609	1.45529
Recruitment	-6.466632	3.812673	-1.70	0.090	-13.93933	1.00607
Transportation	-1.234091	.6619706	-1.86	0.062	-2.53153	.063347
Travel preparation	-1.354018	.7381993	-1.83	0.067	-2.800862	.092826
Purchase and sale of victims	1.257482	.7201922	1.75	0.081	-.1540688	2.669033

Harbouring	.6102032	.6351085	0.96	0.337	-.6345866	1.854993
Financial administration	1.702805	.9398136	1.81	0.070	-.1391957	3.544806
Strategy	1.915802	1.299702	1.47	0.140	-.6315664	4.46317

Forced Begging constrained by Physical control Coefficient .1266496 SE .1154661 CI .0212112 .7562092 Log likelihood = -3536.3642

Forced Begging latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Abduction	Constrained					
End Exploitation	.4352756	.3229693	1.35	0.178	-.1977326	1.068284
Recruitment	-5.415776	3.322866	-1.63	0.103	-11.92847	1.096922
Transportation	-.851018	.596858	-1.43	0.154	-2.020838	.3188022
Travel preparation	-1.02172	.6616252	-1.54	0.123	-2.318482	.2750413
Purchase and sale of victims	.9258602	.6227161	1.49	0.137	-.294641	2.146361
Harbouring	.4341499	.4896203	0.89	0.375	-.5254882	1.393788
Financial administration	1.080608	.797395	1.36	0.175	-.4822573	2.643474
Strategy	1.535492	1.124816	1.37	0.172	-.6691063	3.740091

Log likelihood = -3308.6245

Forced Begging latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

Transportation	Constrained					
End Exploitation	-.45833	.2504538	-1.83	0.067	-.9492103	.0325504
Recruitment	5.445497	2.162178	2.52	0.012**	1.207707	9.683288
Travel preparation	1.079888	.4040993	2.67	0.008***	.2878683	1.871908
Purchase and sale of victims	-.9423225	.4683772	-2.01	0.044**	-1.860325	-.0243201
Harbouring	-.4286259	.4842545	-0.89	0.376	-1.377747	.5204955
Financial administration	-1.143763	.6543798	-1.75	0.080	-2.426324	.1387975
Strategy	-1.655191	.8173342	-2.03	0.043**	-3.257137	-.0532455

Forced Begging constrained by Transportation Coefficient .2022586 SE .1122746 CI .0681399 .6003612 Log likelihood = -3166.1689

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Holding Passports	Constrained					
Sex Transportation	.2200798	.1727404	1.27	0.203	-.1184852	.5586447
Sex End Exploitation	.5788326	.257903	2.24	0.025**	.0733519	1.084313
Sex Travel preparation	.1103682	.1246329	0.89	0.376	-.1339078	.3546442
Sex Purchase and sale of victims	.390026	.2447849	1.59	0.111	-.0897436	.8697956
Sex Harbouring	.1887146	.1951529	0.97	0.334	-.1937781	.5712073

Sex Financial administration	.2128101	.2161518	0.98	0.325	-.2108396	.6364598
Sex Strategy	.0109176	.1728813	0.06	0.950	-.3279235	.3497587

Sex Recruitment constrained by Sex Holding passports Coefficient 4.872781 SE 4.170065 CI .9106036 26.07501 Log likelihood = -2388.0212

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Employment Offer	Constrained					
Sex Transportation	6.491332	4.630337	1.40	0.161	-2.583962	15.56663
Sex End Exploitation	1.381305	.9360002	1.48	0.140	-.4532219	3.215831
Sex Travel preparation	3.107972	1.798057	1.73	0.084	-.4161553	6.632099
Sex Purchase and sale of victims	2.725552	1.899978	1.43	0.151	-.9983358	6.44944
Sex Harbouring	4.62174	2.899854	1.59	0.111	-1.061869	10.30535
Sex Financial administration	3.639174	2.599611	1.40	0.162	-1.455971	8.734319
Sex Strategy	-2.081931	2.020205	-1.03	0.303	-6.04146	1.877598

Coefficient .0631763 Standard Error .0735645 Confidence Intervals .0064475 to .6190426 Log likelihood = -2690.4655

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Financial hardship	Constrained					
Sex Transportation	4.97496	3.404479	1.46	0.144	-1.697696	11.64762

Sex End Exploitation	.8744545	.5691599	1.54	0.124	-.2410783	1.989987
Sex Travel preparation	1.908889	1.082732	1.76	0.078	-.2132277	4.031005
Sex Purchase and sale of victims	1.878728	1.146232	1.64	0.101	-.3678458	4.125302
Sex Harbouring	2.922492	1.739363	1.68	0.093	-.4865964	6.331581
Sex Financial administration	2.521546	1.574542	1.60	0.109	-.5644997	5.607592
Sex Strategy	-1.270414	1.279043	-0.99	0.321	-3.777293	1.236466

Coefficient .1375711 Standard Error .1403647 Confidence Intervals .0186226 to 1.016281 Log likelihood = -2489.3666

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Debt Bondage	Constrained					
Sex Transportation	1.266386	.6308633	2.01	0.045**	.029917	2.502856
Sex End Exploitation	.5843385	.202944	2.88	0.004***	.1865756	.9821013
Sex Travel preparation	.7812056	.3499414	2.23	0.026**	.0953331	1.467078
Sex Purchase and sale of victims	.9489169	.391024	2.43	0.015**	.1825239	1.71531
Sex Harbouring	1.154552	.5748761	2.01	0.045**	.0278158	2.281289
Sex Financial administration	1.150748	.5471209	2.10	0.035**	.0784112	2.223086
Sex Strategy	-.6721614	.5088215	-1.32	0.186	-1.669433	.3251104

Sex Recruitment constrained by Debt Bondage Coefficient .8632243 SE .5778635 CI .2324388 3.205818 Log likelihood = -2427.7123

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	Constrained					
Sex End Exploitation	.2053902	.1170242	1.76	0.079	-.0239731	.4347535
Sex Travel preparation	.4246632	.2090874	2.03	0.042**	.0148595	.834467
Sex Purchase and sale of victims	.4467893	.2384079	1.87	0.061	-.0204816	.9140603
Sex Harbouring	.6785523	.3663857	1.85	0.064	-.0395504	1.396655
Sex Financial administration	.6024174	.3325569	1.81	0.070	-.0493821	1.254217
Sex Strategy	-.2986565	.2852395	-1.05	0.295	-.8577156	.2604026

Sex Recruitment constrained by Sex Transportation Coefficient 2.752747 SE 1.902245 CI .7104866 10.66539 Log likelihood = -2200.6655

Sex Recruitment latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Travel preparation	Constrained					
Sex Transportation	2.355135	1.159818	2.03	0.042**	.0819344	4.628336
Sex End Exploitation	.4836619	.2262017	2.14	0.033**	.0403147	.9270091
Sex Purchase and sale of victims	1.052116	.4215965	2.50	0.013**	.2258021	1.87843
Sex Harbouring	1.597845	.606937	2.63	0.008***	.4082705	2.78742

Sex Financial administration	1.418585	.6273678	2.26	0.024**	.1889663	2.648203
Sex Strategy	-.7032895	.6239231	-1.13	0.260	-1.926156	.5195772

Sex Recruitment constrained by Sex Travel preparation Coefficient .4963839 SE .2728016 CI .1690504 1.457536 Log likelihood = -2200.6655

Sex Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Travel preparation	Constrained					
Sex Transportation	2.355135	1.159818	2.03	0.042**	.0819344	4.628336
Sex End Exploitation	.4836619	.2262017	2.14	0.033**	.0403147	.9270091
Sex Purchase and sale of victims	1.052116	.4215965	2.50	0.013**	.2258021	1.87843
Sex Harbouring	1.597845	.606937	2.63	0.008***	.4082705	2.78742
Sex Financial administration	1.418585	.6273678	2.26	0.024**	.1889663	2.648203
Sex Strategy	-.7032895	.6239231	-1.13	0.260	-1.926156	.5195772

Sex Employment Offer constrained by Sex Travel preparation Coefficient .4963839 SE .2728016 CI .1690504 1.457536 Log likelihood = -2200.6655

Sex Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Holding Passports	Constrained					
Sex Recruitment	1.462681	.8032803	1.82	0.069	-.1117199	3.037081
Sex Travel preparation	1.583744	.9249597	1.71	0.087	-.2291433	3.396632

Sex Transportation	3.527037	2.744731	1.29	0.199	-1.852537	8.906612
Sex End Exploitation	.8449098	.4246432	1.99	0.047**	.0126244	1.677195
Sex Purchase and sale of victims	1.187171	.6992749	1.70	0.090	-.1833827	2.557725
Sex Harbouring	1.795149	1.151583	1.56	0.119	-.4619127	4.05221
Sex Financial administration	1.06271	.8609432	1.23	0.217	-.6247076	2.750128
Sex Strategy	-.9050613	.9004922	-1.01	0.315	-2.669993	.8598709

Coefficient .2729163 Standard Error .3072019 Confidence Intervals .0300535 to 2.478361 Log likelihood = -3020.8714

Sex Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Intimidation	Constrained					
Sex Recruitment	.0637558	.0240396	2.65	0.008***	.016639	.1108726
Sex Travel preparation	.0410762	.0189062	2.17	0.030**	.0040208	.0781316
Sex Transportation	.0502995	.0205087	2.45	0.014**	.0101031	.0904959
Sex End Exploitation	.1275601	.0447173	2.85	0.004***	.0399157	.2152044
Sex Purchase and sale of victims	.0457403	.0214128	2.14	0.033**	.003772	.0877086
Sex Harbouring	.0310938	.0225878	1.38	0.169	-.0131775	.0753651
Sex Financial administration	.0274601	.0242153	1.13	0.257	-.0200009	.0749212

Sex Strategy	-.0061658	.029601	-0.21	0.835	-.0641826	.051851

Coefficient 109.8312 Standard Error 76.68268 Confidence Intervals 27.953 to 431.5422 Log likelihood = -3146.5691

Sex Employment Offer latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Debt Bondage	Constrained					
Sex Recruitment	.7930879	.260737	3.04	0.002***	.2820528	1.304123
Sex Travel preparation	.8526907	.3100072	2.75	0.006***	.2450877	1.460294
Sex Transportation	1.249045	.5592346	2.23	0.026**	.1529653	2.345125
Sex End Exploitation	.4605758	.1502235	3.07	0.002***	.1661431	.7550085
Sex Purchase and sale of victims	.5436231	.2378997	2.29	0.022**	.0773481	1.009898
Sex Harbouring	.8294878	.3771767	2.20	0.028**	.0902349	1.568741
Sex Financial administration	.4689846	.3084567	1.52	0.128	-.1355795	1.073549
Sex Strategy	-.6050005	.3823912	-1.58	0.114	-1.354473	.1444724

Sex Employment Offer constrained by Sex Debt Bondage Coefficient 1.196838 SE .6930089 CI .3847348 3.723139 Log likelihood = -3058.4648

Sex Financial Hardship latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	Constrained					
Sex Travel preparation	.4246632	.2090874	2.03	0.042**	.0148595	.834467

Sex End Exploitation	.2053902	.1170242	1.76	0.079	-.0239731	.4347535
Sex Purchase and sale of victims	.4467893	.2384079	1.87	0.061	-.0204816	.9140603
Sex Harbouring	.6785523	.3663857	1.85	0.064	-.0395504	1.396655
Sex Financial administration	.6024174	.3325569	1.81	0.070	-.0493821	1.254217
Sex Strategy	-.2986565	.2852395	-1.05	0.295	-.8577156	.2604026

Sex Financial Hardship constrained by Sex Transportation Coefficient 2.752747 SE 1.902245 CI .7104866 10.66539 Log likelihood = -2200.6655

Sex 'Loverboy' Romance latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex End Exploitation	Constrained					
Sex Travel preparation	2.067617	.9668581	2.14	0.032**	.1726103	3.962624
Sex Transportation	4.869167	2.774065	1.76	0.079	-.5679005	10.30623
Sex Purchase and sale of victims	2.175332	.9784217	2.22	0.026**	.257661	4.093004
Sex Harbouring	3.303732	1.553778	2.13	0.033**	.2583831	6.349081
Sex Financial administration	2.933051	1.460011	2.01	0.045**	.0714825	5.79462
Sex Strategy	-1.454103	1.359451	-1.07	0.285	-4.118578	1.210372

Sex 'Loverboy' Romance constrained by Sex End Exploitation Coefficient .1161186 SE .0887096 CI .0259789 .5190187 Log likelihood = -2200.6655

Sex 'Loverboy' Romance latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

Sex Physical control	Constrained					
Sex End Exploitation	.722802	.2159571	3.35	0.001***	.2995338	1.14607
Sex Travel preparation	.401014	.3376381	1.19	0.235	-.2607446	1.062773
Sex Transportation	.6280451	.5087341	1.23	0.217	-.3690555	1.625146
Sex Purchase and sale of victims	.8813448	.4988599	1.77	0.077	-.0964027	1.859092
Sex Harbouring	.8084415	.5981931	1.35	0.177	-.3639954	1.980878
Sex Financial administration	.9202113	.6391192	1.44	0.150	-.3324394	2.172862
Sex Strategy	-.3784272	.4311111	-0.88	0.380	-1.223389	.466535

Sex 'Loverboy' Romance constrained by Sex Physical control Coefficient 1.334309 SE 1.158414 CI .2433684 7.315579 Log likelihood = -2503.6708

Sex Abduction latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Physical control	Constrained					
Sex Recruitment	2.316382	1.761907	1.31	0.189	-1.136893	5.769657
Sex Transportation	6.440991	6.26496	1.03	0.304	-5.838105	18.72009
Sex End Exploitation	1.3972	.8902628	1.57	0.117	-.3476826	3.142084
Sex Travel preparation	2.738958	1.98456	1.38	0.168	-1.150709	6.628624
Sex Purchase and sale of victims	2.06224	1.46873	1.40	0.160	-.8164171	4.940898

Sex Financial administration	2.140953	1.729083	1.24	0.216	-1.247988	5.529894
Sex Strategy	-1.829263	1.788586	-1.02	0.306	-5.334827	1.676302

Log likelihood = -3142.2577

Sex Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	Constrained					
Sex Harbouring	.4979295	.3259716	1.53	0.127	-.1409631	1.136822
Sex Recruitment	.3827084	.2661023	1.44	0.150	-.1388425	.9042594
Sex Travel preparation	.4082709	.3017147	1.35	0.176	-.1830791	.9996209
Sex End Exploitation	.1542566	.1039931	1.48	0.138	-.0495662	.3580794
Sex Financial administration	.236354	.1415651	1.67	0.095	-.0411086	.5138166
Sex Strategy	-.2388117	.2350696	-1.02	0.310	-.6995397	.2219163

Sex Purchase and sale of victims constrained by Sex Transportation Coefficient 4.117929 SE 4.06676 CI .5943666 28.53011 Log likelihood = -2541.9531

Sex Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Financial administration	Constrained					
Sex Transportation	4.231716	2.535758	1.67	0.095	-.7382792	9.20171
Sex Harbouring	2.106044	1.454215	1.45	0.148	-.7441657	4.956253

Sex Recruitment	1.618607	1.24393	1.30	0.193	-.8194508	4.056664
Sex Travel preparation	1.726668	1.348402	1.28	0.200	-.9161521	4.369488
Sex End Exploitation	.6524587	.4900179	1.33	0.183	-.3079587	1.612876
Sex Strategy	-1.010057	1.046373	-0.97	0.334	-3.06091	1.040797

Coefficient .2301489 Standard Error .2842365 Confidence Intervals .0204534 to 2.589719 Log likelihood = -2541.9531

Sex Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Holding Passports	Constrained					
Sex Transportation	3.553722	2.853039	1.25	0.213	-2.038132	9.145576
Sex Harbouring	2.233853	1.612594	1.39	0.166	-.926774	5.39448
Sex Recruitment	2.007506	1.204864	1.67	0.096	-.353985	4.368997
Sex Travel preparation	1.980784	1.308221	1.51	0.130	-.5832828	4.544851
Sex End Exploitation	.8893414	.5205212	1.71	0.088	-.1308613	1.909544
Sex Financial administration	.8239461	.9599041	0.86	0.391	-1.057431	2.705324
Sex Strategy	-.9574673	1.07437	-0.89	0.373	-3.063195	1.14826

Coefficient .2007079 Standard Error .2532633 Confidence Intervals .0169229 to 2.380419 Log likelihood = -2728.8753

Sex Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max

Sex Physical control	Constrained					
Sex Transportation	8.997638	10.38796	0.87	0.386	-11.36238	29.35766
Sex Harbouring	5.426737	5.42348	1.00	0.317	-5.203087	16.05656
Sex Recruitment	4.07353	4.157235	0.98	0.327	-4.074502	12.22156
Sex Travel preparation	4.419064	4.469111	0.99	0.323	-4.340233	13.17836
Sex End Exploitation	1.857931	1.715585	1.08	0.279	-1.504553	5.220416
Sex Financial administration	2.453934	2.821613	0.87	0.384	-3.076327	7.984195
Sex Strategy	-2.510653	3.165268	-0.79	0.428	-8.714464	3.693157

Log likelihood = -2850.3583

Sex Purchase and sale of victims latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Rape	Constrained					
Sex Transportation	4.106046	3.414324	1.20	0.229	-2.585906	10.798
Sex Harbouring	1.950642	1.282036	1.52	0.128	-.5621025	4.463387
Sex Recruitment	1.524262	.9516447	1.60	0.109	-.3409272	3.389451
Sex Travel preparation	1.57498	1.028868	1.53	0.126	-.4415644	3.591524
Sex End Exploitation	.693398	.4288231	1.62	0.106	-.1470799	1.533876

Sex Financial administration						
Sex Financial administration	.9114712	.8385986	1.09	0.277	-.7321519	2.555094
Sex Strategy	-.9848336	.921446	-1.07	0.285	-2.790835	.8211673

Log likelihood = -2667.409

Sex Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Physical control	Constrained					
Sex Transportation	5.759412	4.927086	1.17	0.242	-3.897498	15.41632
Sex Purchase and sale of victims	1.977244	1.460573	1.35	0.176	-.8854279	4.839915
Sex Recruitment	2.891787	2.211879	1.31	0.191	-1.443415	7.226989
Sex Travel preparation	3.305759	2.472434	1.34	0.181	-1.540122	8.151641
Sex End Exploitation	1.539522	1.008845	1.53	0.127	-.4377778	3.516821
Sex Harbouring	3.332591	2.537726	1.31	0.189	-1.641261	8.306442
Sex Strategy	-2.092185	2.040101	-1.03	0.305	-6.09071	1.90634

Log likelihood = -2984.5268

Sex Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Transportation	Constrained					
Sex Purchase and sale of victims	.2733708	.1283935	2.13	0.033**	.0217242	.5250174

Sex Recruitment	.4421212	.2035904	2.17	0.030**	.0430913	.8411511
Sex Travel preparation	.489244	.2467654	1.98	0.047**	.0055926	.9728953
Sex End Exploitation	.1930987	.0947947	2.04	0.042**	.0073046	.3788928
Sex Harbouring	.4911094	.2265179	2.17	0.030**	.0471424	.9350763
Sex Strategy	-.3168612	.242853	-1.30	0.192	-.7928444	.159122

Sex Financial administration constrained by Sex Transportation Coefficient 3.370889 SE 2.165652 CI .9569384 11.87422 Log likelihood = -2676.6251

Sex Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Purchase and sale of victims	Constrained					
Sex Transportation	3.658471	1.718245	2.13	0.033**	.2907718	7.02617
Sex Recruitment	1.617188	.7418245	2.18	0.029**	.163239	3.071138
Sex Travel preparation	1.78953	.8197155	2.18	0.029**	.1829174	3.396143
Sex End Exploitation	.7063342	.3358136	2.10	0.035**	.0481516	1.364517
Sex Harbouring	1.796431	.8849076	2.03	0.042**	.0620445	3.530818
Sex Strategy	-1.159014	.8599009	-1.35	0.178	-2.844389	.5263605

Sex Financial administration constrained by Sex Purchase and sale of victims Coefficient .2519189 SE .1869761 CI .0588156 1.079019 Log likelihood = -2676.6251

Sex Financial administration latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max

Sex Harbouring	Constrained					
Sex Transportation	2.036116	.9389033	2.17	0.030**	.1958996	3.876333
Sex Purchase and sale of victims	.5566277	.2742195	2.03	0.042**	.0191674	1.094088
Sex Recruitment	.9002406	.3306731	2.72	0.006***	.2521332	1.548348
Sex Travel preparation	.9961939	.3663547	2.72	0.007***	.2781519	1.714236
Sex End Exploitation	.3931834	.1725061	2.28	0.023**	.0550776	.7312892
Sex Strategy	-.6451865	.4726537	-1.37	0.172	-1.571571	.2811978

Sex Financial administration constrained by Sex Harbouring Coefficient .8130389 SE .4813465 CI .2547834 2.594486 Log likelihood = -2676.6251

Sex End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Intimidation	Constrained					
Sex Transportation	2.187258	1.153555	1.90	0.058	-.0736678	4.448183
Sex Purchase and sale of victims	.6986647	.3896338	1.79	0.073	-.0650035	1.462333
Sex Recruitment	1.422868	.4323461	3.29	0.001***	.5754855	2.270251
Sex Travel preparation	1.375025	.5037765	2.73	0.006***	.3876408	2.362408
Sex Financial administration	.6836691	.562489	1.22	0.224	-.4187891	1.786127
Sex Harbouring	1.2563	.6319532	1.99	0.047**	.0176947	2.494906

Sex Strategy	-.7079898	.6029842	-1.17	0.240	-1.889817	.4738375

Sex End Exploitation constrained by Sex Intimidation coefficient .468499 SE .2974845 CI .134964 1.626295 Log likelihood = -2564.3179

Sex End Exploitation latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	Conf. Int. max
Sex Debt Bondage	Constrained					
Sex Transportation	2.019985	1.040807	1.94	0.052	-.0199585	4.059928
Sex Purchase and sale of victims	.6630115	.3367299	1.97	0.049**	.0030329	1.32299
Sex Recruitment	1.10193	.3740816	2.95	0.003***	.3687432	1.835116
Sex Travel preparation	1.228482	.4508209	2.72	0.006***	.3448893	2.112075
Sex Financial administration	.7009893	.4715797	1.49	0.137	-.2232899	1.625269
Sex Harbouring	1.188441	.5524388	2.15	0.031**	.1056807	2.271201
Sex Strategy	-.8972982	.5756316	-1.56	0.119	-2.025515	.2309189

Sex End Exploitation constrained by Sex Debt Bondage Coefficient .6024793 SE .3966038 CI .1658089 2.189155 Log likelihood = -2459.2753

Sex Strategy latent variable	Coefficient	Standard Error	z statistic	p-value of z	95% Confidence interval min	CI max
Sex Holding Passports	Constrained					
Sex Transportation	3.259357	2.509119	1.30	0.194	-1.658426	8.177139
Sex Purchase and sale of victims	1.093331	.6223822	1.76	0.079	-.1265154	2.313178

Sex Recruitment	1.353601	.714164	1.90	0.058	-.0461346	2.753337
Sex Travel preparation	1.478002	.8312545	1.78	0.075	-.1512274	3.10723
Sex Financial administration	1.001584	.7954869	1.26	0.208	-.5575418	2.56071
Sex Harbouring	1.692084	1.051285	1.61	0.107	-.3683961	3.752564
Sex End Exploitation	.8066364	.3854981	2.09	0.036**	.051074	1.562199

Coefficient .313649 Standard Error .3387734 Confidence Intervals .0377623 to 2.605131 Log likelihood = -2912.9151

SEM Indirect Effects Analysis

Variable creating indirect effect	Variable through which the flow of the indirect effect travels	Variable indirectly affected	Coefficient (Standard Error)	Z-statistic	P-value of Z	95% Confidence Intervals
Sex Recruitment	Sex Transportation	Sex Travel preparation	.01 (.00)	2.66	0.008***	.00 .02
Sex Recruitment	Sex Transportation	Sex Abduction	.01 (.00)	3.87	0.00***	.00 .01
Sex Recruitment	Sex Transportation	Sex Harbouring	.01 (.00)	3.24	0.00***	.00 .02
Sex Recruitment	Sex Transportation	Sex Financial administration	.01 (.00)	3.17	0.00***	.00 .01
Sex Recruitment	Sex Transportation	Sex Purchase and sale of victims	.01 (.00)	3.02	0.00***	.00 .02
Sex Recruitment	Sex Transportation	Sex Employment Offer	-.01 (.00)	-2.70	0.007***	-.02 -.00

Sex Recruitment	Sex Transportation	Sex Physical control	-.00 (.00)	-0.75	0.45	-.01 .00
Sex Recruitment	Sex Debt Bondage	Sex Transportation	.00 (.00)	0.15	0.88	-.00 .01
Sex Recruitment	Sex Debt Bondage	Sex Travel preparation	.00 (.00)	1.27	0.21	-.00 .01
Sex Recruitment	Sex Debt Bondage	Sex End Exploitation	.02 (.01)	3.35	0.00***	.01 .03
Sex Recruitment	Sex Debt Bondage	Sex Purchase and sale of victims	.01 (.00)	1.84	0.07	-.00 .01
Sex Recruitment	Sex Debt Bondage	Sex Financial administration	.00 (.00)	1.87	0.06	-.00 .01
Sex Recruitment	Sex Debt Bondage	Sex Harbouring	-.00 (.00)	-0.05	0.96	-.00 .00
Sex Recruitment	Sex Debt Bondage	Sex Intimidation	.02 (.01)	3.65	0.00***	.01 .03
Sex Recruitment	Sex Debt Bondage	Sex Physical control	.02 (.00)	3.61	0.00***	.01 .03
Sex Recruitment	Sex Debt Bondage	Sex Employment Offer	0 (no path)			
Sex Recruitment	Sex Travel preparation	Sex Financial administration	-.00 (.00)	-0.61	0.54	-.00 .00
Sex Recruitment	Sex Travel preparation	Sex End Exploitation	.00 (.00)	0.22	0.83	-.01 .01
Sex Recruitment	Sex Travel preparation	Sex Harbouring	.01 (.00)	2.34	0.02**	.00 .01
Sex Recruitment	Sex Travel preparation	Sex Purchase and sale of victims	.01 (.00)	1.79	0.07	-.00 .01

Sex Recruitment	Sex Travel preparation	Sex Transportation	.01 (.00)	2.69	0.007***	.00 .02
Sex Recruitment	Sex Financial administration	Sex Transportation	-.01 (.00)	-1.99	0.047**	-.01 -.00
Sex Recruitment	Sex Financial administration	Sex Harbouring	-.00 (.00)	-1.93	0.053	-.01 .00
Sex Recruitment	Sex Financial administration	Sex Purchase and sale of victims	-.00 (.00)	-1.88	0.06	-.01 .00
Sex Recruitment	Sex Holding Passports	Sex Employment Offer	.01 (.00)	2.14	0.03**	.00 .01
Sex Recruitment	Sex Holding Passports	Sex Physical assault	.01 (.002)	2.72	0.006***	.00 .02
Sex Recruitment	Sex Holding Passports	Sex Physical control	.01 (.00)	2.44	0.015**	.00 .01
Sex Recruitment	Sex Holding Passports	Sex Purchase and sale of victims	.01 (.00)	2.27	0.02**	.00 .01
Sex Recruitment	Sex Holding Passports	Sex End Exploitation	.02 (.01)	2.70	0.007***	.01 .03
Sex Recruitment	Sex Intimidation	Sex Employment Offer	.01 (.00)	2.44	0.014**	.00 .02
Sex Recruitment	Sex Intimidation	Sex Physical assault	.05 (.01)	5.31	0.00***	.03 .06
Sex Recruitment	Sex Intimidation	Sex End Exploitation	.05 (.01)	4.97	0.00***	.03 .08
Sex Recruitment	Sex Intimidation	Sex Physical control	.02 (.01)	4.22	0.00***	.01 .03
Sex Recruitment	Sex Intimidation	Sex Debt Bondage	.02 (.00)	4.29	0.00***	.01 .03
Sex Employment Offer	Sex Debt Bondage	Sex Recruitment	.01 (.01)	1.56	0.12	-.00 .02

Sex Employment Offer	Sex Debt Bondage	Sex Transportation	.00 (.01)	0.94	0.35	-.01 .02
Sex Employment Offer	Sex Debt Bondage	Sex Travel preparation	.01 (.00)	1.34	0.18	-.00 .01
Sex Employment Offer	Sex Debt Bondage	Sex Purchase and sale of victims	.01 (.00)	2.02	0.04**	.00 .02
Sex Employment Offer	Sex Debt Bondage	Sex Harbouring	-.00 (.00)	-0.12	0.91	-.01 .00
Sex Employment Offer	Sex Debt Bondage	Sex End Exploitation	.03 (.01)	3.64	0.00***	.01 .05
Sex Employment Offer	Sex Debt Bondage	Sex Physical control	.02 (.01)	3.96	0.00***	.01 .04
Sex Employment Offer	Sex Debt Bondage	Sex Intimidation	.02 (.01)	3.94	0.00***	.01 .04
Sex Employment Offer	Sex Travel preparation	Sex Recruitment	.01 (.00)	2.17	0.03**	.00 .02
Sex Employment Offer	Sex Travel preparation	Sex Financial administration	-.00 (.00)	-0.75	0.45	-.00 .00
Sex Employment Offer	Sex Travel preparation	Sex End Exploitation	.00 (.00)	0.39	0.70	-.01 .01
Sex Employment Offer	Sex Travel preparation	Sex Purchase and sale of victims	.01 (.00)	1.77	0.08	-.00 .01
Sex Employment Offer	Sex Travel preparation	Sex Harbouring	.01 (.00)	2.15	0.03**	.00 .01
Sex Employment Offer	Sex Travel preparation	Sex Transportation	.01 (.01)	2.63	0.009***	.00 .03
Sex Employment Offer	Sex Holding Passports	Sex End Exploitation	.03 (.01)	3.64	0.00***	.02 .05
Sex Employment Offer	Sex Holding Passports	Sex Physical assault	.02 (.01)	3.69	0.00***	.01 .03

Sex Employment Offer	Sex Holding Passports	Sex Physical control	.01 (.00)	3.12	0.00***	.01 .02
Sex Employment Offer	Sex Holding Passports	Sex Purchase and sale of victims	.01 (.00)	2.83	0.005***	.00 .02
Sex Employment Offer	Sex Intimidation	Sex Physical assault	.06 (.01)	5.33	0.00***	.04 .08
Sex Employment Offer	Sex Intimidation	Sex Debt Bondage	.02 (.01)	4.27	0.00***	.01 .03
Sex Employment Offer	Sex Intimidation	Sex End Exploitation	.07 (.01)	5.00	0.00***	.04 .09
Sex Employment Offer	Sex Intimidation	Sex Physical control	0 (no path)			
Sex Employment Offer	Sex 'Loverboy' Romance	Sex Physical control	-.00 .00	-1.67	0.09	-.01 .00
Sex Employment Offer	Sex 'Loverboy' Romance	Sex End Exploitation	-.01 (.00)	-1.70	0.09	-.02 .00
Sex Employment Offer	Sex Purchase and sale of victims	Sex Physical control	-.01 (.00)	-1.40	0.16	-.02 .00
Sex Employment Offer	Sex Purchase and sale of victims	Sex Holding Passports	-.00 (.00)	-1.55	0.12	-.01 .00
Sex Employment Offer	Sex Purchase and sale of victims	Sex Transportation	-.01 (.00)	-1.52	0.13	-.01 .00
Sex Employment Offer	Sex Purchase and sale of victims	Sex Financial administration	-.00 (.00)	-1.49	0.14	-.01 .00
Sex Financial Hardship	Sex Transportation	Sex Travel preparation	.01 (.01)	1.90	0.06	-.00 .02
Sex Financial Hardship	Sex Transportation	Sex Financial administration	.00 (.00)	1.80	0.07	-.00 .01
Sex Financial Hardship	Sex Transportation	Sex End Exploitation	.01 (.01)	1.57	0.12	-.00 .02

Sex Financial Hardship	Sex Transportation	Sex Harbouring	.01 (.00)	1.89	0.06	-.00 .01
Sex Financial Hardship	Sex Transportation	Sex Purchase and sale of victims	.01 (.00)	1.81	0.07	-.00 .02
Sex Financial Hardship	Sex Transportation	Sex Abduction	.01 (.00)	1.97	0.049**	.00 .01
Sex Financial Hardship	Sex Transportation	Sex Recruitment	.02 (.01)	2.01	0.045**	.00 .04
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Travel preparation	.00 (.01)	0.43	0.67	-.01 .01
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Financial administration	-.00 (.00)	-0.00	1.0	-.01 .01
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Transportation	.01 (.01)	1.73	0.08	-.00 .03
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Harbouring	.00 (.00)	1.15	0.25	-.00 .01
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Purchase and sale of victims	.01 (.01)	1.99	0.047**	.00 .03
Sex 'Loverboy' Romance	Sex Physical control	Sex Purchase and sale of victims	.02 (.01)	2.20	0.03**	.00 .03
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Debt Bondage	.02 (.01)	2.54	0.011**	.00 .04
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Physical assault	.04 (.02)	2.76	0.006***	.01 .08
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Rape	.01 (.00)	2.41	0.02**	.00 .02
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Intimidation	.05 (.02)	2.77	0.006***	.02 .09

Sex 'Loverboy' Romance	Sex End Exploitation	Sex Holding Passports	.02 (.01)	2.66	0.008***	.01 .04
Sex 'Loverboy' Romance	Sex End Exploitation	Sex Physical control	.03 (.01)	2.64	0.008***	.01 .05
Sex 'Loverboy' Romance	Sex Physical control	Sex Holding Passports	.02 (.01)	2.43	0.015**	.00 .03
Sex 'Loverboy' Romance	Sex Physical control	Sex End Exploitation	.05 (.02)	2.66	0.008***	.01 .09
Sex 'Loverboy' Romance	Sex Physical control	Sex Abduction	.01 (.00)	2.35	0.02**	.00 .02
Sex 'Loverboy' Romance	Sex Physical control	Sex Debt Bondage	.02 (.01)	2.63	0.009***	.01 .04
Sex Abduction	Sex Transportation	Sex Harbouring	.02 (.01)	2.92	0.00***	.01 .04
Sex Abduction	Sex Transportation	Sex Employment Offer	.02 (.01)	1.45	0.15	-.01 .05
Sex Abduction	Sex Transportation	Sex Recruitment	.10 (.03)	3.78	0.00***	.05 .15
Sex Abduction	Sex Transportation	Sex Travel preparation	.05 (.014525)	3.23	0.00***	.02 .08
Sex Abduction	Sex Transportation	Sex Purchase and sale of victims	.03 (.01)	2.56	0.01**	.01 .05
Sex Abduction	Sex Transportation	Sex Financial administration	.02 (.01)	2.69	0.007***	.01 .04
Sex Abduction	Sex Transportation	Sex Physical control	-.01 (.01)	-1.37	0.17	-.03 .01
Sex Abduction	Sex Physical control	Sex End Exploitation	.08 (.02)	3.52	0.00***	.04 .13
Sex Abduction	Sex Physical control	Sex Debt Bondage	.04 (.01)	3.48	0.00***	.02 .07

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Sex Abduction	Sex Physical control	Sex 'Loverboy' Romance	.01 (.01)	2.28	0.02**	.00 .03
Sex Abduction	Sex Physical control	Sex Holding Passports	.03 (.01)	3.01	0.00***	.01 .04
Sex Abduction	Sex Rape	Sex Employment Offer	.06 (.03)	1.96	0.05	-.00 .12
Sex Abduction	Sex Rape	Sex End Exploitation	.13 (.04)	3.61	0.00***	.06 .20
Sex Abduction	Sex Rape	Sex Holding Passports	.07 (.02)	4.17	0.00***	.04 .11
Sex Travel preparation	Sex Recruitment	Sex Debt Bondage	.01 (.00)	3.01	0.00***	.00 .02
Sex Travel preparation	Sex Recruitment	Sex Intimidation	.02 (.01)	3.43	0.00***	.01 .04
Sex Travel preparation	Sex Recruitment	Sex Holding Passports	.01 (.00)	2.53	0.01**	.00 .02
Sex Travel preparation	Sex Recruitment	Sex Financial administration	-.01 (.00)	-1.99	0.047**	-.01 -.00
Sex Travel preparation	Sex Recruitment	Sex Transportation	.03 (.01)	3.40	0.00***	.01 .05
Sex Travel preparation	Sex Transportation	Sex Abduction	.01 (.00)	3.18	0.00***	.00 .02
Sex Travel preparation	Sex Transportation	Sex Employment Offer	.00 (.01)	0.91	0.36	-.01 .01
Sex Travel preparation	Sex Transportation	Sex Recruitment	.03 (.01)	3.29	0.00***	.01 .05
Sex Travel preparation	Sex Transportation	Sex Purchase and sale of victims	.01 (.00)	2.49	0.01**	.00 .02
Sex Travel preparation	Sex Transportation	Sex Financial administration	.01 (.00)	2.62	0.009***	.00 .01

Sex Travel preparation	Sex Transportation	Sex Physical control	-.00 (.00)	-0.77	0.44	-.01 .00
Sex Travel preparation	Sex Transportation	Sex Harbouring	.01 (.00)	2.72	0.007***	.00 .02
Sex Travel preparation	Sex Harbouring	Sex Transportation	.01 (.01)	2.23	0.03**	.00 .02
Sex Travel preparation	Sex Harbouring	Sex Financial administration	.01 (.0026514)	2.20	0.03**	.00 .01
Sex Transportation	Sex Abduction	Sex Rape	.02 (.00)	4.38	0.00***	.01 .03
Sex Transportation	Sex Abduction	Sex Physical control	.02 (.00)	3.21	0.00***	.01 .02
Sex Transportation	Sex Employment Offer	Sex Holding Passports	.00 (.00)	1.31	0.19	-.00 .01
Sex Transportation	Sex Employment offer	Sex Travel preparation	.00 (.00)	1.27	0.20	-.00 .01
Sex Transportation	Sex Employment Offer	Sex Intimidation	.01 (.00)	1.33	0.18	-.00 .01
Sex Transportation	Sex Employment Offer	Sex Debt Bondage	.00 (.00)	1.32	0.19	-.00 .01
Sex Transportation	Sex Employment Offer	Sex 'Loverboy' romance	-.00 (.00)	-1.16	0.25	-.00 .00
Sex Transportation	Sex Employment Offer	Sex Purchase and sale of victims	-.00 (.00)	-1.10	0.27	-.01 .00
Sex Transportation	Sex Recruitment	Sex Financial administration	-.01 (.00)	-2.69	0.007***	-.01 -.00
Sex Transportation	Sex Recruitment	Sex Holding Passports	.01 (.00)	2.73	0.006***	.00 .02
Sex Transportation	Sex Recruitment	Sex Intimidation	.03 (.01)	4.04	0.00***	.01 .04

Sex Transportation	Sex Recruitment	Sex Travel preparation	.02 (.01)	3.12	0.00***	.01 .03
Sex Transportation	Sex Recruitment	Sex Debt Bondage	.02 (.00)	3.46	0.00***	.01 .02
Sex Transportation	Sex Travel preparation	Sex Recruitment	.02 (.01)	2.75	0.006***	.01 .03
Sex Transportation	Sex Purchase and sale of victims	Sex Financial administration	.00 (.00)	2.17	0.03**	.00 .01
Sex Transportation	Sex Purchase and sale of victims	Sex Holding Passports	.01 (.00)	2.43	0.02**	.00 .01
Sex Transportation	Sex Purchase and sale of victims	Sex Physical control	.01 (.00)	2.33	0.02**	.00 .01
Sex Transportation	Sex Financial administration	Sex Harbouring	.01 (.00)	2.20	0.03**	.00 .01
Sex Transportation	Sex Financial administration	Sex Recruitment	-.01 (.01)	-2.21	0.03**	-.02 -.00
Sex Transportation	Sex Financial administration	Sex Purchase and sale of victims	.01 (.00)	2.15	0.03**	.00 .01
Sex Transportation	Sex Harbouring	Sex Travel preparation	.01 (.00)	2.03	0.04**	.00 .02
Sex Transportation	Sex Harbouring	Sex Financial administration	.01 (.00)	2.38	0.02**	.00 .01
Sex Transportation	Sex Physical control	Sex 'Loverboy' Romance	-.00 (.00)	-0.75	0.45	-.00 .00
Sex Transportation	Sex Physical control	Sex End Exploitation	-.01 (.01)	-0.77	0.44	-.02 .01
Sex Transportation	Sex Physical control	Sex Holding Passports	-.00 (.00)	-0.76	0.45	-.01 .00
Sex Transportation	Sex Physical control	Sex Debt Bondage	-.00 (.00)	-0.77	0.44	-.01 .00

Sex Harbouring	Sex Transportation	Sex Abduction	.01 (.00)	2.98	0.00***	.00 .02
Sex Harbouring	Sex Transportation	Sex Employment offer	.01 (.01)	1.19	0.23	-.01 .03
Sex Harbouring	Sex Transportation	Sex Recruitment	.05 (.02)	3.27	0.00***	.02 .09
Sex Harbouring	Sex Transportation	Sex Travel preparation	.02 (.01)	2.74	0.006***	.01 .04
Sex Harbouring	Sex Transportation	Sex Purchase and sale of victims	.02 (.01)	2.61	0.009***	.00 .03
Sex Harbouring	Sex Transportation	Sex Financial administration	.01 (.00)	2.31	0.02**	.00 .02
Sex Harbouring	Sex Transportation	Sex Physical control	-.01 (.01)	-0.93	0.35	-.02 .01
Sex Harbouring	Sex Travel preparation	Sex Recruitment	.03 (.01)	2.37	0.02**	.01 .05
Sex Harbouring	Sex Travel preparation	Sex Transportation	.02 (.01)	2.28	0.02**	.00 .04
Sex Harbouring	Sex Financial administration	Sex Transportation	.02 (.01)	2.17	0.03**	.00 .04
Sex Harbouring	Sex Financial administration	Sex Recruitment	-.02 (.01)	-1.97	0.048**	-.04 .00
Sex Harbouring	Sex Financial administration	Sex Purchase and sale of victims	.02 (.01)	2.36	0.02**	.00 .03
Sex Purchase and sale of victims	Sex Financial administration	Sex Harbouring	.01 (.00)	2.35	0.02**	.00 .02
Sex Purchase and sale of victims	Sex Financial administration	Sex Transportation	.01 (.01)	2.15	0.03**	.00 .03

Sex Purchase and sale of victims	Sex Holding Passports	Sex Employment Offer	.02 (.01)	2.76	0.006***	.01 .04
Sex Purchase and sale of victims	Sex Holding Passports	Sex Physical assault	.03 (.01)	3.16	0.00***	.01 .04
Sex Purchase and sale of victims	Sex Holding Passports	Sex End Exploitation	.04 (.01)	3.10	0.00***	.01 .06
Sex Purchase and sale of victims	Sex Holding Passports	Sex Physical control	.01 (.01)	2.63	0.008***	.00 .03
Sex Purchase and sale of victims	Sex Transportation	Sex Harbouring	.01 (.00)	2.58	0.01**	.00 .02
Sex Purchase and sale of victims	Sex Transportation	Sex Abduction	.01 (.00)	2.69	0.007***	.00 .01
Sex Purchase and sale of victims	Sex Transportation	Sex Employment Offer	.01 (.01)	1.41	0.16	-.00 .02
Sex Purchase and sale of victims	Sex Transportation	Sex Recruitment	.03 (.01)	2.91	0.004***	.01 .06
Sex Purchase and sale of victims	Sex Transportation	Sex Travel preparation	.02 (.01)	2.55	0.01**	.00 .03
Sex Purchase and sale of victims	Sex Transportation	Sex Financial administration	.01 (.00)	2.20	0.03**	.00 .01
Sex Purchase and sale of victims	Sex Transportation	Sex Physical control	-.00 (.00)	-1.06	0.29	-.01 .00

Sex Purchase and sale of victims	Sex Physical control	Sex Holding Passports	.01 (.00)	2.49	0.01**	.00 .02
Sex Purchase and sale of victims	Sex Physical control	Sex Abduction	.01 (.00)	2.48	0.01**	.00 .01
Sex Purchase and sale of victims	Sex Physical control	Sex End Exploitation	.03 (.01)	2.87	0.00***	.01 .06
Sex Purchase and sale of victims	Sex Physical control	Sex Debt Bondage	.02 (.01)	2.82	0.005***	.01 .03
Sex Purchase and sale of victims	Sex Physical control	Sex 'Loverboy' Romance	.01 (.00)	2.22	0.03**	.00 .01
Sex Financial administration	Sex Transportation	Sex Recruitment	.05 (.02)	2.87	0.00***	.02 .09
Sex Financial administration	Sex Transportation	Sex End Exploitation	.02 (.01)	1.87	0.06	-.00 .04
Sex Financial administration	Sex Transportation	Sex Travel preparation	.02 (.01)	2.58	0.01**	.01 .04
Sex Financial administration	Sex Transportation	Sex Abduction	.01 (.00)	2.68	0.007***	.00 .02
Sex Financial administration	Sex Transportation	Sex Employment Offer	.01 (.01)	1.39	0.16	-.00 .03
Sex Financial administration	Sex Transportation	Sex Purchase and sale of victims	.01 (.01)	2.21	0.03**	.00 .03

Sex Financial administration	Sex Transportation	Sex Physical control	-.01 (.01)	-0.99	0.32	-.02 .01
Sex Financial administration	Sex Transportation	Sex Harbouring	.01 (.01)	2.41	0.02**	.00 .02
Sex Financial administration	Sex Purchase and sale of victims	Sex Transportation	.02 (.01)	2.19	0.03**	.00 .04
Sex Financial administration	Sex Purchase and sale of victims	Sex Travel preparation	.01 (.01)	1.67	0.10	-.00 .02
Sex Financial administration	Sex Purchase and sale of victims	Sex End Exploitation	.02 (.01)	2.01	0.045**	.00 .04
Sex Financial administration	Sex Purchase and sale of victims	Sex Recruitment	-.00 (.01)	-0.42	0.68	-.02 .01
Sex Financial administration	Sex Purchase and sale of victims	Sex Holding Passports	.01 (.01)	2.35	0.02**	.00 .02
Sex Financial administration	Sex Purchase and sale of victims	Sex Physical control	.01 (.01)	2.16	0.03**	.00 .03
Sex Financial administration	Sex Purchase and sale of victims	Sex Harbouring	-.01 (.00)	-1.34	0.18	-.01 .00
Sex Financial administration	Sex Harbouring	Sex Recruitment	.01 (.01)	0.96	0.34	-.01 .03
Sex Financial administration	Sex Harbouring	Sex End Exploitation	.01 (.01)	1.15	0.25	-.01 .03

Sex Financial administration	Sex Harbouring	Sex Travel preparation	.02 (.01)	2.22	0.03**	.00 .03
Sex Financial administration	Sex Harbouring	Sex Transportation	.03 (.01)	2.46	0.01**	.01 .05
Sex Financial administration	Sex Harbouring	Sex Purchase and sale of victims	-.01 (.01)	-1.35	0.18	-.019 .00
Sex Financial administration	Sex Recruitment	Sex Transportation	-.03 (.01)	-2.19	0.03**	-.06 -.00
Sex Financial administration	Sex Recruitment	Sex Holding Passports	-.01 (.00)	-1.84	0.07	-.02 .00
Sex Financial administration	Sex Recruitment	Sex Intimidation	-.02 (.01)	-2.17	0.03**	-.04 -.00
Sex Financial administration	Sex Recruitment	Sex Travel preparation	-.02 (.01)	-2.06	0.04**	-.03 -.00
Sex Financial administration	Sex Recruitment	Sex Debt Bondage	-.01 (.01)	-2.08	0.04**	-.03 -.00
Sex End Exploitation	Sex Debt Bondage	Sex Recruitment	.02 (.01)	3.29	0.00***	.01 .04
Sex End Exploitation	Sex Debt Bondage	Sex Purchase and sale of victims	.01 (.00)	1.45	0.15	-.00 .01
Sex End Exploitation	Sex Debt Bondage	Sex Harbouring	-.00 (.00)	-0.16	0.88	-.01 .00
Sex End Exploitation	Sex Debt Bondage	Sex Transportation	.00 (.00)	0.78	0.44	-.01 .01

Sex End Exploitation	Sex Debt Bondage	Sex Travel preparation	.01 (.00)	1.76	0.08	-.00 .02
Sex End Exploitation	Sex Intimidation	Sex Recruitment	.06 (.01)	4.78	0.00***	.04 .08
Sex End Exploitation	Sex Intimidation	Sex Purchase and sale of victims	.01 (.01)	1.04	0.30	-.01 .02
Sex End Exploitation	Sex Intimidation	Sex Harbouring	-.00 (.00)	-0.92	0.36	-.01 .01
Sex End Exploitation	Sex Intimidation	Sex Transportation	.01 (.01)	0.58	0.56	-.01 .02
Sex End Exploitation	Sex Intimidation	Sex Travel preparation	.01 (.01)	1.16	0.25	-.01 .02
Sex End Exploitation	Sex 'Loverboy' Romance	Sex Physical control	.00 (.00)	1.81	0.07	-.00 .01
Sex End Exploitation	Sex Physical control	Sex Purchase and sale of victims	.01 (.00)	2.50	0.01**	.00 .02
Sex End Exploitation	Sex Physical control	Sex Holding Passports	.01 (.00)	2.72	0.006***	.00 .02
Sex End Exploitation	Sex Physical control	Sex Abduction	.01 (.00)	3.19	0.00***	.00 .01
Sex End Exploitation	Sex Physical control	Sex Debt Bondage	.02 (.00)	4.19	0.00***	.01 .03
Sex End Exploitation	Sex Physical control	Sex 'Loverboy' Romance	.01 (.00)	2.21	0.03**	.00 .01
Sex End Exploitation	Sex Holding Passports	Sex Physical control	.01 (.00)	2.72	0.007***	.00 .02
Sex End Exploitation	Sex Holding Passports	Sex Employment Offer	.03 (.01)	3.61	0.00***	.01 .04
Sex End Exploitation	Sex Holding Passports	Sex Physical assault	.02 (.01)	4.36	0.00***	.01 .03

Sex End Exploitation	Sex Intimidation	Sex Physical control	.03 (.01)	3.94	0.00***	.01 .04
Sex End Exploitation	Sex Intimidation	Sex Employment Offer	.05 (.01)	5.05	0.00***	.03 .07
Sex End Exploitation	Sex Intimidation	Sex Physical assault	.08 (.01)	8.25	0.00***	.06 .10
Sex End Exploitation	Sex Intimidation	Sex Debt Bondage	.03 (.01)	5.10	0.00***	.02 .04
Sex End Exploitation	Sex Physical assault	Sex Holding Passports	.03 (.01)	4.92	0.00***	.02 .04
Sex End Exploitation	Sex Physical assault	Sex Intimidation	.08 (.01)	8.09	0.00***	.06 .10
Sex End Exploitation	Sex Debt Bondage	Sex Employment Offer	.02 (.01)	3.63	0.00***	.01 .04
Sex End Exploitation	Sex Debt Bondage	Sex Physical control	.02 (.00)	3.76	0.00***	.01 .03
Sex End Exploitation	Sex Debt Bondage	Sex Intimidation	.02 (.01)	3.95	0.00***	.01 .03
Sex End Exploitation	Sex Rape	Sex Abduction	.02 (.00)	4.25	0.00***	.01 .02
Sex End Exploitation	Sex Rape	Sex Holding Passports	.01 (.00)	2.68	0.007***	.00 .01

Chapter 8   Works Cited

Agresti, A., 2018. *Statistical Methods for the Social Sciences.* 5th Global ed. s.l.:Pearson.

Akee, R. Basu, A. K. a. Chau, N. H., 2014. Transnational Trafficking, Law Enforcement and Victim Protection: A Middleman Trafficker's Perspective. *The Journal of Law & Economics,* 57(2), pp. 349 - 386.

Albanese, J., 2007. A Criminal Network Approach to Understanding & Measuring Trafficking in Human Beings. In: E. a. S. S. Savona, ed. *Measuring Human Trafficking, Complexities and Pitfalls.* New York: Springer.

Albanese, J. S., 2018. Countering Transnational Crime and Corruption: The Urge to Action Versus the Patience to Evaluate. *JUSTICE EVALUATION JOURNAL.*

Aromaa, K., 2007. Trafficking in Human Beings: Uniform Definitions for Better Measuring and for Effective Counter-Measures. In: E. a. S. S. Savona, ed. *Measuring Human Trafficking, Complexities and Pitfalls.* New York: Springer.

Azad, A., 2016. Recruitment of Migrant Workers in Bangladesh: Elements of Human Trafficking for Labour Exploitation. *Journal of Human Trafficking,* Volume 5, pp. 130 - 150.

Baarda, C. S., 2016. Human trafficking for sexual exploitation from Nigeria into Western Europe: The role of voodoo rituals in the functioning of a criminal network. *European Journal of Criminology,* Volume 13, pp. 257 - 273.

Baer, K., 2015. The Trafficking Protocol and the Anti-Trafficking Framework: Insufficient to address exploitation. *Anti-Trafficking Review,* Issue 4, pp. 167 - 172.

Bhabha, J., 2015. Looking Back, Looking Forward: The UN Trafficking Protocol at fifteen. *Anti-Trafficking Review,* Issue 4, pp. 3 - 12.

Boslaugh, S., 2013. *Statistics in a Nutshell.* s.l.:O'Reilly Media Inc..

Brayley, H. and Cockbain, E., 2014. British Children Can Be Trafficked Too: Towards An Inclusive Definition Of Internal Child Sex Trafficking. *Child Abuse Review,* Volume 23, pp. 171 - 184.

Brayley, H. Cockbain, E. and Laycock, G., 2011. The Value of Crime Scripting: Deconstructing Internal Child Sex Trafficking. *Policing,* 5(2), pp. 132 - 143.

Broad, R., 2015. 'A Vile and Violent Thing': Female Traffickers and the Criminal Justice Response. *BRIT. J. CRIMINOL.,* Volume 55, pp. 1058 - 1075.

Broad, R., 2018. Assessing Convicted Traffickers: Negotiating Migration, Employment and Opportunity Through Restricted Networks. *The Howard Journal,* 00(0), pp. 1 - 20.

Brunovskis, A. and Surtees, R., 2010. *Untold Stories: Biases and Selection Effects in Research with Victims of Trafficking for Sexual Exploitation,* s.l.: International Organization for Migration.

Brunovskis, A. and Surtees, R., 2019. Identifying trafficked migrants and refugees along the Balkan route. Exploring the boundaries of exploitation, vulnerability and risk. *Crime, Law and Social Change,* Volume 72, pp. 73 - 86.

C. N. & V. v. France (2012), ECtHR, 67724/09.

Campana, P., 2016a. The structure of human trafficking: lifting the bonnet on a Nigerian transnational network. *BRIT. J. CRIMINOL.,* Volume 56, pp. 68 - 86.

Campana, P. and Varese, F., 2016b. Exploitation in Human Trafficking and Smuggling. *Eur. J. Crim. Policy Res.,* Volume 22, pp. 89 - 105.

Chuang, J., 2014. Exploitation Creep and the Unmaking of Human Trafficking Law. *The American Journal of International Law,* 108(4), pp. 609 - 649.

Cockbain, E. and Bowers, K., 2019. Human trafficking for sex, labour and domestic servitude: how do key trafficking types compare and what are their predictors?. *Crime, Law and Social Change,* Volume 72, pp. 9 - 34.

Cockbain, E. and Wortley, R., 2015. Everyday atrocities: does internal (domestic) sex trafficking of British children satisfy the expectation of opportunity theories of crime?. *CrimeSci,* Volume 4, p. 35.

Cockbain, E., Bowers, K. and Dimitrova, G., 2018. Human trafficking for labour exploitation: the results of a two-phase systematic review mapping the European evidence base and synthesising key scientific research evidence. *J Exp Criminol,* pp. https://doi.org/10.1007/s11292-017-9321-3.

Connor - Linton, J., 2010. *Chi-Square Test,* s.l.: SAGE Publications Inc..

Coomaraswamy, R., 2000. *Report of the Special Rapporteur, Ms Radhika Coomaraswamy, on violence against women, it causes and consequences, on trafficking in women, women's migration and violence against women,* s.l.: United Nations.

Cornell, 2019. *Cornell Law School.* [Online]
Available at: www.law.cornell.edu/wex
[Accessed 3 July 2019].

Cottrell, C. A. and Neuberg, S. L., 2005. Different Emotional Reactions to Different Groups: A Sociofunctional Threat-Based Approach to "Prejudice". *Journal of Personality and Social Psychology,* Volume 88(5), pp. 770 - 789.

Council of Europe Convention on Action Against Trafficking in Human Beings (2005).

Crown Prosecution Service (CPS), 2017. *Legal Guidance: Human Trafficking, Smuggling and Slavery,* s.l.: s.n.

Datta, M. N. and Bales, K., 2013. Slavery in Europe: Part 1, Estimating the Dark Figure. *Human Rights Quarterly,* 35(4), pp. 817 - 829.

David, F., 2017. Building the Infrastructure of Anti-Trafficking, Part II: Why measurement matters. *Anti-Trafficking Review,* Issue 8, pp. 148 - 152.

De Cuir-Gunby, J. T., Marshall, P. L. and McCullock, A. W., 2011. Developing and Using a Codebook for the Analysis of Interview Data: An Example from a Professional Development Research Project. *Field Methods,* Volume 23(2), pp. 136 - 155.

Dempsey, M. M., 2017. What Counts as Trafficking for Sexual Exploitation? How Legal Methods Can Improve Empirical Research. *Journal of Human Trafficking,* Volume 3:1, pp. 61 - 80.

Digidiki, V. and Bhabha, J., 2017. *Emergency Within an Emergency: The Growing Epidemic of Sexual Exploitation and Abuse of Migrant Children in Greece,* s.l.: Harvard University.

Dunkerley, A. W., 2017. Exploring the use of juju in Nigerian human trafficking networks: consideration for criminal justice investigators. *Police Practice and Research,* 19(1), pp. 83 - 100.

E.C., 2012. *The EU Strategy towards the Eradication of Trafficking in Human Beings 2012 - 2016,* s.l.: s.n.

EC, 2018. *TURKEY STATEMENT: Two years on,* s.l.: s.n.

Eck, J. E. and Clarke, R. V., 2013. *Intelligence Analysis for Problem Solvers,* s.l.: s.n.

Esser, L. B. and Dettmijer-Vermeulen, C. E., 2016. The Prominent Role of National Judges in Interpreting the International Definition of Human Trafficking. *Anti-Trafficking Review,* Issue 6, pp. 91 - 105.

European Convention for the Protection of Human Rights and Fundamental Freedoms (1950).

European Union Directive 2011/36/EU (2011).

EUROPOL, 2018. *Joint Investigation Teams,* s.l.: s.n.

Ezeilo, J. N., 2015. Achievements of the Trafficking Protocol: Perspectives from the former UN Special Rapporteur on Trafficking in Persons. *Anti-Trafficking Review,* Issue 4, pp. 144 - 149.

FATF, 2020. *Financial Action Task Force.* [Online]
Available at: www.fatf-gafi.org
[Accessed 2020].

FATF-APG, 2018. *Financial Flows from Human Trafficking,* Paris: Financial Action Task Force.

Feingold, D. A., 2017. Playing the Numbers: The supurious promise of global trafficking statistics. *Anti-Trafficking Review,* Issue 8, pp. 153 - 156.

Felson, M. and Clarke, R., 2012. Comments on the Special Issue. *Trends Organ. Crim.,* Volume 15, pp. 215 - 221.

Fry, L. J., 2009. What was the significance of Countries ratifying the UN Protocol against Human trafficking? A research note. *International Journal of Criminal Justice Sciences,* Volume 4:2, pp. 118 - 130.

Gallagher, A., 2010. *The International Law of Human Trafficking.* s.l.:Cambridge University Press.

Gallagher, A., 2017. What's Wrong with the Global Slavery Index?. *Anti-Trafficking Review,* Issue 8, pp. 90 - 112.

Gallagher, A. and Ezeilo, N. J., 2015. The UN Special Rapporteur on Trafficking: A Turbulent Decade in Review. *Human Rights Quarterly,* Volume 37, pp. 913 - 940.

Gearon, A., 2016. *Child trafficking: Experiences of children on the move.* PhD Thesis ed. s.l.:University of Bath.

Gomez-Mera, L., 2017. The Global Governance of Trafficking in Persons: Toward a Transnational Regime Complex. *Journal of Human Trafficking,* Volume 3:4, pp. 303 - 326.

Goodey, J., 2008. Human Trafficking: Sketchy data and policy responses. *Criminology & Criminal Justice,* 8(4), pp. 421 - 442.

Gough, P., Bednarz, T., de Berigny C. and Roberts, J., 2016. *A Process for Non-Expert User Visualisation Design,* Sydney: Design Lab, The University of Sydney, ACEMS, Queensland University of Tehnology, CSIRO.

Grant, M. J., Button, C. M. and Snook, B., 2017. An Evaluation of Interrater Reliability Measures on Binary Tasks Using d-Prime. *Applied Psychological Measurement,* 41(4), pp. 264 - 276.

GRETA, 2017a. *Report concerning the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Belgium,* s.l.: Council of Europe.

GRETA, 2017b. *Report concerning the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Bulgaria,* s.l.: Council of Europe.

GRETA, 2019. *Council of Europe.* [Online]
Available at: https://www.coe.int/en/web/anti-human-trafficking/home
[Accessed 2019].

GRETA, 2019. *Reply to Questionnaire from the Czech Republic,* s.l.: Council of Europe.

Higgins, G. E., 2002. General Theory of Crime and Deviance: A Structural Equation Modeling Approach. *Journal of Crime and Justice,* 25(2), pp. 71 - 95.

HMG, 2020. *Biometric passports and passport readers.* [Online]
Available at: www.gov.uk/government/publications/biometric-passports-and-passport-readers/biometric-passports-and-passport-readers
[Accessed 7 October 2020].

ILO, 2012. *Hard to See, Harder to Count: Survey guidelines to estimate forced labour of adults and children,* s.l.: s.n.

Iniguez de Heredia, M., 2008. People Trafficking: Conceptual issues with the United Nations Trafficking Protocol 2000. *Hum. Rights Rev.,* Volume 9, pp. 299 - 316.

International Labour Organization 'Labour Convention No. 29' (done 28th June 1930).

JMLSG, 2014. *Joint Money Laundering Steering Group Guidance Notes.* [Online]
Available at: www.jmlsg.org.uk
[Accessed 2014].

Kahneman, D., 2011. *Thinking, Fast and Slow.* s.l.:Penguin.

Kangaspunta, K., 2007. Collecting Data on Human Trafficking: Availability, Reliability and Comparability. In: Savona, E. and Steffanizzi,, ed. *Measuring Human Trafficking, Complexities and Pitfalls.* New York: Springer.

Kangaspunta, K., 2015. Was Trafficking in Persons Really Criminalised?. *Anti-Trafficking Review,* Issue 4, pp. 80 - 97.

Kateri, M. and Agresti, A., 2010. *Categorical Data Analysis,* s.l.: s.n.

Kelemen, K. and Johansson, M., 2013. Still Neglecting the Demand That Fuels Human Trafficking: A Study Comparing the Criminal Laws and Practice of Five European States on Human Trafficking, Purchasing Sex from Trafficked Adults and from Minors. *European Journal of Crime, Criminal Law and Criminal Justice,* Volume 21, pp. 247 - 289.

Kleemans, E. R., 2011a. Expanding the domain of human trafficking research: introduction to the special issue on human trafficking. *Trends Organ Crim,* Volume 14, pp. 95 - 99.

Kleemans, E. R., 2011b. Human Smuggling and Human Trafficking. In: M. Tonry, ed. *The Oxford Handbook of Crime and Public Policy.* s.l.:OUP.

Lehti, M. and Aromaa, K., 2006. Trafficking for Sexual Exploitation. *Crime & Justice,* Volume 34, p. 133.

Levi, M., 2015. Money for Crime and Money from Crime: Financing Crime and Laundering Crime Proceeds. *Eur. J. Crim. Policy Res.,* Volume 21, pp. 275 - 297.

M and Others v. Italy and Bulgaria (2012), ECtHR, 40020/03

Marcus, A., Horning, A., Curtis, R., Sanson, J. and Thomson, E., 2014. Conflict and agency among sex workers and pimps: A closer look at domestic minor sex trafficking. *The ANNALS of the American Academy of Political and Social Science,* Volume 653, pp. 225 - 246.

Martinez - Lopez, F. J., Gazquez-Abad, J. C. and Sousa, C. M. P., 2010. Structural equation modelling in marketing and business research: Critical issues and practical recommendations. *European Journal of Marketing,* Volume 47, pp. 115 - 152.

Meeting: Crime and Policing Analysis Unit, Home Office (2016).

Meeting: Head of Modern Slavery Unit, National Crime Agency (2016).

Meeting: representative from Joint Money Laundering Intelligence Taskforce (2016).

NASA, 2015. *Bernoulli's Equation,* s.l.: s.n.

O Brhane, M., 2015. Trafficking in Persons for Ransom and the Need to Expand the Interpretation of Article 3 of the UN Trafficking Protocol. *Anti-Trafficking Review,* Issue 4, pp. 120 - 141.

O'Connell Davidson, J., 2013. Troubling freedom: Migration, debt and modern slavery. *Migration Studies,* Volume 1, pp. 176 - 195.

OHCHR, 2020. *United Nations Human Rights Office of the High Commissioner.* [Online]
Available at:
https://www.ohchr.org/EN/Professionalinterest/Pages/Protocol2014ForcedLabourConvention.aspx
[Accessed 10 October 2020].

Oxford, 2019. *Oxford Advanced Learner's Dictionary.* [Online]
Available at: www.oxfordlearnersdictionaries.com
[Accessed July 2019].

Parkes, C., 2015. The Trafficking Protocol has Advanced the Global Movement against Human Exploitation: The case of the United Kingdom. *Anti-Trafficking Review,* Issue 4, pp. 150 - 155.

Patterson, O. and Zhuo, X., 2018. Modern Trafficking, Slavery and Other Forms of Servitude. *Annual Review of Sociology,* Volume 44, pp. 407 - 439.

Petrunov, G., 2011. Managing Money acquired from human trafficking: case study of sex trafficking from Bulgaria to Western Europe. *Trends Organ. Crim.,* Volume 14, pp. 165 - 183.

Pevalin, D. and Robson, K., 2009. *The STATA Survival Manual.* s.l.:Open University Press.

Piper, N., Segrave, M. and Napier-Moore, R., 2015. Editorial: What's in a Name? Distinguishing forced labour, trafficking and slavery. *Anti-Trafficking Review,* Issue 5, pp. 1 - 9.

Planitzer, J., 2012. GRETA's First Years of Work: Review of the monitoring of implementation of the Council of Europe Convention against Trafficking in Human Beings. *Anti-Trafficking Review,* Issue 1, pp. 31 - 42.

Plant, R., 2015. Forced Labour, Slavery and Human Trafficking: When do definitions matter?. *Anti-Trafficking Review,* Issue 5, pp. 153 - 157.

Preacher, K. J., Rucker, D. D. and Hayes, A., 2007. Addressing Moderated Mediation Hypotheses: Theory, Methods and Prescriptions. *MULTIVARIATE BEHAVIOURAL RESEARCH,* Volume 42(1), pp. 185 - 227.

Prosecutor v. Kunarac, Kovac and Vukovic (2002) International Criminal Tribunal for the Former Yugoslavia, IT-96-23&IT-96-23/1-A, A. Ch. 12.

R. v. Tang (2008), 28th August 2008, High Court of Australia, unreported.

Rantseva v. Cyprus and Russia (2010), ECtHR, 25965/04

Robinson, C., Branchini, C. and Thame, C., 2017. Global Trafficking Prevalence Data Advances the Fight against Trafficking in Persons. *Anti-Trafficking Review,* Issue 8, pp. 157 - 160.

Salt, J., 2000. Trafficking and Human Smuggling: A European Perspective. *International Migration Special,* Issue 2000, pp. 31 - 56.

Siegel, D. and de Blank, S., 2010. Women who traffick women: the role of women in human trafficking networks - Dutch cases. *Global Crime,* 11(4), pp. 436 - 447.

Siliadin v. France (2005), ECtHR, 73316/01

Skilbrei, M.-L. and Tveit, M., 2008. Defining Trafficking through Empirical Work: Blurred Boundaries and the Consequences. *Gender Technology and Development,* 12(1), pp. 9 - 30.

Stanford, 2020. *Stanford Children's Hospital.* [Online]
Available at: https://www.stanfordchildrens.org/en/topic/default?id=understanding-the-teen-brain-1-3051
[Accessed 14 Oct 2020].

STATA, 2013. *Structural Equation Modeling,* s.l.: s.n.

Stoyanova, V., 2015a. Origins, Context and the Currently Valid Law. In: *Human Trafficking and Slavery Reconsidered.* s.l.:Cambridge University Press.

Stoyanova, V., 2015b. The Relationship between the Concept of Human Trafficking and the Concepts of Slavery, Servitude and Forced Labour. In: *Human Trafficking and Slavery Reconsidered.* s.l.:Cambridge University Press.

Stoyanova, V., 2015. The Definition of Human Trafficking in International Law. In: *Human Trafficking Slavery Reconsidered.* s.l.:Cambridge University Press.

Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery (1957).

Surtees, R., 2008. Traffickers and Trafficking in Southern and Eastern Europe: Considering the Other Side of Human Trafficking. *European Journal of Criminology,* 5(1), pp. 39 - 68.

Toch, H., 2017. *Violent Men: An Inquiry Into the Psychology of Violence.* 25th Anniversary Edition ed. Washington D.C.: American Psychological Association.

Training: Reliability & Validity in Statistics, Institute of Child Health Care, UCL (2018).

United Nations Convention Against Transnational Organized Crime (2000).

United Nations Resolution 9/1 Mechanism for the Review of the Implementation of the United Nations Convention against Transnational Organized Crime and the Protocols thereto (2018).

UNODC, 2012. *A Comprehensive Strategy to Combat Trafficking in Persons and Smuggling of Migrants,* s.l.: s.n.

UNODC, 2013. *Issue Paper: Abuse of a position of vulnerability and other "means" within the definition of trafficking in persons,* s.l.: United Nations Office of Drugs & Crime.

UNODC, 2014. *Issue Paper: The Role of 'Consent' in the Trafficking in Persons Protocol,* s.l.: United Nations Office of Drugs & Crime.

UNODC, 2015a. *Role of recruitment fees and abusive and fraudulent practices of recruitment agencies in trafficking in persons,* s.l.: United Nations Office of Drugs & Crime.

UNODC, 2015b. *Issue Paper: The Concept of 'Exploitation' in the Trafficking in Persons Protocol',* s.l.: United Nations Office of Drugs & Crime.

UNODC, 2016. *Estimation for estimating the number of victims of human trafficking across the world: BAsed on a paper written by Jan van Dijk and Peter G.M. van der Heijden.* s.l.:UNODC.

UNODC, 2017. *SHERLOC newsletter*, December.

UNODC, 2017. *SHERLOC.* [Online]
Available at: www.sherloc.unodc.org
[Accessed 2015 - 2017].

UNODC, 2019. [Online]
Available at: www.unodc.org
[Accessed April 2019].

van der Wilt, H., 2014. *Trafficking in Human Beings, Enslavement, Crimes Against Humanity: Unravelling the Concepts.* s.l.:Oxford Journal.

van Riesen, M. a. R. C., 2015. Sinai Trafficking: Origin and Definition of.a New Form of Human Trafficking. *Social Inclusion,* 3(1), pp. 113 - 124.

Wallis, L., 2013. Is 25 the new cut-off point for adulthood?. *BBC News*, 23 September, pp. https://www.bbc.co.uk/news/magazine-247173194.

Weitzer, R., 2007. The Social Construction of Sex Trafficking: Ideology and Institutionalization of a Moral Crusade. *POLITICS & SOCIETY,* 35(3), pp. 447 - 475.

Weitzer, R., 2014. In this Issue: Human trafficking: Recent empirical research. *The Annals of American Academy of Political and Social Science,* Annals 6(May), p. 653.

Weitzer, R., 2015. Human Trafficking and Contemporary Slavery. *Annual Review,* Volume 41, pp. 223 - 242.

Wijers, M., 2015. Purity, Victimhood and Agency: Fifteen years of the UN Trafficking Protocol. *Anti-Trafficking Review,* Issue 4, pp. 56 - 79.

Zhang, S. X., 2009. Beyond the 'Natasha' story - a review and critique on current research on sex trafficking. *Global Crime,* 10(3), pp. 178 - 195.

Chapter 9   Bibliography

Abu Dhabi Global Markets; Autorite des marches financiers (Quebec, Canada); Australian Securities & Investments Commission; Central Bank of Bahrain; Bureau of Consumer Financial Protection (USA); Dubai Financial Services Authority; Financial Conduct Authority, UK; Guernsey Financial Services Commission; Hong Kong Monetary Authority; Monetary Authority of Singapore; Ontario Securities Commission; Consultative Group to Assist the Poor (World Bank) 'Global Financial Innovation Network' Consultation August 2018 downloaded 11th August 2018

AFP in Paris 'France to raise the age of consent after men escape rape charges' The Guardian 5th March 2018

Afzal, N. 'We need a police force that is fit for purpose' The Times 17th July 2017

Agresti, A. 'Statistical Methods for the Social Sciences' 5th Edition Global Edition Pearson, 2018

Akee, R., Basu, A.K. Bedi, A., Chau, N. H. 'Transnational Trafficking, Law Enforcement and Victim Protection: A Middleman Trafficker's Perspective' The Journal of Law & Economics, Vol. 57, No. 2 (May 2014) pp. 349 - 386

Albanese, J. 'A Criminal Network Approach to Understanding & Measuring Trafficking in Human Beings' Chapter 7 in E Savona and S Stefanizzi, 'Measuring Human Trafficking, Complexities and Pitfalls', Springer, New York, 2007

Albanese, J. S. 'Countering Transnational Crime and Corruption: The Urge to Action Versus the Patience to Evaluate' (2018) JUSTICE EVALUATION JOURNAL DOI 10.1080/24751979.1478234

Anderson, T.J., Schum, A., Twining, W.L., 'Analysis of Evidence' (2005) Cambridge University Press.

Ardizzi, G., De Franceschis, P. and Giammatteo, M. 'Cash payment anomalies and money laundering: An econometric analysis of Italian municipalities' International Review of Law and Economics 56(2018) 105-121

Arnold, M. and Greenhalgh, H. 'Banking biometrics: hacking into your account is easier than you think' The Financial Times 4th November 2016

Arnold, M. 'Cryptocurrency companies forced to bank outside UK' The Financial Times 23rd October 2017

Arnold, M. 'FCA urged to be tougher on RBS and StanChart over 1MDB' The Financial Times 12th March 2018

Arnold, M. 'HSBC brings in AI to help spot money laundering' The Financial Times 8th April 2018

Arnold, M. 'ING's CFO quits over money laundering scandal' The Financial Times, 11th September 2018

Arnold, M. 'Japanese banks to offer instant money transfers using blockchain' The Financial Times, 30th September 2018

Arnold, M. et al 'Robots enter investment banks' trading floors' The Financial Times 7th July 2017

Arnold, M. et al 'Spain arrests alleged mastermind of cyber bank heist gang' The Financial Times 26th March 2018

Arnold, M. 'TransferWise plans further price cuts' The Financial Times, 10th September 2018

Arnold, M. 'TransferWise to offer cross-border bank accounts' The Financial Times, 23rd May 2017

Arnold, M. and O'Murchu, C. 'Two ex-StanChart staff face Iran sanctions charges' The Financial Times, 8th October 2018

Arnold, M. 'UK fintech sector in buoyant mood as valuations soar' The Financial Times, 7th September 2018

Arnold, M. 'US lifts threat of prosecution against HSBC' The Financial Times 11th December 2017

Aromaa, K. 'Trafficking in Human Beings: Uniform Definitions for Better Measuring and for Effective Counter-Measures' Chapter 3 in E Savona and S Stefanizzi, 'Measuring Human Trafficking, Complexities and Pitfalls', Springer, New York, 2007

Aronowitz, A. 'Smuggling and Trafficking in Human Beings: The Phenomenon, The Markets that Drive it and the Organizations that Promote it' European Journal on Criminal Policy and Research 9, 2 P. 163 2001

Associated Press 'French girl, 11, 'not a child' say lawyers for man, 29, accused of sexual abuse' The Guardian, 14th February 2018

Associated Press 'Pregnant Cambodian women charged with surrogacy and human trafficking' World news, The Guardian, 7th July 2018

Atkins, R. 'Credit Suisse censured by watchdog over anti-money laundering failings' The Financial Times, 17th September 2018

Atkins, R. 'Switzerland's banks try to put the past behind them' The Financial Times, 4th September 2018

Authers, J. 'Finance, the media and a catastrophic breakdown in trust' The Financial Times, 4th October 2018

Awrey, D. and Zwieten, K. van 'The Shadow Payment System' 43 Journal of Corporation Law due for publication – article dated 21st April 2017

Azad, A. 'Recruitment of Migrant Workers in Bangladesh: Elements of Human Trafficking for Labour Exploitation' Journal of Human Trafficking 2019, Vol. 5, No. 2, 130-150

Baarda, C. S. 'Human trafficking for sexual exploitation from Nigeria into Western Europe: The role of voodoo rituals in the functioning of a criminal network' European Journal of Criminology 2016, Vol 13(2) 257 - 273

Babuta, A. 'Big Data and Policing: An Assessment of Law Enforcement Requirements, Expectations and Priorities' RUSI Occasional Paper September 2017

Baer, K. 'The Trafficking Protocol and the Anti-Trafficking Framework: Insufficient to address exploitation' Anti-Trafficking Review Issue 4, 2015, pp. 167-172

Baker, C. ECPAT Policy and Campaigns Officer 'Children are left behind by the Government's modern slavery agenda' ECPAT news 22nd June 2018

Bales, K., Hesketh, O. and Silverman, B. 'Modern slavery in the UK: How many victims?' HMSO, 'Significance' June 2015 pp 16-21

Bank of England Prudential Regulatory Authority PRA Regulatory Digest 1-30 April 2017

Bank of England Prudential Regulatory Authority PRA Regulatory Digest 1-31 October 2016

Barker, M. and Ali, Z. 'Pakistani ice-cream seller unaware of £14m in his bank account' World news, The Guardian, 4th October 2018

Barrett, C. 'Push payment scams – or modern day bank 'robbery'' The Financial Times, 12th October 2018

Belser, P. 'Forced Labour and Human Trafficking: Estimating the Profits' Working Paper, Special Action Programme to Combat Forced Labour DECLARATION/WP/42/2005, International Labour Office

Benson, K. 'The Facilitation of Money Laundering by Legal and Financial Professionals: Roles, Relationships and Response' Doctoral Thesis submitted to the School of Law, University of Manchester 2016

Berwick, A. and Lague, D. 'How China's biggest bank became ensnared in a sprawling money laundering probe' Reuters 31st July 2017

Bhabha, J. 'Looking Back, Looking Forward: The UN Trafficking Protocol at fifteen' Anti-Trafficking Review, issue 4, 2015, pp. 3-12

Bindel, J. 'Were sex traffickers to blame for the unsolved death of Silvana Beqiraj?' The Guardian published article from Fier 18th January 2018

Binham, C. 'Asian politician targeted in UK dirty money clampdown' The Financial Times 28th February 2018

Binham, C. 'Crime agency investigates UK entity linked to scandal-hit Danske' The Financial Times, 21st September 2018

Binham, C. and Milne, R. 'Danske Bank fails to draw line under €200bn scandal' The Financial Times, 19th September 2018

Binham, C. 'FCA shuns Brussels rules in tackling money launderers' The Financial Times 29th March 2018

Binham, C. 'London's role in Danske dirty money scandal under spotlight' The Financial Times, 25th September 2018

Binham, C. 'Lords to review Bribery Act over its burden on SMEs' The Financial Times 17th May 2018

Binham, C. 'RBS chief accused of misleading MPs in bribery probe' The Financial Times, 14th September 2018

Binham, C. and Milne, R. 'Scandal-hit Danske branch handled $30bn of Russian money' The Financial Times 3rd September 2018

Binham, C. and Arnold, M. 'Tesco Bank fined £16.4m by FCA over cyber attack' The Financial Times, 1st October 2018

Binham, C. and Thompson, B. 'UK crime agency steps up assault on Russian dirty money' The Financial Times, 13th September 2018

Binham, C. 'UK financial watchdog opens record number of cases' The Financial Times 12th August

2018

Binham, C. and Pickard, J. 'Value of UK financial sanctions breaches rises to £1.4bn from £117m' The Financial Times 26th February 2018

Bland, B. and Palma, S. 'Malaysia hopes to recover 30% of missing 1MDB billions' The Financial Times 13th September 2018

Blitz, J. 'What Brexit means for extradition for the UK' The Financial Times, 7th September 2018

Blum & Conway in 'Counterterrorism and Threat Finance Analysis During Wartime' 2015 Lexington

Boffey, D. 'EU blacklist names 17 tax havens and puts Caymans and Jersey on notice' The Guardian 5th December 2017

Bolt D. Independent Chief Inspector of Borders and Immigration 'An Inspection of the Intelligence Functions of Border Force and Immigration Enforcement' November 2015 – May 2016

Bond, D. 'Police chiefs warn no-deal Brexit puts public safety at risk' The Financial Times, 18th September 2018

Boria, M. G. 'Human Trafficking and Natural Disasters: An Empirical Analysis' eScholarship@BC, Boston College University Libraries, Boston College Electronic Thesis or Dissertation, 2016

Borisovich, R. 'How Russia's rich elite spend their billions in London' The Guardian 18th March 2018

Boslaugh, S. 'Statistics In a Nutshell' O'Reilly Media Inc. 2013

Bosma, A. and Rijken, C. 'Key Challenges in the Combat of Human Trafficking: Evaluating the EU Trafficking Strategy and EU Trafficking Directive' New Journal of European Criminal Law, Vol. 7, Issue 3, 2016 pp.315-330

Boyde, E. 'Robo-recruiters are quick to replicate human bias' The Financial Times 7th December 2017

Bozorgmehr, N. and Binham, C. 'Iran close to accepting global financial rules as sanctions press' The Financial Times 27th September 2018

Brady S. 'Policing TOC – The National Perspective: Challenges, Strategies, Tactics' in 'International Law and Transnational Organised Crime' Edited by P. Hauck and S. Peterke Oxford 2016

Braithwaite, T. 'Robots are retreating but will have their revenge' The Financial Times 31st August 2018

Brayley, H. and Cockbain, E. 'British Children Can Be Trafficked Too: Towards An Inclusive Definition Of Internal Child Sex Trafficking' Child Abuse Review Vol. 23: 171-184 Wiley Online Library (2014)

Brayley, H., Cockbain, E. and Laycock, G. 'The Value of Crime Scripting: Deconstructing Internal Child Sex Trafficking' 2011, Policing, Volume 5, Number 2, pp.132-143

Brayne, S. 'Big Data Surveillance: The Case of Policing' American Sociological Review 2017, Vol. 82(5) 977-1008

Brennan, D. and Plambech, S. 'Editorial: Moving Forward – Life after trafficking' Anti-Trafficking Review, issue 10, 2018 pp 1-12

Breuil, B.C.O. 'Precious Children in a Heartless World?: The Complexities of Child Trafficking in Marseille' CHILDREN & SOCIETY VOLUME 22, (2008) pp. 223-234

Broad, R. 'Assessing Convicted Traffickers: Negotiating Migration, Employment and Opportunity Through Restricted Networks' The Howard Journal Vol 00 No. 0 xxxx 2018 ISSN 2059-109, pp.1-20

Broad, R. 'A Vile and Violent Thing': Female Traffickers and the Criminal Justice Response' BRIT. J. CRIMINOL. (2015) 55, 1058-1075

Broad, R. and Turnbull, N. 'From Human Trafficking to Modern Slavery: The Development of Anti-Trafficking Policy in the UK' Eur J Crim Policy Res 2018 https://doi.org/10.1007/s10610-018-9375-4

Brown, B.L. 'Descriptive Statistics' Edited by Salkind, N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc accessed 25th June 2019

Brown, R. et al 'The Contribution of Financial Investigation to Tackling Organised crime: A Qualitative Study' Research Report 65, Home Office copyright 2012 ISBN 978-1-84987-932-3

Bruce, J.B. 'Making Analysis More Reliable: Why Epistemology Matters to Intelligence' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Bruce, J.B. 'The Missing Link: The Analyst-Collector Relationship' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Bruce, J.B. and Bennett, M. 'Foreign Denial and Deception: Analytical Imperatives' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Brunovskis, A. and Surtees, R. 'Identifying trafficked migrants and refugees along the Balkan route. Exploring the boundaries of exploitation, vulnerability and risk' Crime, Law and Social Change (2019) 72: 73 - 86

Brunovskis, A. and Surtees, R. 'Untold Stories: Biases and Selection Effects in Research with Victims of Trafficking for Sexual Exploitation' Edited by E. Gozdziak, Georgetown University, International Organization for Migration 2010 doi:10.1111/j.1468-2435.2010.00628.x

Brunsden, J. 'Belgium's migrant crisis exposes EU asylum gap' The Financial Times 12th February 2018

Brunsden, J. 'Brussels seeks clampdown on offshore trusts long protected by UK' The Financial Times, 4th July 2016

Brunsden, J. et al 'EU to tighten rules on money laundering after Latvia scandal' The Financial Times 17th April 2018

Brunsden, J. and O'Murchu, C. 'Malta accused of failing to enforce EU money-laundering rules' The Financial Times, 11th July 2018

Brunsden, J., Binham, C. and Jones, C. 'Scandals expose flaws in EU fight against dirty money, say watchdogs' The Financial Times, 4th September 2018

Buckley, N. 'Banking crises cast shadow over Latvia financial landscape' The Financial Times 20th February 2018

Buckley, N. 'Latvian central bank governor accuses banks of trying to oust him' The Financial Times 23rd February 2018

Bullock K 'The Confiscation Investigation: Investigating the Financial Benefit Made from Crime' Policing Volume 4 No 1. 2009

Bundeskriminalamt '2014 Annual Report Financial Investigation Unit Germany'

Burgis, T. 'Tower of secrets: the Russian money behind a Donald Trump skyscraper' The Financial Times 12th July 2018

Busby, M. 'Cyberlaundering: from ghost Uber rides to gibberish on Amazon' The Guardian 17th May 2018

Busby, M. 'Rescued 'slave' thought to have lived in a shed in Cumbria for 40 years' UK news, The Guardian, 3rd October 2018

Cabinet Office, Centre for Public Appointments, 'Independent Anti-Slavery Commissioner' Job description, downloaded 28th June 2018

Caesar, E. 'The Moscow Laundromat' The New Yorker 22nd August 2016

Campana, P. 'The structure of human trafficking: lifting the bonnet on a Nigerian transnational network' BRIT. J. CRIMINOL. (2016) 56 68-86

Campana, P. and Varese, F. 'Exploitation in Human Trafficking and Smuggling' Eur J Crim Policy Res (2016) 22:89-105

Carlisle D. 'Making Information Flow: Instruments and Innovations for Enhancing Financial Intelligence' RUSI Occasional Paper August 2016

Carlson, G. President and Chief Scientific Officer of Ayasdi, 'Threat Detection Systems and Artificial Intelligence' lecture given at World Counter Terror Conference 7th March 2018

Carney, M. Governor of the Bank of England 'Building the Infrastructure to Realise FinTech's Promise' Speech given at the International FinTech Conference, Old Billingsgate, 11th April 2017

Carney, M. Governor of the Bank of England 'The high road to a responsible, open financial system' Speech given at Thomson Reuters, Canary Wharf 7th April 2017

Case of C. N. and V. v. France (Application no. 67724/09) European Court of Human Rights Ruling 11th October 2012

Case of M. and Others v. Italy and Bulgaria (Application no. 40020/03) European Court of Human Rights Ruling 31st July 2012

Case of Rantseva v. Cyprus and Russia (Application no. 25965/04) European Court of Human Rights Ruling 7th January 2010

Case of Siliadin v. France (Application No. 73316/01) European Court of Human Rights Ruling 26th October 2005

Cassella, S. 'United States v. $1,879,991.64: Section 981(K) – It's Purpose and Application' 13th June 2016

Central Bank of Ireland 'Report on Anti-Money laundering/Countering the Financing of Terrorism and Financial Sanctions Compliance in the Life Insurance Sector in Ireland' 2016

Chandran P. 'Human Trafficking Handbook 'Recognising Trafficking and Modern Day Slavery in the UK' 2011 Lexis Nexis

Chartered Accountants Australia and New Zealand 'Machines can learn, but what will we teach them?: Ethical considerations around artificial intelligence and machine learning' July 2018

Chatham House 'Challenges to the Rules-Based International Order accessed 17th February 2020 at https://www.chathamhouse.org/london-conference-2015/background-papers/challenges-to-rules-based-international-order#

Child Exploitation and Online Protection Centre 'A Scoping Project on Child Trafficking in the UK' June 2007

Cho 'Modelling for Determinants of Human Trafficking: an Empirical Analysis' (2014) Social Inclusion, 1, 2-21.

Cho, Dreher, Neumayer 'Does legalized prostitution increase human trafficking?' World Development Vol. 41, pp. 67–82, 2013

Choi, B. and Pak, A. 'Methods Section' Edited by Salkind, N. J. Encyclopaedia of Research Design, 2010 SAGE Publications Inc. accessed 25th June 2019

Chuang, J. 'Exploitation Creep and the Unmaking of Human Trafficking Law' The American Journal of International Law, Vol. 108, No. 4 (October 2014) pp. 609 - 649

Clapper, J.R. Director of National Intelligence 'Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community' Senate Select Committee on Intelligence, dated 9th February 2016

Cleary, S. et al 'Fintech decoded: The capital markets infrastructure opportunity' McKinsey & Company, February 2018

Clegg, A. 'Recruiters turn to AI algorithms to spot high-fliers' The Financial Times 13th July 2017

Coats, D., Director of National Intelligence 'Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community' 13th February 2018

Cockbain, E. 'Grooming and the 'Asian sex gang predator': the construction of a racial crime threat' Institute of Race Relations (2013) Vol 54 (4) 22-32

Cockbain, E. and Bowers, K. 'Human trafficking for sex, labour and domestic servitude: how do key trafficking types compare and what are their predictors?' Crime, Law and Social Change (2019) 72: 9 - 34

Cockbain, E. et al 'Immaterial Boys? A Large-Scale Exploration of Gender-Based Differences in Child Sexual Exploitation Service Users' Sexual Abuse a Journal of Research and Treatment 1-27

Cockbain, E. and Wortley, R. 'Everyday atrocities: does internal (domestic) sex trafficking of British children satisfy the expectation of opportunity theories of crime?' CrimeSci (2015) 4:35

Cockbain, E., Bowers, K. and Dimitrova, G. 'Human trafficking for labour exploitation: the results of a two-phase systematic review mapping the European evidence base and synthesising key scientific research evidence' 2018 J Exp Criminol published online by Springer https://doi.org/10.1007/s11292-017-9321-3

College of Policing 'Intelligence Management' accessed 29th October 2017

CONFINE 'Towards operational cooperation on local administrative financial investigations in fight against human trafficking' Powerpoint presentation 2017-2018

Connor-Linton, J. 'Chi-Square Test' Edited by Salkind, N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc. accessed 25th June 2019

Cook, L. 'Will you let a stranger look deep into your bank account?' The Financial Times 6th December 2017

Cookson, C. 'Artificial intelligence faces public backlash, warns scientist' The Financial Times, 6th September 2018

Cope, L. 'Intelligence led policing or policing led intelligence?' BRIT.J.CRIMINOL (2004) 44, 188-203

Cornell Law School for definitions of 'actus reus' and 'mens rea' accessed through www.law.cornell.edu/wex on 3rd July 2019

Cornish, C 'Bitcoin slips again on reports of US DoJ investigation' The Financial Times 24th May 2018

Cornish, C 'Cryptocurrency exchange to exclude majority of ICOs' The Financial Times 2nd November 2017

Cottrell, C. A. and Neuberg, S. L. 'Different Emotional Reactions to Different Groups: A Sociofunctional Threat-Based Approach to "Prejudice" Journal of Personality and Social Psychology, 2005 Vol 88(5) 770 - 789

Council of Europe, European Committee on Crime Problems, Moneyval, 'Proceeds from Trafficking in Human Beings and Illegal Migration/Human Smuggling' Directorate General of Legal Affairs January 2005

Council of Europe, GRETA (the Group of Experts on Action against Trafficking in Human Beings) available at https//:www.coe.int/en/web/anti-human-trafficking/home

Creedon, M. 'Investigating the Finances of Criminality: The Record So Far and the Challenges Ahead' RUSI 1st November 2017

Criminal Intelligence Service Canada 'Strategic Early Warning for Criminal Intelligence: Theoretical Framework and Sentinel Methodology' A paper prepared by the Criminal Intelligence Service Canada for the Canadian intelligence community, 2007

Croft, J. 'UK fraud hits 15-year high with value of £2bn' The Financial Times 14th January 2018

Crown Prosecution Service 'Legal Guidance: Human Trafficking, Smuggling and Slavery' download 22nd February 2017

Curran, D. 'Are you ready? This is all the data Facebook and Google have on you' The Guardian 29th March 2018

D'Arcy P. 'How to turn a cause into a law' Ideas TED.com 17th November 2017

Datta, M. N. and Bales, K. 'Slavery in Europe: Part 1, Estimating the Dark Figure' Human Rights Quarterly, Volume 35, No. 4, November 2013 pp.817-829 published by Johns Hopkins University

Datta, M. N. and Bales, K. 'Slavery in Europe: Part 2, Testing a Predictive Model' Human Rights Quarterly, Volume 36, No. 2, May 2014 pp.277-295 published by Johns Hopkins University

David, F. 'Building the Infrastructure of Anti-Trafficking, Part II: Why measurement matters' Anti-Trafficking Review, Issue 8, 2017, pp. 148 – 152, www.antitraffickingreview.org

David F. 'Organised crime and trafficking in persons Australia' Australian Institute of Criminology No. 436 March 2012

Davis, J. 'Why Bad Things Happen to Good Analysts' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

Dawid, P. 'Probability and Proof' On-line Appendix to "Analysis of Evidence", by T. J. Anderson, D. A. Schum and W. L. Twining downloaded on 17th July 2017 at
http://www.cambridge.org/catalogue/catalogue.asp?isbn=9780521673167&ss=res

DeCuir-Gunby, J. T., Marshall, P.L. and McCulloch, A.W. 'Developing and Using a Codebook for the Analysis of Interview Data: An Example from a Professional Development Research Project' Field Methods 23(2) 136-155 (2011)

Degirmencioglu, S. M., Acar, H. and Acar, Y.B. 'Extreme Forms of Child Labour in Turkey' CHILDREN & SOCIETY VOLUME 22, (2008) pp. 191-200

De Leon, F. J., Maroto, M. Angel Rodriguez, M. 'Spanish legislation on combatting trafficking in human beings' Law and Social Change, Springer Verlag, 2010, 54(5) pp. 381 - 409

Deloitte 'How to flourish in an uncertain future: Open banking' 2018

Dempsey, M. M. 'What Counts as Trafficking for Sexual Exploitation? How Legal Methods Can Improve Empirical Research' Journal of Human Trafficking, 3:1, 61 – 80, 2017

Densley, J. 'How Gangs Work: An ethnography of youth violence' Palgrave Macmillan 2013

Devlin, H. 'Shocking discovery? Money earned by exploitation is less rewarding, study shows' The Guardian, 1st May 2017

Dickson, S. and Sigala, M. 'Why GDPR matters for research' ESRC blog 25th May 2018

Digidiki, V. and Bhabha, J. 'Emergency Within an Emergency: The Growing Epidemic of Sexual Exploitation and Abuse of Migrant Children in Greece' Francois-Xavier Bagnoud Centre for Health and Human Rights, Harvard University, 2017

Dijk & Mierlo 'Quantitative indices for anti-human trafficking policies' Crime Law Soc Change (2014) 61:229–250

Donnan, S. et al 'Manafort charges entangle former European leaders' The Financial Times 25th February 2018

Dow, S. 'Why Digital Currency Won't Save Us' Institute for New Economic Thinking, 13th August 2018

Dunkerley, A. W. 'Exploring the use of juju in Nigerian human trafficking networks: consideration for criminal justice investigators' Police Practice and Research, 19:1, 83-100 2017

Dunkley, E. and Agnew, H.' Break up Financial Conduct Authority watchdog, MPs demand' The Financial Times 26th July 2016

Dunkley, E. 'UK banks prepare to share customer data in radical shake-up' The Financial Times 26th November 2017

Eck J.E. and Clarke R. V. 'Intelligence Analysis for Problem Solvers' US Department of Justice Community Oriented Policing Service (COPS) and Centre for Problem-Oriented Policing 2013

ECPAT UK 'Child trafficking in the UK 2018: A Snapshot' June 2018

ECPAT UK Discussion Paper 'The trafficking of children for sexual exploitation' 2009

ECPAT UK 'ECPAT UK welcomes the ratification of the Lanzarote Convention' ECPAT news 21st June 2018

Efrat, A. 'Global Efforts against Human Trafficking: The Misguided Conflation of Sex, Labour and Organ Trafficking' International Studies Perspectives (2016) 17, 34-54

Elwes, J. 'Former MI6 Head John Sawers: Brexit could pose long-term problems for British security' Prospect 14th February 2018

El-Zoghbi, M. et al 'The Role of Financial Services in Humanitarian Crises' Access to Finance Forum, The World Bank Group 2017

Esser, L. B. and Dettmijer-Vermeulen, C. E. 'The Prominent Role of National Judges in Interpreting the International Definition of Human Trafficking' Anti-Trafficking Review, issue 6, 2016 pp.91-105

Essen, J. 'Better Off at Home? Rethinking Responses to Trafficked West African Footballers in Europe' Journal of Ethnic and Migration Studies, 2015 Vol. 41, No. 3, 512-530

EURACTIV 'Slovenia rocked by Iran-related money laundering scandal' ERACTIV.com downloaded 2nd October 2017

European Commission 'The EU Strategy towards the Eradication of Trafficking in Human Beings 2012 – 2016' https://ec.europa.eu/anti-trafficking/sites/antitrafficking/files/eu_strategy_towards_the_eradication_of_trafficking_in_human_beings_2012-2016.1.pdf

European Commission 'EU – TURKEY STATEMENT: Two years on' April 2018 downloaded from https://ec.europa.eu/home-affairs/sites/homeaffairs/files/what-we-do/policies/european-agenda-migration/20180314_eu-turkey-two-years-on_en.pdf

European Union Agency for Fundamental Rights 'Thematic Study on child trafficking in Romania' 2009

EU Directive 2011/36/EU

Europol '24 suspects arrested in EU-wide action week against child trafficking' Press Release, 14th August 2018

Europol 'Coordinated hit against two big gun running operations in Europe' Press Release 19th June 2018

Europol 'Criminal network supplying identity and travel documents dismantled in Greece' Press release 1st March 2018

Europol 'Cross-border operation sees 57 arrested for human trafficking' 15th June 2018

Europol 'Joint Investigation Teams – JITS' downloaded 13th March 2018

Europol 'Major Spanish Operation Against a Prolific Organised Crime Group in Europe' Press release 6th July 2018

Europol 'Specialist – Financial Intelligence Unit within Horizontal Operational Services in the Operations Directorate (OD) – AD6 – Restricted Europol/2018/TA/AD6/330' Job description – downloaded 20th March 2018

Europol 'The THB Financial Business Model' July 2015

Evans, B. 'Tesla, software and disruption' Benedict Evans, 31st August 2018, link from FT Alphaville, downloaded 5th September 2018

Evans, M.R. 'Impact through Intelligence and Analytical Products: Influencing Decision-Makers' draft copy later published in 'Strategic Thinking in Criminal Intelligence' Ed. J. Ratcliffe, The Federation Press 2009

Evans, M.R. 'Knowledge, Intelligence, Analytical Product and Decision-Making Matrix' draft copy later published in 'Strategic Thinking in Criminal Intelligence' Ed. J. Ratcliffe, The Federation Press 2009

Ezeilo, J. N. 'Achievements of the Trafficking Protocol: Perspectives from the former UN Special Rapporteur on Trafficking in Persons' Anti-Trafficking Review, issue 4, 2015 pp. 144-149

Fan, S. 'Independent Variable' Edited by Salkind N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc. accessed 25th June 2019

Finance Against Trafficking, Stop the Traffik 'Suspicious Financial Activity and Human Trafficking: Red Flags You Can Recognise' Downloaded 17th June 2015

FATF (2015) 'Emerging Terrorist Financing Risks'*,* FATF, Paris www.fatf-gafi.org/publications/methodsandtrends/documents/emerging-terrorist-financing-risks.html

FATF - APG (2018), 'Financial Flows from Human Trafficking', FATF, Paris, France, www.fatf-gafi.org/publications/methodandtrends/documents/human-trafficking.html

FATF 'FinTech and RegTech Forum, Berlin' Chairman's Summary of the FATF FinTech and RegTech Forum, Berlin, Germany, 9 to 10 October 2017 downloaded 14th October 2017

FATF 'Guidance for a Risk Based Approach: The Banking Sector' October 2014 downloaded 9th February 2016

FATF (2016), 'Guidance on correspondent banking services', FATF, Paris, www.fatf-gafi.org/publications/fatfrecommendations/documents/correspondent-banking-services.html

FATF (2017), 'Guidance on private sector information sharing', FATF, Paris www.fatf-gafi.org/publications/fatfrecommendations/documents/guidance-information-sharing.html

FATF 'Outcomes Joint FATF/GAFILAT Plenary, 1-3 November 2017' downloaded 4th November 2017

FATF (2018), FATF President's paper: Anti-money laundering and counter terrorist financing for judges and prosecutors, FATF, Paris, France, www.fatf-gafi.org/publications/methodandtrends/documents/AML-CFT-judges-prosecutors.html

FATF Report 'Money Laundering Risks Arising from Trafficking in Human Beings and Smuggling of Migrants' July 2011

FATF 'Report to the G20 Finance Ministers and Central Bank Governors' March 2018 downloaded 19th March 2018

FATF – Egmont Group (2018), Concealment of Beneficial Ownership, FATF, Paris, France, www.fatf-gafi.org/publications/methodandtrends/documents/concealment-beneficial-ownership.html

Fein, D. General Counsel of Standard Chartered 'Here is how to beat the money launderers' Opinion,

The Financial Times, 22nd November 2016

Fein, D. General Counsel of Standard Chartered and vice-chair of the United Wildlife Financial Task Force 'To fight the illegal wildlife trade, disrupt its business model' Opinion, The Financial Times, 7th October 2018

Feingold, D. A. 'Playing the Numbers: The spurious promise of global trafficking statistics' Anti-Trafficking Review, Issue 8, 2017, pp.153-156

Felson, M. and Clarke, R. 'Comments on the Special Issue' Trends Organ Crim (2012) 15:215-221

Filkins, D. 'Was There a Connection Between a Russian Bank and the Trump Campaign?' The New Yorker, October 15, 2018 Issue

Financial Conduct Authority 'AML and Financial Crime International TechSprint 22nd May 2018' Downloaded 16th May 2018

Financial Conduct Authority 'AML and Financial Crime International TechSprint 22nd May 2018' Summary of event outcomes published July 2018

Financial Conduct Authority 'Finalised guidance FG16/6 – Payment Accounts Regulations: Definition of a 'payment account' August 2016

Financial Conduct Authority Handbook
https://www.handbook.fca.org.uk/handbook/document/fc/FC1_FCA_20160703.pdf

Financial Conduct Authority 'Model driven machine executable regulatory reporting' 20th November 2017

Financial Conduct Authority Occasional Paper 23 'Full disclosure: A round-up of FCA experimental research into giving information' November 2016

Financial Conduct Authority 'Our work programme' 12th September 2017

Financial Conduct Authority 'RegTech' 12th September 2017

Financial Conduct Authority 'Regulatory Sandbox Cohort 1' 15th June 2017

Financial Conduct Authority 'Regulatory Sandbox Cohort 2 & 3' 11th January 2018

Financial Conduct Authority 'The FCA consults on its approach ahead of the UK's exit from the EU' 10th October 2018

Financial Conduct Authority 'Working with us' 12th September 2017

Financial Crimes Enforcement Network FY 2017 President's Budget February 9, 2016
https://www.treasury.gov/about/budget-performance/CJ17/14.%20FinCEN%20FY%202017%20CJ.PDF

Financial Times Collections Opinion Lex 'Danske Bank: something rotten' 19th September 2018

FinTech FinCrime Exchange (RUSI led group) 'Cryptocurrencies and UK FinTechs: Perspectives and Experiences of Financial Crime' White Paper May 2018

Fisher, R. and Johnston, R. 'Is Intelligence Analysis a Discipline?' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Fitzgibbon, W. 'Algeria launches money laundering probe on back of Panama Papers' International Consortium of Investigative Journalists, 10th September 2018

Floridi, L. 'The rise of the algorithm need not be bad news for humans' The Financial Times, 4th May 2017

Ford, J. 'Lloyds and the HBOS time bomb: how not to deal with fraud' The Financial Times 5th October 2017

Foroohar, R. 'Banks jump on to the fintech bandwagon' The Financial Times, 16th September 2018

Foroohar, R 'Companies are the cops in our modern-day dystopia' The Financial Times 28th May 2018

Foroohar, R et al 'Who will win the race for AI?' The Financial Times 28th May 2018

Foy, H. 'Can Russia stop using the US dollar?' The Financial Times, 3rd October 2018

Foy, H. 'Ill-timed Kremlin intervention adds to Russian investor pain' The Financial Times, 15th August 2018

Foy, H. 'Sanctions reach far beyond Russia's oligarchs' The Financial Times 24th July 2018

Foy, H. 'Sistema counts $1.7bn cost of business in Russia' The Financial Times 3rd January 2018

Freedman L. 'Strategy – A History' 2013 Oxford University Press

Fry, H. 'Can an algorithm deliver justice?' BBC Focus Magazine, 21st September 2018

Fry, L. 'Continuities in the prediction of human trafficking: A research note' International Journal of Compartive and Applied Criminal Justice 34 P. 201- 212 (2010)

Fry, L. J. ''What was the significance of Countries ratifying the UN Protocol against Human trafficking? A research note' International Journal of Criminal Justice Sciences Vol 4:2 118 – 130 (2009)

Gallagher, A. 'The International Legal Definition' Chapter 1 of The International Law of Human Trafficking, 2010 downloaded from https://www.cambridge.org/core doi.org/10.1017/CBO9780511761065.004 20th November 2019

Gallagher, A. T. 'Two Cheers for the Trafficking Protocol' Anti-Trafficking Review, issue 4, 2015 pp. 14-32

Gallagher, A. 'What's Wrong with the Global Slavery Index?' Anti-Trafficking Review, Issue 8, 2017, pp. 90-112, www.antitraffickingreview.org

Gallagher, A. T. and Ezeilo, N. J. 'The UN Special Rapporteur on Trafficking: A Turbulent Decade in Review' Human Rights Quarterly 37 (2015) 913 - 940

Galos, E. et al 'Migrants vulnerability to human trafficking and exploitation in the irregular migration context of the Mediterranean routes' Migration Policy Practice Vol. VII Number 2, April – September 2017 pages 34-37

Gannon, J.C. 'Managing Analysis in the Information Age' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

Gapper, J. 'Bitcoin and cash cast a shadow over banks' The Financial Times 13th December 2017

Garside, J. and Kirchgaessner, S. 'Azeri ruling families linked to secret investments via Maltese bank' The Guardian 23rd April 2018

Gearon, A. 'Child trafficking: Experiences of children on the move' 2016 PhD Thesis, University of Bath

Gelman et al 'Let's Practice What We Preach: Turning Tables Into Graphs' (2002) The American Statistician Vol. 56 No. 2 pp. 121-130

George, R.Z. 'The Art of Strategy and Intelligence' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

George, R.Z. and Bruce, J.B. 'The Age of Analysis' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

Gerard, D. 'First legally-mandated blockchain: Telecom Regulatory Authority of India's spam call complaint database' downloaded 5th September 2018

Gerbert, P. et al 'Putting Artificial Intelligence to Work' BCG (The Boston Consulting Group) 28th September 2017

Ghosh, F et al 'The AG Elevate Platform for FinTechs' Payments and FinTech Lawyer downloaded from Addleshaw Goddard 12th September 2017

Giles, C. Economics Editor 'The effects of EU migration on Britain in 5 charts' The Financial Times, 18th September 2018

Gill, G. J. 'O.K., the Data's Lousy but It's all we've got (Being a critique of conventional methods)' Sustainable Agricultural Programme of the International Institute of Environment and Development date unknown

Gjerimeni, E. et al 'Trafficking of children in Albania: Patterns of recruitment and reintegration' Child Abuse & Neglect 32(2008) 941-948

Gladwell M. 'Blink' 2005 Penguin Books

Gladwell M. 'David and Goliath' 2013 Penguin Books

Gladwell M. 'Tipping Point' 2000 Abacus

Glazebrook P.R. 'Blackstone's Statues on Criminal Law 2015-2016' Oxford University Press

Global Initiative Against Transnational Organized Crime 'Freedom of press threatened by organized crime in Western Balkans' 4th September 2018

Global Witness 'Narco-A-Lago: Money Laundering at the Trump Ocean Club, Panama' November 2017

Goffee, R. et al 'What should a moral organisation look like?' Management Today 19th March 2018

Gomez-Mera, L. 'The Global Governance of Trafficking in Persons: Toward a Transnational Regime Complex' Journal of Human Trafficking, 3:4, 303-326, 2017

Goodey, J. 'Human Trafficking: Sketchy data and policy responses' Criminology & Criminal Justice 2008 Vol: 8(4): 421-442

Gough, P., Bednarz, T., de Berigny, C. and Roberts, J. 'A Process for Non-Expert User Visualisation Design' 2016 Design Lab, The University of Sydney, ACEMS, Queensland University of Technology, CSIRO Data61 download from Academia.org 20th November 2019

Graham-Harrison, E. 'Migrants from west Africa being 'sold in Libyan slave markets'' The Guardian, 10th April 2017

Grant, M. J., Button, C. M. and Snook, B. 'An Evaluation of Interrater Reliability Measures on Binary Tasks Using *d*-Prime' Applied Psychological Measurement 2017 Vol.41 (4) 264-276

Grassley, C United States Senator for Iowa 'Grassley on Modernizing Anti-Money Laundering Laws' Statement issued 28th November 2017

Grierson, J. ''County lines': huge scale of £500m drug industry revealed: Crime agency reveals trebling of individual phone numbers used by criminal gangs linked to murder and exploitation' The Guardian 29th January 2019

Group of Experts on Action against Trafficking in Human Beings GRETA, 2011a 'Report concerning the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Albania' First Evaluation Round GRETA(2011)22 2nd December 2011 and Government Progress Report CP(2014)1 29th January 2014

Group of Experts on Action against Trafficking in Human Beings GRETA 2011b 'Report concerning the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Austria' First Evaluation Round GRETA(2011)10 15th September 2011 and Government Progress Report CP(2011)1 26th September 2011

Group of Experts on Action against Trafficking in Human Beings 'Report concerning the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Belgium' Second Evaluation Round GRETA(2017)26 16th November 2017

Group of Experts on Action against Trafficking in Human Beings 'Report concerning the implementation of the Council of Europe Convention on Action against Trafficking in Human Beings by Bulgaria' Second Evaluation Round GRETA(2015)32 20th November 2015 and Government Progress Report CP(2017)15 23rd May 2017

Group of Experts on Action against Trafficking in Human Beings 'Reply to the Questionnaire from the Czech Republic' GRETA(2019)3 Reply submitted 30th November 2018

Hale, T. 'Monzo: When is a bank not a bank?' FT Alphaville, The Financial Times, 13th September 2018

Hale, T. 'The broken conversation about financial regulation' FT Alphaville, The Financial Times, 19th September 2018

Hale, T. 'The digital Chicago plan' FT Alphaville, The Financial Times, 14th September 2018

Hallsworth, M. et al 'Behavioural Government: Using behavioural science to improve how governments make decisions' The Behavioural Insights Team 2018

Handley, E. and Meta, K. ''I will not give them the baby': the plight of Cambodia's detained surrogates' The Guardian, Global Development, 2nd October 2018

Hannigan, R. 'The immediate threat from North Korea is in cyber space' The Financial Times 25th October 2017

Harding, L. et al 'UK at centre of secret $3bn Azerbaijani money laundering and lobbying scheme' The Guardian 4th September 2017

Harford, T. 'Tim Harford's guide to statistics in a misleading age' The Financial Times 8th February 2018

Harford, T. 'Why big companies squander good ideas' The Financial Times, 6th September 2018

Harkins, B. 'Constraints to a Robust Evidence Base for Anti-Trafficking Interventions' Anti-Trafficking Review, issue 8, 2017, pp.113 – 130, antitraffickingreview.org

Hedley, J.H. 'The Evolution of Intelligence Analysis' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Heintze H-J. and Lulf C. 'The UN Protocol to Prevent, Suppress and Punish Trafficking in Persons 2000' in 'International Law and Transnational Organised Crime' Edited by P. Hauck and S. Peterke 2016 Oxford University Press

Heuer, R.J. 'Computer-Aided Analysis of Competing Hypotheses' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Heuer, R. J. 'Psychology of Intelligence Analysis' Centre for the Study of Intelligence, Central Intelligence Agency 1999

Higgins, G. E. 'General Theory of Crime and Deviance: A Structural Equation Modeling Approach' Journal of Crime and Justice, 25:2, 71-95, 2002

Hille, K. 'Russia reduces dependence on US dollar in response to sanctions' The Financial Times 12th August 2018

Hilmer, C. 'Bootstrapping' Edited by Salkind, N.J. 'Encyclopaedia of Research Design', 2010, SAGE Publications Inc. accessed 25th June 2019

Hirschfield and Bowers 'The Effect of Social Cohesion on Levels of Recorded Crime in Disadvantaged Areas' (1997) Urban Studies Vol. 34 No. 8 pp. 1275-1295

*HM Government '*National Cyber Security Strategy 2016-2021'

HM Government 'National Security Strategy and Strategic Defence and Security Review 2015' Cm9161 November 2015

HM Government 'UK cyber security firm joins new scale-up centre' Published 5th July 2018 downloaded from www.gov.uk on 24th August 2018

HM Government 'UK exposes Russian cyber attacks' Published and downloaded on 4th October 2018

HM Government 'United Kingdom Anti-Corruption Strategy 2017-2022' downloaded from https://www.gov.uk/government/publications on 18th December 2017

HM Government www.gov.uk/government/news/home-secretary-announces-new-national-economic-crime-centre-to-tackle-high-level-fraud-and-money-laundering 11th December 2017

HM Stationers Office Modern Day Slavery Act 2015

HM Treasury 'Cash and digital payments in the new economy: call for evidence' March 2018

HM Treasury 'Implementation of the revised EU Payment Services Directive II' February 2017

HM Treasury and the Home Office joint paper 'UK National Risk Assessment of Money Laundering and Terrorist Financing' October 2015

HM Treasury and the Home Office joint paper 'Action Plan for anti-money laundering and counter-terrorist finance' April 2016

Hogan Lovells 'Steering the Course: Navigating Bribery and Corruption Risk' 2016

Home Office and *Department for Digital, Culture Media & Sport* 'Data Protection Act 2018 – Factsheet – Intelligence Services Processing' 23rd May 2018

Home Office 'Border Force Director Intelligence Ref 1574896' Job description downloaded 23rd February 2018

Home Office 'G7 Police & Public Policy Protection Technology Portfolio PMO Lead Ref: 1581453' Job description downloaded 24th April 2018

Home Office 'Head of Serious and Organised Crime Law Enforcement Unit Ref: 1581510' Job description downloaded 20th April 2018

Home Office 'Identity Proofing and Verification of an Individual' Good Practice Guide 45 version 2.3 February 2017

Houlder, V. 'UK shell companies linked to £80bn money laundering' The Financial Times 8th November 2017

House of Commons Environmental Audit Committee 'Hand car washes' Tenth Report of Session 2017-19

House of Commons Home Affairs Committee report 'Proceeds of Crime' July 2016

House of Commons Home Affairs Committee 'UK-EU security cooperation after Brexit: Follow-up report' accessed from www.parliament.uk on 17th August 2018

House of Commons Home Affairs Committee 'UK-EU security cooperation after Brexit: Government Response to the Committee's Fourth Report of Session' accessed from www.parliament.uk on 14th September 2018

House of Commons Joint Committee on Legislative Scrutiny 'Counter-Terrorism and Border Security Bill' accessed from www.parliament.uk on 17th August 2018

House of Commons Science and Technology Committee 'Research Integrity' accessed from www.parliament.uk on 17th August 2018

House of Lords, Select Committee on International Affairs 'The United Nations General Assembly 2018' accessed from www.parliament on 17th August 2018

Hu, Q. Zhao, S. and Yang, J. 'Confidence Intervals' Edited by Salkind N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc. accessed 25th June 2019

Hughes, L. 'May claims crackdown threat on 'dirty money' is paying off' The Financial Times, 25th September 2018

Hume, N. and Foy, H. 'Oleg Deripaska offers sanctions relief plan to US Treasury' The Financial Times 13th August 2018

Huschke, S. and Ward, E. 'Stopping the Traffick? The problem of evidence and legislating for the "Swedish model" in Northern Ireland' Anti-Trafficking Review, issue 8, 2017, pp-16-33, www.antitraffickingreview.org

iCompareFX 'WorldRemit Vs Western Union – Are there Reasons to Select One over the Other?' FT recommended read, downloaded 18th September 2018

Independent Anti-Slavery Commissioner 'Strategic Plan 2015-2017' October 2015 Parliamentary report pursuant to Section 42(10)(a) Modern Slavery Act 2015 published by the Office of the Anti-Slavery Commissioner

Information Commissioner's Office 'Data Sharing Code of Practice' May 2011

Information Commissioner's Office 'Overview of the General Data Protection Regulation (GDPR)' 26th September 2017

ING Bank N.V. 'ING International Survey Mobile Banking 2017 – Cashless Society – All aboard for the cashless society: But most say they will never be completely cash free' April 2017

Iniguez de Heredia, M. 'People Trafficking: Conceptual issues with the United Nations Trafficking Protocol 2000' Hum Rights Rev (2008) 9:299-316

Inman, P. 'World economy at risk of another financial crash, says IMF' Business, The Guardian, 3rd October 2018

Innes, M. and Sheptycki, J.W.E 'From detection to disruption: Intelligence and the changing logic of police crime control in the United Kingdom' International Criminal Justice Review Vol. 14 2004

Inquiry into Human Trafficking in Scotland 2013

Intelligence and Security Committee of Parliament 'Annual Report 2016/2017' published December 2017 downloaded 30th August 2018

Inter-Agency Coordination Group Against Trafficking in Persons (ICAT) Preventing Trafficking in Persons by Addressing Demand paper September 2014

International Organization for Migration 'DMS Monitoring Surveys: The Human Trafficking and Other Exploitative Practices Indication Survey: Male and female respondents interviewed along the Central and the Eastern Mediterranean Route in 2017' January 2018

International Organization for Migration 'IOM Learns of 'Slave Market' Conditions Endangering Migrants in North Africa' 4th November 2017

International Organization for Migration 'Remediation Guidelines for Victims of Human Trafficking in Mineral Supply Chains' First Edition 2018

Interpol Factsheet 'Trafficking in human beings' 2014

Interpol - Opening Address by Jurgen Stock Interpol Secretary General at 3rd *Interpol* Trafficking in Human Beings Conference - November 2014

Isele, E. 'The Human Factor is Essential to Eliminating Bias in Artificial Intelligence' Chatham House, 14th August 2018

Jakobi, A.P. 'Global networks against crime: Using the Financial Action Task Force as a model?' Sage International Journal 2015 0(0) 1-17

Jancsics, D. 'Shell Companies and Government Corruption' Global Encyclopaedia of Public Administration, Public Policy and Governance' Edited by Ali Farazmand, downloaded 28th July 2018

Jenkins, P. 'Are we ready for a world without cash?' The Financial Times 10th May 2018

Jenkins, P. 'Why EU banks have become a money launderer's dream' The Financial Times, 17th September 2018

Johnson, M. 'Salvini says new migrant rules will make Italy safer' The Financial Times, 24th September 2018

Joint Committee on the National Security Strategy 'Cyber Security Skills and the UK's Critical National Infrastructure' accessed from www.parliament.uk on 17th August 2018

Joint Money Laundering Steering Group Guidance Notes available at: www.jmlsg.org.uk

Kahneman, D. 'Thinking, Fast and Slow' Penguin 2011

Kaminska, I 'Fintech as a gateway for criminal enterprise' The Financial Times 12th January 2018

Kaminska, I 'Taking the block out of blockchain…' The Financial Times 22nd November 2017

Kaminska, I 'The environmental costs of bitcoin are not worth the candle' The Financial Times 7th November 2017

Kangaspunta, K. 'Collecting Data on Human Trafficking: Availability, Reliability and Comparability' Chapter 4 in E Savona and S Stefanizzi, 'Measuring Human Trafficking, Complexities and Pitfalls', Springer, New York, 2007

Kangaspunta, K. 'Was Trafficking in Persons Really Criminalised?' Anti-Trafficking Review, issue 4, 2015 pp. 80-97

Kateri, M. and Agresti, A. 'Categorical Data Analysis' Edited by Salkind, N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc. accessed 25th June 2019

Kazmin, A. 'One year on, jury is still out on India's 'black money' ban' The Financial Times 8th November 2017

Keatinge, T. and Barry, A.M, 'Disrupting Human Trafficking: The Role of Financial Institutions' RUSI Whitehall Report 1-7 March 2017

Keatinge, T. 'Rolling Up Russia's Red Money Carpet in the UK' RUSI 26th March 2018

Keatinge, T. 'We cannot fight cross-border money laundering with local tools' The Financial Times, 9th September 2018

Keen, F. 'FinTech and RegTech – What Next for Financial Crime's International Standard Setter?' RUSI 24th July 2017

Kelemen, K. and Johansson, M. 'Still Neglecting the Demand That Fuels Human Trafficking: A Study Comparing the Criminal Laws and Practice of Five European States on Human Trafficking, Purchasing Sex from Trafficked Adults and from Minors' European Journal of Crime, Criminal Law and Criminal Justice 21(2013) 247 - 289

Kelley, K. 'Accuracy in Parameter Estimation' Encyclopaedia of Research Design, Edited by Salkind, N. J., 2010, SAGE Publications Inc. accessed 25th June 2019

Kelly, A. ''Count lines' drug gangs tracking children via social media: Warnings on coercion and blackmailing over smartphones went unheeded say experts, as child exploitation spirals' The Guardian 5th February 2019

Kelly, J. 'Coinbase wants to be "too big to fail", lol' FT Alphaville, The Financial Times, 3rd October 2018

Kelly, J. 'Grant Shapps resigns from blockchain positions after FTAV discovers secret pay deal' FT Alphaville, The Financial Times 1st August 2018

Kelly, J. 'The baroness, the ICO fiasco, and enter Steve Wozniak' FT Alphaville, The Financial Times 3rd September 2018

Kelly, J. 'The crypto periodic table (sigh)' FT Alphaville, The Financial Times, 7th September 2018

Keohane, D. and Atkins, R. 'Syrian operation: Lafarge faces probe over Isis payments' The Financial Times 7th March 2018

Khan, M. and Brunsden, J. 'Brussels draws up orders for Malta over dirty money scandal' The Financial Times, 4th October 2018

Khan, M. 'EU prepares crackdown on 'citizenship for sale'' The Financial Times 12th August 2018

Khan, M. and Brunsden, J. 'EU seeks new powers for money laundering crackdown' The Financial Times 9th September 2018

Kleemans E.R. (2011a) 'Expanding the domain of human trafficking research: introduction to the special issue on human trafficking' Trends Organ Crim (2011) 14:95-99

Kleemans E.R. 'Follow the Money' Introduction to Special Issue 'Financial Aspects of Organized Crime' Eur J Crim Policy Res (2015) 21:213-216

Kleemans, E. R. (2011b) 'Human Smuggling and Human Trafficking' The Oxford Handbook of Crime and Public Policy, Edited by Michael Tonry, OUP August 2011

Koker L. de and Turkington M. 'Transational Organised Crime and the Anti-Money Laundering Regime' in 'International Law and Transnational Organised Crime' Edited by P. Hauck and S. Peterke 2016 Oxford University Press

Konevska, G. 'Policy Responses to Human Trafficking in Balkans' Chapter 7 appearing in 'Human Trafficking, Human Security and the Balkans' Edited by H. R. Friman and S. Reich, University of Pitsburg Press, 2007 available at: https://www.jstor.org/stable/j.ctt5vkfgr.11

Koning, J.P. 'Moneyness: Did Brexit break the banknote?' Moneyness, the blog of JP Koning, recommended by FT Alphaville, downloaded, 26th September 2018

Kraft, O. 'Financial Crime 2.0: International Cooperating Vital in Fight Against Cybercrime' RUSI Commentary, 15th December 2017

Kraft, O. 'Money Service Businesses in the UK: Improving the Conditions for Effective Financial Crime Supervision and Investigations' RUSI Occasional Paper January 2018

Krippendorff, K. 'Reliability in Content Analysis: Some Common Misconceptions and Recommendations' Human Communication Research, Vol. 30 No. 3, July 2004 411 - 433

Kucinskis, M, The Prime Minister of Latvia 'Latvia's action plan to stamp out financial crime' The Financial Times, 30th September 2018

Kuzio, T. 'A multidimensional approach to corruption in Ukraine is needed' The Financial Times 13th March 2018

KYC360º 'Estonia says over $1 trillion flowed through the country in 2008-2017' 4th October 2018

KYC360º 'Lloyds Bank, London police in deal to fight financial crime' 30th August 2018

KYC360º 'Money laundering: Smurf banks large piles of dirty cash, claims innocence' 9th October 2018

KYC360º 'Things fall apart: Ex-best friends UK and Cayman Islands in fresh fight' 2nd October 2018

KYC360º 'UK appoints new Justice Secretary – Experts flag up his AML past, for better or worse?' 8th January 2018

Leclerc, B. et al 'Getting into the Script of Child Sex Offenders and Mapping out Situational Prevention Measures' Journal of Research in Crime and Delinquency 2011 48(2) 209-237

Lehmann, A.P. 'Do we need a global technology regulator for financial services?' FT Alphaville, The Financial Times 18th February 2019

Lehti, M., Aromaa, K. 'Trafficking for Sexual Exploitation' 34 Crime & Just. 133 (2006)

Leopold, J. and Cormier, A. 'Investigators are Scrutinizing Newly Uncovered Payments by the Russian Embassy' BuzzFeed News 17th January 2018

Levi M. 'Money for Crime and Money from Crime: Financing Crime and Laundering Crime Proceeds' Eur J Crim Policy Res (2015) 21:275–297

Levi, M., Reuter, P. and Halliday, T. 'Can the AML system be evaluated without better data?' Crime Law Soc Change (2018) 69:307-328

Levin, H. M. 'The Importance of Educational Adaptability' K-12 Center at ETS Invitational Research Symposium on Technology Enhanced Assessments

Lewis, H. et al 'Hyper-precarious lives: Migrants, work and forced labour in the Global North' Progress in Human Geography 2015, Vol. 39(5) 580-600

Lexis Nexis 'Future Financial Crime Risks: Considering the financial crime challenges faced by UK Banks' Lexis Nexis report for British Bankers Association November 2015

Lindstrom, N. 'Transnational Responses to Human Trafficking: The Politics of Anti-Trafficking in the Balkans' Chapter 4 appearing in 'Human Trafficking, Human Security and the Balkans' Edited by H. R. Friman and S. Reich, University of Pitsburg Press, 2007 available at: https://www.jstor.org/stable/j.ctt5vkfgr.11

Locharoenrat, K. 'Research Methodologies for Beginners' Pan Stanford Publishing 2017

Lomas, C. 'Voodoo nurse's trafficking sentence increased' Sky News, 20th September 2018

Long, L.D. 'Trafficking Exchanges and Economic Responses: Reflections from Bosnia and Herzeogovina and Serbia' Chapter 2 appearing in 'Human Trafficking, Human Security and the Balkans' Edited by H. R. Friman and S. Reich, University of Pitsburg Press, 2007 available at: https://www.jstor.org/stable/j.ctt5vkfgr.11

Lough, J. 'Ukraine Must Focus on Reducing Opportunities for Corruption' Chatham House, 18th July 2018

Lowenthal, M.M. 'Intelligence: From Secrets to Policy' 5th Edition Sage Publishing 2012

Lowenthal, M.M. 'Intelligence in Transition: Analysis after September 11 and Iraq' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

Lund, M. et al 'An overview of the Danske Bank money laundering scandal' Berlingske Business, 24th August 2018

Lynch, J. K. and Hadjimatheou, K 'Acting in Isolation: Safeguarding and anti-trafficking officers' evidence and intelligence practices at the border' Anti-Trafficking Review, issue 8, 2017, pp- 70-89

MacDowall, A. 'Convicted trafficker leaves Bulgaria's Celebrity Big Brother after protests' The Guardian, Global Development, 26th September 2018

Machiavelli (1469-1527) 'The Prince' 2011 Penguin Classics

Maclennan, M 'Forensic jewellery follows the trail from gems to justice' The Financial Times 22nd March 2018

Madsen F. G. 'The Historical Evolution of the International Cooperation against Transnational Organised Crime: An Overview' in 'International Law and Transnational Organised Crime' Edited by P. Hauck and S. Peterke 2016 Oxford University Press

Madsen F. G. 'Policing Transnational Organised Crime – The International Perspective' in 'International Law and Transnational Organised Crime' Edited by P. Hauck and S. Peterke 2016 Oxford University Press

Mance, H. 'Legatum founder accused by MP of ties to Russian Intelligence' The Financial Times 1st May 2018

Manson, K. 'Europe steps up drive to exempt Swift from Iran sanctions' The Financial Times, 9th October 2018

Marcus, Horning, Curtis, Sanson and Thomson 'Conflict and agency among sex workers and pimps: A closer look at domestic minor sex trafficking' 2014 The ANNALS of the American Academy of Political and Social Science

Marrin, S. and Clemente, J.D. 'Modeling an Intelligence Analysis Profession on Medicine' International Journal of Intelligence and CounterIntelligence, 2006 Vol. 19 pg 642-665

Martinez – Lopez, F. J. et al 'Structural equation modelling in marketing and business research: Critical issues and practical recommendations' European Journal of Marketing Vol 47 No. ½ 2013 pp115 - 152

Masters, B. 'Danske money laundering details are shocking but sadly familiar' The Financial Times, 21st September 2018

Matthan, R. 'RegTech will change the way we regulate' livemint Ex Machina 26th October 2016

Maulia, E. 'Go-Jek sparks an Indonesian banking revolution' The Financial Times, 4th September 2018

Maxfield M.G, and E.R. Babbie 'Research Methods for Criminal Justice and Criminology' 7th Edition Cengage Learning 2013

Maxwell, N.J. and Artingstall, D. 'The Role of Financial Information-Sharing Partnerships in the Disruption of Crime' RUSI Occasional Paper, October 2017

McCandless, D. 'Information is Beautiful' William Collins, 2012

McCrum, D. 'Parliament gets it, crypto-currency bunkum edition' FT Alphaville, The Financial Times, 19th September 2018

McIntyre, N. and Pegg, D. 'Councils use 377,000 people's data in effort to predict child abuse' The Guardian, 16th September 2018

McIntyre, N. and Pegg, D. 'Data on thousands of children used to predict risk of gang exploitation' The Guardian, 17th September 2018

McKinsey Centre for Government 'Change Management Success: Delivering for Citizens: How to triple the success rate of government transformations' Discussion Paper June 2018

McKinsey AI and FinTech report 2018

McLannahan, B. 'Banks claim blockchain breakthrough in money transfer' The Financial Times 22nd June 2016

McLannahan, B 'Financial crime crackdown curbs emerging markets' The Financial Times 7th September 2017

McLannahan, B 'Rabobank to pay US $369m over cover-up in Mexico drug money case' The Financial Times 7th February 2018

McLannahan, B 'Trio in push on cyber security standards for fintech groups' The Financial Times 6th March 2018

McLannahan, B 'US DoJ leads global arrests in bust of cyber crime ring' The Financial Times 7th February 2018

McLaughlin, J 'Serving the National Policymaker' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

McVeigh, K. ''I didn't want this to be a taboo': the fight for Kosovan women raped during the war' The Guardian, Global Development, 4th August 2018

Medina, C.A. 'The New Analysis' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

Mee, P. and Schuermann, T. 'How a Cyber Attack Could Cause the Next Financial Crisis' Harvard Business Review, 14th September 2018

Megaw, N. 'Rise of contactless payment means cash is no longer king' The Financial Times 18th June 2018

Meiklejohn, S. et al 'A Fistful of Bitcoins: Characterizing payments among men with no names' usenix.org December 2013 Vol 38. No. 6

Mercy Corps. 'Cash Delivery Mechanism Assessment: For Refugees, Migrants and Asylum Seekers in Libya, Report September 2017

Metz, S. 'Investing in the Military's Future Through Strategic Research' US Army War College War Room, 1st August 2018

Meyer, G. et al 'CME to offer bitcoin futures' The Financial Times 31st October 2017

Meyer, G. 'Erdogan backed scheme to ease Iran sanctions, court told' The Financial Times 30th November 2017

Millar, H., O'Doherty, T. and Roots, K. 'A Formidable Task: Reflections on obtaining legal empirical evidence on human trafficking in Canada' Anti-Trafficking Review, issue 8, 2017, pp. 34-49, www.antitraffickingreview.org

Milne, R. and Winter, D. 'Danske: anatomy of a money laundering scandal' The Financial Times, 1st October 2018

Milne, R. 'Danske Bank board ousts chief following €200bn scandal' The Financial Times, 1st October 2018

Milne, R. 'Danske Bank faces call for new investigation' The Financial Times, 20th September 2018

Milne, R. and Binham, C. 'Danske Bank memo shows how Russians moved money' The Financial Times, 5th October 2018

Milne, R. 'Deutsche Bank warned about Danske clients' The Financial Times 14th September 2018

Milne, R. and Binham, C. 'Inside Danske's €200bn 'dirty money' scandal' The Big Read: Danske Bank AS, The Financial Times, 3rd October 2018

Milne, R. 'Latvia banks still complicit in money laundering, claims US' 8th March 2018

Milne, R. 'Latvia vows to crack down on unscrupulous banking' The Financial Times 18th March 2018

Milne, R. 'US ire prompts Latvia to root out systemic failures on banking' The Financial Times 21st March 2018

Montgomery, E. and Jay, A. 'Human Sex Trafficking and Modern Slavery as a Global Public Health Problem' draft published on Academia.com downloaded 17th July 2018

Morselli, C. and Savoie-Gargiso, I. 'Coercion, Control and Cooperation in a Prostitution Ring' The Annals of The American Academy of Political and Social Science, May 2014 (653 Annals 6) Human Trafficking: Recent Empirical Research P. 247 - 265

Movchan, A. 'How to fix Russia's broken banking system' The Financial Times 14th January 2018

Mundy, S. et al 'India demonetisation fails to purge black money' The Financial Times 31st August 2017

Mundy, S. and Kazmin, A. 'Indian jewellery tycoon linked to alleged $1.77bn bank fraud' 15th February 2018

Murgia, M. 'UK-US pact will force big tech companies to hand over data' The Financial Times 23rd October 2017

Murphy, H. and Stafford, P. 'Former UBS bankers to set up regulated crypto-bank' The Financial Times, 26th September 2018

Murphy, H. 'Wild West' crypto-asset markets need UK regulation, say MPs' The Financial Times, 19th September 2018

Murray, S. 'Special Report Cyber Security: Artificial Intelligence – Machines ease cyber security industry talent crunch' The Financial Times, 26th September 2018

NASA Glenn Research Center, Bernoulli's Equation, www.grc.nasa.gov updated May 05 2015, downloaded 27th July 2019

National Audit Office 'Home Office – Reducing modern slavery' Report by the Comptroller and Auditor General, HC 630 Session 2017 – 2019, 15th December 2017

National Crime Agency '51 children potential victims of trafficking in EU-wide action' NCA News, 14th August 2018

National Crime Agency 'Albanian people smuggler jailed for six years after sea rescue' NCA News 5th July 2018

National Crime Agency Annual Plan 2015/16
http://www.nationalcrimeagency.gov.uk/publications/541-nca-annual-plan-2015-16-v1-0/file

National Crime Agency 'Brit tried to smuggle £1.5 million criminal cash on flight to Dubai' news 5th October 2018

National Crime Agency 'Financial adviser who arranged fraudulent mortgages for a heroin dealer ordered to pay back more than £4 million' news 24th September 2015

National Crime Agency Financial Intelligence Unit www.nationalcrimeagency.gov.uk/about-us/what-we-do/economic-crime/ukfiu

National Crime Agency 'International human trafficking operation saves 39 from sexual exploitation' NCA News, 22nd March 2018

National Crime Agency Job description 'Manager, National Economic Crime Centre (Temporary) – IP1336502HG' downloaded 25th June 2018

National Crime Agency National Strategic Assessment of Serious and Organised Crime 2016

National Crime Agency National Strategic Assessment of Serious and Organised Crime 2018

National Crime Agency 'Operation brings down Athens-based people smuggling gang targeting the UK' NCA news 6th November 2017

National Crime Agency 'Phoney businessmen smuggled huge haul of cocaine direct from Columbia on board private jet' 23rd August 2018

National Crime Agency 'Suspicious Activity Annual Report 2017' downloaded 14th October 2017 and 31st July 2018

National Policing Improvement Agency Professional Practice 'Practice Advice on Analysis' 2008

Nawyn, S. J., Kavakli, N.B., Demirci-Yilmaz, T., Oflazolglu, V. P. 'Human Trafficking and Migration Management in the Global South' (2016) International Journal of Sociology, 46:3, 189-204

Nichols, M. 'Human smugglers in Libya have links to security services: UN report' Reuters 7th February 2018

Noonan, L. 'AI in banking: the reality behind the hype' The Financial Times 12th April 2018

Noonan, L. 'JP Morgan develops robot to execute trades' The Financial Times 31st July 2017

Noonan, L. 'JP Morgan widens blockchain payments to more than 75 banks' The Financial Times, 25th September 2018

Noonan, L. et al 'Who went to jail for their role in the financial crisis?' The Financial Times, 20th September 2018

Obarisiagon, E. I. and Ijegbai, R. 'Curbing the Social Menace of Modern Slavery in Edo State, Nigeria: The Law and Criminal Justice System, a Panacea?' European Scientific Journal January 2019 edition, Vol. 15, No. 2, ISSN 1857-7881 Doi:10.19044/esj.2019.v15n2p44

O Brhane M. 'Trafficking in Persons for Ransom and the Need to Expand the Interpretation of Article 3 of the UN Trafficking Protocol' Anti-Trafficking Review, issue 4, 2015 pp.120-141

O'Connell Davidson, J. 'Troubling freedom: Migration, debt and modern slavery' Migration Studies Volume 1 Number 2 2013 p. 176-195

O'Connor, S. 'Dark factories: labour exploitation in Britain's garment industry' The Financial Times 17th May 2018

Office of the Director of National Intelligence, 'The Implementation Plan for the Principles of Intelligence Transparency' Published 27th October 2015

Olearchyk, R. 'Ukraine's Rinat Akhmetov has $820m of assets frozen' The Financial Times 5th January 2018

Omand, D. 'Securing the State' Hurst 2010

O'Murchu, C. 'Malta bank chief held in US over Iran links' 21st March 2018

O'Murchu, C. 'Malta bank was set up with 'criminal proceeds', say prosecutors' The Financial Times 25th May 2018

O'Murchu, C. 'The Maltese connection with Iran sanctions busting' The Financial Times 5th April 2018

O'Neil, C. 'Audit the algorithms that are ruling our lives' The Financial Times 30th July 2018

O'Neil, C. 'How can we stop algorithms telling lies?' The Guardian 16th July 2017

Oudejans et al 'Feasibility and validity of low-budget telephonic follow-up interviews in routine outcome monitoring of substance abuse treatment' (2009) Addiction 104 Pg 1138-1146

Oxford Advanced Learner's Dictionary for definitions on 'subtle' and 'obvious' accessed online through the Oxford Learner's Dictionaries at www.oxfordlearnersdictionaries.com on 2nd July 2019

Palstra, N. 'In Pursuit of Hidden Owners Behind UK Companies' Global Witness 6th February 2018

Parkes, C. 'The Trafficking Protocol has Advanced the Global Movement against Human Exploitation: The case of the United Kingdom' Anti-Trafficking Review, issue 4, 2015, pp.150-155

Partington, R. 'If it was Lehman Sisters, it would be a different world – Christine Lagarde' The Guardian, 5th September 2018

Patterson, O. and Zhuo, X. 'Modern Trafficking, Slavery and Other Forms of Servitude' Annu. Rev. of Sociol. 2018. 44:407-39

Peel, M. and Khan, M. 'EU states warned over billions banked through 'golden visa' schemes' The Financial Times, 10th October 2018

Peel, M. and Brunsden, J. 'Migration: the riddle of Europe's shadow population' The Financial Times, 7th October 2018

Peel, M. 'Romania anti-corruption chief hits out at critics' The Financial Times 15th February 2018

Peel, M. and Pitel, L. 'The migration dilemma: EU weighs impact of its deal with Turkey' The Financial Times 22nd March 2018

Pellerin, C. 'Project Maven to Deploy Computer Algorithms to War Zone by Year's End' US Department of Defense News, Defense Media Activity 21st July 2017

Pennington, J. R. et al 'The Cross-National Market in Human Beings' Journal of Macromarketing Volume 29 Number 2 June 2009 119-134

Petrunov, G. 'Managing money acquired from human trafficking: case study of sex trafficking from Bulgaria to Western Europe' Trends Organ Crim (2011) 14: 165-183

Pevalin, D. and Robson, K. 'The STATA Survival Manual' Open University Press 2009

Peyton, A. '"Jihadi capital" Belgium most lenient country on money laundering' Banking Technology 15th August 2017

Pickering, S. and Ham, J. 'Hot Pants at the Border: Sorting Sex Work from Trafficking' BRIT. J. CRIMINOL. (2014) 54, 2-19

Pickford, J. 'Young people increasingly targeted to launder proceeds of crime' The Financial Times 18th April 2018

Pilling, D. 'The real price of Madagascar's vanilla boom' The Financial Times 5th June 2018

Piper, N., Segrave, M. and Napier-Moore, R. 'Editorial: What's in a Name? Distinguishing forced labour, trafficking and slavery' Anti-Trafficking Review, issue 5, 2015, pp.1-9

Planitzer, J. 'GRETA's First Years of Work: Review of the monitoring of implementation of the Council of Europe Convention against Trafficking in Human Beings' Anti-Trafficking Review, issue 1, June 2012 pp.31-42

Plant, R. 'Forced Labour, Slavery and Human Trafficking: When do definitions matter?' Anti-Trafficking Review, issue 5, 2015, pp. 153-157

Pourmokhtari, N. 'Global Human Trafficking Unmasked: A Feminist Rights-Based Approach' Journal of Human Trafficking 1:2 156-166 2015

Preacher, K. J., Rucker, D.D. Hayes, A.F. 'Addressing Moderated Mediation Hypotheses: Theory, Methods and Prescriptions' MULTIVARIATE BEHAVIOURAL RESEARCH, 42(1) 185 - 227

PwC Global FinTech Report 2017

Ralph, O 'Cyber attacks: the risks of pricing digital cover' The Financial Times 19th March 2018

Ram, A. 'Modern slavery campaigners turn to online exploitation' The Financial Times 28th August 2018

Ramesh, R. '1MDB: The inside story of the world's biggest financial scandal' The Guardian, 29th July 2016

Ratcliffe, J. 'Integrated Intelligence and Crime Analysis: Enhanced Information Management for Law Enforcement Leaders' 2nd Edition Police Foundation and US Department of Justice, Community Oriented Policing Services 2007

Ratcliffe, J. 'Intelligence-Led Policing' 2016 Routledge

Ratcliffe, J. 'The Structure of Strategic Thinking' in 'Strategic Thinking in Criminal Intelligence' Ed. J. Ratcliffe, The Federation Press 2009

Reel, M. 'Why the EU is furious with Malta' Bloomberg, 11th September 2018

Reynolds, M.R. 'Bivariate Regression' Edited by Salkind, N.J. 'Encyclopaedia of Research Design, 2010 SAGE Publications Inc. accessed 25th June 2019

Roberts, J. 'Chaos and hackers stalk investors on cryptocurrency exchanges' Reuters 29th September 2017

Robinson, C., Branchini, C. and Thame, C. 'Global Trafficking Prevalence Data Advances the Fight against Trafficking in Persons' Anti-Trafficking Review, issue 8, 2017, pp. 157 – 160, www.antitraffickingreview.org

Rogers D. L. 'Humanity's Travesty: The Trafficking and Smuggling of Humans as a Commodity: A Plan for Financial Institutions to Go Beyond Standard Baseline Monitoring' ACAMS Downloaded 19th August 2016

Rotella, S. 'Gangsters of the Mediterranean' The Atlantic 10th November 2017

Rowntree D. 'Statistics Without Tears' Penguin 1981

Royal United Services Institute news 'EY, Lloyds Banking Group and Thomson Reuters to support RUSI review of AML regime' 26th March 2018

Rubenfeld, S. 'Costly Corporate Investigations Have No Natural End-Point' Wall Street Journal, Risk and Compliance Journal 10th October 2017

Russell, J. 'China has banned initial coin offerings' TechCrunch 4th September 2017

Ryazantsev, S. V. et al 'Actual Problems of Human Trafficking and Illegal Migration in the Russian Federation' Mediterranean Journal of Social Sciences, Vol 6 No. 3 S1 May 2015

Salipante, P. and Aram, J.D. 'Managers as Knowledge Generators: The Nature of Practitioner-Scholar Research in the Nonprofit Sector' Nonprofit Management & Leadership Vol. 14, no. 2, Winter 2003

Salord, A. Head of Financial Crime Compliance Retail Banking & Wealth Management Asia Pacific HSBC 'The UK Criminal Finances Act 2017 – Game Changer for Banks?' LinkedIn 24th September 2017

Salt, J. 'Trafficking and Human Smuggling: A European Perspective' International Migration Special Issue 2000 IOM ISSN 0020-7985 Blackwell Publishing Ltd. Pp. 31-56

Sanderson, H. 'LME probes cobalt supplies after complaints over child labour links' The Financial Times 22nd November 2017

Sarkis, M. 'Gaps, Best Practices and Challenges in Responding to Sex Trafficking and Commercial Sexual Exploitation' Clark University, Mosakowski Institute for Public Enterprise, published in Policy Options to Address Youth Trauma in Massachusetts, 2018

Saviano R 'Gomorrah' 2008 Pan Macmillan

Scannell, K 'Insider trading schemes using encrypted apps alarm FBI' The Finanical Times 20th August 2017

Schelling, T.C. 'What is the business of organized crime?' The American Scholar, Vol. 40, No. 4 (Autumn 1971) pp. 643-652

Secure Trading 'Payment Tokenisation: The future of payment fraud prevention' download April 2016

Seddon, M. and Arnold, M. 'Putin considers 'cryptorouble' as Moscow seeks to evade sanctions' The Financial Times 2nd January 2018

Seddon, M. 'Russia to nationalise big private lender B&N' The Financial Times 22nd September 2017

Seddon, M. 'Sberbank: the bank trying to shape Russia's future' The Financial Times, 30th September 2018

Segrin, C. 'Multiple Regression' Edited by Salkind, N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc. accessed 25th June 2019

Serious Fraud Office 'Tell Tale Signs: Your role in Preventing Money Laundering By Flagging it Up' 3rd January 2018

Serious Organised Crime Agency 'The National Intelligence Requirement for Organised Crime' 2009/10

Serughetti, G. 'Smuggled or Trafficked? Refugee or job seeker? Deconstructing rigid classifications by rethinking women's vulnerability' Anti-Trafficking Review, Issue 11, 2018 pp.16-35

Shafik, M., Deputy Governor, Markets and Banking, Bank of England 'From 'ethical drift' to 'ethical lift': Reversing the tide of misconduct in global financial markets' Speech given at Panel Discussion at the Federal Reserve Bank of New York Conference on 'Reforming Culture and Behaviour in the Financial Services Industry' on 20th October 2016

Sheptycki, J. 'Organizational Pathologies in Police Intelligence Systems' European Journal of Criminology 2004 Vol 1(3): 307-332

Sheptycki, J. 'The Police Intelligence division-of-labour' Policing and Society, 2017, Vol. 27, No. 6, 620-635

Sheskin, D. J. 'Correlation' Edited by Salkind, N. J. Encyclopaedia of Research Design, 2010, SAGE Publications Inc. accessed 25th June 2019

Shubber, K. 'Banks find blockchain hard to put into practice' The Financial Times 12th September 2016

Shubber, K. 'Farewell, WB21, we hardly knew ya' FT Alphaville, The Financial Times, 3rd October 2016

Shubber, K. 'The fintech 'genius' accused in $165m fraud: SEC says WB21's 'solution' was designed to disguise clients' identities' The Financial Times, 8th October 2018

Siegel, D. and de Blank, S. 'Women who traffick women: the role of women in human trafficking networks – Dutch cases' Global Crime Vol. 11, No. 4, November 2010 436 - 447

Skilbrei M-L., Tveit, M. 'Defining Trafficking through Empirical Work: Blurred Boundaries and the Consequences' Gender Technology and Development 12(1), 2008: 9-30 SAGE Publications DOI: 10.1177/097185240701200103

Slaughter, A-M. 'Transform UN entities from hierarchies into hubs' The Financial Times, 17th September 2018

Smith, R et al 'Wall St reinvents equity collars as risky money spinner' The Financial Times 18th April 2018

Smith, T.J. 'Predictive Warning: Teams, Networks, and Scientific Method' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Solomon, E. and Mhidi, A. 'ISIS finds escape route for the spoils of war' The Financial Times 23rd August 2017

Spence, I. and Garrison, R. 'A Remarkable Scatterplot' (1993) The American Statistician Vol. 47 pp. 12-19

Sproat, P. 'A critique of the official discourse on drug and sex trafficking by organised crime by using data on asset recovery' Centre for Police and Criminal Justice Studies, University of the West of Scotland, Hamilton, UK, Journal of Financial Crime Vol. 19 No. 2 2012 Pp149-162

Stafford, P. 'Crime keeps pace with rise in cryptocurrency prices' The Financial Times 23rd October 2017

Stanford Children's Hospital. [Online]
Available at: https://www.stanfordchildrens.org/en/topic/default?id=understanding-the-teen-brain-1-3051
[Accessed 14 Oct 2020].

STATA 'Structural Equation Modeling' Reference Manual Release 13, 2013, downloaded 10th July 2019 from www.stata.com/manuals13/sem.pdf

Stefanizzi, S. 'Measuring the Non-Measurable: Towards the Development of Indicators for Measuring Human Trafficking' Chapter 6 in E. Savona and S. Stefanizzi, 'Measuring Human Trafficking, Complexities and Pitfalls', Springer, New York 2007

Steinberg, J.B. 'The Policymaker's Perspective: Transparency and Partnership' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

Stoyanova, V. Chapter 1 'Introduction'; Chapter 2 'Origins, Context and the Currently Valid Law'; Chapter 3 'The Definition of Human Trafficking in International Law'; Chapter 7 'The Relationship between the Concept of Human Trafficking and the Concepts of Slavery, Servitude and Forced Labour' in 'Human Trafficking and Slavery Reconsidered', Cambridge University Press, 2015

Summers, H. 'Thousands enslaved in forced marriages across UK, investigation finds' The Guardian 28th May 2018

Sun Tzu 'The Art of War' Translated by Thomas Cleary 1988 Shambhala Publications Inc.

Surtees, R. 'Traffickers and Trafficking in Southern and Eastern Europe: Considering the Other Side of Human Trafficking' European Journal of Criminology Vol 5(1): 39-68: 1477-3708 2008

Taylor, C. 'Banks' approach to risk data is deeply inadequate' The Financial Times 15th July 2018

Tett, G. 'Risk? It's probably that thing you are ignoring' The Financial Times 20th June 2018

The Economist '1MDB: Settling up: The first of many trials linked to a ast financial scandal is about to start' The Economist 9th February 2019

The Economist 'Australia's banks: Profit and loss: Some think a royal commission has gone too easy on rotten institutions' The Economist 9th February 2019

The Economist 'Denmark's biggest bank reports on its Estonian shambles – Danske Bank's money-laundering scandal' The Economist 20th September 2018

The Economist 'Fraud in Hungary: Sniffing out corruption: The curious incident of the underwater treadmill for dogs' The Economist 9th February 2019

The Economist Data Team 'Access to banking services is spreading throughout the developing world' The Economist 7th May 2018

The Economist Espresso 'Sea Views: Balkan Borders' The Economist 4th January 2018

The FT 'Special Report Cyber Security: Artificial Intelligence – Industry perspectives: Preventing malicious use of AI' The Financial Times, 26th September 2018

The FT View 'Cryptocurrency Wild West is crying out for a principled sheriff' The Editorial Board of The Financial Times, 25th September 2018

The FT View 'Europe needs a central anti-money laundering body' The Editorial Board of The Financial Times 4th September 2018

The FT View 'Nigeria's missing billions turn up in familiar places' The Financial Times 2nd August 2017

The FT View 'Time to clean up the London laundromat' The Editorial Board of the Financial Times, 27th September 2018

The FT View 'Trump and the use and misuse of US sanctions' The Financial Times, 14th August 2018

The Inns of Court College of Advocacy 'Youth Justice – An Insight Into Child Trafficking Chapters 1-4' ECPAT video transcripts downloaded from ECPAT UK 2nd July 2018

Thomas, D. 'US Military Intelligence Analysis: Old and New Challenges' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors, R.Z. George and J.B. Bruce, Georgetown University Press 2008

Thompson, B. 'EU national challenges HMRC over new data sharing rules' The Financial Times 1st August 2018

Thompson, B. 'Number of raids by Serious Fraud Office triples' The Financial Times 25th July 2018

Thompson, B. 'SFO seeks recovery of London homes with Uzbek links' The Financial Times, 3rd October 2018

Thompson, B. 'UK law firms disciplined over money laundering' The Financial Times 2nd March 2018

Thornhill, J 'Britain urged to take ethical advantage in artificial intelligence' The Financial Times 15th April 2018

Toch, H. 'An Inquiry into the Psychology of Violence: Violent Men' 2017 25th Anniversary Edition, American Psychological Association

Tondo, L. ''We have found hell': drawings reveal children's trauma at Lesbos camp' The Guardian, Global Development, 3rd October 2018

Toplensky, R. 'EU warns 53 jurisdictions of tax blacklist threat' The Financial Times 6th November 2017

Transparency International Corruption Perceptions Index 2017

Transparency International UK 'Don't Look Won't Find: Weaknesses in the Supervision of the UK's Anti-Money Laundering Rules' 2015

Travis, A. 'Home Office wrongly denying people bank accounts in 10% of cases' The Guardian 22nd September 2017

Travis, A. 'UK banks to check 70m bank accounts in search for illegal immigrants' The Guardian 21st September 2017

Treverton, G.F. 'Intelligence Analysis: Between "Politicization" and Irrelevance' in 'Analyzing Intelligence: Origins, Obstacles, and Innovations' Editors*,* R.Z. George and J.B. Bruce, Georgetown University Press 2008

UK Finance and Parker Fitzgerald 'Sustainable Financial Services in the Digital Age' May 2018

UK Government 'UK establishes new money laundering watchdog' 21st December 2017

UK Parliament 'Algorithms in decision-making' Publications and Records downloaded from www.parliament.uk on 29th May 2018 at 13.59 BST.

UK Parliament Home Affairs Committee, 'Call for written evidence into modern slavery' News from Parliament, 18th July 2018

UK Parliament, 'Independent Review of the Modern Slavery Act 2015: Written statement made by Victoria Atkins (The Parliamentary Under Secretary of State for Crime, Safeguarding and Vulnerability' published on 5th September 2018

United Nations Convention Against Transnational Organized Crime and the Protocols thereto 2000

United Nations Convention Against Transnational Organized Crime, Palermo, 15 November 2000, entered into force on 25 December 2003, 2237 UNTS 319, Doc. A/55/383

United Nations Convention on the Rights of the Child 1989

United Nations General Assembly 'Report of the Special Rapporteur on the sale of children, child prostitution and child pornography, Najat Maalla M'jid' Human Rights Council 24th December 2012 A/HRC/22/54

United Nations General Assembly 'Report of the Special Rapporteur on the sale of children, child prostitution and child pornography, Najat Maalla M'jid' Human Rights Council 23rd December 2013 A/HRC/25/48

United Nations Global Initative to Fight Human Trafficking (UN.GIFT) 'The Vienna Forum to fight Human Trafficking 13-15 February 2008, Austria Centre Vienna, Background Paper 016 Workshop: Profiling the Traffickers' UN.GIFT BP:016

UNHCR 'Open Briefing to United Nations Security Council Counter-Terrorism Committee' 5th April 2017

UNICEF 'Training Manual to Fight Trafficking in Children for Labour, Sexual and other forms of Exploitation' Textbook 1 'Understanding Child Trafficking' 2009

UNICEF 'Training Manual to Fight Trafficking in Children for Labour, Sexual and other forms of Exploitation' Textbook 2 'Action against Child Trafficking at Policy and Outreach Levels' 2009

United Nations Office on Drugs and Crime (UNODC) 'A Comprehensive Strategy to Combat Trafficking in Persons and Smuggling of Migrants' UNODC, 29th February 2012

UNODC 'Issue Paper: Abuse of a position of vulnerability and other "means" within the definition of trafficking in persons' UNODC, 2013

UNODC 'Issue Paper: The Concept of 'Exploitation' in the Trafficking in Persons Protocol' UNODC, 2015b

UNODC 'Issue Paper: The Role of 'Consent' in the Trafficking in Persons Protocol' UNODC, 2014

UNODC 'Research Brief: Multiple Systems Estimation for estimating the number of victims of human trafficking across the world: Based on a paper written by Jan van Dijk and Peter G.M. van der Heijden for UNODC' download from UNODC 2016

UNODC 'Role of recruitment fees and abusive and fraudulent recruitment practices of recruitment agencies in trafficking in persons' October 2015a

UNODC, 'SHERLOC newsletter' Issue No. 8 December 2017

UNODC 'Strategy for Fight Against Organized Crime in Bosnia and Herzegovina' SHERLOC report downloaded 13th April 2018

UNODC Human Trafficking Database 'SHERLOC' accessed at: https://www.unodc.org/cld/v3/htms/cldb/index.html?lng=en

United Nations Optional Protocol to the Convention on the Rights of the Child on the Sale of Children, Child Prostitution and Child Pornography 2002

United Nations 'Secretary-General's High-level Panel on Digital Cooperation' United Nations News and Media downloaded 18th September 2018

United Nations Security Council 'Resolution 2388 (2017)' S/RES/2388 (2017)

US Department of Commerce, International Trade Administration 'Bosnia Herzegovina Country Commercial Guide' downloaded 24th November 2017

US Department of State, Office of the Under Secretary for Civilian Security, Democracy, and Human Rights 'Trafficking In Persons Report 2018' Published in June 2018.

US Department of State, Office of the Under Secretary for Civilian Security, Democracy, and Human Rights 'Trafficking In Persons Report July 2014'

US Department of the Treasury FinCEN 'Advisory: Guidance on Recognizing Activity that may be Associated with Human Smuggling and Human Trafficking – Financial Red Flags' September 11, 2014 FIN-2014-A008

US Government 'Tradecraft Primer' April 2009

van der Wilt, H. 'Trafficking in Human Beings, Enslavement, Crimes Against Humanity: Unravelling the Concepts' http://chinesejil.oxfordjournal.org doi: 10.1093/chinesejil/jmu015; advance access pub 10 July 2014

van der Watt, M. and van der Westhuizen, A. '(Re)configuring the criminal justice response to human trafficking: a complex-systems perspective' Police Practice and Research, 18:3, 218-229, 2017

Van Dyke, R. 'Monitoring and Evaluation of Human Trafficking Partnerships in England and Wales' Anti-Trafficking Review, issue 8, 2017, pp.131-146, www.antitraffickingreview.org

van Riesen, M. and Rijken C. 'Sinai Trafficking: Origin and Definition of a New Form of Human Trafficking' Social Inclusion 2015, Vol 3, Issue 1, Pages 113 - 124

van Steenis H. 'Five reasons why bitcoin fails the innovation test' The Financial Times, 23rd September 2018

Varese F. 'Mafias on the Move' 2011 Princeton

Wallis, L. 'Is 25 the new cut-off point for adulthood?' BBC News 23rd September 2013 downloaded https://www.bbc.co.uk/news/magazine-24173194

Warrell, H. 'Surge in violent crime fuels austerity debate' The Financial Times 2nd November 2017

War Room 'Whiteboard response: Is the US Military tactically proficient, but strategically deficient?' US Army War College, War Room, 17th August 2018, 12th and 18th September 2018

Waters, R. 'Artificial intelligence: when humans and robots coexist' The Financial Times, 9th October 2018

Waters, R. and Thornhill, J. 'Quantum computing: the power to think outside the box' The Financial Times 3rd September 2018

Watson, C. 'No one leaves anymore'. How Ethiopia's restored drylands offer hope' Global Development Profession, The Guardian, 3rd August 2016

Weinland, D. and Yang, Y. 'North Korea's opaque trading network keeps economy afloat' The Financial Times 12th September 2017

Weitzer, R. 'Human Trafficking and Contemporary Slavery' Annu. Rev. 2015 41: 223-42

Weitzer, R. 'In this Issue: Human trafficking: Recent empirical research; Special Editors; Ronald Weitzer and Sheldon X. Zhang: Introduction' The Annals of American Academy of Political and Social Science, May 2014 653 Annals 6

Weitzer, R. 'The Social Construction of Sex Trafficking: Ideology and Institutionalization of a Moral Crusade' POLITICS & SOCIETY, Vol. 35 No. 3, September 2007 447 - 475

Wellinghoff, W. 'Money mules and mule accounts: How to protect yourself' Shieldpay, 2nd October 2018

Westcott, N. 'What a Brexit security treaty needs to cover' Chatham House, The World Today, August & September 2018

Wigglesworth, R. 'Can big data revolutionise policymaking by governments?' The Financial Times 31st January 2018

Wigglesworth, R. 'Will BlackRock's algorithms beat the fund managers?' The Financial Times 20th March 2018

Wijers, M. 'Purity, Victimhood and Agency: Fifteen years of the UN Trafficking Protocol' Anti-Trafficking Review, issue 4, 2015, pp. 56-79

Wildau, G and Yizhen, J. 'China moves to impose order on mobile payments boom' The Financial Times 28th December 2017

Winchester, N. 'World Day Against Trafficking in Persons 30 July 2018' House of Lords Library briefings, 27th July 2018

Witton, J. 'Data Protection and Global Privacy Insights' PwC and PwC Legal 18th July 2017

Wood, H. 'Destination 2018: Towards the FATF Evaluation of the UK 2018' RUSI Whitehall Report 4-15 December 2015

Wood, H. 'Every Transaction Leaves a Trace: The Role of Financial Investigation in Serious and Organised Crime Policing' RUSI Occasional Paper September 2017

Woodman, S. 'The U.S. list of wealthy Russians and our offshore investigations' International Consortium of Investigative Journalists 5th February 2018

Woolard, C. Executive Director of Strategy and Competition at the FCA 'Regulating innovation: a global enterprise' Downloaded from the Financial Conduct Authority www.fca.org.uk Speeches on 27th April 2018 at 12.48 BST.

Wright, R. 'Crackdown on sham marriages leaves migrants in limbo' The Financial Times, 10th September 2018

Yea, S. 'Editorial: The politics of evidence, data and research in anti-trafficking work' Anti-Trafficking Review, issue 8, 2017, pp. 1-13, www.antitraffickingreview.org

Yong, E. 'A Controversial Virus Study Shows Flaws in How Science is Done' The Atlantic, 4th October 2018

Zhang, S. X. 'Beyond the 'Natasha' story – a review and critique on current research on sex trafficking' (2009) Global Crime, 10:3, 178-195 DOI 10.1080/17440570903079899

Chapter 10 Training Courses, Seminars, Talks, Meetings, Podcasts, Broadcasts – annotated bibliography

(Chronological order)

Stolen Childhoods: The Legacy of Grooming – Panorama, BBC1 Broadcast, 15th June 2015

From Russia with Cash, Channel 4 Broadcast, 8th July 2015

Security & Crime Science Department International Crime Conference July 2015

BBC News at Ten, Week of investigative reports on modern slavery and trafficking, BBC1 Broadcast, 27th, 28th and 29th July 2015

Doing Research in Security & Crime Science Masters Course – Audited 2015

Quantitative Methods Masters Course – Audited 2015

RUSI – Launch of UK's preparation for FATF Review – November 2015

The Truth About Child Sex Abuse, BBC2 Broadcast, 24th November 2015

RUSI – Proceeds of crime 'Beyond the balance sheet' – December 2015

Hunting the Paedophiles: Inside the National Crime Agency, Channel 4 Broadcast, 7th December 2015

Intelligence Gathering & Analysis – Audited 2016

Child Sexual Exploitation Research Forum – held at CEOP Command National Crime Agency - January 2016

Mark Lowenthal - Intelligence Gathering & Analysis Special Lecture – January 2016

Saving the Cyber Sex Girls: Stacey Dooley Investigates. BBC1 Broadcast, 5th January 2016

Putin's Secret Riches – Panorama, BBC1 Broadcast, 25th January 2016

Meeting with Head of Modern Slavery Unit – National Crime Agency – February 2016

Cops, Criminals, Corruption: The Inside Story. BBC1 Broadcast, 29th February 2016

Meeting with representative from Financial Crime Unit – National Crime Agency – April 2016

Tax Havens of the Rich and Powerful, Exposed – Panorama, BBC1 Broadcast, 4th April 2016

Meeting with Crime and Policing Analysis Unit – Home Office - May 2016

Meeting with Joint Money Laundering Intelligence Taskforce - Industry Representative - Solicitor, Standard Chartered Trafficking Unit – June 2016

ACAMS Financial crime - Networking event June 2016

Clara Skrivankova – Anti-Slavery International – University of Bedford - July 2016

Financial Conduct Authority – Annual Public Meeting – Submitted Questions: FCA approach to Brexit and impact on Financial Crime – July 2016

Security & Crime Science Department International Crime Conference – July 2016

Public Policy Exchange Conference – Modern Day Slavery and Human Trafficking – September 2016

Serious & Organised Crime Masters Course – Audited – 2016

Undercover: The Refugees Who Make Our Clothes – Panorama, BBC1 Broadcast, 24th October 2016

Secrets of Sex: Trafficked. Community Channel documentary, 30th October 2016

Skype meeting with Tom Keatinge – Director Financial Unit – RUSI – Human Trafficking – November 2016

Secrets of Sex: Modern Slavery. Community Channel documentary, 12th November 2016

Serious & Organised Crime Masters Course – Delivered Financial Crime Lecture – December 2016

The War on Loan Sharks. BBC1 Documentary, 10th January 2017

The Modern British Slave Trade. Channel 4 Broadcast, 31st January 2017

Rob Wainwright – Director Europol – Lecture - UCL – March 2017

Deloitte Financial Crime Presentation – Intelligence Gathering & Analysis Special Lecture – March 2017

Information Commissioner's Office – Surveillance Webinar – May 2017

Craig Deare, The Future of US Security, Intelligence & Defence - Department Lecture - May 2017

Illicit Financial Flows Conference – Chatham House – May 2017

Three Girls. BBC1 Broadcast 16th, 17th and 18th May 2017

Financial Conduct Authority – Annual Public Meeting – Submitted Question: – FCA engagement on Artificial Intelligence – July 2017

Security & Crime Science Department International Crime Conference – July 2017

Introduction to R – Statistics training - Institute of Child Health Care, UCL - August 2017

Africa's Billion Pound Migrant Trail – BBC Panorama, 18th September 2017

Serious & Organised Crime Masters Course – Delivered Financial Crime Lecture – October 2017

Information Commissioner's Office - Law Enforcement Provisions on the Data Protection Bill October 2017

Billion Dollar Deals and How They Changed Your World: Money. BBC2, 9th October 2017

Louis Theroux: Dark States – Trafficking Sex – BBC2, 18th October 2017

Professor Dame Wendy Hall, AI Through the Looking Glass, Turing Institute – November 2017

Britain's Offshore Secrets Exposed – BBC Panorama, 6th November 2017

Home Office Seminar – Policy for Research Academics – January 2018

Intelligence Gathering & Analysis – Audited – 2018

Mikhail Khordokovsky in conversation – Guardian Lectures – February 2018

Reliability & Validity in Statistics - Institute of Child Health Care, UCL – February 2018

WAR ROOM Podcast by Paul Kan and Jacqueline E. Whitt 'Clausewitz talk about war being an extension of politics; for criminals violence is… an extension of the profit motive.' Downloaded from www.warroom.armywarcollege.edu February 2018

'Data collection in challenging environments: focus on qualitative data collection methods' JDI Department March 2018

The Economist EY Disrupters Series 2 'Tracking the Traffickers' accessed @ www.eydisrupters.films.economist.com on 23rd March 2018

BBC HARDtalk interview with the Director of the Serious Fraud Office, David Green. BBC News Channel Broadcast, 11th April 2018

'Data Management Plans' 24th April 2018 provided by the Institute of Tropical Hygene

'The Fight Against Corruption' Chatham House conference event attended by David Cameron, One Campaign, Transparency International and OECD, 24th April 2018

EU TERR Committee meeting 17th May 2018 9-12.30 EST. Debate on latest development in FININT and terrorist financing. http://web.ep.streamovations.be/index.php/event/stream/20180517-0900-committee-terr

RESPECT (International Organisation for Migration, the Global Initiative Against Transnational Organised Crime and Babson College, USA) 'Interactive Map for Business of Anti-Human Trafficking Organisations' launch event at BT plc, London, 22nd May 2018

EU CONFINE 'Towards Operational Cooperation on Local Administrative Financial Investigations in the Fight Against Human Trafficking', Genk, Belgium, 24th May 2018

Gangs, Murder and Teenage Drug Runners. BBC News Channel Broadcast, 4th June 2018

Royal Institute of International Affairs at Chatham House, in conversation with Misha Glenny: global organized crime and the revolution in the drugs economy, 22nd June 2018

'Data Debates: Data and Inequality' British Library and the Turing Institute 28th June 2018 Panel: Dr Robert Berkeley MBE, Catherine Mayer, Dr Karen Salt, Dr Sandra Wachter, Hetan Shah, Timandra Harkness

House of Parliament, Home Affairs Committee – EU Policing and Security Cooperation: Future EU – UK Security Relationship, 3rd July 2018 with Sir Rob Wainwright, Claude Mores MEP European Parliament's Committee on Civil Liberties, Justice and Home Affairs and Camino Mortera-Martinez, Research Fellow and Brussels Representative, Centre for European Reform. Key issues: EUROPOL, European Arrest Warrant, Schengen Information System II

Security & Crime Science Department International Crime Conference – July 2018

Interview with Dr Sarah Sewell, the Speyer Family Foundation Distinguished Scholar, Henry Kissinger Center for Global Affairs and former Undersecretary of State for Civilian Security, Democracy and Human Rights under the Obama administration and inaugural Deputy Assistance Secretary of Defense

for Peacekeeping and Peace Enforcement Policy by Buck Hanerichter, Social Media Editor, WAR ROOM, on 8th July 2018. Dr Sewell discussed strategic leadership and key learnings from her key posts.

Foreign Affairs Committee, House of Parliament 'Responsibility to Protect and Humanitarian Intervention' with Lord Ahmed of Wimbledon, Minister of State and Corinne Kitsell, Deputy Director UN and Multilateral/ UN Coordinator, 11th July 2018 – UK's position on R2P and Human Rights as part of trade negotiations. As result of UK's work at Human Rights Council (HRC), a review of each state's Modern Slavery and Trafficking prevention is now part of the standard questions and assessment under the Universal Periodic Review by the HRC of each state.

 'Stacey Dooley: Gypsy Kids Taken From Home' BBC1 24th July 2018 – investigation into Roma children being taken into care in Hungary with inference that this is used as a threat to ethnically cleanse Roma families from villages. Roma children taken into care are placed in Children's Homes with high incidence of child abuse and prostitution with interviews with sex traffickers at the gates of the children's homes.

'In Search of Science: Frankenstein's Monsters' BBC Productions 2013. Broadcast on BBC4 26th July 2018. Professor Brian Cox explores the relationship science has with the public and the impact of the dark side of science on this relationship and the advancement of human development.

'21st Century Sex Slaves' National Geographic documentary 2011, broadcast on Channel 5 on 1st August 2018. Thai based international operation to break a Uzbek, Moscow, Turkey connected sex trafficking gang operating in Bangkok and Pattaya, Thailand trafficking Uzbek women.

'The UN Sex Abuse Scandal' with Ramita Navai, Ronachan Films 2018, broadcast on Channel 4, 1st August 2018. Focus on victim accounts of sexual exploitation by UN staff and peacekeepers in Democratic Republic of Congo and Central African Republic.

'In Search of Science: Method and Madness' BBC Productions 2013. Broadcast on BBC4 2nd August 2018. Professor Brian Cox explores the development of scientific method.

'In Search of Science: Clear Blue Skies' BBC Productions 2013. Broadcast on BBC4 9th August 2018. Professor Brian Cox explores the origins of blue skies research and the importance and drawbacks of applied research to the development of scientific knowledge.

Newsnight investigation on 'county lines' trafficking with Simon Bailey, Child Protection Lead, National Police Chiefs Council, Chief Constable, Norfolk Constabulary, BBC2 broadcast, 13th August 2018

WAR ROOM podcast interview with Lieutenant Colonel Mike Navicky ("Pots") US Air Force interviewed by Andrew A. Hill, Editor-in-Chief 'Will artificial intelligence solve our national security problems, or create them? 14th August 2018 downloaded from www.warroom.armywarcolledge.edu

'The Prosecutors: Modern Day Slavery' documentary on child labour exploitation in nail bars in UK of Vietnamese children and the prosecution of their exploiters. Broadcast on BBC2 on 15th August 2018

FT Features 'Gillian Tett asks if banking culture has really changed' The Financial Times 28th August 2018

FT Podcast, Martin Sandbu 'The economics of insecurity' Jonathan Derbyshire introducing a discussion with Arvind Subramanian, former chief economic adviser to the government of India, Professor Karl Moene, Economics, University of Oslo, Anne Pettifor, political economist and Chris Giles and Sarah O'Connor of The Financial Times, 28th August 2018

BBC HARDtalk interview with Michael Chertoff, Former US Secretary of Homeland Security, BBC News Channel, 4th September 2018 – managing data and data security implications of privately controlled social media

Financial Conduct Authority Annual Meeting, QEII Conference Centre, 11th September 2018 – FCA prioritising financial crime as no. 3 priority and technical innovation as no. 2 priority. Market abuse is the area that will kick start AI driven crime investigations

Christine Lagarde, Managing Director, International Monetary Fund at The Helen Alexander Lecture: The Case for the Sustainable Development Goals' 17th September 2018, full transcript downloaded from IMF website.

'Dutch to press UN on human slavery sanctions' interview on CNN with Dutch Foreign Minister Stef Blok requesting UN Security Council extension of named individuals sanctioned for human trafficking, CNN Project Freedom, downloaded 25th September 2018

'I was a Yazidi Slave' documentary broadcast on BBC4 28th October 2018, Oxford Films and Television 2018. The documentary interviewed two Yazidi women formerly held by IS and their release and recovery in Germany. Professor Philippe Sands QC interviews the women for a potential international criminal prosecution for war crimes, genocide, forced slavery and rape.

'Selling Children' A Storyville documentary broadcast on BBC4 on 29th October 2018, BBC Open University Partnership 2018. Pankaj Johar investigates the extent and causes of child slavery in India, looking at poverty, bureaucracy, failures in law enforcement and the consequences of the caste system that is perpetuating inequality.

'Doing Money' broadcast BBC2 5th November 2018, Renegade Pictures (UK) Ltd 2018. A reconstruction of an experience of a Romanian national living in the UK who was abducted off the street in London and forced into sex trafficking in Ireland and in Northern Ireland for a Romanian OCG.

Data Science lecture department 14th January 2019 – p-values and testing their significance for power.

Horizon: Battle in Your Mind, BBC Science Production 2013, broadcast on London Live, 4th February 2019. Discussion on Kahneman's Thinking Fast and Slow with filmed interaction and experiments on system 1 & 2 thinking. New studies on primates to test fear of loss aversion to provide understanding about the origins of loss aversion in modern humans.

'The Secret Rules of Modern Living: Algorithms' with Marcus du Sautoy on the history, design and use of algorithms. The programme explores the early creation of modern algorithms by using an example of working out the right size for tiles to fill a given space to sorting algorithms such as 'bubble sort' and 'merge sort'. Using examples such as Google page sort and more recent developments with kidney donor matching programmes. Machine learning algorithms were also explored enabling human preference analysis resulting in offering alternative used by Netflix. Broadcast on BBC4 on 28th February 2019. Production BBC Scotland Science Production 2015.

'Tropic of Cancer with Simon Reeve.' The fourth leg of Simon Reeve's journey took him to Bangladesh. He visited a glass recycling factory where child labour is used involving dangerous materials and in a dangerous environment. UNICEF were providing children with playtime and education programmes to give them respite from conditions and to learn new skills. Discussion of the controversial approach to leave children in work situations to avoid starvation where there is an absence of alternative social care. Broadcast on BBCiPlayer throughout 2019. First broadcast 2010.

'Turkey with Simon Reeve' BBC Current Affairs Television London, 2017. Broadcast on BBC2 12th May 2019. Istanbul political secular transformation with increase in past 15 years of religious Muslim Turks moving into Istanbul. Building of a new mosque over the city. Meeting with a people smuggler alleging that the Turkish government are not the cause of the reduced numbers of Syrians crossing into Greece but the closing and patrolling of the border by the North Macedonians. Allegations made that many Syrians are being exploited in work by being paid more infrequently and significantly less than Turkish workers. Visit to a stone cutting factory to meet Syrian families and see the housing conditions they live in.

Speaker's Special Lecture on Science: Professor Dame Nancy Rothwell – 'Communicating Science' given at Speaker's House on 15th May 2019. Professor Rothwell discussed her: early interest in art; career redirection into science; Vice Chair of Manchester; research into fat cells; research into dementia; aim to improve the way science is communicated by improving the way scientists explain and communicate their findings. She hopes to improve public perception of science to encourage diversity of scientists and encourage new ideas. Professor Rothwell described major breakthroughs in science as arising from inspiration and risk taking to test ideas that are not conventional. New ideas are unlikely to originate from people drawn from the same education, class and social backgrounds with the same approach to thinking.

'Dispatches: £2 Million Passport – Welcome to Britain' Channel 4 broadcast by Vera Productions 2019 on 22nd July 2019. Investigation with covert surveillance and interviews with specialist financial institutions and immigration lawyers specialising in the scheme British citizenship. The Home Office was relying on financial institutions and lawyers to carryout due diligence on applicants and the source of wealth. The programme demonstrated scenarios where financial institutions and lawyers actively problem solved solutions to evade investigation of obvious suspicious source of funds and due diligence issues rather than following regulation which requires a suspicious activity report. Jonathan Fisher QC, a specialist in financial crime was shown footage and commented on the legality of the actions. As a result of the programme the Home Office responded by looking into additional independent audit of the source of wealth.

BBC news at 6 on BBC1 on 13th August 2019 and BBC news at 10 on BBC1 15th August 2019: special reports on County Lines drug dealing operations preying on vulnerable children in foster care. Children reported as going missing and moved from Liverpool to North Wales to meet drug dealing demands. Interviews with Assistant Chief Constable Chris Green, North West Regional Organised Crime Unit and Professor Sarah O'Brien, Chair of St Helens Safeguarding Children Partnership.

'The Hunt for Britain's Slave Gangs' Panorama broadcast on BBC1 5th September 2019. Documentary following the prosecution of a Polish Roma OCG operating in West Midlands. Operation Fort involved 82 victims testifying to their experience. An estimated 300 victims were affected. Forced Labour gang. Recruitment in Poland for employment. Gang member placed in a recruitment agency to place people in agricultural labour. Victims escorted to TSB Bank to open bank accounts. One victim had 3 different accounts. Earnings from employment controlled by offenders holding cards. PIN numbers written on the back of each card to access the account.