# UNCOVERING THE DRIVERS OF CUSTOMER ENGAGEMENT BEHAVIOURS:

Investigating Key Mediating Mechanisms Underlying the

Link Between Customer Satisfaction and Customer Engagement Behaviours

in a Higher Education Context

**VOL I** 

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**Doctor of Philosophy** 

**ASTON UNIVERSITY** 

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## **Thesis Summary**

#### **Aston University**

UNCOVERING THE DRIVERS OF CUSTOMER ENGAGEMENT BEHAVIOURS: Investigating Key Mediating Mechanisms Underlying the Link Between Customer Satisfaction and Customer Engagement Behaviours in a Higher Education Context

#### Bernadette Frech Doctor of Philosophy 2017

This study aims to explore cognitive and affective mediating mechanisms between Customer Satisfaction (CS) and positive Customer Engagement Behaviours (CEBs) that are of direct benefit to a firm (i.e. Participation, Word-of-Mouth, Monetary Giving) or indirect benefit (, i.e. Human Capital Performance). Two studies were carried out, in England and Austria, in a higher education context.

Study 1 comprised of: 8 focus groups with 48 undergraduate business students from England and Austria, 21 semi-structured interviews with alumni of undergraduate business studies from England and Austria, and 9 background expert interviews.

Study 2 encompassed a mail survey with 209 multi-source cases from undergraduate business students, who had conducted a placement year, and their immediate managers or supervisors, in England.

Findings reveal that the relationships between CS and CEBs are not direct as assumed in literature. Perceived Employability was found as a central cognitive mediator between CS and CEBs of direct and indirect benefit to a service provider. In addition, Gratitude and Love are of importance as affective mediators between CS and CEBs that are of direct benefit to a firm.

This study contributes to the service field by developing and empirically testing a conceptual framework on CEBs, including often neglected CEBs; for instance, CEBs of indirect benefit to an organisation and monetary CEBs. The study also provides the first empirical evaluation of the serial mediation effects of two distinct positive emotions, Gratitude and Love, between CS and CEBs of direct benefit to a service provider. Finally, while most studies have focused on affective mediation effects and CEBs of direct benefit to a service provider, this study has found Perceived Employability to have a simple cognitive mediation effect between CS and CEBs of indirect benefit to a service provider.

Keywords: Customer Satisfaction, Customer Engagement, Positive Emotions, Higher Education, Serial Mediation

## **Dedication**

To my little sons...

## Theo and Luis

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## **List of Abbreviations**

AT Austria

AVE average variance extracted

CEB Customer Engagement Behaviour

CFA Confirmatory factor analysis

CR composite reliability

CS Customer Satisfaction

e.g. for example

EFA Exploratory factor analysis

EU European Union

HCP Human Capital Performance

HE higher education

HEI higher education institution

i.e. that is

SEM structural equation modelling

UK United Kingdom (England)

WOM Word-of-Mouth

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## **Chapter 1. Introduction**

"In the current decade, the major movement in customer management has been on customer engagement." (Lemon & Verhoef 2016, p. 5).

Service organisations increasingly recognise that customers contribute to firm value, not only through purchasing goods or services, and by being satisfied or loyal, but also through Customer Engagement Behaviours (CEBs). CEBs are a customer's behavioural manifestations toward a firm that extend beyond simply purchasing and can benefit the firm both directly or indirectly. Examples of different types of CEBs would be positive word-of-mouth (WOM), customer participation in terms of providing feedback and making suggestions for service improvements, or cooperative behaviours (Van Doorn et al., 2010). Service organisations are particularly interested in triggering such CEBs. This is not surprising as research has shown that companies with a focus on customer engagement systematically outperform companies focused on mere Customer Satisfaction (CS) (Gallup, 2017).

One service sector which can strongly benefit from CEBs are higher education institutions. As the higher education sector has become increasingly competitive and financial ressources are constrained, universities are forced to build strong relationships with their students and need to search for alternative sources of funding or resources. CEBs can be such alternative forms of resources that students give back to the university after graduation. However, research suggests that while customers in mature stages of their life cycles can form the basis for increased firm value, they are particularly difficult to secure (Brodie et al., 2011; Braun et al., 2016). Therefore, managers of service organisations need to understand both the different types of CEBs that customers would be willing to perform and the mechanisms that evoke CEBs.

The types of CEBs, as well as their antecedents, are suggested to strongly depend on the service context (Kumar, Dalla Pozza & Ganesh, 2013). In a very recent conceptual paper on Customer Engagement, Pansari and Kumar (2017) identified higher education (HE) as a potential additional context in which to explore this subject:

"It would also be interesting to understand the impact of the customer engagement framework in different scenarios like in the education context where the students are the customers. (...) This would in turn, help universities (...) in optimising their performance, which can be beneficial to the society as a whole." (Pansari & Kumar, 2017, p. 308)

Overall, there is a lack of research on CEBs in a higher education context. (Pansari & Kumar, 2017). It is possible that the types of CEBs from other service contexts (e.g. Bove et al., 2009;

Verleye et al., 2014) may not directly translate to CEBs in a HE setting. A further investigation is needed to identify those that are of direct or indirect benefit to higher education institutions (HEIs). Furthermore, there is a void in research in understanding the drivers of CEBs (Pansari & Kumar, 2017).

Consequently, the general purpose of this study is to investigate the different types of CEBs in a HE context, and assess the drivers of CEBs. This has been achieved via a sequential mixed-method approach. Firstly, a qualitative study, comprising of 8 focus groups of students and 21 semi-structured interviews with alumni, explored the different types of CEBs and informed the development of a conceptual framework. This was followed by a quantitative study, a mail survey with 209 multi-source cases of undergraduate business students who had conducted a placement year and their immediate work placement managers in England.

This study, adopting an interdisciplinary approach, will contribute to a growing body of academic research on service marketing, consumer behaviour and HE.

This chapter provides an introduction to the study. Firstly, the research problem and the research gaps are presented. This is followed by a discussion on the emerging research objectives and an exploration of the importance of this study in terms of its potential theoretical, methodological and practical contributions to academic research. Then, there is a discussion on the research context. Finally, the structure of the thesis is outlined.

#### 1.1 Research Problem and Research Gaps

CEBs occur when customers voluntarily contribute to a broad range of resources (such as time, money, relationships, and efforts) that directly or indirectly affect the firm and customers in varying degrees of magnitude and impact (Van Doorn et al., 2010, Kumar et al., 2010; Jaakkola & Alexander, 2014).

The plethora of research to date has conceptually proposed or qualitatively explored different types of CEBs which directly benefit the focal firm (e.g. Bijmolt et al., 2010; Brodie et al. 2011; Jaakola & Alexander, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). Examples of different types of CEBs of direct benefit to the focal firm are: word-of-mouth or WOM (i.e. customers can be promoter of the firm by saying positive things about a firm or recommending a firm); participation (i.e. customers can consult a firm by giving feedback or suggesting service improvements); or helping others (i.e. customers can help each other to get a better service experience) (Bettencourt, 1997; Bove et al., 2009). While CEBs of direct benefit to the focal firm are typically non-monetary voluntary behaviours, Kumar et al. (2010) further add Purchase as a monetary CEB. Reviewing these different types of CEBs it can be

synthesized that CEBs of direct benefit to the focal firm emphasize on benefits directed to the focal firm or its customers, are intentionally reciprocal, and result directly in an organizational-level outcome. Although there is significant evidence that CEBs are important drivers for firm value (Kumar & Reinartz, 2016), existant literature has neglected CEBs that are of indirect benefit to the focal firm. CEBs that indirectly benefit the focal firm meet a clear firm need, yet, the behaviours are not intentionally reciprocal. Rather these CEBs are personal-level outcomes that directly benefit the customer him-or herself (Bitner, 1995) or even a larger a community. Examples of CEBs of indirect benefit are the actual employability of university graduates or health engagement activities of patients. Berry (1983) outlines that for a relationship to exist it must be mutually beneficial and ideally go beyond the technical benefits of the service provided. Although Berry (1983) refers to risk-reducing and social benefits of loyal customers, these and "other individual and personal benefits to the (...) customer are less documented and certainly under-researched." (Bitner, 1995, p. 249) Thus, it seems to be a valuable enterprise to investigate CEBs that are of indirect benefit to a service provider while being directly beneficial to consumers (or even to a wider community).

In a HE context, the existing research focus has been on one CEB, WOM. This is recognised as an important factor in reaching future and potential students (Alves & Raposo, 2010). Although there is a growing body of research into different types of CEBs, much of these studies either (1) ignores certain types of CEBs which might be relevant in a HE context, or (2) directly translates research findings from the service marketing field to a HE setting (e.g. Alves & Raposo, 2009). Yet, CEBs from other service settings (e.g. purchase) do not correspond in a linear way to the CEBs in a HE setting. This leads to research gap 1 in current marketing theory and research gap 2 in the educational field:

- → Research Gap 1: There are neglected types of CEBs in current research.
- → Research Gap 2: There is a void of research on different types of CEBs in a HE context.

Furthermore, research to date focuses on the conceptualisations and benefits of CEBs for the focal firm (Bijmolt et al., 2010; Kumar & Reinatz, 2016; Lemon & Verhoef, 2016), leaving the question of how CEBs are developed largely unanswered. Braun et al. (2016, p. 536) investigated the perceived benefits of different CEBs and noted in their future research section:

"We neglected the investigation of the CE-behaviour antecedents. However, a consideration of the influencing factors of the different CE-behaviour types, including customer's motives for their engagement with a company, would potentially enhance our findings."

This is in line with Venkatesan (2017, p. 289) who writes in the Editorial of the Journal of the Academy of Marketing Science:

"Customer engagement represents a new and exciting research agenda. My interactions with senior executives informs my belief that this is a priority for firms. But managers also recognise the challenges presented in developing and executing a customer engagement. This presents a great opportunity for academics to develop frameworks and insights that can guide effective customer management strategies."

The attitudinal key predictor of CEBs is Customer Satisfaction (Van Doorn et al., 2010), a customer's overall evaluation of the performance of an offering to date. It is a psychological state that a customer experiences after consumption and a customer fulfilment response (Gustafsson, et al., 2005; Oliver, 1997). Although there is a growing body of consistent research into the behavioural outcomes of CS (Brady et al., 2005; Kumar, et al., 2013), there have been equivocal findings on the relationship between CS and individual types of CEBs. Some studies purport a direct link (e.g. Jiewanto, et al., 2012, Lee et al., 2014, Luo and Homburg, 2007), while others find no direct relationship between the two (e.g. Brodie et al., 2011; Dai, 2003; deMatos & Rossi, 2008; Wangenheim & Bayón 2007; Wirtz & Chew, 2002). One possible explanation for these conflicting findings is that key mediators may have been ignored (Kumar et al., 2013).

Former studies on the comparative service evaluation frameworks, between CS and customer behavioral outcomes, found that conceptual models integrating both cognitive and affective mediators would better predict behavioral outcomes, than CS alone (e.g. Brady, et al., 2005; Cronin et al., 2001). While affective mechanisms such as emotions have been studied as mediators linking CS with CEBs, most research has ignored the role of cognitive mediating mechanisms (Canziani 1997). When considering affective mediating mechanisms between CS and CEBs, conceptual works by Kumar & Reinartz (2016) and Pansari & Kumar (2017) suggest that emotions lead to CEBs. Drawing from the Broaden-and-Build Theory of Positive Emotions by Frederickson (1998), different positive emotions (e.g. gratitude, love, pride, hope, joy) can broaden the action-thought repertoire of individuals; different emotions evoke different types of behaviours. Although recently research is beginning to understand how positive emotions can systematically affect customer behaviour (So, et al., 2015), most studies focus on the effect of a single positive emotion on CEBs (e.g. Choi & Choi, 2014, Hwang & Kandapully, 2015). There is a void in current consumer behaviour theories, such as The plethora of research to date has conceptually proposed or qualitatively explored different types of CEBs which directly benefit the focal firm (e.g. Bijmolt et al., 2010; Brodie et al. 2011; Jaakola & Alexander, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). However, in current research there are neglected types of CEBs. Firstly, there are neglected types of monetary CEBs (Kumar et al., 2010). Secondly, existant literature has neglected CEBs that are of

indirect benefit to the focal firm (Bitner, 1995). Finally, there is a void on research on different types of CEBs within a HE context (Pansari & Kumar, 2017). This leads to research gap 1 and research gap 2.

Furthermore, research to date focuses on the conceptualisations and benefits of CEBs for the focal firm (Bijmolt et al., 2010; Kumar & Reinatz, 2016; Lemon & Verhoef, 2016), leaving the question of how CEBs are developed largely unanswered. The attitudinal key predictor of CEBs is Customer Satisfaction (Van Doorn et al., 2010). Although there is a growing body of consistent research into the behavioural outcomes of CS (Brady et al., 2005; Kumar, et al., 2013), there have been equivocal findings on the relationship between CS and individual types of CEBs. Some studies purport a direct link (e.g. Jiewanto, et al., 2012, Lee et al., 2014, Luo and Homburg, 2007), while others find no direct relationship between the two (e.g. Brodie et al., 2011; Dai, 2003; deMatos & Rossi, 2008; Wangenheim & Bayón 2007; Wirtz & Chew, 2002). One possible explanation for these conflicting findings is that key mediators may have been ignored (Kumar et al., 2013). Firstly, most research has ignored the role of cognitive mediating mechanisms (Canziani 1997). Secondly, although recently research is beginning to understand how positive emotions can systematically affect customer behaviour (So, et al., 2015), most studies focus on the effect of a single positive emotion on CEBs (e.g. Choi & Choi, 2014, Hwang & Kandapully, 2015). Only a few empirical studies consider the effects of different emotions in their research framework (Albert, et.al, 2008; Bartlett and DeSteno, 2006; Cavanaugh et al. 2015; Gambetti, et al., 2012). Above that, there is a void in current consumer behaviour theories, such as the the Theory of Reasoned Action by Fishbein & Ajzen (1975) to comprehensively explain the effect of multiple emotions on consumer behaviours.

This leads to research gaps three and four:

- → Research Gap 3: There are equivocal findings on the relationship between CS and CEBs, suggesting that central cognitive and affective mediators underlying this relationship have been ignored.
- → Research Gap 4: There is a void in current consumer behaviour theories and empirical research in explaining the relationship between multiple positive emotions and behaviours.

#### 1.2 Research Objectives

Two central research objectives are derived from the previously identified research gaps:

- In response to research gap 1 and research gap 2, this study intends to explore and conceptualise different types of CEBs that are of direct or indirect benefit in a HE context; and
- 2) In response to research gap 3 and research gap 4, this study intends to investigate the underlying cognitive and affective mediating mechanisms in the relationship between CS and CEBs in a HE context.

#### 1.3 Research Context

Reaching these research objectives within a higher education context is of particularly high relevance in the context of recent policy reforms and environmental changes. After a discussion of the relevance of the study on CEBs in the present day context, this section identifies the distinctive characteristics of services, according to current marketing literature. This is followed by a critical assessment of whether these characteristics can also be found in education. This is explored through an examination of education as service and the different roles students play in a HE context.

#### 1.3.1 The Relevance of the Present Study for the HE Context

Recent European and UK-level policy papers, as well as industry reports, were brought together to form a PEST analysis and visualised in a Porter's 5 Forces matrix (see Figure 1). This was done in order to gain an understanding of the potential relevance of the present study to the managers of HEIs and HE policy makers.

In the last three decades, the HE sector has undergone significant transformations and reforms, in response to an extremely dynamic and fiercely competitive environment (Arambewela & Hall, 2006). A substantial increase in the numbers of HEIs and programmes in most European countries has led to a trend towards mass tertiary education (Mizikaci & Baumgartl, 2015). Recent political reforms in the sector within the European Union (EU) and the United Kingdom (UK) have fostered HE provider start-ups, an indication that the trend towards mass tertiary education is likely to continue (Europe's Modernisation Agenda, 2011; UK White Paper on Success as a Knowledge Economy, 2016). At the same time, most countries within the EU and the UK have been affected by budget cuts due to cyclical global economic crises, which in turn has led to decreased governmental funding of HEI in most EU

countries and in the UK (Sursock, Smidt & Davies 2010). Financial constraints have further imposed a greater transparency on spending. Discussions on competitive funding have increased, and funding is linked to key performance indicators measuring educational outputs (Hazelkorn, 2011).

In fact, the development of a highly competitive HE landscape has coincided with a shift towards a so-called knowledge-driven economy and value-driven society; this society - and specifically its employers - strive for human capital as the main outcome of HEIs. HEIs are increasingly under pressure to ensure the employability of their graduates, requiring them to support, assess and also promote student employability (EU 2020 strategy). The UK White Paper on Success as a Knowledge Economy requires that "all universities publish detailed information about application, offer and progression rates, [...], publishing employment and graduate earnings data to provide prospective students with the best possible information." (Secretary of State Business, Innovation, and Skills, 2016, p. 11). Hence, HEI are urged to be accountable for the funding received.

Whilst preparing students for their future professional lives is a main purpose of HE, there have been recent discussions on further education outcomes, for example, the promotion of citizenship behaviours (European Commission/EACEA/Eurydice, 2016). After the economic crises and recent terror attacks, the EU has sought such behaviours to foster a responsible society.

Technological progress has also boosted alternative forms of E- and M-education, such as Massive Open Online Courses (Horvath et al., 2015). Online HE substitutes are still not perceived as viable alternatives to traditional educational programmes offered by universities (GMAC, 2015). Yet, the trend towards online educational offerings and the numbers of followers are rising (Horvath et al., 2015; GMAC, 2015).

Nevertheless, while birth rates are decreasing, participation in HE is increasing and widening. The self-perception of students is also changing. This is attributed to the rising costs of education and the greater transparency of educational offers through the connectedness of the worldwide web and structural reforms in HE, such as the Bologna Process (Hazelkorn, 2011). Students perceive themselves increasingly as consumers of a HE service and demand a high-quality education, a good student experience and improved employment outcomes when "investing" their time, efforts and money into a HE education (Woodall, Hiller & Resnick, 2014). Santiago et al. (2008, p.12) states: "because education and graduate outcomes and lifestyle are strongly correlated with higher qualifications and career opportunities, students (and their parents) have become savvy consumers". This notion of students as customers is also acknowledged by politicians in the HE sector. For instance, a UK White Paper was issued

named Students at the Heart of the System (2011) which focused on the delivery of a better student experience, social mobility and the sustainability of tertiary education.

To conclude, the HE sector has become competitive. The trend towards mass education, greater transparency as well as increasing student demands has made it more difficult for HEIs to differentiate themselves on the basis of the reputation of the educational product alone (Hazelkorn, 2011; Webb & Jagun, 1997).

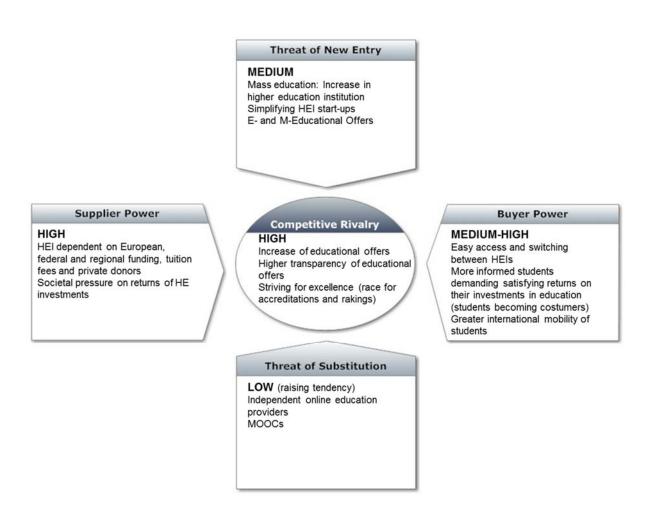


Figure 1. Competitive Analysis of the HE sector according to Porter (1980), (own depiction)

#### 1.3.2 A Service Marketing Perspective on Higher Education

A review of the literature reveals that a study of the relationship between CS and CEBs in an HE context would be of benefit. Yet, the question arises whether the same logic of service marketing can be applied to academic institutions (Canterbury, 2000). In other words, are some of the markets for tertiary education and some of its characteristics sufficiently different from other markets or services to require adjustments to the application of service marketing methods? The student population may be such a market and HE's characteristics may be so

distinctly different enough (Canterbury, 2000). Therefore, it is fundamental to examine the distinguishing characteristics of universities and students, compared to other service industries and customers.

As outlined above, universities are developing into more business-like institutions, there is more control of the work of universities and the expectations of the customers have increased. Therefore, the traditional role of universities is challenged (Mazzarol et al., 2001). This has led to a shift towards a service recipient paradigm in the HE sector (Havranek & Brodwin, 1998). This new paradigm acknowledges the principle that education is a service and that students (and other stakeholders) are customers (Havranek & Brodwin, 1998). Havrnek and Brodwin (1998) suggest that at student-focussed universities the provision of student services is maximised, student satisfaction increased, and institutional spending decreased. A service or consumer-oriented approach is believed to be a suitable approach to address recent educational challenges (Mazzarol et al. 2001). However, the view that HEIs are just another service provider, has been strongly challenged. Acknowledging this debate, it becomes fundamental to elaborate on the distinguishing characteristics of a generic service to inform the discussion of whether service marketing principles can be applied to the HE sector.

#### 1.3.2.1 Understanding Education as a Service

This discussion starts with a definition of the distinctive characteristics of services according to marketing literature, and then critically assesses whether these characteristics can also be found in education.

Services is one of the two key components of economics, the other is goods (Lovelock & Wirtz, 2016). Lovelock and Wirtz (2016) understand customer service as the ability of an organisation to supply the wants and needs of their customers by defining services as follows:

"Services are economic activities offered by one party to another. Often time-based, performances bring about desired results to recipients, objects, or other assets for which purchasers have responsibility. In exchange for money, time, and effort, service customers expect value from access to goods, labor, professional skills, facilities, networks, and systems but they do not normally take ownership of any of the physical elements involved." (Lovelock and Wirtz, 2016, p. 6)

Early theories on service marketing created a paradigm that services possess four distinctive characteristics which are distinct from goods: intangibility, heterogeneity, inseparability and perishability (see Lovelock, 2016). Education is a highly intangible and complex professional service; it is difficult to achieve a uniform output, the student must interact with university service providers in order to achieve benefits, and generally the service cannot be stored

(Mazzarol et al., 2001). Ledden et al. (2007) summarise that the seminal taxonomy of the nature of services, introduced by Lovelock (1983), classifies education as a service that provides intangible actions directed at people's minds. This view supports the legitimacy of education as a service. Furthermore, according to different typologies, education has been classified as mental-stimulus processing services (i.e. services directed at customer's minds), high-contact services (i.e. person and interaction oriented services) or extended service encounters (Dubé & Menon, 2000; Lovelock & Wirtz, 2016). Extended service encounters are defined as services in which a single purchase comprises a set of distinct emotion experiences that occur in an organisation's facilities, and often involve interactions with service providers and other customers (Dubé & Menon, 2000). In contrast to regular services, extended service encounters are longer in duration and have a spatial and affectionate proximity between the service provider and service recipient. Other examples of extended service encounters are health care, consultancies, hotels and airlines (Dubé & Menon, 2000). This study defines HE as a service and categorises it as an extended service encounter.

Concerns have been expressed that a service orientation in education may lead to consumerism (Ng & Forbes, 2009); giving customers what they want might lead to a disaster in an educational context. Aside from this argument, there is the view that there is no free market as such in HE as it is significantly affected by the government (through funding), and therefore, marketing principles cannot apply (Harvey & Green, 1993; Sharrock, 2000).

In conclusion service definitions and categorisations acknowledge university education as a service. Although there is some resistance to the view of education as a service, and this critique of the service-recipient paradigm is valuable, the growing influence of the market in education is acknowledged (Lomas, 2007). Above all, a market-oriented orientation is increasingly necessary in the new competitive context outlined above.

#### 1.3.2.2 Understanding the Role of Students in a HE Context

While education provided by HEIs can be regarded as a service, the question of whether students are customers in education remains unanswered. In literature, different customer groups and other stakeholders of education are mentioned, including students, parents, communities, business, and society (Mansfield & Warwick, 2005; Obermiller, et al. 2005). There is agreement that students can be regarded as a customer group of education. However, there are still different views of the role of students in a HE system, ranging from students being customers (e.g. Browne et al., 1998; Havranek & Brodwin, 1998), coproducers (e.g. Harvey & Green, 1993; Obermiller, 2005; Sharrock, 2000), and citizens (e.g. Svensson & Wood 2007), to even being products of HE (e.g. Harvey & Green, 1993).

Firstly, there is the view that students are customers. Obermiller et al. (2005) propose the following definition of students as customers:

"University faculty are oriented toward student satisfaction. Students are paying customers. Just as with any other business, the goal of a university course is to satisfy its customers. Faculty design their courses to meet the current wants and needs of their students. If students are not satisfied, they will take their business elsewhere. Students know what they want, and faculty do what they can to make their teaching responsive to student demands." (Obermiller et al., 2005, p. 29)

Research suggests that universities need to follow a market-orientated approach that considers the concept of students being their customer in order to reach organisational goals (Manfield & Warwick, 2005). Findings further suggest that students themselves favour a customer-oriented, or student-centred approach and should be consulted in the educational process (Lea, Stephonson and Troy, 2003). This preference is particularly strong amongst business students (Obermiller et al., 2005). It needs to be stressed though that students are regarded as customers of a service. Thus, in line with the distinguishing characteristic of inseparability in a service context, a pure consumption of the educational offer is not possible. Rather, the production and consumption of education means that the student as customer has to interact or collaborate with its producer to receive its benefits (Lovelock & Wirtz, 2016).

The idea of inseparability is emphasised even more in the role of students as co-creators of education. Students do not passively consume education, but rather actively engage with ideas that are presented by lecturers (Harvey & Green, 1993; Sharrock, 2000). Students are a productive resource and a contributor to quality. Without their participation no desired outcome is possible. As outlined above, Lovelock and Wirtz (2016) categorise education as a mental-stimulus processing service. They outline the co-creation role of students when acquiring mental-stimulus-processing services. In order to fully obtaining the benefits of education, an investment of time and a degree of mental effort on the customer's part is required (Lovelock & Wirtz, 2016). Obermiller et al. (2005, p. 27) claim that learning is the direct result of a student's efforts rather than a service that he or she consumes, and further state "Better learning occurs when students are actively involved in the process of acquiring new knowledge".

In contrast, Svensson and Wood (2007) hold the view that students should be regarded as citizens of education rather than customers or co-producers. According to the authors:

"Citizens are members of a community in which they participate (Barbalet, 1988), such as students enrolled in a university. Such a notion of being a citizen implies a need to acknowledge the rights and responsibilities of both the state and the individual to each other. (...) The state (authority) is able to implement policies that will have a

strong impact on its citizens (Beland, 2005), just as universities can do with their students." (Svensson & Wood, 2007, p. 24).

This view distinguishes universities from other services based on the specific role of universities in society. Some authors argue for academic excellence and see the primary role of the universities to develop knowledge and understanding (Harvey & Green, 1993; Ng & Forbes, 2009). Thus, the satisfaction of the society should be the focus of any HEI, rather than the satisfaction of students.

Finally, students can be regarded as products of education. Obermiller, et al. (2005, p. 29) propose the following definition of students as products:

"University faculty are oriented toward the satisfaction of society and its expectations. As a social institution, the goal of the university is to produce graduates with the appropriate knowledge and skills for jobs and productive citizenship. Faculty design their courses to meet the long term needs of students and society. If students do not have long term success in society, the school's reputation suffers. Faculty believe they know what is best for students, and they teach with the students' best interests in mind."

Following such a view, curricula should be designed to provide the education that students need, which might not go in hand with what they want (Lomas, 2007). Authors claim that the main outcome of education is student transformation rather than student satisfaction (Harvey & Green 1993; Sharrock, 2000). Viewing students in such a way as products has been strongly criticised, as this production orientation characterises students as too passive and accepting (Franz, 1998).

Valuing these different views, it can be said that in service sectors in general there has been a shift from the traditional production and consumption of services towards an interactive process between service suppliers and consumers at every stage, from service design to service delivery (Payne et al., 2008). Thus, in current service marketing literature, the notion of a customer-centred view with an emphasis on the mutual creation and enjoyment of services (i.e. the co-creation or co-production of services) is gaining credence (Payne et al., 2008). This view of students as engaged customers (Ng & Forbes, 2009) makes the HE context a highly valuable one for studies on CEBs. Nonetheless, there is a dependency of customers in the HE sector to their service provider that might be unique.

In conclusion, this discussion has established that HE can be classified as a service, and consequently, service principles can be applied in the tertiary education domain. However, there still remains some distinguishing characteristics between universities and other service sectors, with reference in particular to the special role of students in service delivery and

service outcomes. These HE specifics may require the research to make careful adaptations to service principles and existing theories, in order for them to be effectively applied in the HE sector.

#### 1.3.3 Summary of Research Context

HEIs gradually transform into business-like organisations. This development is in line with global economic, technological and social changes, and it is amplified by recent government reforms on a European and UK level (White Paper on "Students at the Heart of the System"). With regards to the management of HEIs, this calls for a shift towards the service recipient paradigm; acknowledging the principle that education is a service and students are the primary customers (Ledden et al., 2007). Hence, CS, or even strong emotional bonds with students, appear to play an important role in being competitive and attracting and retaining students. Furthermore, CEBs can help to improve organisational performance in monetary terms (through donations) and non-monetary terms (e.g. through WOM, feedback). This can help the university in times of decreasing state funding and increasing accountability through measuring educational outputs.

Table 1 summarises the environmental drivers of the HE context and their implications for the present study.

Table 1. Environmental drivers in the HE sector

Environmental Drivers	Implications for the Present Study	
The transformation of the HE context from a non-competitive environment to a highly competitive environment  → The trend towards mass education has transformed the HE system from an elite to a mass one (Mizikaci & Baumgartl, 2015).  → Due to increased transparency and mobility within the HE sector and rising student expectations, universities are competing more fiercely to attract more informed students (Arambewela & Hall, 2006).	CS and positive emotions are crucial to evoke CEBs that directly benefit the HEI, e.g. WOM (for free adverting) or Participation (for improving the quality of products or services).	
Need for diversified sources of funding  → Given the current financial situation of HEIs, it is recognised that "diversified sources of funding and support may play an important role in the further development of HE" (Mizikaci & Baumgartl, 2015, p.15).	CEBs involving Monetary Giving (e.g. donations, sponsorship) by customers should be assessed as alternative sources of funding.	
Accountability for measuring education outputs  → HEIs need to ensure their accountability by measuring education outputs (UK White Paper, 2016).	CEBs that measure the customer's contribution to the achievement of educational outputs (e.g. human capital outcomes) should be assessed to support the accountability of HEI s.	
Encouraging citizenship behaviours  →HEIs should further emphasis the citizenship behaviours of their students.	Through different CEBs, the role of students is transformed from being a customer to being a co-creator and citizen.	

#### 1.4 Prospective Contributions of the Research

Reaching the outlined research objectives within a HE context will enable to address research gaps and to contribute, in theoretical, methodological and practical terms, to the existing body of knowledge, as outlined in the following subsections.

#### 1.4.1 Prospective Theoretical Contributions

Through its investigation of the underlying mechanisms between CS and CEBs, this interdisciplinary study contributes to literature in the service marketing and HE fields as follows.

The plethora of research to date has conceptually proposed or qualitatively explored different types of CEBs which directly benefit the focal firm (e.g. Bijmolt et al., 2010; Brodie et al. 2011; Jaakola & Alexander, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). However, in current research there are neglected types of CEBs. Firstly, there are neglected types of monetary CEBs (Kumar et al., 2010). Secondly, existant literature has neglected CEBs that are of indirect benefit to the focal firm (Bitner, 1995). Finally, there is a void in research on different types of CEBs within a HE context (Pansari & Kumar, 2017). Although HEIs can be classified as service providers, the HE context is distinctive to other high context services which makes a further exploration of CEBs in this particular context necessary. By reaching research objective 1, this study attempts to contribute to current literature as it explores and conceptualises neglected types of monetary and non-monetary CEBs of direct and indirect benefit to a focal firm and its customers in a HE context.

Furthermore, research to date focuses on the conceptualisations and benefits of CEBs for the focal firm (Bijmolt et al., 2010; Kumar & Reinatz, 2016; Lemon & Verhoef, 2016), leaving the question of how CEBs are developed largely unanswered. The attitudinal key predictor of CEBs is Customer Satisfaction (Van Doorn et al., 2010). However, most research has ignored the role of cognitive mediating mechanisms (Canziani 1997). Moreover, although recently research is beginning to understand how positive emotions can systematically affect customer behaviour (So, et al., 2015), most studies focus on the effect of a single positive emotion on CEBs (e.g. Choi & Choi, 2014, Hwang & Kandapully, 2015). Only a few empirical studies consider the effects of different emotions in their research framework (Albert, et.al, 2008; Bartlett and DeSteno, 2006; Cavanaugh et al. 2015; Gambetti, et al., 2012). There is a void in current consumer behaviour theories, such as the TRA (Fishbein & Ajzen, 1975) to comprehensively explain the effect of multiple emotions on consumer behaviours. By reaching research objective 2 this study attempts to contribute to current literature in three significant ways. Firstly, this study conceptually advances the theory of reasoned action by integrating the effect of multiple affective constructs. Secondly, this study attempts to fill a key

gap in the existing literature by empirically testing the effects of multiple distinct positive emotions on CEBs. Thirdly, this study attempts to also shed light on cognitive mediators between CS and CEBs.

Table 2 summarises how the achievements of research objectives one and two will contribute to current research in the marketing and educational fields.

Table 2. Theoretical research contributions

Research Objective	Theoretical Contributions in the Service Marketing Field	Theoretical Contributions in the HE Field
Research Objective 1	Exploring and conceptualising neglected CEBs of direct and indirect benefit to a focal firm and its customers.	Exploring and conceptualising different types of CEBs that are of relevance in a HE context.
Research Objective 2	To advance consumer behaviour theories by integrating multiple affective mediating mechanisms.	•
	To empirically examine the underlying mediating effects of multiple positive emotions between CS and CEBs.	

#### 1.4.2 Prospective Methodological Contributions

Although this study predominant contribution is in terms of theory, three methodological contributions might be noteworthy. Firstly, while the plethora of studies investigating antecedents of CEBs are conceptual (e.g. Pansari & Kumar, 2017) or qualitative (e.g. Jaakkola & Alexander, 2014) in nature, this study will follow a sequential mixed methods approach, which includes a qualitative and subsequent quantitative study with multi-source data. Secondly, within the empirical research, insights from multiple HE stakeholders are gathered, including students, alumni, employers, HE managers and HE quality assurance experts. Thirdly, this study is the first in the field of CEBs that investigates multiple cognitive and affective mediators between CS and CEBs in serial.

#### 1.4.3 Prospective Practical Contributions

Competition for customers is increasing, and customers in mature stages of their life cycles are particularly difficult to secure. Yet, they form the basis for increased firm value (Brodie et

al., 2011; Braun et al., 2016). Therefore, managers of service organisations in general, and HEI managers in particular, need to understand the mechanisms that evoke CEBs.

This study intends to show how customers can increase firm value beyond being simply a purchaser, for instance by being promoters (through positive WOM), consultants (through Participation) or investors (through Monetary Giving). The thesis provides HEI managers with insights into context-specific types of CEBs their customers (i.e. students and alumni) can perform.

This study also helps practitioners to understand how they can trigger different types of CEBs. An understanding of the cognitive and affective mechanisms between CS and CEBs, will help managers to set up more effective formal customer engagement programmes and target their spending to increase CEBs (e.g. by investing into CS or relationship-building activities).

#### 1.5 Structure of the Thesis

The thesis is organised into seven chapters, including the Introduction. In particular, the dissertation adopts the following structure:

**Chapter 2** provides a literature review on CEBs, CS, Perceived Employability and Positive Emotions. For each construct, practical relevance and theoretical grounding is discussed, followed by an overview of different definitions and conceptualisations to date. The chapter concludes with the selection of one definition per construct, and a discussion of the respective construct within a nomological framework.

**Chapter 3** explores the mixed methods methodology to be applied in this study. This includes a discussion of the criteria for selecting a methodology according to its consistency with the philosophical paradigm, and the current state of research. Next, the sequential nature of this study is examined, in which the research intends to use qualitative research to develop a conceptual model and subsequent quantitative research.

**Chapter 4** discusses the process and results of the qualitative study. Focus groups and semistructured interviews were conducted with students, alumni and educational experts. These methods explored the positive types of CEBs that are of direct and indirect benefit to HEIs, and the cognitive and affective mediating mechanisms between CS and CEBs.

**Chapter 5** develops the conceptual framework of this study. An adapted theory of reasoned action (Bagozzi's, 1992; Fishbein & Ajzen, 1975) and Frederickson's (1998; 2004) Broaden and Build Theory of Positive Emotions form the theoretical underpinning of the conceptual

framework. Hypotheses are then derived, based on the underlying theory, past empirical evidence and insights from the qualitative study.

**Chapter 6** outlines the process and results of the quantitative study. Firstly, the research design, sampling procedure, and data collection instruments and methods are discussed. Then the quantitative analysis to validate the reflective measures of the latent constructs in the conceptual model is presented. Subsequently, hypotheses in the conceptual model and mediation effects of cognitive and affective mediators between CS and CEBs are tested.

Finally, **Chapter 7** brings together the findings from the quantitative and qualitative studies in order to compare them to previous empirical research, and to identify how they contribute to the fields of service marketing and education.

## **Chapter 2. Literature Review**

This section begins with a discussion on CEBs, is followed by a presentation of the construct of CS, and closes with a critical review of different mediating constructs.

The literature review is structured in four sections: CEBs, CS, Cognitive Mediator: Perceived Employability, and Affective Mediators: Positive Emotions. Within each section, the theoretical grounding is discussed, followed by an overview of different definitions and conceptualisations. A selection of constructs is then identified based on findings from the literature review and this study's qualitative research. These are reviewed in more detail. Each section concludes with an overview of past empirical research in the respective field. On the basis of this critical review, research gaps in the respective research field are then outlined.

#### 2.1 Customer Engagement Behaviours (CEBs)

Customer management theory has slowly evolved over time. Up until the 1990s, the focus was on the customer transaction itself, but by the late 1990s this was transformed into relationship marketing. Since 2010, it has continued to progress into what is known as customer engagement (Pansari & Kumar, 2017), which is the subject of this section. In this section, the different definitions and conceptualisations of Customer Engagement Behaviours (CEBs), in particular, will be discussed and compared. This is a necessary endeavour because, as Hollebeek, Srivastava and Chen (2016, p.13) outline: "While researchers are investigating related, often only subtly distinct engagement phenomena, we observe a tendency for the development of isolated or myopic insight."

#### 2.1.1 Theoretical Roots

As Customer Engagement (CE) is a rather novel concept in marketing literature, there is no common agreement on the theoretical grounding of the concept. Pansari and Kumar (2017) introduce a Theory of Engagement, proposing that the two tenets of engagement are satisfaction and emotion, as engagement occurs only once a relationship based on trust and commitment has been formed. The theory is based on Relationship Marketing (Morgan & Hunt, 1994) and Interdependence Theory (Thibaut & Kelley, 1959), which proposes that the essence of close relationships is focused on the interaction between individuals or partners. CE Theory is not restricted to the relationship between the firm and the customer, as it can be applied to different stakeholders of a firm. In contrast, Brodie et al. (2011) and Hollebeek,

et al. (2016) apply the Service-Dominant Logic (Vargo & Lusch, 2008) and revise fundamental propositions in order to develop an integrative framework of CE and Service-Dominant Logic.

#### 2.1.2 Definitions and Conceptualisations

When reviewing the literature to date, Customer Engagement appears as an umbrella term which that not only includes CE, but also other notions of customer engagement, such as CEBs and Customer Engagement Value. Table 3 provides an overview on the different conceptualisations to date.

Customer Engagement can refer to a psychological state that occurs under a specific condition (Brodie et al., 2011; Hollebeek, 2011) and is conceptualised as an antecedent to attitudes, emotions or behaviours (Brodie et al., 2013). In contrast, CEBs are conceptualised as the activities of customers, which extend beyond purchase, that are of benefit to a firm (Van Doorn et al., 2010), and are mainly conceptualised as outcome variables or as the precursors to overall firm outcomes, such as firm value (e.g. Verleye, et al. 2014; Beckers et al., 2017). The related concept of Customer Voluntary Performance (Bettencourt et al., 1999) can be subsumed into CEBs (Jaakkola & Alexander, 2014). However, Customer Engagement Value (Kumar et al., 2010; Kumar & Reinartz, 2016) and Customer Engagement Marketing (Harmeling et al, 2017) are related, but distinct terms.

This study focuses on CEBs. Its definition by Van Doorn et al. (2010) appears to be the predominant one, as it is also used in the majority of studies on CEBs (e.g. Beckers et al., 2017; Jaakkola & Alexander, 2014; Leeflang, 2011). The authors define CEBs as a customer's behavioural manifestations with a brand or firm focus, beyond purchase, which are the result of motivational drivers (Van Doorn et al., 2010).

Table 3. Definitions for Customer Engagement

Definitions of Customer Engagement (Behaviour)		
Authors (Year)	Definition	
Customer Engageme	Customer Engagement - Conceptualisation as Attitude and Behaviour	
Brodie et al. (2011)	Customer Engagement is a psychological state that occurs under specific conditions.	
Hollebeek (2011)	Customer Engagement is a motivational, brand-related and context-dependent state of mind characterised by specific levels of cognitive, emotional and behavioural activity.	
Vivek et al. (2012)	Customer Engagement is the intensity of an individual's participation in, and connection with, an organisation's offerings and / or organisational activities, which either the customer or the organisation initiates. It contains cognitive, emotional, behavioural, and social elements.	
So, King & Sparks (2014)	Customer Engagement is a multidimensional construct composed of identification, enthusiasm, attention, absorption, and interaction.	
Hollebeek et al. (2016)	Customer Engagement reflects a customer's motivationally driven, volitional investment of specific operant and operand resources into brand interactions in service systems.	
Pansari & Kumar (2017)	Customer Engagement is the mechanics of a customer's value addition to the firm – either through direct and/or indirect contribution.	
CEBs - Conceptualis	sation as Behaviour	
Van Doorn, et al. (2010)	Customer Engagement Behaviours go beyond transactions and are defined as a customer's behavioural manifestations that have a brand or firm focus, beyond purchase, resulting from motivational drivers.	
	Customer Engagement Behaviours differ in terms of form, valence, scope, nature of impact, and customer goals.	
Marketing Science Institute (2010)	Customer Engagement Behaviours are a customer's behavioural manifestation toward a brand or firm beyond purchase, which results from motivational drivers including: WOM activity, recommendations, customer-to-customer interactions, blogging, writing reviews, and other similar activities.	
Customer Engageme	ent Value – Conceptualisation as Behaviour	
Kumar et al. (2010)	Customer Engagement Value are a customer's active interactions with a firm, with prospects and with other customers, whether they are transactional or non-transactional in nature.	
Kumar & Reinartz (2016)	Customer Engagement Value occurs when customers contribute to firm profitability (1) directly, through their purchases, and (2) indirectly, through their non-purchase reactions, which include referring potential customers, influencing current and potential customers in their social network, and offering review/feedback for improvements.	
Customer Engagement Marketing		
Harmeling et al. (2017)	Customer Engagement Marketing is defined as a firm's deliberate effort to motivate, empower, and measure customer contributions to marketing functions.	

The plethora of research to date either conceptually proposes or qualitatively explores the different types of CEBs (e.g. Jaakkola & Alexander, 2014; Kumar et al., 2010; Pansari & Kumar, 2017; Van Doorn et al., 2010). Pansari & Kumar (2017) emphasise how CEBs are the different activities with which customers contribute, either directly or indirectly, to a firm's performance. Studies to date focus on CEBs of direct effect on a firm (e.g. customers giving feedback or recommending a firm) and/or its customers (e.g. Bettencourt, 1997; Bove et al., 2009; Jaakkola & Alexander, 2014; Van Doorn et al., 2010), rather than those that have an indirect effect. The valence of the effect can be positive or negative (Van Doorn et al., 2010). CEBs with a positive direct effect on a firm can benefit a firm (e.g. Participation, positive WOM). In contrast, CEBs of negative effect can harm a firm (e.g. negative WOM). Most conceptualisations to date refer to activities that benefit a firm; intended, helpful, discretionary behaviours performed by customers that support an organisation's service performance (Bettencourt, 1997). Table 4 provides a review of the different types of CEBs in past research and reveals two of the most prominent types, which are discussed in several studies (with different labels). Firstly, WOM is the promotion of a firm by positively spreading information and making active recommendations (Bettencourt, 1997; Jaakkola & Alexander, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). Secondly, Participating is a customer's willingness to participate in the knowledge development process by providing constructive feedback and further suggestions (Bettencourt, 1997; Eisingerich, Auh & Merlo, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). An overview of further types of CEBs (such as augmenting, complaining, compliance, cooperation) and their definitions are presented in Appendix A.1.

Table 4. Types of CEBs

			Т	ypes of CEBs	Differentiating Characteristics of CEBs	
Authors (Year)	Study Type	WOM	Participation	Other	Direct (D)/Indirect (I) Benefit to the Firm	Monetary (M) / Non-Monetary (N)
Bettencourt (1997)	Empirical	Loyalty	Participation	Cooperation	D	N
Bove et al. (2009)	Empirical	WOM	Suggestions for Service Improvements	Display of Relationship Affiliation Participation in Firm's Activities Benevolent Acts of Service Facilitation Flexibility Voice Policing of Other Customers	D	N
Bijmolt et al. (2010)	Conceptual	WOM	Customer Co- Creation	Complaint Behaviour	D	N
Kumar et al. (2010)	Conceptual	Customer Influencer Value Customer Referral Value	Customer Knowledge Value	Customer Lifetime Value	D	N M (Purchase)
Verhoeff, Reinartz & Krafft (2010)	Conceptual	WOM Blogging	Ratings		D	N

Brodie et al. (2011)	Qualitative	Advocating	Co-Developing	Sharing	D	
Jaakkola & Alexander (2014)	Qualitative	Influencing	Co-Developing	Augmenting Mobilising	D	N
Verleye et al. (2014)	Quantitative	WOM	Feedback	Compliance Cooperation Helping Other Customers	D	N
Braun et al. (2016)	Empirical	WOM	Value-creation focused CE		D	N
Kumar & Reinartz (2016)	Conceptual	Influencing Referrals	Knowledge Contribution	Purchase	D	N M (Purchase)
Pansari & Kumar (2017)	Conceptual	Influencing Referring	Feedback	Buying	D	N M (Purchase)
Beckers et al. (2017)	Empirical	WOM	Voice		D	N
This study (2017)	Empirical	WOM	Participation	Monetary Giving Human Capital Performance Cooperation Mobilising Augmenting Socialising Career Community Behaviour	D I (Human Capital Per- formance)	N M (Monetary Giving)

In essence, several studies have found different types of CEBs that directly benefit a firm (e.g. Bijmolt et al., 2010; Brodie et al. 2011; Jaakkola & Alexander, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). While the indirect benefit of CEBs is an integral component of the CEB definition by Van Doorn, et al. (2010), studies to date have ignored this type of CEB. This study recognises this gap and seeks to distinguish between CEBs that are of a direct benefit and indirect benefit to a firm. Based on the literature review and supported by qualitative research findings, this study introduces Human Capital Performance as a CEB that directly benefits the customer, yet indirectly benefits the firm. (For a more detailed discussion please refer to the Section 2.1.2.2.1).

Besides the distinction in terms of effect and valence, the different types of CEBs can also be distinguished in terms of nature of impact, scope, and customer goals (Pansari & Kumar, 2017; Van Doorn et al., 2010). Vivek et al. (2012) differentiate between customer-initiated and firm-initiated CEBs and Kumar et al. (2010) between monetary and non-monetary CEBs.

CEBs can differ in terms of scope (Van Doorn et al., 2010). Pansari and Kumar (2017) outline that customers contribute to a firm in monetary terms (by paying) or in non-monetary terms (by doing). Research to date has focused on non-monetary CEBs, largely ignoring monetary CEBs besides purchase. Jaakkola and Alexander (2014) have explored how customers contribute different resources. These resources can include time, knowledge, skills, labour, time, relationships, actions and money (Jaakkola & Alexander, 2014; Kumar et al., 2010). Depending on the amount and type of resources needed, CEBs can demand different levels of efforts from customers. When reviewing the different types of CEBs in Table 4, two points are noteworthy. Firstly, when reviewing CEBs such as Participation or Socialising, the mental efforts of engaging should be included as another resource. This is because it can be emotionally demanding or tiring to give feedback or socialise with others, thereby requiring mental efforts. Secondly, there is significant evidence for different types of non-monetary CEBs, such as Participation, WOM, Cooperation, Policing and Helping (Bettencourt, 1997; Bove et al., 2009; Jaakkola & Alexander, 2014; Van Doorn et al., 2010). Yet, existing research only explores one type of monetary CEB: purchase (Kumar et al., 2010, Kumar & Reinartz, 2016). However, given the financial constraints in the HE sector (see Introduction), there might be other forms of monetary CEBs. This study introduces an additional type of CEB from pro-social marketing literature; Monetary Giving in terms of donations, monetary contributions and sponsorship (see Section 2.1.2.1.3 on Monetary Giving).

As regards the distinction between firm-initiated and customer-initiated CEBs, Vivek (2012) define CEBs in terms of those offers and actions that are initiated by the firm (e.g. skill development programme) or those of the customer (e.g. blogging). In terms of customer goals, Braun et al. (2016) differentiate between customer-to-customer interaction-focused

(e.g. WOM), value-creation focused (e.g. Participation) and online behaviours (e.g. liking a firm on Facebook).

This study focuses on CEBs which have a positive effect on firm performance. No distinction is made between firm or customer-initiated CEBs. In terms of customer goals, the study will focus on customer-to-customer; value-creation focused; and a new category, being customer-to-self CEBs (i.e. Human Capital Performance).

In conclusion, this study builds on the definition by Van Doorn et al. (2010) and includes recent developments in the conceptualisation of the term (Jaakkola & Alexander, 2014; Pansari & Kumar, 2017). Therefore, for this study CEBs are defined as a customer's behavioural manifestations that go beyond transactions and occur when they <u>voluntarily contribute</u> to a broad range of <u>monetary and non-monetary resources</u> (such as time, knowledge, skills, labor, actions, mental efforts, relationships and money) that <u>directly or indirectly</u> affect the firm and customers in <u>varying degrees</u> of <u>magnitude</u> and impact.

#### 2.1.2.1 CEBs of Direct Benefit

The following sub-section will discuss three distinct types of CEBs or constructs that are understood to directly benefit the firm. These include the most predominantly researched types of CEBs, WOM and Participation, (Nambisan & Baron, 2007; Braun et al., 2016; Bijmolt et al., 2010). This will be followed by a detailed description of a previously neglected type of CEB, Monetary Giving. WOM, Participation and Monetary Giving are CEBs that are of direct benefit to service firms, as they help to improve a firm's service offerings, provide free advertising, and diversify their funding.

## 2.1.2.1.1 Participation – The Customer as Consultant

Reviewing the different definitions of Participation (Beckers et al., 2017; Bettencourt, 1997; Bove et al., 2009; Brodie et al., 2011; Eisingerich et al., 2014; Jaakkola & Alexander, 2014; Kumar et al., 2010; Verleye et al., 2014), it can be concluded that:

Participation refers to types of customer behaviours that are active and responsible in the way they engage in the governance and development of the organisation and its services or products. This could be by giving feedback to the firm and its employees and/or making suggestions for service improvements (Bettencourt 1997; Bove et al. 2009) or through participation in new product and service development processes (Kumar et al. 2010).

Examples of Participation by customers include the completion of feedback forms, contacting employees directly to provide feedback, writing online reviews and providing insights into the development of a new service.

While many authors describe in essence the same phenomena, Participation has been labelled in different ways. While the majority of researchers use the word Participation, derived from Bettencourt (1997), others conceptualise the provision of feedback and suggestions as Feedback (Verleye et al., 2014), Voice (Beckers et al., 2017), Knowledge Contribution (Kumar et al., 2010), Customer Knowledge Value (Kumar & Reinartz, 2016), or Co-Developing (Brodie et al., 2011; Jaakkola & Alexander, 2014). An overview of different definitions of Participation can be viewed in Appendix A.2.

Most studies operationalise Participation as a multi-item construct (Bettencourt, 1997; Bove et al., 2009; Chan et al., 2010; Eisingerich, et al., 2014; Kim & Lam, 2009; Verleye et al., 2014). Bettencourt's (1997) scale forms the basis of most scales that followed. Chan et al. (2009) developed a separate multi-dimensional scale. Beckers et al. (2017) measured Participation on a nominal scale. An overview of different operationalisations of Participation is provided in Appendix A.2.

## 2.1.2.1.2 Word-of-Mouth (WOM) – The Customer as Promoter

A further prominent CEB is WOM, as it has a significant impact on customer judgements and behaviour (Brown et al., 2005). In a HE context, WOM is recognised as an important factor to attract potential and future students (Alves & Raposo, 2010). The construct is understood as a form of interpersonal communication amongst customers (Richins, 1983). As Brown et al. (2005, p. 125) states:

"The basic idea behind WOM is that information about products, services, stores, companies, and so on can spread from one consumer to another. In its broadest sense, WOM communication includes any information about a target object (e.g. company, brand) transferred from one individual to another."

This is in line with former definitions proposed by authors such as Westbrook (1987, p. 261), who states that WOM means "informal communications directed at other consumers about the ownership, usage, or characteristics of particular goods and services and/or their sellers", as well as Arndt (1967, p. 190) who defines WOM as "oral, person-to-person communication between a perceived non-commercial communicator and a receiver concerning a brand, a product, or a service offered for sale". WOM can be performed in person or online (e.g. Jaakkola & Alexander, 2014) and forms the basis of research streams in marketing, such as viral, grassroot and buzz marketing (Deal & Abel, 2001; Kelly, 2000; Rosen, 2000).

In CEB literature, WOM is defined as customers showing their engagement toward an organisation by spreading positive WOM (Bove et al., 2009; Kumar & Reinartz, 2016), or recommending the firm to other customers (Brodie et al., 2011; Verleye et al., 2014). This definition will be applied for the present thesis.

When reviewing the different conceptualisations of WOM (see Appendix A.3) it becomes apparent that (in a similar way to Participation) different labels have been given to constructs, which in essence refer to WOM. These are: Word-of-Mouth (Beckers et al., 2017; Bettencourt, 1997; Bove et al., 2009; Verleye et al.; 2014); Influencing (Jaakkola & Alexander, 2014; Kumar & Reinartz, 2016); Customer Referral Value (Kumar et al., 2010); Referrals (Kumar & Reinartz, 2016); and Advocating (Brodie et al., 2011).

There are different operationalisations of WOM in current literature. Most researchers regard WOM as a unidimensional construct (Babin et al., 2005; Brown et al., 2005; Hartline & Jones, 1996; Yi & Gong, 2008; White, 2010). There are also multi-item operationalisations of WOM, as suggested in a restaurant context (Babin et al., 2005); an automobile leadership context (Brown et al., 2005); and a general service context sampling MBA students (Yi & Gong, 2008). Additionally, White (2010) developed a model of positive WOM intentions in a HE context. He operationalised the construct using the three-item scale proposed by Parasuraman et al. (1994). In contrast, Hartline and Jones (1996) investigated the influence of employee performance cues, service quality, and value on WOM in a restaurant context, by measuring a single item on the likelihood that a customer would recommend the service to other customers: "What is the likelihood that you would recommend our hotel to friends or colleagues?". Recently, authors suggest the inclusion of the Net Promotor Score as measure of WOM activity (Leeflang, 2011). There are a limited number of studies conceptualising WOM as a multi-dimensional construct (Harrison-Walker, 2001; Matos & Rossi, 2008). For instance, Harrison-Walker made a valuable contribution to WOM literature by conceptualising it as being composed of WOM activity and WOM praise. Within CEB literature, WOM is mostly operationalised as an uni-dimensional multi-item scale (e.g. Bettencourt, 1997; Verleye et al., 2014). Examples of operationalisations can be viewed in Appendix A.3.

## 2.1.2.1.3 Monetary Giving – The Customer as Investor

Monetary Giving is a CEB that is of high relevance, especially for non-profit services such as education and health providers (Sargeant, et al., 2006). The construct also attracts increasing interest in the research fields focussed on profit-driven organisations (Ordanini, et al., 2011). Monetary Giving is conceptually embedded in the fields of pro-social behaviour and helping behaviour. It can include civic participation, volunteering, buying products that benefit a good cause and donating money (Cavanaugh et al., 2015) or helping behaviours, such as those

directed at the welfare of a needy other by providing aid or benefit, usually with little or no commensurate reward in return (Bendapudi et al., 1996). Giving behaviours in monetary terms include donations (Sargeant et al., 2006) and charitable giving (Bekkers & Wiepking, 2010). Reed II et al. (2007) further distinguish between the donation of money versus time.

From this review of current literature, Monetary Giving can be defined as a form of CEB in which the customer provides a monetary gift to an organisation. The different definitions can be viewed in Appendix A.4. The qualitative study of this study has also revealed that students and alumni can give in other monetary ways to those previously identified, through the sponsorship of specific events or causes.

Consequently, this study enlarges the classical definition of monetary giving behaviour, by including <u>monetary donations</u> as well as other forms of monetary contributions, such as the <u>sponsorship</u> of organisational events by customers.

Research on the construct of Monetary Giving is predominantly about non-profit or charitable organisations (e.g. Sargeant et al., 2006), including HE (Okunade & Berl, 1997; Marr et al., 2002). Marr et al. (2002) have examined the relationship between what undergraduates receive in financial aid and its effect on alumni giving behaviour; in terms of its intention to 'give back' to the university. In contrast, Sargeant et al. (2006) and Okunade & Berl (1997) have measured the actual donation behaviour on a nominal scale (yes/no) or ratio scale (average size of donation). The different operationalisations are outlined in Appendix A.4.

## 2.1.2.2 CEBs of Indirect Benefit to the Organisation

CEBs that indirectly benefit the firm also meet a clear firm need, however these behaviours are not intentionally reciprocal to the firm. The emphasis of the behaviour lies on the benefit to the customer him or herself (Bitner, 1995) or even a larger community (Pansari & Kumar, 2017). Berry (1983) outlines that for a relationship to exist it must be mutually beneficial and ideally go beyond the technical benefits of the service provided. Although the author makes reference to the risk-reducing and social benefits of loyal customers, these and "other individual and personal benefits to the (...) customer are less documented and certainly under-researched." (Bitner, 1995, p. 249) Therefore, it may be appropriate to position CEBs as a personal-level outcome, as they are of direct benefit to the customer, although they also bring indirect benefit to the service provider. Luo & Homburg (2007) highlight Human Capital Performance as an under researched outcome of CS that is of indirect benefit to a firm. Human Capital Performance (HCP) also emerged as a type of CEB in this study's qualitative research. The construct will be discussed in the following sub-section.

It is understood from the previous discussion that all CEBs share the common characteristic of customers contributing some type of resource voluntarily, such as knowledge, skills, time, and monetary or non-monetary efforts. One CEB that requires the customer to not only bring resources, in terms of knowledge and skills, but also in which the customer themselves becomes the resource, is Human Capital Performance. HCP is defined as a company's excellence in human capital (Luo & Homburg, 2007). More specifically, Luo & Homburg (2007) define HCP in terms of employee talent in work-related skills, knowledge, experience, and human resources. The concept of HCP is grounded in Human Capital Theory (Becker, 1993). Becker (1993) elaborates on the economic effects (i.e. returns) of investments in education on an individual level (Becker, 1993), and theoretically and empirically finds evidence that a.) human capital increases a worker's productivity in all tasks (yet possibly differently depending on the task, organisation or situation), and b.) investments in education have positive effects on employment and earnings. He stresses that "education and training [are] advancing productivity in the manufacturing and service sector" (Becker, 1993, p. 25).

In a HE context, HCP can be defined as a firm's superior ability to achieve its core objectives based on its developed actual <u>customer human capital excellence in terms of knowledge, skills and experiences</u> (Luo & Homburg, 2007). This is explicated as a.) productivity in the internal labour market (i.e. Job Performance in a company), and b.) an individual's chance of getting employment in the (internal and) external labour market (i.e. Actual Employability).

In fact, in a HE context, the notion of HCP can be found in Actual Employability literature, which defines it as a student's propensity to exhibit attributes (e.g. skills and knowledge) that employers anticipate will be necessary for the future effective functioning of the organisation (Harvey, 2001; Rothwell & Arnold, 2007). Job Performance literature (e.g. Becker, 1993) suggests that employee productivity in a firm can be measured in terms of overall job performance and the quality and quantity of work. Definitions on HCP (2007) in general, and in terms of Actual Employability and Job Performance are outlined in Appendix A.5.

In general, HCP is of high significance to research on CEBs because research which focuses on customers as engaged individuals stresses the inseparability of customers from the service delivery process, acknowledging that they can become valuable human resources (Canziani, 1997). For HEIs specifically, HCP outcomes are of tremendous importance, given that universities become more and more accountable for "producing" human capital excellence in order to receive public funding (UK White Paper, 2016) Hence, HCP are integral to achieve an HEI's mission. Outside the HE context, HCP can also be found implicitly in the mission statements of leading service providers offering extended service encounters.

Consultancies like KPMG and BCG, the UK National Health Service and the world's largest home healthcare provider, CVS Health (according to Fortune 500), all have integrated HCP in their mission statements (sourced from their organisational websites on the 1<sup>st</sup> of August 2017). See Table 5.

Table 5. HCP as part of organisational mission statements

Service Organisation	HCP as Integral Part of Mission Statement
KPMG (consultancy services)	"Helping to build a <b>knowledge-based economy</b> using KPMG's expertise and resources."
	"We create value by enhancing learning and capabilities for clients across the Middle East through cutting edge training and development solutions."
BCG (consultancy services)	"We go deep to unlock insight and have the courage to act. We bring the right people together to challenge established thinking and drive transformation. We work with our clients to <b>build the capabilities that enable organisations to achieve sustainable advantage</b> . We are shaping the future."
NHS (health services)	"The <b>NHS</b> seeks to improve the <b>health and wellbeing</b> of patients, communities and its staff through professionalism, innovation and excellence in care."
CVS Health – Transform Care (home healthcare provider)	"Help our PBM clients improve the <b>health outcomes</b> of members with chronic diseases, lower pharmacy costs through trend management and decrease medical costs by improving medication adherence, disease and lifestyle management."

While HCP in an educational or consultancy context implies excellence in knowledge, in terms of competences or capabilities, HCP in a health context refers to excellence in a knowledge of one's physical and mental health management. Thus, HCP as a CEB of indirect benefit to a firm, also clearly meets a firm's own objectives (e.g. high reputation, good standing in league tables).

Besides, **HCP** offers direct benefits to the customers. GMAC (2016) attempted to conceptualise the Return on Investment (ROI) of management education. In a global study with 14,279 alumni of business degrees, it was found that personal development, specific and generic competence development, and salary were the three key outcomes that graduates

were striving for. When satisfaction was achieved in terms of personal /career development, competence acquisition and salary, alumni were satisfied with their graduate management education and the personal investment they have made to achieve the degree.

Some examples of HCP in different extended service contexts are outlined in Table 6.

Table 6. HCP - direct benefit to customers

Service Context	Exemplary Direct Benefits of HCP for Customers			
HE	Enhanced career prospects Higher attractiveness in the labour market			
Consultancies	Increased organisational performance after consultation Achieving set objectives after consultation			
Health Services	Higher physical and mental wellbeing  Lower pharmaceutical costs by improving medication adherence			

In conclusion, HCP is of high relevancy to organisations and customers alike. While customers benefit directly from high levels of HCP, organisations benefit indirectly through the way HCP supports a company's mission. Finally, even wider society benefits indirectly, as (depending on the context) HCP can contribute towards a knowledge-driven society (in HE context) or a healthy society (in health context).

Regarding the operationalisation of HCP, Actual Employability can be operationalised as the ability to gain or retain fulfilling work (Hillage & Pollard, 1998) or as the propensity of a graduate to exhibit attributes that employers demand (Harvey, 1999; 2001). The ability to gain and retain fulfilling work would need to be assessed by tracking a recent graduate's employment activities. Harvey (2001) suggests that research should measure whether graduates have an actual job related to their qualification level within six months of graduation, assessing the nature and level of employment, salary, and discipline (Harvey, 2001). The propensity of graduates to exhibit those attributes that employers anticipate are needed for the future functioning of the organisation is reflected in Rothwell & Arnold's (2007) external employability scale. A competence-based operationalisation is suggested to provide a longer-term perspective than from one purely based on actual employment data at one point of time (Harvey, 2001). Job Performance is operationalised either as single-item scale (e.g. Lam et al., 2002) or as multi-item scale (e.g. Becker et al., 1996). An overview of different operationalisations can be viewed in Appendix A.5.

## 2.1.3 Empirical Research on CEBs

This section outlines the research in which CEBs have been studied as main variables. The plethora of research focuses on the conceptualisations and benefits of CEBs for the focal firm (Bijmolt et al., 2010; Kumar & Reinatz, 2016; Lemon & Verhoef, 2016). The different forms of conceptualisations have been outlined in the "Definition and Conceptualisation" section and reveal that there are two gaps in current research, which are addressed with this study.

- → Firstly, while literature to date has focused on CEBs of direct benefit to the firm and on CEBs using mainly non-monetary resources provided by customers (Bettencourt, 1997; Bove et al., 2009; Jaakkola & Alexander, 2014; Van Doorn et al., 2010), this study includes CEBs of direct *and* indirect benefit, as well as CEBs requiring monetary or non-monetary resources.
- → Secondly, insights from CEB literature may not correspond in a linear way to the HE context. While research has been conducted in the service marketing field, including extended service encounters (e.g. Verleye, et al., 2014), there is a research gap in holistically assessing CEBs in a HE context (see Pansari & Kumar, 2017).

With regard to the outcomes of CEBs, it has been conceptualised and partly empirically evidenced that CEBs affect the firm (e.g. firm value and engagement value), customers (e.g. cognitive, emotional, identity) and others (e.g. consumer welfare, economic surplus) (see Van Doorn, et al., 2010; Kumar et al., 2010; Kumar et al., 2013).

However, current research leaves questions about how CEBs are developed largely unanswered. Existing empirical studies investigating the antecedents of CEBs typically focus on the direct effect of CS on one specific CEB. Most of these studies focus on investigating antecedents of one specific CEB. For instance, Sargeant et al. (2006) found that Trust and Commitment would serially mediate the relationship between Utilities, Organisational Performance, Responsiveness, Communication and Monetary Giving. Choi and Choi (2014) found that the relationship between different justice perceptions and WOM was fully mediated through customer affection and customer loyalty.

Very few studies research the antecedents of multiple types of CEBs in an integral model. Van Doorn et al. (2010) and Pansari and Kumar (2017) offer two conceptual frameworks, which put CEBs in a nomological framework and address the drivers of CEBs. Both studies highlight the role of CS as antecedent to CEBs. Pansari and Kumar (2017) further stress the importance of emotions in evoking CEBs (see Figure 2).



Illustration removed for copyright restrictions

Figure 2. Conceptual framework suggested by Pansari and Kumar (2017)

This is in line with the few empirical studies to date which include multiple types of CEBs and also investigate the antecedents of CEBs (see Table 7). Existing studies typically focus on the direct effect of CS on CEBs (e.g. Bettencourt 1997; Dai, 2003; Eisingerich et al., 2014). However, the findings of these studies are generally equivocal. While Eisingerich et al. (2014) found a direct relationship between CS and CEBs; Bettencourt et al. (1997) found a direct relationship between CS and Participation, but no direct relationship between CS and Loyalty/WOM and Cooperation. Bettencourt et al.'s (1997) study suggests that the relationship between CS and CEBs is fully or partially mediated through Customer Commitment or Perceived Support. Dai (2003) examined the relationship between CS and Loyalty/WOM, and Participation and Cooperation, in a travel service context, and found a direct relationship between CS and Loyalty/WOM. However, the study did not find a direct relationship between CS and Participation, and the relationship between CS and Cooperation was only significant for one customer group (non-frequent travelers), but not for another (frequent travelers). Other studies reveal that Support and Commitment affect relational variables, or other variables are antecedents to CEBs (Bove et al., 2009; Jaakkola & Alexander, 2014; Verleye, 2014).

Table 7. CEBs in a nomological framework

Authors (Year), Study Context	Study Type	CEBs as Outcome Variables	Predictors, Mediators and Moderators	Main Findings
Bettencourt et al. (1997)	Empirical	Loyalty (WOM) Participation Cooperation	Antecedents: CS Mediators in Serial: Perceived Support for Customers Customer Commitment	CS is the main predictor leading directly and indirectly via the mediators, Perceived Support and Customer Commitment, to CEBs (WOM, Participation and Cooperation).
Bove et al. (2009)	Empirical	WOM Display of Relationship Affiliation Participation in Firm Activities Benevolent Acts of Service Facilitation Flexibility Suggestions for Service Improvements Voice Policing	Antecedents: Commitment of Service Worker Credibility of Service Worker Benevolence of Service Worker Mediator: Personal Loyalty	The relationship between commitment to service worker/benevolence of service worker and CEBs is partially mediated through personal loyalty. In this study, CEBs are called Organisational Citizenship Behaviours. Personal Loyalty is a combination of attitudinal loyalty (attachment, perceived differentiation) and exclusive patronage.

Authors (Year), Study Context	Study Type	CEBs as Outcome Variables	Predictors, Mediators and Moderators	Main Findings
Verleye et al. (2014)	Empirical	WOM Feedback Compliance Cooperation Helping Other Customers	Predictors: Overall service quality, Organisational support, Organisational Socialisation Support from other customers  Mediators: Customer Affect, Customer Role Readiness	Overall service quality toward significant others and organisational support negatively influence feedback and positive WOM behaviors through customer affect toward the organisation. Overall service quality toward significant others and organisational support do not affect other forms of CEB through customer affect. More important was the effect of customer role readiness, which had a positive impact on all CEBs.
Jaakkola & Alexander (2014)	Qualitative	Augmenting Co-Developing Influencing Mobilising	Antecedents: Access, Ceding Control, Ownership, Need for improvement, Relationship and Communication, Support Outcomes: value co- creation	CEB affects value co-creation, because customers contribute resources toward the focal firm and stakeholder.
Eisingerich et al. (2014)	Empirical	WOM Participation	Antecedent: Satisfaction Moderators: Expertise Mediators: Participation WOM Outcomes: Sales Performance	CS leads to WOM and Participation. And WOM and Participation are both important factors leading to firm growth in terms of sales performance.

In conclusion, CS is the attitudinal key predictor of CEBs (Van Doorn et al., 2010, Eisingerich et al., 2014). However, there have been equivocal findings on the relationship between CS and multiple CEBs; some studies purporting a direct link, while others finding no direct relationship between the two. One explanation for these conflicting findings is that key mediators have been ignored (Kumar et al., 2013). As CS is suggested to be a necessary, but not a sufficient, condition to predict CEBs (Kumar et al., 2013), there have been recent calls to research the underlying mechanisms that lead to CEBs (Braun et al., 2016; Kumar & Reinartz, 2016). As such, there is an absence in existing CEB literature of studies which investigate systematically the underlying cognitive and affective mediating mechanisms between CS and CEBs.

# 2.2 Customer Satisfaction (CS)

CS is the attitudinal key predictor of CEBs (Van Doorn et al., 2010; Pansari & Reinartz, 2017). Hence, this section discusses the theoretical roots, definitions, conceptualisations, and operationalisations of the construct, and concludes by providing an overview of the research to date on CS in a nomological framework, to better understand which relevant research gaps in existing literature need to be addressed within this study.

## 2.2.1 Theoretical Roots

Several theoretical frameworks for the explanation of CS can be found in the literature, including: the Expectancy-Disconfirmation Theory, the Attribution Theory, the Comparison Level Theory, the Contrast Theory, the Dissonance Theory, the Equity Theory, the Evaluative Congruity Theory, the Importance-Performance Theory, and the Value-Percept Theory (see Homburg & Rudolph, 1998). In general, these theories suggest that CS is a relative concept, which is judged in relation to a particular standard.

## 2.2.2 Definition and Conceptualisation

There are different standards applied within each of the theoretical frameworks mentioned above. These are set according to on what consumers perceive as Satisfaction. Some of these theories hypothesise that consumers judge satisfaction in relation to values and desires (the Value-Percept Theory), whereas others suggest that the standard used is based on predictive expectations (i.e. Expectancy-Disconfirmation Paradigm) or experience-based norms (i.e. Comparison Level Theory). Some theorise that satisfaction results from the comparison between consumer inputs and outputs (the Equity Theory), whereas others suggest that satisfaction is the result of the discrepancy between expectations and perceived

performance; this led to the conceptualisation of the Expectancy-Disconfirmation Paradigm (Oliver, 1980).

Therefore, different conceptualisations of consumer satisfaction have developed. The two dominant conceptualisations are the Expectancy-Disconfirmation Paradigm and the Perception Paradigm (Oh & Parks, 1997; Weber, 1997; Oliver, 1980). The Expectancy-Disconfirmation Paradigm places satisfaction in the context of the disconfirmation process that arises from discrepancies between prior expectations and actual performance (Homburg & Rudolph, 1998). Thus, when the actual perceived performance level exceeds the prior expectations, satisfaction arises. Conversely, dissatisfaction arises when prior expectations are not fulfilled. The Perception Paradigm describes satisfaction as a function of performance. Satisfaction is defined in a global or overall manner. In this context, Oliver (1997) and Westbrook and Oliver (1991) highlight that in performance evaluations both evaluative and emotion-based qualities of satisfaction should be reflected. The Perception Paradigm is the dominant framework used to assess CS in the service marketing field (Anderson & Sullivan, 1993; Kumar et al., 2013). In the HE field, Alves & Raposo (2009) have contrasted the Expectancy-Disconfirmation paradigm and Perception paradigm and concluded that the disconfirmation process has the highest explicative capacity.

However, there are a number of unresolved issues concerning the validity and reliability of the model (Yüksel & Yüksel, 2001). Studies in the educational field on student or graduate satisfaction (e.g. Arambewela & Hall, 2006) assess post-choice expectations, which is not consistent with the Expectancy-Disconfirmation paradigm proposed by Oliver (1980), stating that disconfirmation cannot occur when expectations are prior to the purchase. However, it would not be realistic to assume that students have firm expectations of all attributes prior to educational consumption. Based on this critique and its predominance in the service marketing field, this study defines CS as a function of performance. There are different definitions of overall or global satisfaction in current literature as can be seen in Table 8.

Table 8. Definitions of CS

Definitions of CS					
Authors (Year)	Definition				
Anderson & Sullivan (1993)	A post-purchase evaluation of product quality given pre-purchase expectations.				
Johnson & Fornell (1991); Gustafsson et al. (2005)	A customer's overall evaluation of the performance of an offering to date.				
Oliver (1997)	Pleasurable fulfilment. That is, the consumer senses that the consumption fulfils some need, desire, goal, etc. and that this fulfilment is pleasurable.				

This study's definition of Customer Satisfaction, based on the above cited definitions, is a customer's <u>overall evaluation of the performance</u> of an offering to date. It is a psychological state that a consumer experiences after consumption and a customer fulfilment response (Gustafsson, et al., 2005; Oliver, 1997).

CS has been operationalised in existing research as overall CS (e.g. Anderson & Sullivan, 1993, Brady et al., 2005), attribute satisfaction (e.g. Homburg & Giering, 2001), transactional satisfaction (e.g. Homburg & Fürst, 2005) and with the American Consumer Satisfaction Index or similar (e.g. Anderson & Mittal, 2000) (Kumar et al., 2013). Overall CS has been operationalised as a single-item scale (e.g. Anderson & Sullivan, 1993; Gustafsson et al., 2005; Mittal, Kumar & Tsiros, 1999) or multi-item scales (e.g. Brady et al., 2005; Cronin et al., 2000). The operationalisations reveal the cognitive-affective nature of the concept. Finally, a distinction can be made between operationalisations of CS as a purely cognitive construct (e.g. Anderson & Sullivan, 1993; Gustafsson et al., 2005) and as a cognitive-affective construct (e.g. Brady et al., 2005; Cronin et al., 2000; Oliver, 1997). Examples of operationalisations of CS, which have been used extensively in other marketing studies, can be viewed in Appendix A.6.

#### 2.2.3 Empirical Research on CS

This section outlines empirical research which characterises CS as a main variable, with an emphasis on research assessing the link between CS and CEBs. A review of literature reveals that CS has been linked with CEBs such as WOM (e.g. Bettencourt, 1997; Eisingerich et al., 2014; Wirtz & Chew, 2002), Participation (e.g. Bagozzi, 1995; Bettencourt, 1997; Dai, 2003) and Human Capital Performance (Luo & Homburg, 2007).

However, there have been equivocal findings on the relationship; some studies purporting a direct link between CS and CEBs (e.g. Jiewanto et al., 2012, Lee et al., 2014, Luo and Homburg, 2007), while others find no direct relationship between the two (e.g. Brodie et al., 2011; Dai, 2003; de Matos & Rossi, 2008; Wangenheim & Bayón 2007; Wirtz & Chew, 2002).

Mixed findings like these provoke a discussion on the relevancy of CS as a metric (Kumar, 2016). Authors suggest that further mediating and moderating mechanism need to be explored in the relationship between CS and WOM (Brown et al., 2005) and loyalty (Kumar et al., 2013). Both studies found that CS is a key predictor of behavioural outcomes, but that the variance explained by CS itself is small. Models that include further relevant variables, such as antecedent, mediator or moderator, are generally better predictors of the behavioural outcomes than merely CS (Kumar et al., 2013).

In conclusion, recent findings from literature demonstrate that the links between CS and CEBs are not as simple and direct as they first appear, as literature suggests there are mediating mechanisms that play a key role in defining these links more clearly (Brown et al., 2005). As the association between CS and CEBs appears to be highly variable depending on the mediators (and moderators or other antecedents) involved in a study. There is currently no research which contrasts the direct relationship between CS and CEBs (,i.e. Participation, WOM, Monetary Giving, HCP) with the effect of different cognitive and affective mediators, after controlling for the effect of CS.

The suggested cognitive and affective mediating mechanisms between CS and CEBs will be discussed below.

## 2.3 Cognitive Mediator: Perceived Employability

Former studies on comparative service evaluation frameworks between CS and customer behavioral outcomes have found that conceptual models that integrate both cognitive and affective mediators are better predicators of behavioral outcomes than CS alone (e.g. Brady, et al., 2005; Cronin et al., 2001). While affective mechanisms such as emotions have been studied as mediators, linking CS with CEBs, most research has ignored the role of cognitive mechanisms (Canziani, 1997). When considering cognitive antecedents of CEBs, an important question arises: Which customers are not only willing, but also feel capable of engaging? Canziani (1997) introduces the term 'Customer Competency' with service processes, acknowledging that engaged customers are a critical resource for a firm. Customer Competency is defined as "the relationship between customer knowledge, skills and motivation and specific tasks." (Canziani, 1997, p. 7). Perceived Competency relates to how an individual perceives their ability to perform specific foreseen tasks in the frame of the

overall service process, based on the competences they have acquired within this process. Studies suggest that human capital attributes, including competences, qualifications and experiences, positively affect firm outcomes (Hitt, Bierman & Shimizu 2001; Luo & Homburg, 2007; Pennings et al., 1998). Within the HE context, a core service offering is the delivery of employability development opportunities (Nauta et al., 2009). Hence, the construct that captures customer competency in terms of human capital attributes in HE is Perceived Employability (Rothwell et al., 2008). Consequently, the construct Perceived Employability is discussed below.

#### 2.3.1 Theoretical Roots

Employability has been explained predominantly through Human Capital Theory (Becker 1964 found in Berntson & Marklund, 2007; Berntson et al., 2006; de Cuyper, 2011). Other theories that have informed the conceptualisation of Perceived Employability are the Conservation of Resources Theory (Hobfoll, 1989, found in Kirves, 2014), the Dual Labour Market Theory (found in Berntson et al., 2006), Social Capital Theory (found in Fugate et al., 2004; McArdle et al., 2007), Job Search Theory (found in McQuaid, 2006), and Social Learning Theory (found in Berntson et al. 2006).

This study follows the common conceptualisation of Perceived Employability based on Human Capital Theory (Becker, 1993). In essence, Human Capital Theory proposes that higher investments in education would lead to increased human capital.

A more detailed understanding of Human Capital Theory is provided in Chapter 5.

## 2.3.2 Definition and Conceptualisation

"Raising the question of 'what is employability?' echoes the early debate about 'quality' in HE at the start of the 1990s" states Harvey (2001, p. 97). Indeed, employability is a concept under constant debate. This makes it important to define employability carefully as a construct for the frame of this study. Reviewing the different definitions and conceptualisations in A.7, the core notion pertains to the ability of students to gain initial employment, to maintain employment, and to obtain new employment if required (Hillage & Pollard, 1998). When reviewing literature, it becomes apparent that the concept of employability has been studied from different perspectives over time. Thereby, three perspectives have been of particular importance ranging from a macro (i.e. economic-societal perspective), to a micro (i.e. organisational/institutional perspective) and a miso-level (i.e. the individual perspective) (Forrier & Sels, 2003). Each perspective is significant in its own right and contributes to the study in hand.

On the macro-level, employability has been studied from an economic-societal perspective in response to governmental policies, which aim at reaching full national employment. Within the economic-societal perspective, employability is concerned with the ability of different categories of the labour force to gain and maintain employment (Finn, 2000; Nauta et al., 2009). A distinction is made between the employable and the unemployable (McQuaid & Lindsay, 2005). In this perspective, employability is regarded as the flexibility of a society (Versloot et al., 1998). Several studies have been conducted into the changing nature of work, personal factors and employability (e.g. Bertson et al., 2006; de Grip et al., 2004; McQuaid, 2006; Tomé, 2007), and also focused on university graduates (e.g. Brennan et al., 2001; Rae, 2008; Smith, McKnight & Naylor, 2000; Wilton, 2008). Importantly, Hillage & Pollard (1998) stress that employability for an individual depends mainly on four factors: their assets in terms of knowledge, skills and attitudes; the deployment of these assets; their presentation to employers; and their context (e.g. personal circumstances and the labour market). In line with the former considerations, McQuaid & Lindsay (2005) propose a holistic framework of employability, including both its supply-side and demand-side aspects. In this framework, employability consists of individual factors, personal circumstances and external factors. Individual factors include skills and attributes, demographic characteristics, health/wellbeing, job seeking and adaptability/mobility. Personal circumstances comprise of household and living conditions, work culture and access to resources, such as transport, social and financial capital. Finally, external factors consist of labor demand and market aspects, as well as support factors, such as employment policies (McQuaid & Lindsay, 2005). Through this framework, major influences of employability have been detected, such as skills mismatches (e.g. insufficient skills for a certain job) and spatial mismatches (e.g. local area does not provide appropriate jobs/insufficient mobility) (McQuaid & Linday., 2005).

In the 1980s the focus on employability shifted from a societal to an organisational perspective (Forrier & Sels, 2003). Organisations were faced with constant changes, such as the rapid advances in technology and the globalisation of markets. Consequently, companies tried to achieve flexibility in order to better cope with these dynamics. This notion is mainly reflected in human resource management and the psychology of work and careers (Forrier & Sels, 2003; Rothwell et al., 2007). The dynamics in organisational structures, work assignments, and technologies demand employees to modify existing work behaviours, acquire new skills and adapt to new job roles (Nauta et al., 2009). Van Dam (2004) refers to "employability orientation" to explain "attitudes of employees towards interventions aimed at increasing the organisations flexibility through developing and maintaining workers' employability for the organisation" (Van Dam, 2004, p. 30) and "employability activities" to explain employability behaviours of employees.

The majority of employability research focuses on the societal and organisational perspective. The individual dimension of employability has been continuously overlooked (Tomlinson, 2007). Existing research on employability on an individual level has primarily focused on the individual's objective or actual employability (Berntson et al., 2006; Fugate et al., 2004); that is whether individuals will or will not get a new job. However, employability can be viewed in regard to an individual's perceptions, referring to the way individuals come to perceive and understand the labour market they are entering and the types of dispositions, attitudes and identities they develop around their future work and employability (Forrier & Sels, 2003; Tomlinson, 2007). Thus, the central question raised by studies on subjective employability is what makes individuals perceive themselves as having high or low employability (Berntson et al., 2006). At an individual-level a distinction can be made between different phases of employability (Berntson et al., 2006; Fugate et al., 2004):

- Getting a job: In the first phase, individuals without a job endeavour to get a job and enter the labour market. Thus, research emphasises how individuals (mainly recently graduated, unemployed and unprivileged individuals) establish themselves in the labour market (Berntson & Marklund, 2007; Harvey, 2001).
- Maintaining a job: In the second phase, employability concerns individuals aiming to maintain their work (Garsten & Jacobsson, 2004).
- Finding a new job: The third phase focuses on individual's wanting to change employment, due to reasons such as career, income, family situation, organisational changes and the work environment (Berntson & Marklund, 2007).

As this dissertation views employability within a service marketing context and applies behavioural theory, a novel type of critical review on employability has been undertaken. It seeks to differentiate between approaches that frame employability as personal attributes, attitudes or behaviour, as can be seen in Appendix A.7.

In essence, one body of research defines employability on a number of individual characteristics or attributes. Predominantly, the ability of an individual to find and keep a job is examined. Most definitions refer to the possibility of obtaining and maintaining employment as an outcome (De Grip et al., 2004; Forrier & Sels, 2003; Fugate et al., 2004; Harvey, 2001; Little, 2011; Thijssen & van der Hejden, 2003). For instance, Harvey (2001) defines employability as the propensity of the individual student to get employment; while Little (2001) points out that it is central to distinguish between factors relevant to obtaining a job and factors relevant to the preparation for work. Furthermore, there seems common agreement that employability is built upon a number of attributes (Hillage & Pollard, 1998; Rajan et al., 2000). Some examples of these attributes are knowledge and skills (Hillage & Pollard, 1998), mastery of job search and career management (Fugate et al., 2004; Hillage & Pollard, 1998), capacity

for learning (Lane et al., 2000), professional knowledge (Van der Heijde, 2002), and resilience (Rajan et al., 2000). In contrast to outcome-based definitions of employability, this person-centred concept highlights the role of the individual in gaining employment independent of their employment status, identifying that someone can be employable without necessarily being in employment. An empirical study by McArdle et al. (2007) has shown an overall good structural fit of the psycho-social construct proposed by Fugate et al. (2004).

More recent research introduces employability as an attitude or the ability of individuals to gain sustainable employment. Therefore, employability is regarded as an attitude by an individual to develop and maintain his or her employability for the labour market. In other words, employability concerns individual attitudes and approaches to career progression (Tomlinson, 2007). In the organisational context, these emerging attitudinal approaches focus on cognitive judgements about one's employability (van Dam, 2004; Nauta et al., 2009). In Lazarus's (1991) framework these employability operationalisations can be classified as a secondary appraisal; an evaluation of the resources or options for coping with internal or situational conditions. The majority of research conceptualises Perceived Employability as a cognitive attitude. Few authors emphasise the emotional aspects of employability (Tomlinson, 2007). For instance, Tomlinson (2007) investigated the subjective dimensions of employability in terms of the dispositions, attitudes and identities that students develop around their future work and employability. Some authors combine cognitive and affective attitudes. For instance, Rothwell et al.'s (2008) operationalisation of the self-perceived employability construct in a HE setting includes mainly cognitive or rational judgements (e.g. about the demands of graduates, the attractiveness of the study programme for prospective students), but also emotional responses (e.g. feelings about getting a job, feelings of confidence in job interviews). Rothwell et al. (2007, 2008) further distinguish between internal and external employability. Internal employability refers to a concept very similar to Canziani's (1997) perceived competency construct. The authors define internal employability perceptions as an individual's perception of their own (internal) attributes, skills, and abilities (Rothwell et al., 2008).

A further body of research measures employability based on employability-enhancing activities or employability behaviours. HEIs have become increasingly aware of the technical competences and personal attributes demanded by the labour market. Luo and Homburg's (2007) concept of Actual Human Capital Performance also relates to Actual Employability as a behaviour. Rynes et al. (2003) note, there is a lack of consultation on the behavioural attributes required for the effective performance of graduates in the early stages of their career. The authors refer to employer surveys showing that employers are more satisfied with the technical and analytical abilities of students, than with their attitudes and work-related behaviours (Cappelli, 1995). However, work-related behaviours are increasingly demanded

from graduates entering the labour market (Bhanugopan & Fish, 2009, Yorke & Harvey, 2005). Evolving from this discussion, van Dam (2004) introduces a concept of employability activities. This concept is based on activities an individual undertakes to improve and maintain their employability. Examples of such behaviours would be the engagement in development activities or activities to extend their knowledge and work. This concept has been tested in empirical studies examining the antecedents leading to employability behaviours (van Dam, 2004; Nauta et al., 2009).

The present dissertation addresses the concept of internal Perceived Employability as an attitude. It focuses on how HE institutions can increase their students' perceived employability, which is defined as an individual's perception of their ability to gain employment, in terms of their attributes, skills, abilities, and engagement with study (Rothwell et al., 2008). As the research is conducted with undergraduates, the focus of the investigation will be according to Hillage and Pollard's framework (1998) on the first phase of employability, namely gaining employment. In so doing, the evolving notion of framing employability not only as a human-related characteristic, but also as attitudinal will be captured (van Dam, 2004).

Perceived Employability has been operationalised by differentiating between internal and external employability perceptions (e.g. Rothwell et al., 2008 for graduate students; Rothwell et al., 2007; DeCuyper et al. 2011 for employed and for unemployed); competences (e.g. Van der Heijden & Van der Heijden, 2006) and dispositions (e.g. Fugate et al., 2004) (see Appendix A.7 for more details).

## 2.3.3 Empirical Research on Perceived Employability

An overview of the studies in which Perceived Employability is a main variable within a conceptual framework is provided in Table 9. Reviewing past empirical research, it becomes apparent that an investigation of relationships between CS, Perceived Employability and CEBs addresses research gaps in the educational and marketing field.

Firstly, from an educational field, studies on Perceived Employability primarily focus on explaining the construct itself, thereby discussing its dimensions (Berntson et al., 2006; Fugate et al., 2004; Rothwell et al., 2009; Rothwell et al., 2008; Rothwell et al., 2007; van der Heijde & van der Heijden, 2006). Only a limited number of studies place employability into a nomological framework (Berntson & Marklund, 2007; McArdle, 2007; McQuaid, 2006; van Dam, 2004; Nauta et al., 2009; Tomé, 2007). In these selected studies, the antecedents are primarily derived from Human Capital Theory, being education (Tomé, 2007), skills (Tomé, 2007), and qualifications (Gasteen & Housten, 2007); individual-difference factors such as self-efficacy (e.g. Nauta et al., 2009; Ngo et al., 2017); or from an organisational perspective,

such as organisational support, career development support, tenure, employability culture (van Dam, 2004; Nauta et al., 2009). Satisfaction was assessed either as antecedent in terms of career satisfaction (e.g. Nauta et al., 2009) or as a consequence, in terms of job satisfaction and life satisfaction (e.g. de Cuyper et al., 2011; Ngo et al., 2017).

→ In the competitive HE context, CS and Employability have become two central benchmarking measures (see Introduction). Yet, the role of CS (with the organisational service) as antecedent to Perceived Employability has not been tested in prior research in the HE context.

Secondly, previous research that places Perceived Employability in a nomological framework has either focused on its antecedents or consequences, leaving an absence in research on integrated models (see Ngo et al., 2017). Outcomes of employability that have been assessed in previous studies include self-esteem (McArdle et al., 2007), job search success (McArdle, 2007; McQuaid, 2006), re-employment (McArdle et al., 2007), global health (Berntson & Marklund, 2007), mental health (Berntson & Marklund, 2007), employability activities (van Dam, 2004), work engagement and job satisfaction (Ngo et al., 2017), and organisational success in terms of self-rated performance, turnover intentions, job satisfaction and life satisfaction (de Cuyper et al., 2011). Yet, there is no study that positions Perceived Employability as an attitude as a key cognitive mediator between CS and two human-capital related CEBs measuring Job Performance and Actual Employability as behaviour.

→ This study contributes to a better understanding of the dynamics of Perceived Employability by assessing Perceived Employability as an attitude and Actual Employability and Job Performance as behaviours within an integral model.

Thirdly, this dissertation examines the human-capital related outcomes of CS, a gap in service marketing research highlighted by Luo and Homburg (2007). The authors state that research on CS has focused primarily on outcomes relating to behavioural intentions, such as repurchase intentions (Oliver, 1980) and willingness to pay behaviours (Homburg et al., 2005), such as WOM (Anderson & Sullivan, 1993), customer loyalty and repurchase behaviour (Fornell, 1992) and overall performance-related outcomes, such as financial performance (Anderson et al., 1997) and non-financial performance (Rust & Zahorik, 1993).

→ The personal-related outcomes of CS (such as Perceived Employability and HCP) have been neglected despite calls for this to be addressed over the previous two decades (Bitner 1997; Luo & Homburg, 2007). Personal-related outcomes would shed light into how services can be mutually beneficial (Berry, 1995).

Table 9. Perceived Employability in a nomological framework

Authors (Year)	Research Design	Employability Construct	Employability in a Nomological Framework	Key Findings
De Cuyper et al. (2011)	Empirical	Perceived Employability	Antecedents: Perceived Employability  Outcomes: Job Satisfaction, Life Satisfaction, Self-Rated Performance, Turnover Intentions	Perceived employability relates negatively to self-perceived performance, job and life satisfaction and positive to turnover intentions.
Kirves (2014)	Empirical	Perceived Employability	Antecedents/Moderators: Contract type, Perceived mobility, Optimism  Mediator: Perceived Employability  Outcomes: Well-being	Contract type, mobility and optimism interacted in the predication of Perceived Employability (as main and interaction effects). Perceived Employability was positively related with well-being.
Ngo, Liu & Cheung (2017)	Empirical	Perceived Employability	Antecedents: Work Volition, Self-Efficacy Mediator: Perceived Employability Moderator (between Perceived Employability and Outcomes): Job Insecurity Outcomes: Work Engagement, Job Satisfaction	Perceived employability mediates the relationship between individual- difference factors (, i.e. self-efficacy, work volition) and employee-related outcomes (i.e. work engagement and job satisfaction).

# 2.4 Affective Mediators: Positive Emotions

In Pansari and Kumar's (2017) conceptual framework it is suggested that CS and **Emotions** predict CEBs, such as WOM and Participation. Consequently, an understanding of emotions as potential mediating mechanisms is central to gaining an empirical understanding of what drives customers to perform CEBs.

## 2.4.1 Theoretical Roots

This study is based on the Broaden and Build Theory of Positive Emotions by Frederickson (1998, 2004), which captures the unique effects of positive emotions. The theory contends

that positive emotions (such as gratitude, love, pride, contentment, or joy) *broaden* an individual's momentary thought-action repertoires and leads to actions that build enduring personal resources (e.g. joy creates the urge to play, be creative, push the limits etc.) (Frederickson, 1998, 2001, 2004, 2013). A more detailed review is in the Chapter 5.

## 2.4.2 Definitions and Conceptualisations

The term 'affect' comprises of both emotions and moods. Emotions refer to "behaviour, physiological reaction, and subjective feelings that accompany motivated behaviour" (Carlson et al., 2009, p. 396). In contrast to mood, emotions are intense and last for less time (Carlson et al., 2009). There has been a controversy concerning the structure of emotions in terms of subjective feelings, resulting in two schools of thought. The first is the dimensional approach to emotions, in which a distinction can be made between two uncorrelated dimensions of an emotion, positive affect and negative affect (Watson & Tellegen, 1985). This is often referred to as 'valence', indicating the positive or negative character of an emotional experience (Carlson et al., 2009), thereby, positive emotions are understood to broaden an individual's attentional, cognitive and motivational scope to allow for novel activities, thoughts or relationships, while negative emotions narrow people's focus to aversive situations (Frederickson, 1998).

The alternative school of thought follows a categorical approach (e.g. Frederickson, 1998; Izard, 2007), which claims that there are a set of distinct emotions. Researchers have categorised emotions differently. For instance, Richins (1997) distinguishes between 14 different emotions: Romantic Love, Love, Joy Excitement, Surprise, Peacefulness, Contentment, Anger, Discontent, Worry, Sadness, Fear, Shame, Envy, and Loneliness. Frederickson (1998) examines a set of positive emotions that are defined as conceptually distinct. He categorises ten representative emotions (2013), which are presented in Table 10. According to the Broaden and Build Theory, the emotions were contrasting in terms of appraisal theme, through-action tendency, resources accrued and a trio of emotion adjectives to capture each emotion.

Table 10: Ten representative positive emotions (Frederickson, 2013)

Emotion label	Appraisal theme	Thought-action tendency	Ressources accrued	Core trio in mDES item
Joy	Safe, familiar unexpectedly good	Play, get involved	Skills gained via experimental learning	Joyful, glad, or happy
Gratitude	Receive a gift or benefit	Creative urge to be prosocial	Skills for showing care, loyalty, social bonds	Grateful, appreciative, or thankful
Serenity (a.k.a. contentment)	Safe, familiar, low effort	Savour and integrate	New priorities, new views of self	Serene, content, or peaceful
Interest	Safe, novel	Explore, learn	Knowledge	Interested, alert, or curious
Норе	Fearing the worst, yearning for better	Plan for a better future	Resilience, optimism	Hopeful, optimistic, or encouraged
Pride	Socially valued achievement	Dream big	Achievement, motivation	Proud, confident, or self-assured
Amusement	Nonserious social incongruity	Share, joviality, laugh	Social bonds	Amused, fun- loving or silly
Inspiration	Nonserious social incongruity	Strive toward own higher ground	Motivation for personal growth	Inspired, uplifted, or elevated
Awe	Encounter beauty or goodness on a grand scale	Absorb and accommodate	New worldviews	Awe, wonder, amazement
Love	Any/all of the above in an interpersonal connection	Any/all of the above, with mutual care	Any/all of the above, especially social bonds	Love, closeness, or trust

When reviewing the ten representative positive emotions (Frederickson, 1998; 2004; 2013), Frederickson highlights that Gratitude, Love and Amusement would be emotions that create social bonds. The feelings of Gratitude or Love are theorised to last for a longer period of time than Amusement, and can especially evoke reciprocity behaviours and mutual care (Frederickson, 2004). Hence, according to the Broaden and Build Theory, Love and Gratitude appear to be potential emotional mediators between CS and CEBs. Research suggests that emotions in general (Pansari & Kumar, 2017), and Love in particular, could lead to CEBs (Gallup, 2017) or pro-social behaviours (Cavanaugh et al., 2015). Gratitude has also been found to lead to reciprocal behaviours (Palmatier et al., 2009). This qualitative study finds that multiple emotions affect CEBs, yet Love and Gratitude emerge as the strongest antecedents to CEBs.

This study addresses positive emotions in terms of subjective feelings (as they are understood to lead to activities, such as CEBs) and applies a categorical approach to assessing the impact of different types of positive emotions on CEBs. Two emotions that were found both in literature and in the qualitative study to be linked to CEBs are Love and Gratitude.

#### 2.4.2.1 Love

Theories on positive emotions (Frederickson, 2004) as well as empirical evidence (Cavanaugh, et al. 2015; de Hooge, 2014) suggest that Love is the strongest of all positive emotions to evoke actions. When contrasting different emotions, in terms of their duration or intensity, Love was found to be the most intense positive emotion (Sonnemans & Frijda, 1994).

Whilst the earliest theories from clinical psychology on Love by Freud and Strachey (1922) and Reik (1944) conceptualise Love as a unidimensional construct, later theories from social and personality psychology on inter-personal love (e.g. Hatfield, 1985; Sternberg, 1986) inform the concept of Love as a multi-dimensional construct. Although there is disagreement about whether theories of inter-personal love can be applied to a consumer context (see Batra, Ahuvia & Bagozzi, 2012), as doubt is raised about whether consumers can have relationships with organisations as with individuals (Beetles & Harris, 2010), the majority of researchers do suggest that this theoretical perspective can be applied in a business-to-consumer context. Shimp and Madden (1988) were the first authors to adapt Sternberg's (1986) theory of inter-personal love to consumer research. Since then, Sternberg's theory (1986) can be regarded as the predominant theoretical grounding of conceptualisations of Love in marketing literature. According to Sternberg (1986), Love is composed of three constituent dimensions;

- 1. Intimacy, i.e. the warm component of love that reflects feelings of closeness, bondedness and connectedness;
- Passion, i.e. hot component of love that reflects intense feelings of attraction and desire and the drives that lead to romance, physical attraction, and sexual consummation; and
- 3. Commitment, i.e. the cold component of love that reflects rationale elements involved in the decision to love someone and the commitment to maintain that love.

Together these three dimensions can be viewed as forming the vertices of a triangle, whereby each vertices manifests a different aspect of Love.

Other theories of Love that have been used in the marketing field are the Emotional Prototype Model by Shaver et al. (1987, found in Barsade & Neill, 2014); the Attachment Theory by Bowlby (1987, found in Thomson, MacInnis & Park, 2005) and the Brand Love Prototype by Batra, Ahuvia & Bagozzi (2012, found in Wilson, Giebelhausen & Brady, 2017).

As can be seen in Appendix A.8, there are multiple conceptualisations of Love, including Love (e.g. Sternberg, 1986); Customer-Firm Affection (e.g. Choi & Choi, 2014; Yim, et al., 2008); and Companionate Love (e.g. Barsade & Neill, 2014; Fehr & Russel, 1991; Cavanaugh, Bettman & Frances Luces, 2015). In essence these conceptualisations are based on Sternberg's (1986, 1997) typologies of inter-personal love (yet focusing on two or three of the dimensions). Sternberg's (1986) typology of inter-personal love with its three components (described above) is the pre-dominant conceptualisation of Love in the marketing domain. It is distinct to related constructs, such as Customer Attachment (Thomson, MacInnis & Park, 2005) and Brand Love as conceptualised by Ahuvia et al. (2007) and Batra et al. (2012). Yet, Moussa (2015) poses the question of whether Customer Attachment and Brand Love are different constructs or rather different names for the same construct.

As there are many different theoretical underpinnings and conceptualisations of Love, it is judicious to outline why this study is based on Sternberg's (1986) Triangular Theory of Love. Firstly, it is the most prominent and supported theory in both psychology and marketing literature (Fournier, 1998; Shimp & Madden, 1988; Yim, et al., 2008). Secondly, the theory of interpersonal love can be used to construct ways to measure student-university love. This is because in a service context such as a HE, a.) relationships exist not only between the customers and the service landscapes, but also (and foremost) with people (e.g. university staff, other students) and b.) HE can be defined as a high-involvement market in which there is a greater significance placed on interpersonal relationships in order to form affectionate ties with the service provider (Bügel, et al., 2011). In fact, Yim, et al. (2008) found in their study on the role of love / customer-firm-affection in customer-staff relationships in services, that relational services (such as education) exhibit a greater amount of affection than transactional services. Thus, the relationship becomes – to a certain extent – inter-personal (lacobucci & Ostrom, 1996; Yim, et al., 2008), making an inter-personal love framework applicable for the context of the present study.

To conclude, this study is based on Sternberg's (1986) Triangular Theory of Love, including all three dimensions of Love; <u>Passion, Intimacy and Commitment</u>.

Operationalisations of Love based on Sternberg (1986, 1997) are mainly multi-dimensional scales which measure the dimensions of Passion, Intimacy and Love (e.g. Yim, et al. 2008;

Bügel et al., 2011; Choi & Choi, 2014). Choi and Choi (2014) developed a multi-item scale on interpersonal Love. An overview of different Love scales can be viewed in Appendix A.8.

## 2.4.2.2 Gratitude

Gratitude is regarded as a prevalent and constructive emotion (Brock, Eastman & Mc Kay, 2013), which is a fundamental element of social relationships. Theories on positive emotions (Frederickson, 2004) as well as empirical evidence (e.g. Palmatier et al., 2009) suggest that Gratitude is an emotional foundation for reciprocal behaviours.

Research on Gratitude dates back to the late 1700s, when the economist and philosopher Adam Smith proposed that Gratitude is a vital civic virtue that is essential for the healthy functioning of a society (Emmons, 2004). However, it is only since the 2000s that research has investigated the important impact of gratitude on personal and economic well-being (Brock, Eastman & McKay, 2013; Fagley, 2012; Fredrickson et al., 2003; Watkins et al., 2003), social relationships (Algoe et al., 2010; Tsang, 2006; Wood et al., 2008b) and buyer-seller relationships in the marketing domain (Brock, Eastman & McKay, 2013; Morales, 2005; Palmatier et al., 2009; Raggio et al., 2014; Soscia, 2007).

Two concepts of Gratitude are proposed in philosophical discourses; debt and a recognition view (White, 1999). In the debt view, the recipient of a benefit from a benefactor voluntarily acknowledges, in an appropriate way, the benefit because they believe that the benefactor has acted with their interest in mind and are therefore appreciative of the both the benefit and the benefactor's concern (Berger, 1975; White, 1999). In the recognition view, the conceptualisation of Gratitude is broader, as it is conceived as a mutual relationship between members of a moral community in which the recipient of a benefit appreciates and celebrates the benefactor's good will, yet there is no need for reciprocation and it may even set up a beneficent circle of Gratitude (White, 1999). Although there are some shortcomings of the debt view (see White, 1999), it still appears to be the predominant philosophical approach (Berger, 1975) that has also shaped conceptualisations of Gratitude in the marketing field (Morales, 2005; Palmatier et al., 2009; Socia, 2007).

Gratitude has been predominantly conceptualised as an emotion or feeling (Emmons & McCullough, 2004; Fredrickson et al., 2003; McCullough et al, 2008, Palmatier et al., 2009; Raggio, et al. 2014; Weiner, 1985), which arises when a beneficiary perceives to have received an intentional benefit from a benefactor. Gratitude has also been conceptualised as an attribute which reveals the tendency or disposition of an individual to experience the emotion of Gratitude (McCullough et al., 2002; Watkins et al., 2003), a moral affect (McCullough et al., 2001) or a life orientation (Wood et al., 2009). Finally, Gratitude has been

conceptualised as a behaviour (Buck, 2004; Palmatier et al., 2009; Steindl-Rast, 2004) (see Appendix A.9).

In this study, Gratitude is defined as a <u>feeling (i.e. an affective attitude) of gratefulness</u>, <u>thankfulness and appreciation</u> which can be expressed towards others, as well as impersonal or non-human sources (Emmons & Shelton, 2002; Palmatier et al., 2009).

Gratitude has been operationalised primarily as multi-item scale (e.g. McCullough et al., 2002; Palmatier et al., 2009). Tsang (2006) conducted an experiment which tested for the feeling of Gratitude with a single item. The most prominent measure to date in marketing literature is Palmatier et al.'s (2009) three-item scale which is used in several studies in the (service) marketing field (e.g. Agrawal et al., 2013; Long-Tholbert & Gammoh, 2012). An overview on different operationalisations is provided in Appendix A.9.

## 2.4.3 Empirical Research on Positive Emotions

This section outlines empirical research with emotions as main variable. Research on emotions in the marketing field has emphasised on contrasting between positively and negatively valenced emotions, thereby focusing on negative emotions (see Cavanaugh et al., 2015). Positive emotions have mostly been assessed together as one category instead of a differentiated examination (e.g. Sonnemans & Frijda, 1994). Research contrasting different positive emotions focused mostly on appraisals. For instance, research on different cognitive appraisals and emotion categories revealed that Gratitude and Love function through the same cognitive appraisals, being the degree of pleasantness and the recognition that someone besides the consumer was perceived to be responsible for bringing both emotions (Ruth et al., 2002). However, theory claims that positive emotions differ (Frederickson, 1998, 2004) in terms of broadening.

Recent research has begun to create an understanding of how positive emotions can systematically affect customer behaviour (So, et al., 2015), with a focus on the effect of a single positive emotion on CEBs (e.g. Choi & Choi, 2014, Hwang & Kandapully, 2015). As regards CEBs as outcome variables, there is empirical evidence on the relationship between Gratitude and favourable reciprocal behaviours (Lee, Kim & Pan, 2014; Palmatier et al., 2009); monetary gift giving (de Hooge, 2014) or purchase (Palmatier et al., 2009). Authors have specifically highlighted how Gratitude should be included in future studies as a relational mediator in investigations on social relationships. This is because it can promote positive behaviours and also explain behaviours in a different way to commonly studied relational constructs such as commitment and trust (Raggio et al., 2014).

Furthermore, there is empirical evidence on the positive relationship between Love and prosocial behaviours (Cavanaugh et al., 2015) and monetary gift giving (de Hooge, 2014). Yim, et al. (2008) found that Love is an affective mediator between Satisfaction (and other antecedents) and Firm Trust and Loyalty.

In the HE context, the effects of positive emotions such as optimism and positive thinking on student outcomes have been well researched (Seligman et al., 2009). Unlike Gratitude or Love, these emotions, however, do not necessarily require a relationship or interaction in order to occur. Little research has been undertaken so far to investigate the role of Gratitude in a HE setting (Howell, 2012; White, 1999). Howell (2012) states provocatively, "Many frown upon the use of the words gratitude and education together. It seems like a strange combination."

→ Overall, only a few studies consider the effects of different emotions in their research framework (Albert, et.al, 2008; Bartlett and DeSteno, 2006; Cavanaugh et al., 2015; Gambetti, et al., 2012). In addition, a very limited number of studies that assessed the effects of different emotions simultaneously, have integrated both Gratitude and Love within one conceptual framework. Studies usually assess Gratitude and Love (and other emotions) on one level and not their relationships or sequential orders (e.g. De Hooge et al., 2014; Ruth et al., 2002).

Frederickson (2004) theoretically suggest and Cavanaugh et al. (2015) and De Hooge et al. (2014) empirically confirm that: a.) Not all categories of positive emotion broaden the action-thought repertoire of individuals in the same way; and b.) Love has a specific broadening function; (e.g. being the only positive emotion having a direct impact on pro-social behaviours to distant others or better predicting monetary gift giving). These findings indicate that Gratitude and Love might not be accurately conceptualised on one level, but should rather be conceptualised as a serial mediation effect. This is in line with Frederickson (2004), who proclaims that Gratitude not only leads to reciprocal behaviours, but also to mutual care. Long-Tholbert & Gammoh (2012) is the only study to date empirically finding a serial mediation effect between Gratitude and Love. Yet, Long-Tholbert and Gammoh's (2012) study is limited in its assessment of inter-personal antecedents to Love, omitting outcome variables, such as CEBs. This study intends to empirically shed light to the relationship of both Gratitude and Love as affective mediators between CS and CEBs.

In the educational realm, the majority of research has been conducted on Gratitude Education, which focuses primarily on student reciprocation back to society (see Froh, Bono & Emmons, 2010). However, Howells (2012) promotes Gratitude as an alternative paradigm

to learning and teaching, and that it should receive more attention in educational research. Studies conducted in a HE context found several positive personal outcomes of student gratitude, such as increased student engagement, a deeper understanding of content, increased motivation, enthusiasm, determination, attentiveness, and well-being (Emmons & McCullough, 2003; Howells, 2012) as well as positive relational outcomes, such as a greater connection to the subject and teacher and improved supervisor-student relationships (Howells, 2012; Unsworth et al., 2010). Assessing the role of Gratitude as affective mediator between CS and CEBs also contributes to current understanding of Gratitude Education literature. An overview of empirical studies with Love as central affective variable is provided in Table 11.

Table 11. Positive Emotions in Nomological Frameworks

Authors (Year)	Research Design	Emotion categories	Emotions in a Nomological Framework	Key Findings
Ruth et al. (2002)	Empirical	Love Gratitude Happiness Pride Fear Anger Sadness Guilt Uneasiness Embarrassment	Cognitive appraisals	Linking different cognitive appraisals to different customer emotions revealed that the degree of pleasantness was the main contributing variable. Love and Gratitude were rated highly in other-agency (where someone besides the customer was perceived to be responsible for bringing these emotions).
Yim, et al. (2008)	Empirical	Customer Firm Affection	Service Quality Satisfaction Social Rapport Staff Trust Staff Loyalty Firm Trust Firm Loyalty	Customer Firm Affection (Love) was found to be a mediator between Service Quality, CS and Firm Trust and Loyalty.
Long- Tholbert & Gammoh (2012)	Empirical	Brand Love (in terms of Passion, Intimacy, Commitment)	Gratitude Partner Quality Social Support	The study found that interpersonal antecedents, including Gratitude, significantly affect brand love in the context of service relationships.

Authors (Year)	Research Design	Emotion categories	Emotions in a Nomological Framework	Key Findings
Choi & Choi (2014)	Empirical	Customer Affection	Distributive Justice Interactional Justice Procedural Justice Customer WOM Loyalty	Customer Firm Affection (Love) was found to mediate the relationship between three types of justice, Loyalty and WOM.
De Hooge (2014)	Empirical	Love Gratitude Pride Anger Guilt Shame Fear	Monetary gift giving Time spent on gift search	Love increased gift giving more than all other emotions.  The motivation to maintain, improve (or weaken) a relationship with receivers of a gift was found to be the main predictor of emotion patterns followed by a need to express one's feelings.
Lee, Kim & Pan (2014)	Empirical	Gratitude	Confidence Social benefits Relationship Marketing Investments Satisfaction Favourable reciprocal behaviours	Relationship marketing investments positively affected Satisfaction and Gratitude. Gratitude evoked favourable reciprocal behaviours, while CS did not.
Cavanaugh et al. (2015)	Empirical	Love Pride Hope Compassion	Pro-social behaviours	Positive emotions do not universally lead to pro-social behaviours. Love, Pride, Hope and Compassion were found to lead to pro-social behaviours towards close others, while only Love increases pro-social behaviours towards distant others and organisations.
Present study	Empirical	Gratitude Love	Satisfaction Perceived Employability Participation WOM Monetary Giving HCP	This study investigates the mediation effects of Perceived Employability, Gratitude and Love between CS and CEBs.

## 2.5 Conclusion

This chapter focused on CEBs and conceptualised antecedents. The chapter opened with an examination of customer engagement in general and Customer Engagement Behaviours in particular. Different types of CEBs were contrasted, leading to significant evidence for two types of CEBs, i.e. WOM and Participation. Furthermore, it was found that there are neglected types of CEBs, such as Monetary Giving and HCP. The identified gaps in current literature indicate a need for research on CEBs in a higher education context.

Customer Satisfaction was discussed as a conceptualised key predictor of CEBs. It was defined as the overall evaluation of service performance to date. Past empirical research on the relationship between CS and CEBs revealed equivocal findings, suggesting the need for the inclusion and empirical assessment of further cognitive and affective mediating variables.

The literature review then identified Perceived Employability as a significant cognitive mediator in the HE sector. This was conceptualised as a student's self-perceived internal employability. Positive emotions were also suggested as potential affective mediators between CS and CEBs. Theoretical and empirical evidence suggested that two positive emotions are particularly strong in explaining the creation of relational bonds and evoking behaviours reflecting reciprocation or mutual care; Gratitude and Love. Gratitude, a feeling of appreciation and thankfulness, and Love, a three-dimensional construct composed of feelings of Passion, Intimacy and Commitment, have been selected as affective mediator variables. Past empirical research clearly highlights the need to further investigate these cognitive and affective mediators between CS and CEBs.

This literature review concludes with an overview, in Table 12, of the main constructs of the present study and their respective definitions.

Table 12. Summary of study constructs and definitions

Study Constructs and Definitions			
Participation	Customer behaviours indicating active and responsible involvement in the governance and development of the organisation and its services or products, by giving feedback to the firm and its employees and/or suggestions for service improvements (Bettencourt 1997; Bove et al. 2009) or through participation in new product and service development processes (Kumar et al. 2010).		
Word-of-Mouth	Customers showing their engagement toward an organisation by spreading WOM (Bove et al., 2009; Kumar & Reinartz, 2016), or recommending the firm to other customers (Brodie et al., 2011; Verleye et al., 2014).		
Monetary Giving	Customer voluntarily giving money to a firm in terms of donations, monetary contributions, or sponsorship.		
Human Capital Performance	A customer's human capital excellence, in terms of knowledge, skills and experiences, (Luo & Homburg, 2007) are explicated as: a.) Productivity in the internal labour market (i.e. Job Performance in a company); and b.) An individual's chance of gaining employment in the (internal and) external labour market (i.e. Actual Employability).		
Customer Satisfaction	A customer's overall evaluations of the performance of an offering to date. It is a psychological state that a consumer experiences after consumption and a consumer fulfilment response (Gustafsson, et al., 2005; Oliver, 1997)		
Perceived Employability	An individual's perceptions of their ability, in terms of attributes, skills, abilities, engagement with study, to get sustainable employment. (Rothwell et al., 2008).		
Gratitude	A feeling (i.e. an affective attitude) of gratefulness, thankfulness and appreciation which can be expressed towards others, as well as impersonal or non-human sources (Emmons & Shelton, 2002; Palmatier et al., 2009).		
Love	An affective attitude composed of three components: Intimacy (feelings of closeness, bondedness, and connectedness); Passion (the drives that lead to romance, physical attraction, and sexual consummation); and Commitment (the decision that one loves another and one's commitment to maintain that love). Together these can be viewed as forming the vertices of a triangle whereby each vertices manifests a different aspect of Love (Sternberg, 1986).		

# **Chapter 3. Mixed Methods Methodology**

# 3.1 Methodology

This section presents the proposed methodology to empirically develop and test hypotheses with a mixed method research design. Firstly, there is a discussion of the criteria for selecting a methodology, based on its consistency with the philosophical paradigm and the current state of research. Secondly, the mixed methods approach in general is examined.

## 3.1.1 Criteria for Methodology Choice

"Methodology as a discipline lies between two poles. On the one hand is technics, the study of specific techniques of research [...]. On the other hand is philosophy of science, the logical analysis of concepts presupposed in the scientific community", states Kaplan (1999, p. 79). According to this statement, the selection of an appropriate research method is not arbitrary, but dependent on the fit with the overall research paradigm, as well as on the techniques (i.e. methods) that best address the research problem. The latter also depends on the current state of research. Therefore, the following two criteria for a critical method selection will be examined:

- the consistency with philosophical paradigm and
- the current state of research.

Both criteria will be discussed in the following subsections.

# 3.1.1.1 Philosophical Paradigm

The concept of research paradigms was introduced by Thomas Kuhn, in his book "The Structure of Scientific Revolutions" (Kuhn, 1962). A paradigm determines the criteria by which one selects and defines problems for inquiry, and how one approaches them theoretically and methodologically (Husén, 1999). However, both marketing and educational research face a particular challenge regarding Kuhn's premise of a generally agreed-upon theoretical paradigm of investigation. For instance, James (1899) points out that educational science is not a well-defined, unitary discipline but a practical art. Research into educational problems is conducted by scholars with many disciplinary affiliations, ranging from psychology and behaviour sciences to philosophy and history (Husén, 1999). Similar critical discussions can be found by authors in the marketing field (see Hunt, 2016). Consequently, there is not one

prevailing theoretical paradigm in the very multifaceted fields of marketing and educational research.

Instead, marketing and educational sciences (like most branches of social science) tend to have a dominant philosophical paradigm, which is based around the philosophical aspects of ontology and epistemology. It is believed that all philosophical positions and their attendant methodologies, explicitly or implicitly, hold a view about social reality. This view in turn determines what can be regarded as legitimate science (Lee & Lings, 2008). Hence, the ontological view shapes the epistemological, which in turn shapes the axiology, which then shapes the methodological. The following terms are briefly described in Appendix B.1: ontology, epistemology, axiology, interpretivism and realism.

In educational research, many authors distinguish between two fundamental paradigms of research; realism or the scientific (often erroneously identified as positivism) and the humanistic or interpretative (Walker & Evers, 2009). Realism is modelled on the natural sciences, with an emphasis on empirical, quantifiable observations that lend themselves to analyses by means of mathematical tools. The task of research is to establish causal relationships, to explain (erklären). The humanistic paradigm is derived from the humanities, with an emphasis on holistic and qualitative information and interpretive approaches (verstehen) (see Husén, 1999). Within educational and marketing research, there has been controversies between positivism and interpretative methods (Husen, 1999; Tadajewski, et al., 2014). Each perspective appears to have its origins in a long philosophical tradition. Therefore, it is necessary to ask:

- Whether it is possible to bring these two traditions together in a unified approach;
- Whether one approach should be superseded by the other; or
- Whether both should be maintained, because they each have different goals.

Indeed, the comparison of work across these differing paradigms might be problematic, as both are based on distinct philosophical assumptions. Therefore, Lee & Lings (2008) suggest a form of weak incommensurability between the two paradigms; that there is a common ground across all paradigms and this allows the use and interpretation of research conducted from alternate paradigms. However, the authors emphasise that research projects should be based on a single philosophical paradigm, as the epistemological and ontological assumption of each paradigm are too distinct to unify them within one approach. This is in line with De Landshere (1999) and Husén (1999), who hold the position that these two approaches are complementary to each other, and not necessarily in conflict within an educational context. Similarily, in a marketing context, Tadajewski et al. (2014) conclude:

"Clearly, scholars cannot avoid being constrained by their paradigmatic worldview. Generally speaking, each of us subscribes to a paradigm that we use to make sense of our research. This can lead to unproductive disagreement, rather than rapprochement. Thus, both lines of research should continue and contribute." (Tadajewski, et al. 2014, p.1745).

In line with the overall research objectives, this study follows the realism paradigm, while seeking knowledge through multiple complementary approaches (Lee & Lings, 2008) to develop a causal model on the relationships between CS and CEBs. This has consequences on several levels on the methodology (such as method selection and data analysis approaches). Consequently, the selected methodology is in accordance to the ontological and epistemological assumption that reality is objective and separate from those looking at it, and that it is measurable and knowable.

#### 3.1.1.2 Current State of Research

An analysis of the state of research provides insights into the evolution of the discipline, as well as of the applied methods for a specific research problem. The question arises whether the state of research allows conclusive research designs (i.e. a research design that is based on a clearly defined research problem and aims at testing specific hypotheses and relationship) or whether an exploratory orientation (i.e. a research design aimed at providing insights into, and comprehension of, the research problem) is needed (Bortz & Döring, 2003). After the thorough literature review in Chapter 2 it is apparent that conclusive research with a focus on quantitative methods (even within qualitative research) can be deemed most appropriate. Despite this, the dissertation aims to explore different types of CEBs in a HE context (see 2.1.3 Empirical Research on CEBs) and mediating mechanisms (see 2.3.3 Empirical Research on Positive Emotions) which have not been investigated extensively in research to date. Therefore, an exploratory phase is considered necessary to inform the quantitative study. A mixed method approach was chosen as the most appropriate to both explore and to empirically test novel mediating mechanisms between CS and CEBs.

# 3.2 Mixed Methods Approach

Consistent with the philosophical paradigm of realism, this dissertation applies a **mixed method** approach to address the research problem. This combines qualitative and quantitative approaches to the research methodology.

There has been an evolution in methodology in the social and behavioural sciences; from the use of mono method to mixed methods approaches and mixed model studies (see Tashakkori & Teddlie, 1998). Mixed method studies combine qualitative and quantitative approaches in

all or many phases of the research process (Tashakkori & Teddlie, 1998). This study intends to use qualitative research as a basis on which to develop quantitative research. In this way, the second phase elaborates on the first phase (Creswell, 2003) and the results from the qualitative method inform the development of the conceptual framework and subsequent quantitative method (see Figure 3). Bryan (1988) argues that combining quantitative and qualitative research maximises the strengths and reduces the weakness and limitations of a single method.

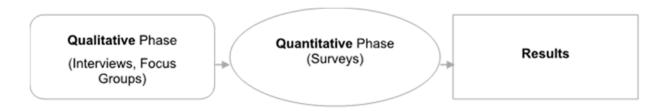


Figure 3. Mixed method approach applied for this dissertation (own depiction)

The direct and indirect relationships between CS and CEBs can be best assessed after an exploration of different types of CEBs and potential mediators between CS and CEBs. A sequential mixed method design is well suited for this purpose. This rationale is in line with Green et al.'s (1989) "development" purpose of mixed methods.

#### 3.2.1 Limitations

The mixed method approach has its limitations. The main critique is that mixed methods can cause a clash in world-views (Tashakkori & Teddlie, 1998). Although it is acknowledged, and even fundamental, in this study to underline that mixing methods does not imply the mixing of world views (Lee & Lings, 2008); selected characteristics of qualitative research will be contrasted with those of quantitative research, in order to understand their different approaches to the research questions (see Appendix B.2).

This study operates under a realism paradigm, but mitigates against mixing world views in the following ways: firstly, emphasis is put on the quantitative study in the research design. Secondly, semi-structured interviews and focus groups with clear guidelines are used to collect data in rather systematic/structured way content analysis is chosen as the data analysis technique because it includes quantitative elements. Thirdly, the two phases are distinct from each other, in order to thoroughly present the paradigm assumption behind each phase.

Further criticisms of the mixed method approach are: it is time consuming, requires extensive data collection, as well as the skills in both word and numeric data analysis collection and analysis. While the former two criticisms can be addressed to an extent through appropriate sampling and data collection techniques, the latter can also be viewed as an opportunity to develop methodological skills.

#### 3.2.2 Ethical Considerations

The research community has a right to expect that research is conducted rigorously and in an ethically responsible manner. Consequently, this subsection focuses on any ethical issues that may arise when conducting both phases of this mixed methods research. Some of the central ethical considerations to be reflected in the research designs are outlined below.

Based on the ethical principles for educational research proposed by Cohen et al. (2013), ten central actions formed the ethical guidelines for the development, implementation and analysis of this study, as follows:

- Gain fully informed consent in writing, in order to respect self-determination and autonomy, and to provide information on all aspects of the research and its possible consequences;
- Agree an individual's right to privacy;
- Ensure that participants have the right to withdraw at any time;
- Inform participants about who will have access to the data, the extent to which it will be public, when it will do so, and how it will be disseminated;
- Ensure anonymity, confidentiality, and non-traceability;
- Inform participants how data will be collected and stored during and after the research;
- Ensure sensitivity to people (ethnicity, gender, age, culture etc.);
- Gain the permission of the relevant parties (dean, international offices etc.) for access;
- Agree ownership of the data; and
- Ensure participants have the right to dissent or distance themselves from the research.

These guidelines were agreed with all participants before the research commenced.

# **Chapter 4. Qualitative Research**

## 4.1 The Qualitative Research Phase

This section outlines the first research phase, which is a small-scale qualitative research. First, the objectives of the research are outlined, second a suitable research method to reach these objectives is selected, and third, the research design and analysis methods are discussed. Finally, the data analysis results, including reflections of both the second reviewer and the researcher, are presented.

## 4.1.1 Objectives of the Qualitative Phase

In line with the overall research objectives, the aims of the qualitative research phase were:

- In line with research objective 1, the qualitative study aims to explore positive CEBs that are of direct and indirect benefit to universities in a HE context;
- In line with research objective 2, the qualitative study aims to investigate cognitive and affective mediating mechanisms between CS and CEBs.

through semi-structured interviews and focus groups with alumni and students in their second and in their final year of studies from Austria and England. There was an additional objective to gain background knowledge on the research context by conducting semi-structured interviews with educational experts in the fields of higher education management, employability, and quality assurance.

The results of the qualitative research shall inform the development of the conceptual framework and the subsequent quantitative research phase in which the relationships between CS and CEBs are empirically tested.

## 4.1.2 Participants

Richards & Morse (2007) state that appropriate selection of participants is necessary to facilitate good qualitative inquiry and to reach the research objectives. A distinction can be made between different non-random (Richards & Morse, 2007) or purposeful (Creswell, 2008) sampling techniques by which individuals or sites are selected that can best inform a researcher in understanding a phenomenon (for a more detailed discussion see Creswell,

2008). Based on the relationship between the epistemological and theoretical orientations of the present dissertation, a theoretical sampling approach was appropriate. Using this approach, the researcher seeks out persons deliberately in order to gain a deeper understanding from the emerging data (i.e. theory-driven samples), intending to develop conceptual categories and relationships (di Gregorio & Davidson, 2008). It is regarded as one of the most rigorous purposeful sampling approaches (Creswell, 2008; Richards & Morse, 2007). As suggested for theoretical sampling, the start of the sampling was purposive sampling, but it then continued as an iterative process by letting the theories and findings which emerged from the data influence the next round of sampling (Lee & Lings, 2008).

## 4.1.2.1 Sample Units

Appropriate to the HE context, where the primary customer is the student, the primary sampling unit was male and female undergraduate business students. Six specifications were made as regards the student sample, which are outlined as follows.

- The study was restricted to undergraduate students in the field of business, because CS and Perceived Employability perceptions can vary across different fields of studies and business school students were found to show higher expectations towards higher education service providers than students from other schools (Obermiller, et al., 2005).
- 2. The study was restricted to students in their second or final year of studies in the undergraduate business programme, because they have greater experience within the higher education institution and are therefore better positioned to evaluate their satisfaction, having spent enough time at the institution for emotions to evoke (Bügel et al., 2011) and to have felt concerned about their employability (Tomlinson, 2007), whilst not yet mixing it with real experience (i.e. getting a job or not) (Harvey, 2001).
- 3. The study is conducted in two European countries, namely Austria and England for three reasons. Firstly, the effect of tuition fees was investigated. Research suggests that paying tuition fees might affect attitudes and the willingness to reciprocate and perform CEBs (Marr, Mullin and Siegfried, 2002). As outlined in Chapter 1 the recession and the European and national frameworks for education have resulted in different reactions by governments regarding the educational budget. Higher education institutions in England demand tuition fees for consuming undergraduate programmes. For students, the costs of education depend on the employment situation (payment level) after graduation (Browne Report, 2011). In contrast, Austria is one of the very few European countries in which tuition fees are not mandatory by

law. Secondly, despite some obvious differences between the countries (e.g. geographical size), there are necessary communalities which allow the development of a common model. Both countries were at the time of data collection members of the European Union having introduced a three-cycled educational offer (Bachelor, Master, PhD), are advanced countries in terms of educational offerings and economic wealth, and offer a comparable tertiary business education resulting in a Bachelors degree. Finally, based on the reliability conditions for qualitative research suggested by Bryman & Bell (2011) and LeCompte & Goetz (1982), external reliability of a qualitative study can be assured when replicating the study ideally in a different context. Replicating the study in two different cultural contexts enhanced the external reliability of results.

- 4. The study is restricted to students from two selected universities, being FH JOANNEUM, University of Applied Sciences in Graz, Austria and Aston University, Birmingham, England. Both universities have a strong reputation in supporting graduate employability, offer a placement term and a comparable undergraduate business education and are located in the second largest city in the respective country.
- 5. The study was restricted to students between 20 and 28 years of age. This is the age group in which students most commonly finalise their Bachelor programme (OECD, 2016). Being above 28 and not having finished a Bachelor degree (former work experience excluded) might skew CS and employability perceptions.
- 6. The study is restricted to full-time students being resident in the respective countries of study (i.e. no exchange students). This ensures that the working and university context is better comparable within a national sample.

The secondary sampling unit was composed of male and female alumni of the same undergraduate business programmes from the same universities, from Austria and England, to deepen the research and especially in order to understand if, and under which circumstances, CEBs occur, and which mediating mechanisms are underlying the link between CS and CEBs.

Finally, to interpret the findings within the research context, a complementary sampling unit comprised of male and female educational experts. Insights from HE managers, European higher education experts, quality assurance agencies and employability experts were intended to deepen the understanding of the research findings in the respective HE systems. For this sampling, a combination of theoretical and maximal variation sampling was

employed. The information gathered through the expert interviews served as background information and helped to refine the interview/focus group guideline for alumni/students and interpret the findings of the primary and secondary sample.

## 4.1.2.2 Sample Size

Regarding the sample size, theoretical sampling involves an iterative process, in which the sampling should continue until a point of theoretical saturation (i.e. the point where no new information is gained in repeated case collection) (Bowen, 2008). Although the theoretical sampling criterion was employed for the current study, suggestions as to the minimum sample size of 20 participants were taken into consideration (Lee & Lings, 2008). Borg and Gall (1979) suggest that a sample size should be large when many variables need to be discussed, relationships between the variables are expected, subgroups of the sample need to be formed, the sample is heterogeneous in terms of variables under study, and reliable measures of the dependent variable are unavailable. As the theory under examination is reasonably complex, the perspectives of at least twenty undergraduate students and alumni should be reflected (Lee & Lings, 2008).

As regards the sample size of individual focus groups, Morgan (1996) suggests that the typical size of focus groups is six to ten members, and they further recommend smaller groups when participants tend to have a lot to say on the research topic. In this instance, the latter was the case, as the participants were students and thereby tended to be involved in and emotionally preoccupied about their education and employability. Smaller groups require more active involvement by participants and allow more room for discussion. Therefore, it was intended to involve a minimum of three and a maximum of ten participants per focus group and to vary the number of participants throughout the focus groups. To control noshows, the strategy of over-recruiting, suggested by Wilkingson (1998), was followed, which led to differing final group sizes.

For background interviews with educational experts, theoretical saturation was not intended. Rather, participants with similar job positions or expertise were selected, from both countries, in order to compare insights between the two research contexts.

The total scope of data collected is described in Table 13.

Table 13. Qualitative sample

Study components/ Sample	Total amount of data analysed	Alumni	Final year students	2 <sup>nd</sup> year students	Educational experts
Background questionnaires	78 Questionnaires	Total: 21 Austria: 11 England: 10	Total: 25 Austria: 7 England: 18	Total: 23 Austria: 13 England: 10	Total: 9 Austria: 5 England: 4
Semi- structures interviews	30 Interviews	Total: 21 Austria: 11 England: 10	-	-	Total: 9 Austria: 4 England: 5
Focus group interviews	8 Focus groups, 48 participants	-	Total: 25 (5 groups)  Austria: 7 (2 groups)  England:18 (3 groups)	Total: 23 (3 groups) Austria: 13 (2 groups) England:10 (1 group)	-

In total, 78 participants contributed to the qualitative research. 8 focus groups were conducted with a total of 48 participants, 21 semi-structured interviews with alumni and 9 expert interviews were conducted.

## 4.1.3 Data Collection Methods

The research method considered to be most suitable to reach the objectives presented above were the focus group and semi-structured interview techniques, which will be presented in the next sub-sections.

## 4.1.3.1 Overview of Data Collection

The data collection was conducted in five subsequent steps:

- 1. Interview guidelines and demographic questionnaires for the Austrian student, alumni and expert samples were developed (for more details see Section 4.1.3.4).
- 2. Access to participants was arranged.

- 3. Expert interviews were conducted in Austria and England to gain background information on the context of the study, understand the university system and its influencing factors, and to test whether the interview guideline was suitable for the cultural context or required adaptation. Necessary adaptions were made.
- 4. Focus group discussions with students, and semi-structured interviews with alumni, were conducted in Austria.
- 5. Focus group discussions with students, and semi-structured interviews with alumni, were replicated in England.

provides an overview of the data collection process, indicating that focus groups were conducted in Austria and the England with second and third-year students. With alumni and educational experts, semi-structured interviews were conducted. The data collection mode for all focus groups was personal, whilst for the semi-structured interviews, it was a combination of personal and phone interviews, due to the geographical dispersion of the sample (see Table 14).

Table 14. Qualitative data collection methods, modes, and sites

Participants	Undergraduate business students in their second or third-year of studies	Alumni of undergraduate business studies
Data collection method	Focus groups  Demographic questionnaires	Semi-structured interviews  Demographic questionnaires
Data collection mode	Personal	Personal and phone
Data collection sites	Austria, FH JOANNEUM, University of Applied Sciences, Graz	Austria, FH JOANNEUM, University of Applied Sciences, Graz
	England, Aston Business School, Birmingham	England, Aston Business School, Birmingham

In the following sections, both the focus group and semi-structured interview approach will be discussed.

## 4.1.3.2 Focus Groups

The method and rationale for using focus groups as well as the focus group process are outlined in this section.

## 4.1.3.2.1 Method

Focus groups are any discussion in which the researcher is actively encouraging of, and attentive, to the group interaction amongst participants (Kitzinger & Barbour, 1999). Hence, in terms of method, the researcher enables a focused group discussion among the participants rather than mere interaction and the researcher moderates discussions attentively, with consideration to group discussion dynamics (Barbour, 2007).

#### 4.1.3.2.2 Rationale

The focus groups with students allows the participants to probe each other's reason for having specific perceptions or views. Students are able to listen to each other's opinions and modify or qualify their view. Furthermore, focus groups foster individuals to collectively form a meaning of a phenomenon (Morgan, 1998).

## 4.1.3.2.3 Process

Participants were invited to participate voluntarily in the focus groups. In England, the invitation to participate in the study was forwarded to all undergraduate students by the representative of the respective undergraduate office. Since no undergraduate office for business studies existed at the Austrian university, the invitation to participate in the study was forwarded to all undergraduate students by the student representatives. Thereby, the invitation was made sensitively in order to ensure voluntary and open participation. Since the response was very low, after multiple reminders to second-year students in the UK, the researcher asked lecturers of second-year modules to announce the focus group in their lectures. An overview of the participants (number/focus group, gender), the structure and the documentation of the focus groups can be viewed in Table 15.

Table 16. Focus group description

Participants	Final year undergraduate business students from Austria and England Second-year undergraduate business students from Austria and England
Number and Size	TOTAL: 8 focus groups, 48 participants (25 females, 23 males) Subtotal final year students: 5 focus groups, 25 participants Subtotal second-year students: 3 focus groups, 23 participants Focus Group 1 Year 3 Austria 1: 4 (3 females, 1 male) Focus Group 2 Year 3 Austria 2: 3 (3 males) Focus Group 3 Year 3 England 1: 5 (2 females, 3 males) Focus Group 4 Year 3 England 2: 7 (4 females, 3 males) Focus Group 5 Year 3 England 3: 6 (2 females, 4 males) Focus Group 6 Year 2 Austria 1: 7 (3 females, 4 males) Focus Group 7 Year 2 Austria 2: 6 (5 females, 1 male) Focus Group 8 Year 2 England 1: 10 (6 females, 4 males)
Structure  Documentation	Semi-structured interview protocol  Tape recording  Notes from neutral observer and note taker  Transcription  Memos

To control for the focus group setting, all focus groups with Austrian participants took place within one meeting room at FH JOANNEUM, the focus groups with 3rd year students in the UK took place in one meeting room at Aston University and the focus group with 2<sup>nd</sup> year students in the UK took place in a seminar room at Aston University. The tables were arranged in a circle. The researcher had the audio recorder, the focus group guideline, note sheets, topic cards for the flipchart, and a name tag on the table. Each participant had a name tag with the first name and a participant number, a background questionnaire, a notes sheet, the relationship sheet with post-its, and blank paper and pens on the table. The note taker had the interview guideline, a notes sheet, a list of participant names and numbers, a second audio-recorder and blank paper and pens on the table. Behind the moderator was a flipchart which first showed a welcome note and then the relevant topics for discussion. Food and drinks were provided to make participants feel comfortable. Figure 4 provides a depiction of the focus group set-up in Austria, showing (from left to right) the moderator, the note taker, the flipchart, and the relationship sheet. The documentation of each focus group is carried out with tape records, notes from the neutral observer, transcriptions and memos made by the researcher.



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#### Figure 4. Focus group setting

The Austrian focus groups were conducted first. After this first wave of data collection via focus groups, it became apparent that third-year students tended to provide in-depth information, especially when expressing their emotions, and demonstrated willingness to reciprocate and engage. In contrast, second-year students tended to be more reluctant than third-year students to answer questions and were often caught up in details. The researcher concluded that there may have been insufficient experience and too high involvement in the direct service delivery process to give appropriate feedback on CS and CEBs. Therefore, in England, three focus groups with final year students were conducted in order to gain further insight from students in a very advanced stage of their study. In England, the focus group with second-year students was very difficult to set up, and when taking part in the focus group, the students appeared to be very resistant to providing answers. Hence, theoretical saturation with second-year students in England was reached at the conclusion of one focus group.

## 4.1.3.2.4 Moderator Involvement and Group Interaction

Moderator involvement refers to the management of group dynamics or group interactions in terms of relatively free participation to relatively high moderator control (Cohen, 2013). Cohen (2013) suggests, as a rule of thumb, to rely on structured interviews with high moderator involvement in order to make focus groups comparable. Yet, there should be room for free discussion in order to learn something new from the participants (Cohen, 2013).

The focus groups were standardised via a guideline with structured topics of discussion. The moderator and participant interaction has been analysed by counting the total number of statements per focus group, the total number of focus group participants, the total number of statements by focus group participants and the total number of statements by the interviewer. Based on these values, the following moderator and group interaction ratios could be calculated (see Table 17):

Table 17. Moderator - group interaction

Moderator/Group Interaction: Average across all Focus Groups	
Average overall number of statements	134
Average number of statements by focus group participants	88.75
Average number of statements by moderator	45.25
Average number of focus group participants	6
Average number of statements per participant	
Ratio of statements by participants / overall number of statements	
Ratio of statements by moderator / overall number of statements	

This analysis shows that moderator involvement accounted for approximately one third of an average focus group discussion, whilst group interaction accounted for approximately two thirds. Overall, a reasonable mix between standardisation, moderator involvement and participant involvement is evident.

#### 4.1.3.3 Semi-Structured Interviews

The method, process and rationale for using semi-structured interviews for gaining qualitative insights from alumni and expert are outlined in this section.

#### 4.1.3.3.1 Method

An interview is a professional conversation where knowledge is constructed in the interaction between the interviewer and the participant (Kvale & Brinkmann, 2009). It consists of asking questions, listening to people and recording their responses. There are different types of interviews (see Richards & Morse, 2007). Semi-structured interviews are especially suitable for qualitative investigations when the researcher knows enough about the domain of inquiry to develop questions about the topic in advance of interviewing, but not enough to anticipate the answers (Richards & Morse, 2007), as is applicable to this study project.

## 4.1.3.3.2 Rationale

The rationale for selecting semi-structured interviews is the depth of information they are most likely to provide, their potential to resolve seemingly conflicting information with specific

questions and to determine relative emphasis on the issue of the dissertation (Harrel & Bradley, 2009). As Lee & Lings (2008) put it, semi-structured interviews are useful because of the clear and structured theoretical appreciation of the topic.

## 4.1.3.3.3 Process

Alumni were invited to participate voluntarily in the interviews. In England, the invitation to participate in the study was forwarded by the alumni office. As no alumni office existed at the Austrian university, the invitation to participate in the study was forwarded by the business degree programme managers. All alumni within the two participating universities received an invitation to participate. Thereby the invitation to the study was carried out in a sensitive way ensuring voluntary and open participation. Table 17 provides an overview of the participants (number, size, gender), the structure and the documentation of the interviews. The alumni interviews were rather consistent with the insights received from the student focus groups and hence theoretical saturation was achieved after the minimum sample size as suggested by Lee and Lings (2011). Due to geographical dispersion of the sample, the interviews were conducted in person if possible and otherwise per phone. The interviews were tape recorded and transcribed.

Table 18. Alumni semi-structured interview description

Participants	Alumni of undergraduate business studies from Austria and England		
Size and gender composition	TOTAL: 21 semi-structured interviews with alumni (9 females, 11 males) Subtotal alumni Austria: 11 (7 females, 4 males) Subtotal alumni England: 10 (2 females, 7 males)		
Structure	Semi-structured interview protocol		
Documentation	Tape recording Transcription		

Experts were selected based on their expertise. In both countries, experts were sourced from the management board of the participating universities, to gather institution-specific insights. Employability experts were sourced to gather context-specific information of education systems in the respective countries as regards to labour market relevancy and to get feedback on the employability construct. Quality assurance experts, who deal with the assessment of universities and the comparison of their performance levels in terms of accreditation or league tables were also sourced. One expert was interviewed who possesses insights in the

European higher education context as a whole. Experts were invited for an interview by the researcher. The focus group guideline was double-back translated from German to English with an English linguistic professional. A description of the expert semi-structured interviews is provided in Table 19.

Table 19. Expert semi-structured interview description

Participants	Educational experts from Austria and England				
Size and gender composition	TOTAL: 9 semi-structured background interviews with educational experts (4 females, 5 males)				
	Subtotal Austria: 5 (2 females, 3 males)				
	Subtotal England: 4 (2 females, 2 males)				
Structure	(Double-back translated) semi-structured interview protocol				
Documentation	Tape recording				
	Transcription				

#### 4.1.3.4 Guideline for Focus Groups and Semi-Structured Interviews

Guidelines were developed for the focus groups with students (see Appendix C.1), semi-structured interviews with alumni (see Appendix C.2), and interviews with experts (see Appendix C.3). As the expert interviews served as background information, the subsequent discussion will focus on the student and alumni guidelines. Guidelines were developed to structure conversations and keep them focused on the main themes. Yet, they were also developed to allow for a high involvement in actual experiences of the participants (Creswell, 2003) and to be flexible to follow up what a participant said. Probes were prepared, yet also unplanned, unanticipated probes were foreseen (Richards & Morse, 2007). The interview and the focus group guideline both included the same questions to allow for comparability of participant's insights.

The interview guideline for both the student and alumni sample was centred on three themes, which were regarded as the central themes of the dissertation, being student satisfaction, perceived employability, and CEBs. Although it was a main objective to uncover different affective mediators that link CS with CEBs, questions around emotions were intentionally omitted. The emotions were intended to naturally emerge out of the participant's responses and discussions. Furthermore, the relationships between these themes were explored.

In terms of the structure of the guideline for subsequent interviews / focus groups, firstly, an introductory section outlined the purpose, voluntary character and anonymity of the study. Formal consent for the tape-recording had to be provided by the interviewee/participants.

Second, the protocol scheme was designed according to the funnel technique (Harrel & Bradely, 2009), whereby each theme employed broad questions (e.g. "How do you understand the term employability?"), before asking more narrow questions (e.g. "What can the university provide to support your employability?"). Relationships between constructs were explored at the end of the questionnaire, as suggested by Harrell & Bradley (2009). Questions one, two, four and six are structural cover term questions to build a list of items (e.g. "In general, looking at your undergraduate programme, what makes you satisfied or dissatisfied?"). Questions three and five contained descriptive mini-tour questions, which were questions about a specific element resulting in a narrative (e.g. "How do you perceive your own employability?"). The key difference between these questions, is that with the descriptive questions, cognitive processes are further explored, whilst with the structural questions, a list of items is collected. Question nine is a contrast question, which helps to differentiate the themes discussed. More precisely, a set sorting question was posed involving the use of cards in order to help to differentiate between items discussed, and further, by establishing relationships between the items. Finally, at the end of the formal discussion are closing words.

#### 4.1.3.5 Demographic Questionnaires

Demographic questionnaires were distributed and collected at the beginning of each interview and focus group in order to obtain background information on the participants and to facilitate a better understanding of participant answers within their personal context. In the Appendix the demographic questionnaires for the student sample (Appendix C.4), alumni sample (Appendix C.5) and expert sample (Appendix C.6) are presented.

## 4.1.4 Data Management and Analysis with NVivo10

This section outlines data management, the use of memos and the procedure of qualitative content analysis, including coding at nodes.

## 4.1.4.1 Organising and Managing Data

Different types of data formed the basis for analysis, including 78 background questionnaires, 69 visual data samples from the relationship sheets with post-its, 30 audio files with alumni and expert interviews, 8 audio files from the focus groups and 38 transcripts produced from

these audio files. In addition to these primary data sources, notes from the neutral observer on the focus groups, and memos by the researcher, were reflected in the data analysis. The relevant background questionnaires were analysed to ensure all participants complied with the sample restrictions and relevant information was aggregated in overview tables. The visual data was verbally described and inserted in the transcriptions in the relationship section. The audio files were transcribed by the researcher utilising F4 transcription software which allowed the speed of the audio to be slowed down. All hard copy materials were stored by the researcher. Digital data was managed by importing it into the qualitative software, Nvivo 10, into a tree node called 'data sources'. (See an example in Appendix C.7).

#### 4.1.4.2 Memos

The researcher's reflections were documented by the researcher in memos and used to synthesise data or to build arguments (di Gregorio & Davidson, 2008). Memos were used by the researcher during the research design phase, the data collection and data analysis process. During the research phase, a research journal was kept in notebook format to retrieve considerations made in the early stages of the research. During data collection, mainly observational memos were created, including the observation notes by the neutral observer. During data analysis, process memos documenting mainly coding steps and adaptions were used. Finally, content memos were created on each theme to document reflections by the researcher when analysing the data.

## 4.1.4.3 Qualitative Content Analysis

Based on a review of different data analysis methods (, such as content analysis, grounded theory, and phenomenology see Cohen et al. (2013)), content analysis best fits the needs of this study (Grbich, 2007). Content analysis can be defined as the process of summarising and reporting written data (Cohen et al., 2013). The purpose of the content analysis is to find out patterns and trends of the words used, their occurrence, their connection and structure. The focus is on language, and the rules for the analysis are clear, transparent and public (Krippendorff, 2012). The data (texts) can be re-analysed and replicated. Grbich (2007) adds further advantages, in that it can simplify large documents into enumerative information, combine qualitative and quantitative approaches to look at numbers and relationships, reveal lines of inquiry, and quantify qualitative data. A distinction can be made between three approaches, i.e. enumerative, combined or thematic approaches, to provide different information regarding what is in the documents (Grbich, 2007). An enumerative approach provides a numerical overview. In contrast, a combined approach provides a numerical overview and a thematic slant. Finally, thematic adds depth of explanation as to why and how words have been used in particular ways and what the major discourses are (Grbich, 2007).

Content analysis for this study project followed a combined approach. Due to data richness, numerical overviews guided the analysis, followed by thematic discussions (Cohen et al., 2013).

Despite its advantages, the analysis method has its limitations. It can be criticised to be too positivist in orientation. There might be the danger of focusing only on word counts, and it may decontextualise information (Grbich, 2007). However, Cohen et al. (2013) as well as Miles, Huberman and Saldana (2014) suggest that with increasing data quantity, the contextualisation of information (e.g. incorporation of salient characteristics when interpreting individual cases) becomes challenging and cross-case analysis is more appropriate than within-case analysis to deepen understanding and provide explanations.

Finally, data analysis might be done with the support of software which offers necessary functions, such as word frequencies and cross-references (di Gregorio & Davidson, 2008). NVivo 10 was used for the content analysis as it is a qualitative data analysis software enabling such computer-assisted analysis (Kuckartz, 2014).

## 4.1.4.4 Coding at Nodes

Mayring (2000) distinguishes between two central approaches for qualitative oriented procedures of text analyses, i.e. inductive category development and deductive category development. As this study was based on a tentative conceptual framework, a deductive category development process was followed. Deductive category development starts with a theoretical based definition of the aspects of analysis, in terms of themes or (sub)categories, then collects units in a coding agenda, revises coding and coding agenda based on the reexamination of texts. A qualitative description of key areas of the investigation can be summarised. The last step is to make inferences and speculations about relationships, causes and effects (Cohen et al., 2013).

The analysis involved three subsequent phases, i.e. first-cycle coding to initially summarise segments of data, second-cycle coding for grouping those summaries into a smaller number of categories or themes, and consistency coding to ensure within-coder consistency over time and inter-coder reliability.

For first cycle coding, provisional coding (Miles et al., 2014) was applied; the researcher generated codes based on the themes of the interview and focus group guideline, i.e. "Satisfaction", "Employability", "CEBs" and "Relationships". In Nvivo, these themes are called tree nodes. Then, provisional subcategories (i.e. in Nvivo they are named child nodes) were coded based on the interview and focus group guideline. Examples for these provisional child

nodes are "Overall Satisfaction", "Satisfaction Factors", "Dissatisfaction Factors" and "Definition of Employability". Whilst the tree nodes remained throughout the analysis, the child nodes were revised, modified or expanded. After the provisional coding, descriptive and In Vivo coding was applied. Descriptive coding labels, in terms of a word or short phrase, were assigned to texts to summarise the basic topic of a passage of qualitative data (Miles et al., 2014) (e.g. "professional experience and job position"). In Vivo coding is, in essence, similar to descriptive coding, but the labels incorporate words or short phrases from the participant's own language (Miles et al., 2014). For instance, in Vivo coded child nodes for CEBs were "give feedback" or "being an ambassador". Then, emotion coding was applied to label emotions that participants recalled and expressed (Miles et al., 2014). Emotion coding was a useful technique to explore affective mediating variables between CS and CEBs. Emotion codes were for instance "gratitude", "empathy with other students" and "love". In terms of sequence, the Austrian interviews and focus groups were conducted and analysed firstly. This data formed the basis for the initial first-cycle coding scheme. The interviews and focus groups in England were conducted in a second step. The coding scheme from the Austrian data analysis was used. Some coding labels were adapted and some added within another round of first-cycle coding scheme.

For second-cycle coding, pattern codes condensed the first-cycle codes into more meaningful and parsimonious units of analysis. For instance, the different initial codes for CEBs were clustered into three categories, i.e. "Why – Motivations for CEBs", "What – Types of CEBs" and "When – Prerequisites for CEBs".

For consistency coding, the researcher coded the same transcripts with first-cycle and second-cycle coding at two points of time, to ensure coding reliability over time, and then unified the content analysis within one NVivo document. Then, a second independent researcher coded the same transcripts to ensure inter-coder reliability and made an external quality assurance check on the data analysis process. Feedback and insights from the external audit were included in the final coding scheme. Consistency coding further added to the reliability and validity checks of the qualitative study, which is outlined in the next section.

## 4.1.5 Reliability and Validity for Qualitative Research

Recently, there has been an important discussion amongst academics about the suitable quality criteria for qualitative research (Bryman & Bell, 2011). As a consequence, several authors propose either assimilations of the reliability and validity concept originating from quantitative research, and adapting them to varying degrees to qualitative research (e.g. LeCompte & Goetz, 1982; Mason, 1996), or alternative schemes of criteria for evaluating qualitative research (e.g. Lincoln & Guba, 1985; Spencer et al. 2003). As there is no single,

agreed quality criteria (Bryman & Bell, 2011), the reliability and validity concept by LeCompte & Goetz (1982) was chosen to ensure the quality of the present qualitative investigation. In this study, a distinction between external and internal reliability, as well as external and internal validity, is made. This will be discussed in the following sub-sections.

## 4.1.5.1 External and Internal Reliability

While external reliability refers to the degree to which a research study can be replicated, internal reliability is a similar notion to inter-observer consistency and suggests that if there is more than one researcher, the members of the research team agree on their observations (Bryman & Bell, 2011; LeCompte & Goetz, 1982). Table 20 presents the strategies that have been applied in order to meet the requirements of internal and external reliability. Details on the external audit for qualitative research and second-coding can be found in Appendix C.8 and on inter-coder consistency over time in Appendix C.9.

Table 20. Reliability

Reliability issues	Strategies to meet reliability criteria
Replicability of the study	Although replication is a difficult criterion to meet in qualitative research, a comparable research setting was chosen to conduct focus groups (e.g. small and quiet room, circular seating order, similar timing) and interviews (please see subsection on data collection for more details) and an interview protocol guided the conversation which enabled replication in other research contexts. In total, 8 focus groups and 21 alumni interviews were conducted, signifying the research instruments were repeatedly used. Furthermore, the study was first conducted in Austria and <b>replicated in a different cultural context</b> in England.
Subjectivity of researcher to interpret results	A <b>second objective observer</b> made notes during the focus groups. After each interview an exchange of views, main themes and general impressions were made between the researcher and independent observer, whereby the researcher first made notes of the second observer's view and then shared her view to discuss their impressions.
Interviewer/moderator being the researcher	One interviewer/moderator being the researcher has two main advantages: First, the interviewer/moderator has in-depth knowledge about the topics of the discussion and can thereby lead an open discussion in an informed way. Second, doing all interviews and focus groups with one interviewer/moderator ensures that the moderation and the questions asked are consistent across focus groups. There is the danger, though, that the interviewer/moderator manipulates the discussion to get the answers she is looking for. To overcome this, the moderator used <b>semi-structured interview and focus group guidelines</b> which were followed and ensured a neutral position throughout the interviews.

Reliability issues	Strategies to meet reliability criteria
Coder consistency over time	To assure reliability in terms of consistency over time (Richards, 2010) a coder consistency check has been conducted. Thereby, the coding of the same transcripts has been undertaken by the researcher at two points of time. The <b>first and second cycle coding</b> was done during the time frame of 11/2011-03/2012 and the <b>consistency coding</b> was conducted during the time frame of 10/2013-02/2014. Between these two points of time the researcher was on maternity leave and could thereby get the necessary distance to the initial coding and thinking patterns. Inconsistencies in coding styles, categories selected, and wording - and if necessary how they were dealt with - are documented in this file.
Intercoder reliability	To ensure that an <b>independent second coder</b> agreed on the coding of the content of interest with an application of the same coding scheme and coded the data. The insights are documented in a separate file as well as in each analysis section of main themes.
External audit	As suggested by Creswell (2008) an <b>external audit</b> was conducted with an educational expert outside the project to review different aspects of the research and to evaluate the quality based on a question list by Schwandt & Halpern (1988).

# 4.1.5.2 External and Internal Validity

Internal validity is provided when observations of a researcher comply with the theoretical ideas a researcher develops, and external validity is given when research findings can be generalised across social settings (Bryman & Bell, 2011; LeCompte & Goetz, 1982). Strategies applied to meet validity criteria as suggested by Bryman & Bell (2011) and Miles et al. (2014) and are outlined in Table 21.

Table 22. Internal and external validity

Validity issues	Strategies to meet validity criteria			
Internal validity	The data presented are well linked to the categories of prior or emerging theory.			
	Theoretical saturation was achieved.			
	Qualitative analysis software (NVivo) has been used to enhance validity.			
	Complimentary methods (literature review, focus groups, interviews) produced generally converging results.			
External validity	The findings are congruent with, connected to, or confirmatory of prior theory.			
	The study was conducted with second-year student samples, third-year student samples, and alumni samples.			
	The study was initially conducted in Austria and replicated in a different cultural setting, in England.			

#### 4.1.6 Ethical Considerations

The study's approach was reviewed and approved by the ethical review board of Aston University before data collection started. Participants of the focus groups and semi-structured interviews were informed in advance about the purpose, the general subject of the research and the use of data. Guarantees of confidentiality, beneficence and non-maleficence, were provided and the anonymity of information was stressed at the beginning of each interview or focus group (Cohen et al., 2013). The researcher created a system of pseudonyms or codes in order to secure anonymity in all interviews and focus groups in the qualitative study (Richards & Morse, 2007). It was of utmost importance that the participation was voluntary. Overall the ethical concerns of the study were minor, given that the above mentioned ethical guidelines were followed.

# 4.2 Qualitative Findings

In this section the findings of the qualitative study are presented. Firstly, the background of participants is discussed, followed by a discussion on the main themes that emerged from the analysis; CEBs, CS, Employability, Positive Emotions and the relationships between them.

# 4.2.1 Background of Participants

The background of all participants, including their acronym, gender and major or job position are presented in Appendix C.10.

## 4.2.2 Critical Theme: Customer Engagement Behaviours

According to theory, CEBs occur when customers voluntarily contribute to a broad range of monetary and non-monetary efforts that directly or indirectly affect a firm and customers in varying degrees of magnitude and impact (Jaakkola & Alexander, 2014; Kumar et al., 2010; Van Doorn et al., 2010). The aims of the content analysis on this critical theme were:

- To explore and cluster different types of CEBs that customers contribute in terms of time, money and efforts in a HE context,
- To cluster CEBs that directly and indirectly positively affect HE institutions and students/alumni and
- To contrast different CEBs in terms of their varying levels of effort, according to the monetary and non-monetary resources required by the student or alumni

Additionally, in the frame of the data analysis, prerequisites for conducting CEBs emerged. The qualitative findings on CEBs are discussed in the following content analysis results and reflection sections.

## 4.2.2.1 Content Analysis Results

The content analysis of students and alumni data was conducted in three steps, in order to explore and cluster the different types of CEBs that customer contribute, in terms of time, money and efforts in a HE context. Firstly, in order to explore different types of CEBs, all voluntary engagement behaviours mentioned by participants that could be subsumed under the definition of CEBs, have been coded at the tree node named Customer Engagement Behaviour. In total 163 references to CEBs were found in 27 different data sources that referred to student or alumni voluntary engagement behaviours, in terms of time, money, and/or efforts. Secondly, In Vivo and descriptive coding was applied to summarise the type of giving behaviour mentioned by a student or an alumnus (e.g. "giving feedback", "mentor students"). In total, 16 different types of engagement behaviours emerged from the data. Thirdly, in second-cycle coding, the literature on CEBs was reviewed in order to cluster individual CEBs that emerged from the data under theoretically-grounded concepts. The 16

different types of CEBs could be clustered under the theoretically-grounded concepts of Participation, WOM, Monetary Giving, Cooperation, Mobilising, Socialising, Human Capital Performance, and Career Community Behaviour. The different types of CEBs will be presented below and will include a definition of the behaviour, the different types of CEBs from first-cycle coding that have been clustered under the respective CEB, and at least one exemplary reference.

According to current state of research, the two most prominent CEBs are Participation and WOM (Bettencourt, 1997). Both CEBs also emerged from the qualitative data. As regards positive WOM, it can be seen from the exemplary statements in Table 21, that the participants said they actively promote the university by speaking favourable about the institution (see references CEB.W1 and CEB.W2) and recommend the institution to others (see CEB.W3 and CEB.W4). Bettencourt (1997) refers to these types of behaviours such as favourable WOM and recommendations as voluntary performances, in terms of loyalty behaviours that indicate allegiance to, and promotion of, the institution's interests beyond an individual's interests. While Bettencourt (1997) uses the rather broad term of "loyalty behaviours", Brown et al. (2005) and Bove et al. (2009) refer to any spreading of information, promotion or recommendation of a service, product, or company more specifically as WOM. Hence, the first CEB that emerged from the data was labelled WOM in second-cycle pattern coding, in terms of spreading positive information about, and promoting the institution and its services, and recommending it to others. WOM behaviours have been found in 19 references from 9 different data sources. It is noteworthy that participants mostly referred to conducting WOM in person (CEB.W1, CEB.W2), rather than via social media or blogging. In fact, a further word query revealed a single reference to Facebook, Instagram, Snapchat, YouTube or blog within all of the transcripts. (One alumnus who was apparently using Twitter to stay in contact with others.) Given the high emphasis on social media and digitalisation for WOM behaviours in current research (e.g. Jaakkola & Alexander, 2014), this result is surprising.

Table 23. CEB - WOM

CEB - W	CEB - WOM (19/9)				
Citation Index	Thematic Category	Name (synonym)	Sample	Statement	
CEB.W1	WOM - Promoting the University	Emma	Alumni AT	"And in general I think it's good that you spread the reputation of your university, that you tell other students that it was a very good programme. And that you also tell it to employers, that they employ the graduates. I think the positive mouth-to-mouth advertising is very important."	
CEB.W2	WOM - Promoting the University	David	FocusGroup- AT-Y3-2	"In my case I would <u>promote</u> the university in our partner university in Brazil, because there is room for development, more exchanges could happen."	
CEB.W3	WOM - Recommending the University	Ruby	Alumni UK	"I think I would like to promote the university, so I would recommend someone who wants a business degree, so recommend them to my University."	
CEB.W4	WOM - Recommending the University	Mia	Alumni Interview AT	"If people ask me if I would recommend the Bachelor's degree studies, I would say, "Yes, I would recommend them." "Because within the three years (I grew) from a little person from Austria to someone, who really likes to experience the world."	

Participation can be defined as "customer behaviours indicating active and responsible involvement in the governance and development of the organisation" (Bettencourt, 1997, p. 386). Bettencourt (1997) thereby regards the customer as an organisational consultant who provides feedback and suggestions for the improvement of products, services or processes. In the data, both "participation by giving feed-back" (see CEB.P1 and CEB.P2) and "participation by giving suggestions for improvement" (see CEB.P3) emerged. Another type of CEB that was found in the data was "participation in university events" (see CEB.P4). Bove et al. (2009) also acknowledges this type of Participation behaviour and labelled it "Participation in firm's activities". Participation in events or the alumni club involves different degrees of effort; while some students mentioned their active involvement at certain events (see CEB.P4), others mentioned a membership in an alumni club and vague intentions to visit an event in the future (see CEB.P5). Nonetheless, in current literature, the predominant view of Participation is when a customer gives feedback and makes suggestions for improvement (Kumar et al., 2010; Kumar & Reinartz, 2016). 22 references regarding Participation

behaviour emerged in 15 different data sources. Sample reference are presented in Table 24.

Table 24. CEB – Participation

CEB – Participation (22/15)				
Citation Index	Thematic Category	Name (synonym)	Sample	Statement
CEB.P1	Participation - Feedback	Shaun	FocusGroup- UK-Y3-2	"There is something we do give back, like all of us, at the end of each module you're given feedback sheets and I feel that's the best way to give back to the courses and the lecturers. The problem is we don't really seeing the response from that."
CEB.P2	Participation  – Feedback	Lara	Alumni AT	"And also to provide feedback, which could be done better. Which I perceived wasn't like perfect yet."  "Probably there can be some standardized feedback for everyone, who finishes the study. To ask them about their input and their opinions. And about how applicable the education was for their job."
CEB.P3	Participation  - Suggestion for improvement	Elias	FocusGroup- AT-Y2-1	"I would talk with other lecturers or the chair of business programs and maybe give tips to improve."
CEB.P4	Active Participation - Participation in firm events	David	FocusGroup- AT-Y3-2	"I would say <u>actively participating in the</u> events that the university is organizing."
CEB.P5	Active Participation  Participation in firm events	Victoria	Alumni AT	"The alumni club, I'm part of it, but I did not attend a meeting yet. Maybe in the future - I hope so."

A CEB that caused intense discussions in focus groups and interviews was labelled Monetary Giving, according to Sargeant et al. (2006). Monetary Giving clustered CEBs about donations (see CEB.M1, CEB.M2, CEB.M3 and CEB.M4) or sponsorship (CEB.M5) (see Table 23). In total 28 references were made in 11 different data sources. Pansari and Kumar (2017) acknowledges monetary forms of CEBs and encourages further research. The references show that giving back to a university in monetary terms requires more effort. It was also

revealing in terms of cognitive processing; participants predominantly thought thoroughly about whether they would give back in monetary terms or not. In general, monetary giving was found to be bound to several conditions, such as having enough income (CEB.M2, CEB.M4, CEB.M5, CEB.M6), giving money to students directly (CEB.M2, CEB.M5), increasing educational or research quality with the money (CEB.M3, CEB.M4), being approached by the university (CEB.M2) and donations should not give influence to the donator (CEB.M4). Some Austrian participants questioned the general financial model of Austrian universities, in which education is for free for students and participants, and mentioned that they would be willing to give tuition fees or donations (see CEB.M3). Several participants mentioned that they would not give back by either giving a one-sentence answer or by providing long explanations and expressing even apologies or self-doubts about it (see CEB.M6). Reasons mentioned for not giving back were, for instance, having not enough disposable income, having paid tuition fees already, not having benefitted from any alumni funding while being a student, or not feeling responsible for university finances (see CEB.M6).

Table 25. CEB - Monetary Giving

CEB – Monetary Giving (43/16)				
Citation Index	Thematic Category	Name (synonym)	Sample	Statement
CEB.M1	Monetary Giving - Donations	Alumni UK	Aden	"As alumni, I have been donating money to the university to a direct debit, so that's my way of thanking the university and actually giving other students an opportunity to do well."
CEB.M2	Monetary Giving – Donations	Alexander	FocusGro up	"I think it's ok <u>if the University asks me</u> to give something and <u>if I have a good</u> job and <u>can afford some money</u> I would do it, because I'm also in the Alumni club of my high school and I give them 11 € per year."
				"If you just give money and the building is painted new I would say – what am I donating for?! But if they do something for the students, I would be very willing to give money."

CEB – Mone	CEB – Monetary Giving (43/16)				
Citation Index	Thematic Category	Name (synonym)	Sample	Statement	
CEB.M3	Monetary Giving - Donations	FocusGroup- AT-Y2-2	Florian	"When I think of the universities in the United States, they all have private funds. Think about Harvard or some other high-ranked university, they all have money, billions of dollars and this is a good possibility for them to actually do well, do really good research and offer their students really good education. Not only with donations, of course they spend a lot of tuition fees and in my opinion we also have to really re-figure the whole system in Austria, well I'm for tuition fees of course, I'm for donations. It is a very good thing for universities, to get private capital, to finance things they couldn't do with just the governmental funds."	
CEB.M4	Monetary Giving - Donations	FocusGroup- AT-Y2-2	Sophie	"I think <u>donations</u> are good, because if the person <u>earns enough</u> to give the money so that the <u>education can be improved</u> , it's not a problem but it shouldn't be possible for example that somebody donates something and then <u>has something to say</u> ."	
CEB.M5	Monetary Giving - Sponsoring	Alumni UK	Dylan	"The students' guild often did a fundraising activity, because they needed a new minibus to shuttle students around places. I do know that they often called up old Aston alumni to ask if they would be happy to contribute like 50 pounds towards a new minibus. I guess when I do earn some more money, that I can give more away, then I'll be happy to give more to the students' guild or the union in order to help other students rather than giving directly back to the university as a whole The university does make quite a bit of money already from other activities, so therefore the students' guild gives more direct to the students rather than the university as a whole."	

CEB – Monetary Giving (43/16)				
Citation Index	Thematic Category	Name (synonym)	Sample	Statement
CEB.M6	Not giving back in monetary terms	Zachery	Alumni UK	"I had more <u>disposable income</u> would I be more inclined to give donations? I don't know, because when I was working I didn't make any donations. So probably notI just try to think why that would be I think it's probably got to do with the fact that <u>when I was a student here I didn't benefit</u> from any kind of the various schemes where alumni contributed to a student welfare fund so I think, perhaps <u>selfishly</u> I would think why would anyone need that, I didn't need it, I'm not saying that's correct. I think with more income disposable I would be more inclined to donate. But then there is a sense that the <u>university should be able to finance</u> whatever expansion and development they want to undertake of its own back Interesting though, I sound like a selfish person."

Cooperation in terms of Augmentation was found in the data, with 28 references made in 13 different sources (examplatory references can be viewed in Table 24). Bettencourt (1997) views cooperation behaviours as when customers act as human resources for a firm (1997). Jaakkola and Alexander (2014) specify a distinct form of cooperative behaviour, Augmenting. The authors uses this to refer to customers who contribute resources, such as knowledge, skills, labor, and time, to directly augment and add to the focal firm's offering beyond that which is fundamental to the transaction (Jaakkola & Alexander, 2014). Students would engage as human resources and augment service offerings by "giving or organising guest lectures" (11/19) (see CEB.C1) or by "student mentoring" (9/6) (see CEB.C2). These cooperative activities appear highly context-specific to HE.

Table 26. CEB - Cooperation

CEB – Cooperation (28/13)					
Citation Index	Thematic Category	Name (synonym)	Sample	Statement	
CEB.C1	Cooperation – Giving guest lectures	Lukas	Alumni UK	"I am <u>a guest speaker</u> in January."	
CEB.C2	Cooperation – Student mentoring	Aden	Alumni UK	"I'm currently a <u>business mentor</u> for the Business School, I did this last year when the pilot ran, I was, I think, one of ten, it was quite a small group. I did that for a year - mentoring the second-year students and I was invited to take part in it again, which I'd be happy to do."	

Mobilising behaviour occurs when customers use time and social relationships to mobilise others to contribute their time and labour (Jaakkola & Alexander, 2014). This form of customer engagement behaviour emerged in the student focus group and alumni interview data. Students and alumni mentioned that they would be willing to mobilise behaviours from the decision-makers within the companies they are or will be working for. They expressed their intention to motivate the companies they are (or will be) working to sponsor events or collaborate with the university, primarily through specific projects (e.g. see statement CEB.Mo1, CEB.Mo2 and CEB.Mo3). In a sense, students and alumni act as intermediary between two organisations. They engage indirectly with the university by mobilising behaviours in companies that are either of direct (e.g. monetary contributions, sponsorship, consultancy projects) or indirect benefit (e.g. student projects) to the organisation university itself, but may also benefit other customers, and even the giving organisation. The 11 references that were made were all found within the Austrian student sample. No mobilising behaviour was found within the UK sample. The reason could be that at the sampled Austrian university there are multiple anticipated real-life projects with companies within the curriculum, as mentioned in an expert interview with a Business Degree Chair in Austria. Students could be aware of the value of such projects for the education of students, but also understand the value it generates for companies. This becomes apparent in the statements by Lena, who argues why she would engage to set up student projects, and Mia, who explains the value of university-company collaborations for companies:

"We had a lot of presentations, we heard from older graduates or managers from different companies." (Lena, FocusGroup-AT-Y3-1)

"Especially for companies it could be a good idea to ask students for innovations or get another point of view. Because at some point you're just so blind concerning your own company and topic, that you're, that if you get new points of view from students." (Mia, Alumni AT)

Therefore, students and alumni might be more likely to mobilise companies to engage with their university if they are aware of the value to both other students and the giving organisation. An overview of references regarding Mobilising can be viewed in Table 27.

Table 27. CEB - Mobilising

CEB – Mobilising (11/10)					
Citation Index	Thematic Category	Name (synonym)	Sample	Statement	
CEB.Mo1	Mobilising – Sponsoring	Maximilian	FocusGroup- AT-Y3-2	"I can at least try that the company supports (my university) if they take part in some events, if they sponsor like buffets and such things, that's not personally me but at least I can try to support that the company engages for the University of Applied Sciences."	
CEB.Mo2	Mobilising – offer company projects, employ students	Emma	Alumni AT	"And if you are working in a company you can also offer projects to the university. This is also a thing you can give back."	
CEB.Mo3	Mobilising – offer company projects, employ interns	Felix	Alumni AT	"If you have a special position where you can work together with your university, you can generate projects for example."	

A further engagement behaviour that has emerged from the data is **socialising**, in terms of "staying in contact" with the university (e.g. statement CEB.So1) (see Table 26). This concept is rather vague as students and alumni tended not to specify what that implied in detail. Yet it is noteworthy that of the five references regarding socialising, participants tended to specify socialising directly with specific people (such as specific members of staff or other students), but not via social media (see CEB.So2).

Table 28. CEB - Socialising

CEB – Socialising (5/4)					
Citation Index	Thematic Category	Name (synonym)	Sample	Statement	
CEB.So1	Socialising – staying in contact	Julian	Alumni AT	"A benefit would for sure be to stay in contact with the university."	
CEB.So2	Socialising – staying in contact	Jana	Alumni AT	"We stay connected some of my student colleagues and this a kind of network we are talking of. I think this is also a benefit for the university as we stay connected."	

A category of CEB that has emerged from the data is Human Capital Performance. This term comes from Luo and Homburg (2007) and describes Human Capital Performance as an organisation's "excellence in human capital", such as employee talent. In a HE context, the excellence in human capital would refer to customer (student) talent rather than employee talent. HCP occurs when the human capital of students or alumni is deployed within the focal university by working for that university (see CEB.H3). In addition, this study has predominantly found evidence for HCP that occurs when students or alumni deploy their human capital outside the focal firm, when they are being employed at an organisation. Thereby, the students and alumni are helping the University to achieve its mission (i.e. the university's mission to have highly employable graduates and to develop human capital excellence). HCP is a type of CEB that indirectly and positively affects a university (and even society), and directly and positively benefits the customer. Stephanie, an alumnus from the UK, outlined that she indirectly benefits the university when she is serious and committed in her studies and then capable in her job (see HCP.H1):

"And I think that by us being serious and committed to our studies and capable once we get into our jobs, I think that's the best sort of service that we can do to our university." (Stephanie, Alumni UK)

Lena, a third-year undergraduate student from Austria, refers to the indirect nature of this CEB when she states that performing well in a job is of benefit to the university, although "you do not really do it actively" (see statement CEB.H2). Table 29 presents example references for HCP.

Table 29. CEB - Human Capital Performance

CEB - Human Capital Performance (7/6)					
Citation Index	Thematic Category	Name (synonym)	Sample	Statement	
CEB.H1	Human Capital Performance – indirect benefit	Stephanie	Alumni UK	"And I think that by us being serious and committed to our studies and capable once we get into our jobs, I think that's the best sort of service that we can do to our university."	
CEB.H2	Human Capital Performance – indirect benefit	Lena	FocusGroup- AT-Y3-1	"Even if we do not realise it or if we want it or not, we're actually representing our university, because as soon as someone knows that you're a student or a graduate from University of Applied Sciences, actually it's kind of a great aspect to the university and if you show practical experience or a professional way of contacting and working, it's actually a good promotion for the University of Applied Sciences, even though you do not really do it actively."	
CEB.H3	Human Capital Performance – direct and indirect benefit	Eleonor	Alumni UK	"I stayed at the university after I graduated. I think it's been easier for me to get back to my university because I"ve worked here. And now I work on a project that's accommodated within my University. But actually gives back to the whole of the West midlands region."	

Another indirect CEB that emerged from the data was a distinct form of helping behaviour that can also be performed outside the firm; Career Community Behaviour. Career communities are self-organised member-defined social structures within and outside an organisation that provide career support (Parker et al., 2004). Students and alumni have mentioned that they would support the careers of other students and alumni by either assisting their development of employment skills (CEB.CC1, CEB.CC2) or by forwarding job offers, internship placements or company-related Bachelor thesis topics (CEB.CC3, CEB.CC4). Yet, career communities appear to have greater customer-to-customer engagement behaviour than customer-to-organisation engagement behaviour, as the indirect benefit for organisations of such activities is difficult to estimate. 17 references have been made in 12 different data sources on this CEB.

Table 30. CEB - Career Community Behaviour

CEB - Car	CEB – Career Community Behaviour (17/12)									
Citation Index	Thematic Category	Name (synonym)	Sample	Statement						
CEB.CC1	Career Community – Career support	Oscar	FocusGroup- AT-Y3-1	"I take part in some of the recruitment events on behalf of (my company) and talk to people about job offers and how they can apply and give some tips. So I do it from a (company) perspective and try to help them and also the university."						
CEB.CC2	Career Community – career support	Sebastian	Alumni AT	"Help future graduates to get employed more easily."						
CEB.CC3	Career Community – offer jobs or internship places	Emma	Alumni AT	"And if you are working in a company you can also offer projects to the university or employ new students. This is also a thing you can give back."						
CEB.CC4	Career Community – offer jobs or internship places	Rachel	FocusGroup- UK-Y3-3	"If would work for a company that did look for <u>interns</u> , I would recommend my University. And if I was to select an intern, probably <u>I would prefer one from my University</u> . That sounds really biased <laughter>."</laughter>						

In order to cluster CEBs that directly or indirectly positively affect the organisation, the clustering technique suggested by Miles et al. (2014) has been applied on the CEB pattern coded child nodes. Figure 5 illustrates that most CEBs, including Participation, WOM, Monetary Giving, Cooperation, Mobilising and Socialising, have a direct positive effect on universities. Yet, this study contributes to current CEB literature by introducing CEBs that are of indirect benefit to a university; Human Capital Performance and Career Community Behaviours. The depiction also includes short notes on the potential direct or indirect benefits. The researcher has developed clusters based on the understanding of literature and the qualitative insights.

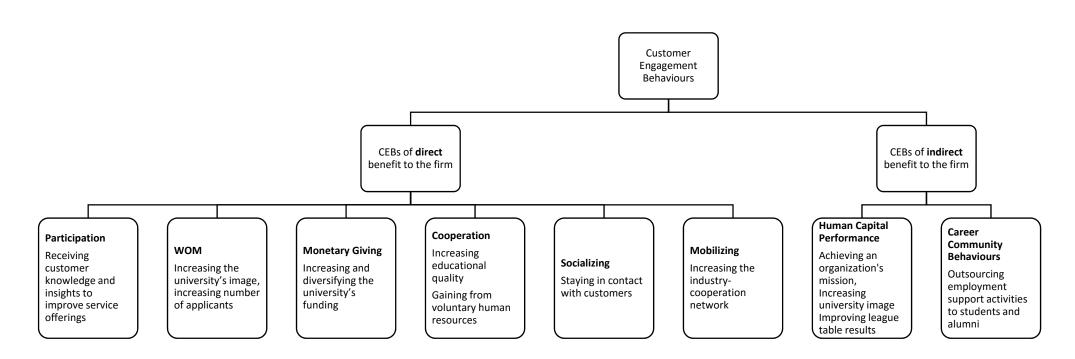


Figure 5. CEBs of direct and indirect benefit

The CEBs that indirectly benefit the organisations are CEBs that are of direct benefit to customers themselves (HCP – being highly attractive for employers) and/or other customers (Career Community Behaviour – benefiting from a career network). The CEBs sometimes even benefit other organisations or even the wider society, such as HCP (having talented employees) and Mobilising (benefiting from collaborations with the university in terms of employer branding or gaining knowledge).

The different types of CEBs have been contrasted, in terms of an estimation of the amount of effort (monetary and non-monetary) that is needed by the student/alumnus to perform that behaviour, and an estimation of the amount of benefit that accrue to a university. The use of 'methods of differences heuristic' contrast tables have been applied to do this (Miles et al., 2014). The contrast table (see Figure 6) includes the estimated amount of effort required by the student to perform a CEB on the horizontal axis, and the estimated impact of that CEB on the organisation (in terms of the expected amount of benefit that will accrue to the university) on the vertical axis. The relative positioning of the different types of CEBs are based on the qualitative understanding formed by the researcher in the data analysis process of student/alumni and expert sample data.

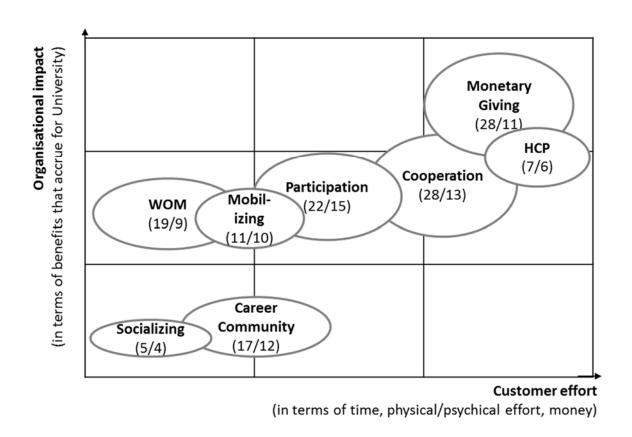


Figure 6. Contrasting CEBs along the customer effort-organisational impact continuum

The visualisation of CEBs along the customer effort and organisational impact continuum reveals that Monetary Giving and HCP are the CEBs with the highest required amount of

customer effort and highest amount of impact for an organisation. Cooperation and Participation demand medium to medium-high effort by the customer and offer medium to medium-high benefits to the organisation. WOM and Mobilising require low to medium-low efforts and offer medium impact on the organisation. Socialising and Career Community Behaviours require low to medium-low efforts by the customer and have a comparably low organisational impact.

As a final note, for some students and alumni 'giving back' to university after graduation was implicit, as can be seen in the references by Maximilian and Nathan:

"For me that's a <u>matter of course</u> to offer my help in that case." (Maximilian, FocusGroup-AT-Y3-2)

*"It's perhaps <u>natural to want to give</u> something back again."* (Nathan, Alumni UK)

Yet, for other students, reciprocation was dependent on different conditions. Several participants mentioned that they would be willing to give back to other students (rather than to the university):

"If there's something that (would) work for the students in some way, I would enjoy (giving back), but not to the university, I regard them as business." (Michael, FocusGroup-UK-Y3-2)

"I wouldn't do that because I like Aston, (I) would do that because they are my friends." (Callum, FocusGroup-UK-Y3-3)

"I would give back more for the students than for the university." (Maria, FocusGroup-UK-Y3-2)

"I would probably help some of the students." (Sebastian, Alumni AT)

Participants stated that their employment situation (total 20 references in 12 sources) would make a difference whether they would and could engage or not, particularly in regards to Monetary Giving and cooperative behaviours. Participants specifically mentioned that they would need to be employed (4 references), to be employed with high income (6 references), be successful in their career (4 references), have gained professional experience (2 references) or have a high job satisfaction (1 reference):

"When you're satisfied with your study you're willing to do something, you're employable and when you got a good job, you're probably willing to give something back to university." (Johanna, FocusGroup-AT-Y2-2)

"Maybe if I really was <u>rich</u> then there's the option of maybe sponsoring someone to go to uni or something, but I think it's the only way I consider giving money back." (Andrew, FocusGroup-UK-Y3-3)

"I think only afterwards when you actually have been employed you can see how good (the education) was and you can see how <u>satisfied you are with your job</u> because with poor value and bad job you would probably be unsatisfied and when you're satisfied you can maybe then think of giving something back to the University." (Julia, FocusGroup-AT-Y2-1)

"If I had enough experience or a high position." (Katharina, FocusGroup-AT-Y2-2)

Other conditions that were mentioned in order to perform CEBs were: the proximity of the university (or university event) in terms of time and geographical reach (4 references); the external image of the university and its graduates (2 references); family members currently studying at the specific university (1 reference); or when being approached by the university (1 reference).

# 4.2.2.2 Reflections by the Second Reviewer

The categorisation of different giving behaviours emerged very similarly through in Vivo coding by the second reviewer. She emphasised that community feelings and warm relationships with people form the basis for the different CEBs. She interpreted that the controversy regarding monetary giving arises because participants who feel part of the community and experience warm relationships want to give support, rather than anonymously in monetary terms. Participants were further inclined to CEBs that are directed to other students or alumni. She interpreted statements regarding HCP as "students as products who speak for themselves".

## 4.2.2.3 Reflections by the Researcher

When participants were asked the question about which potential activities they could undertake that would benefit the university, some faces in the group looked rather perplexed. As the discussion continued, it became apparent that the reason for their puzzled expressions was because they were astonished about this type of question as they have not thought about it before, they disliked the idea of giving anything to the university or they were concentrating thought about different behaviours that they have performed in the past or would be willing to perform in the future. Furthermore, an attitude change was noticed. During the discussion on CS and Employability, students tended to view themselves in the role of (partly rather demanding) customers. There was little awareness that they were more than pure customers of education, but needed to put in a lot of effort to get a good educational experience and

gain high employability. Yet in the Activities discussion, they tended to change their role and viewed themselves as active contributors.

In general, when students were asked about possible activities they would undertake in the future if they felt satisfied with having received a high-value education, they tended to mention non-monetary activities that involve their active contribution (rather than mere monetary donations). They talked in the main about activities relating to relationship breath (rather than depth and length). In the focus group in Austria, for instance, no student mentioned that they would go onto the Master programme or pay for a further education programme for professionals offered by the university.

In the Austrian sample, there was a general agreement on potential non-monetary activities. WOM was mentioned quickly and many agreed to speak positively about a university or to recommend a university. Also Participation was mentioned without hesitation, and there was a general agreement about the usefulness and importance of providing feedback and suggestions for improvement to the university. However, when discussing Cooperation, the interest of the participants rose. It seemed that in the course of the focus group, they began to like the idea of being active service providers, especially by giving guest lectures. It was perceived by the researcher as a behaviour that evoked positive emotions within the participants and made them dream about a future in which the roles had changed. In contrast, Monetary Giving was not particularly well perceived as a topic and raised the most controversial discussions. Many participants seemed to feel uncomfortable declaring that they would not want to give back or would not feel in the financial position to do so. It became apparent that Monetary Giving is a behaviour that requires a lot of effort and consideration on the side of participants.

# 4.2.2.4 Implications for the Quantitative Research

There are implications for the subsequent quantitative study, concerning the choice of CEB variables to include in the conceptual model. Firstly, some CEBs were excluded from the study for the following reasons. In order to ensure the practical relevancy of the study, the conceptual model should include only CEBs of medium to high relevance to an organisation. As a consequence, Socialising and Career Community should not be assessed. Besides, Socialisation appeared to be a rather imprecise concept which would need further exploration. Mobilising was found to be culture-bound, as only participants from Austria mentioned this type of CEB. Cooperation will not be included in the quantitative study because the behaviour appeared to be very context-specific. Operationalisations of Cooperation would not be transferable to the HE context. Consequently, when quantitatively assessing the construct in

a HE context, a separate scale development procedure for the HE context would be necessary.

Secondly, a conceptual framework that included CEBs that require low, medium and high customer effort would form a substantial contribution to research to date. WOM (as low effort CEB) and Participation (as medium effort CEB) should be included in the conceptual framework because in the literature review they were found to be the most prominent components which have been discussed in several studies (Bettencourt, 1997; Eisingerich, et al., 2014; Jaakola & Alexander, 2014; Kumar et al., 2010; Kumar & Reinartz, 2016). Monetary Giving (as high effort CEB) should be selected because of its prominence and controversy in the qualitative study. It is a behaviour of high practical relevancy, especially for non-profit services such as education, but also generates increasing research interest in the field of profit-driven organisations (e.g. Ordanini, et al., 2011). In terms of theory, Monetary Giving as a CEB would provide contributions not only to CEB literature (Kumar et al., 2010), but also the theory and research on positive emotions, as the effect of positive emotions on monetary behaviours will be assessed (thereby responding to a call for research by Cavanaugh et al., 2015). Operationalisations of the latent constructs of WOM, Participation and Monetary Giving within existing studies, service marketing and even HE context-specific studies are reflected in the statements made by participants in the qualitative study.

Thirdly, CEBs that are of both direct and indirect benefit to an organisation should be included in the conceptual model. HCP will be included in the study, because it is a CEB of indirect benefit to organisations, and therefore also adds to current understandings within CEB literature (Van Doorn et al., 2010).

Figure 7 visualises the choice of relevant CEBs of direct and indirect benefit to universities for the development of the conceptual framework in Chapter 5.

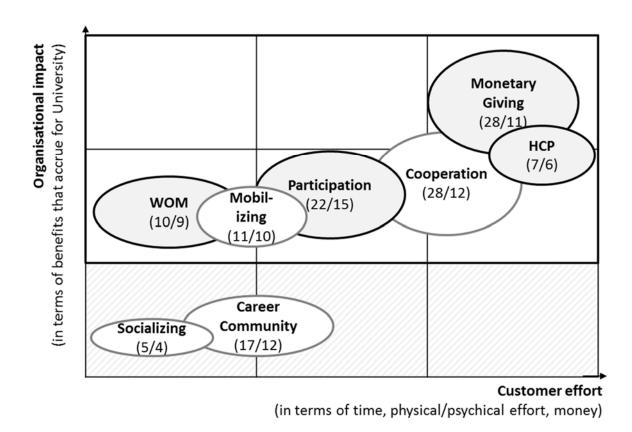


Figure 7. Selection of CEBs for further investigation

## 4.2.3 Critical Theme: Student Satisfaction

As CS is the main predictor variable for CEBs (Van Doorn et al., 2010), it was central to understand:

- The general valence of CS (i.e. the positive or negative psychological value assigned by the participants to another person, object, outcome); and
- Whether CS is understood as a cognitive, affective or cognitive-affective construct among participants.

Content analysis results are outlined below.

# 4.2.3.1 Content Analysis Results

When analysing CS (i.e. student or alumni satisfaction) within the educational service, a general tendency towards overall positive CS could be found. Indeed, the content analysis revealed 254 positive statements referring to CS within 26 different data sources, and 124 negative references within four different data sources.

Within second-cycle pattern coding, these positive and negative statements were analysed using factoring, clustering and counting techniques, as suggested by Miles et al. (2014) to draw meaning from the data. The prime factors leading to CS were clustered into factors relating to 1.) CS with the university (61 references in 11 data sources) and 2.) CS with a particular study programme (136 references in 26 data sources). The main factors affecting satisfaction on a university and study programme level emerged from pattern coding and are outlined in Table 31. When interpreting the subsequent tables, the first value in brackets refers to the number of references made to a particular factor, and the second value in brackets refers to the number of different data sources in which the factor has been mentioned.

Table 31. Factors leading to Customer Satisfaction

CS refer	ring to the university (61/11)	CS referring to the study programme (136/26)		
(10/6)	Administrative and support services in terms of administrative and organizational services in general, and support services, such as the placement office, in specific.	(70/24)	The <b>curriculum</b> , in terms of offering internship programmes and placement opportunities, the variety of subjects and electives offered, the general depth and breadth of the degree programme, the competences acquired, the possibility to spend a term abroad, and the international focus.	
(10/4)	The general degree programme organization in terms of course places, study duration, tuition fees, size of cohort, and fixed study abroad places.	(14/8)	Relational factors, in terms of relational climate and atmosphere and personal contact with academic staff.	
(7/3)	University image and prestige (7 references in 3 data sources) in terms of the reputation of the university within the field of study (mostly within one's country and not internationally).	(10/8)	Lecturers and didactics, in terms of professional experience of lecturers, professional profile of lecturers, teaching quality, didactics, guest lectures.	
(4/3)	University infrastructure, predominantly in terms of available IT equipment.	(10/5)	Practical relevance of the degree in terms of company-connected assignments, real-life examples, application of theory to the world of work.	
(2/2)	Extracurricular activities offered.	(1/1)	Lecture materials in terms of the quality and access to lecture materials.	
(1/1)	Geographic location of the University.		and access to recture materials.	

The number of references referring to dissatisfaction with the university (36) is comparable with the number of references referring to dissatisfaction with the study programme (37). When extracting dissatisfaction factors from the pattern codes, the list of factors appear to rather mirror the satisfaction factors as can be seen in Table 32.

Table 32. Factors leading to Customer Dissatisfaction

Custor	mer Dissatisfaction ing to the University (36/6)	Customer Dissatisfaction Referring to the Study Programme (37/4)				
(15/6)	Lack of infrastructure in terms of mainly IT infrastructure quality.	(54/17)	Course quality in terms of lack of quality, missing subjects, lack of depth, lack of practical relevance, redundancies and too high or little challenge within specific courses.			
(4/1)	Class sizes in terms of being too large.	(11/2)	<b>Lecturers</b> in terms of lacking English skills, low teaching competency, lack of commitment.			
(3/2)	Lack of university support from administrative/organisational or support offices.	(8/1)	Administration and organisation in terms of overall administration and organisation, waiting times for grades, and missing study abroad places.			
(1/1)	Give get imbalance (in terms of tuition fees paid/support received).	(4/2)	Personal atmosphere and climate in terms of missing interactions, feelings of anonymity, parental behaviour of staff.			
(1/1)	University image	(1/1)	Missing actions to student evaluations of courses.			
		(1/1)	Noise during lectures.			

An analysis of the satisfaction and dissatisfaction factors reveals that CS is mostly formed by cognitive evaluations (i.e. referring to factual dis/satisfaction factors or the outcome of education, such as variety of subjects, lack of infrastructure, practical relevance), yet some participants formed their perceptions based on affective evaluations, alluding to feelings they had felt during education and in interpersonal relationships (e.g. atmospherics, personal relationships, support received). This finding is in line with conceptualisations of CS as cognitive-affective construct (e.g. Brady et al., 2005; Cronin et al., 2001; Oliver, 1997).

The scope and valence of evaluations varied across participants. Yet, it was found that the scope and valence of evaluations about the overall CS tended to change over time. There was a tendency amongst final year students and graduates to evaluate their satisfaction on an overall level. Callum, a third-year undergraduate student from the UK, stresses that the scope of an evaluation into individual satisfaction levels is greater in the final year in comparison to earlier years of study:

<sup>&</sup>quot;I think the scope to be satisfied or dissatisfied is a lot more in the final year." (Callum, FocusGroup-UK-Y3-3)

Indeed, final year students and alumni had the tendency to evaluate the educational service holistically, thereby making reference to multiple aspects of education, including overall quality and relevance of the programme, inter-personal relationships, as well as job prospects and sacrifices:

"The University has got a really good reputation and actually that for me was very satisfactory, to study at the University, knowing actually that that is a very valuable course and perceived as being valuable in the business world." (Aden, Alumni UK)

"Overall I have to say that I'm very satisfied with my studies here. I especially like that it was very well organised. Everyone was very nice and there was a good climate. And also the relationship with lecturers, it was always very close and good. And I always had the feeling that I was respected. The three years were - hard. They were very time consuming." (Lisa, Alumni AT)

In contrast, second-year students tended to be more detailed in their evaluations and referred predominantly on programme-specific factors. For instance, Jonas, a second-year student from AT, reflects on individual courses offered:

"We have many subjects which focus on internationalisation, on foreign language and International Marketing, which of course are relevant for us, but we do not have those courses like microeconomics, macroeconomics." (Jonas, FocusGroup-AT2-Y1)

Participants also reflected that their evaluation of the educational offer changed over time. The data reveals that, following graduation, student satisfaction with their degree raises over time; thus those who graduated longer ago tended to be more satisfied than more recent graduates. For instance, Eleonor, an alumnus from the UK, outlines that at the time of graduation she might not have evaluated the educational service as positively as she did at the time of the interview:

"I graduated eight years ago now. I think possibly at the time I didn't recognise the relevance of my degree to the world of work to the same degree as I do now. So probably if you asked me this as a more recent graduate, it may not have been as positive of a report as it would be today." (Eleonor, Alumni UK)

One reason for this change in CS over time could be grounded in the psychological phenomenon of "fading affect bias" (Holmes, 1970; Walker et al., 2009) which suggests that that the brain tends to remember information regarding positive emotions, while forgetting information regarding negative emotions. Another plausible reason would be that over time graduates can better understand the relevance of their degree and view it in a more holistic manner (as Eleonor described). These findings on the changing scope and valence of overall CS are in line with empirical evidence by Appleton-Knapp & Krentler (2006), which showed

that student expectations and perceptions/evaluations of the educational offer and experience change over time.

## 4.2.3.2 Reflections by the Second Reviewer

The second reviewer underlined two findings; the inter-personal relationship component affecting satisfaction, and differences between the Austrian and English sample. In her view, satisfaction is often based on personal relationships (especially with lecturers). Many of the participants felt part of a community. They referred to personal relationships and valued motivated lecturers. She specifically cited Aden, who mentioned that these personal relationships "would stay for life". She also noted that negative feelings/dissatisfaction factors mostly relate to perceptions on a personal level (e.g. low level of English skills of lecturer as perceived by a student).

While the second researcher found mostly homogenous results among the AT and UK samples, she did find some differences. University prestige was of high importance to the UK students, and especially the alumni group. Yet, within the AT groups, prestige played a minor role. She noted that students' perceptions about traditional versus modern universities, as well how the value of grades relates to university reputation (a better grade in an average university is worth less than an average grade in a top university). Therefore, UK students showed a kind of "island attitude", as they compared university prestige across only UK institutions and not worldwide (where many UK universities rank comparably high to the world average). While university prestige emerged from the data, it is not the focus of the research at hand, and so an analysis is provided in Appendix C.11.

## 4.2.3.3 Reflections by the Researcher

During the data collection process, the researcher observed a difference in CS based on a student's year of study, in terms of the scope, emphasis and changing valence. Group interaction increased among final year students, when applied learning parts of the degree programme or job prospective were addressed, while second-year students became more active in discussions when talking about the quality of individual courses or individual lecturers. Undergraduate students in their second year showed a tendency to rate their satisfaction based on very specific programme- related factors. Sometimes they even had difficulties in verbalising the factors affecting their satisfaction or dissatisfaction. In contrast, students in their final year and alumni described their overall satisfaction with the university experience, mentioning a broader spectrum of factors on which they formed their overall evaluation, and tended to be more differentiated in their expressions. While students in their

second year seemed heavily involved with the educational service, final year students and especially alumni tended to appear more independent from the university.

On a final reflective note, in Focus Group UK Y3 2 a quite strong personality "Maria" started the discussion on the first topic of Satisfaction. She appeared to be highly disappointed by the university's lack of support for her personal situation and dominated the discussion to a certain extent. This had an impact on the discussions that followed, as other participants began by talk about dissatisfaction factors as well, and one person, who appeared to be quite enthusiastic about her university, appeared apologetic when mentioning her own satisfaction with the support she had received and her university experience in general. Thus, this effected the discussion's atmosphere. The dis/satisfaction factors have been coded at the relevant nodes, and considering that the other focus groups were more positive, this focus group did bring interesting negative aspects to light. However, it should be noted that some respondents did not articulate their perceptions as they seemed a little bit "frightened" by the reaction of Maria. Therefore, a third focus group with the same cohort group was beneficial.

## 4.2.3.4 Implications for the Quantitative Research

The researcher draws several implications from the findings for the measurement of CS and sampling in the quantitative study. An overall evaluation of CS should be conducted with students in their final year of study or alumni, because students in earlier years tend to evaluate their satisfaction on specific tacit aspects and do not provide a holistic view on the service offering. CS should be operationalised as a cognitive-affective construct, including both cognitive and affective evaluations of satisfaction received within the university service. A positive skew of satisfaction rating might be expected amongst final year students and alumni. Hence, the quantitative sample should be large enough to have both positive and negative valence regarding CS.

## 4.2.4 Critical Theme: Employability

The intention of the qualitative study was:

 to gain a qualitative understanding on the concept of Employability from a participant's view.

#### 4.2.4.1 Content Analysis Results

The content analysis on different definitions of employability revealed that students and alumni referred to a.) internal (perceived) employability in terms of an individual's perception

of their opportunities in the labour market based on their competences, academic performance and experiences and b.) external (actual) employability or employment in terms of getting a job (Harvey, 1999; Rotwell et al., 2008). While internal (perceived) employability appeared as a competence that can arise from university education (32 references within 19 data sources), external employability emerged as a Human Capital Performance outcome as suggested by Luo and Homburg (2007) (20 references in 12 data sources).

It becomes apparent on reviewing the statements on internal (perceived) employability that most participants specified how having the right skills and competences that employer demand would constitute high employability (30 references in 18 data sources). Most participants defined Perceived Employability as having the competences that employers are looking for (14 references). For instance, Oscar, an alumnus from the UK, defined Perceived Employability as follows:

"I would define employability as having the <u>skills</u> that are <u>searched by employers</u> at an undergraduate level." (Oscar, Alumni UK)

In contrast, Sarah, a third-year student from Austria, referred to competences of an individual in contrast to the competences of other participants in the labour market:

"I would say it's all your knowledge, skills, abilities that you have, sometimes compared to others." (Sarah, FocusGroup-AT-Y3-1)

Eleonor, an alumnus from England, is very detailed in her answer and complements the competence definition with concepts of self-awareness and the ability to manage one's own development:

"I understand that it means a good level of the basic skills an employer would look for. The things like communication problems, or presentation skills, IT skills, some of the technical things underlie, which every industry you going to. As well as a softer concept, which is self-awareness. So an ability to understand the skills, the knowledge, you bring to a company or organisation or project. And those you haven't got or need to develop or need to source from elsewhere. And that's a massive part of employability. I also think the ability to manage your own development is a huge part of employability. There are three concepts as part of that for me and that's the self-awareness, the ability to manage your own development and then the-the sort of right skills an employer would look for." (Eleanor, Alumni UK)

Lisa, an alumnus from Austria, adds additional experiences to the definition above:

"There are different parts that and one part is certainly <u>education</u>, how educated I am. Then also how are my <u>personal skills</u>. And what is my <u>experience</u>." (Lisa, Alumni AT)

Two participants explained that knowing what you want and being invited to job events would signify Perceived Employability:

"If you know what you want to do, if you know which direction you want to take." (Katharina, FocusGroup-UK-Y3-1)

"I think we shouldn't judge by whether someone gets a job or doesn't get a job, but I think it's also about whether we get any interviews." (Ruby, Alumni UK)

These understandings of Perceived Employability are similar to Rothwell et al.'s (2008) concept of internal (perceived) employability, with the subcategories of confidence in one's skills and abilities, academic performance, and awareness of the external labour market; as well as the possession of the skills and abilities that employers are looking for. Although Rothwell et al. (2008) conceptualise internal Perceived Employability as a cognitive-affective construct, this study found indication for a purely predominantly cognitive construct. This can also be viewed from the statements above which outline cognitive wordings used by participants when defining Perceived Employability, e.g. "I think" or "if you know".

In contrast, external (actual) employability was mainly defined as getting a job according to one's qualification level (6 references), the ease of getting a job (5 references) and the time it takes after graduation (5 references).

"I would define it as the time that it takes to find a job that suits your <u>qualifications</u> after graduating." (Felix, Alumni AT)

"How <u>easy</u> you find a job after-after finishing the studies programme." (Jana, Alumi AT)

"I would more or less define it also like not how easy but how <u>fast</u> you actually get a job after you graduate." (Mia, Alumni AT)

Further reference was made to getting a job according to one's aspirations (2 references), with good earnings (1 reference) or job success (1 reference):

"Did I get the job that I wanted? Probably not, probably I went to the second best alternative." (Nathan, Alumni UK)

"Which jobs I would get. Is there a chance to get <u>good earnings</u>." (Elias, FocusGroup-AT-2-1)

"When I have <u>success</u> in the job." (Sebastian, Alumni AT)

These notions of external employability are similar to Harvey's (2001) Measurement of Actual Employability in terms of employment or actual employability, as perceived by employers themselves.

# 4.2.4.2 Reflections by the Second Reviewer

The second reviewer additionally noted that internships had an essential role in enhancing Perceived Employability in both the UK and AT groups. In her view, it was difficult to draw a line between statements referring to satisfaction and statements referring to employability. Satisfaction and Employability are sometimes overlapping. Within the alumni sample, employability ratings appeared sometimes to relate to one's job satisfaction (liking/not-liking of a job), making employability a biased concept. Self-image could also deviate significantly from external image (employer view, lecturer view). Students appeared to be different in terms of their self-reflection and self-criticism. Thereby, self-perceived employability appears as a viable concept. An employer view would be more neutral.

# 4.2.4.3 Reflections by the Researcher

In general, the interviewer had to more actively facilitate discussions on Employability in comparison to those related to CS. Participants seemed to be hesitant to speak about their own employability. The majority of interviewees argued that they perceived their employability as high, based on the skills and competences gained during their studies. This was consistent amongst respondents from Austria and England.

Austrian students seemed to feel that employers tended not to value a Bachelor's degree. The discussion emerged at the end of two focus groups amongst final year students. This notion could be based on the rather recent changes in the educational system. Since 2005, all universities are obliged by law to adapt their degree programmes to the three cycle system of the European Bologna Declaration as derived from the Interview with a Quality Assurance Expert from Austria. Consequently, students might fear that employers do not accept their degree yet or prefer alumni with a traditional diploma.

When discussing the meaning of Perceived Employability it became apparent that students and alumni both in the UK and in Austria mixed the concept of Perceived Employability with Actual Employability or Employment.

## 4.2.4.4 Implications for the Quantitative Research

For students and alumni in the UK and Austria alike, the concepts of Employability and Employment are of utmost importance, as several students and graduates mentioned that it was the main reason for going to university. Consequently, an inclusion in the conceptual framework of HCP outcomes and Perceived Employability appears central.

# 4.2.5 Critical Theme: Positive Emotions and Subjective Feelings

Frederickson's (2004) Broaden-and-Build Theory of Positive Emotions explains how the experience of positive emotions (such as gratitude, love, pride, and hope) broaden the momentary through-action repertoires of individuals differently, and leads to behaviours that yield (direct or indirect) benefits. Consequently, the data transcripts were analysed with content analysis, via word count and emotional coding techniques, to explore:

- Whether emotions with positive (or negative) magnitude occurred,
- Which categories of positive (or negative) emotions emerged.

The results of these two analysis steps are outlined in the following sections.

## 4.2.5.1 Content Analysis Results

When analysing the interview and focus group transcripts, it became apparent that emotions, in terms of subjective feelings (Carlson et al., 2010), played an important part in student and alumni reflections about their higher education experience. A word count analysis in NVivo on all interview and focus group transcripts revealed that the words 'feel' (70) and 'feeling' (21) were used frequently in discussions. Examples of these statements are illustrated in

Table 33. The words 'feel' and 'feeling' were mainly used to express either a subjective evaluation of experiences (see CEB.E1) or to refer to different dimensions of feelings (Barret & Russel, 1998; Watson & Tellegen, 1985), such as positive affect (see CEB.E2) and negative affect (CEB.E3).

Table 33. Subjective feelings

Subjectiv	Subjective Feelings									
Citation Index	Thematic Category	Name (synonym)	Sample	Statement						
CEB.E1	Subjective Feeling	Emma	Alumni AT Emma	"I have the feeling it has lot of benefits to me and helps me, than I'm doing it with such a pleasure, that I don't have the feeling that I have to sacrifice a lot."						
CEB.E2	Subjective Feeling	Stephanie	Focus Group UK Y3-2	"I feel being cheated of things"  "having that community feeling is completely gone"						
CEB.E3	Subjective Feeling	Kate	Focus Group UK Y3-2	"I do feel naturally sort of passionate"  "I always had the feeling that I was respected"						

When structuring emotions according to emotional categories (Izard, 2007), several distinct positive and negative emotions were found in individual and group. Emotions were categorised firstly through selected word queries in all alumni interview and focus group transcripts, and secondly by emotional coding (Miles et al., 2014).

A word count search in Nvivo resulted in 978 words that have been counted more than six times within all student focus groups and alumni interview transcripts. The word count output was transferred into an Excel list. Words indicating an emotion have been highlighted. Then, the words were clustered along different positive and negative categories of emotions (Frederickson, 2013; Izard, 2007). It is noteworthy to immediately highlight that the word 'positive' (57 word counts) was mentioned more than twice as much as the word 'negative' (21 word counts). In an analysis of the emotions with a positive magnitude, six different emotional categories emerged. It became apparent that the most frequent emotion was Love. According to Frederickson (2013, p.17) love is "a momentary upwelling of three tightly interwoven events: First, a sharing of one or more positive emotions between you and another; second, a synchrony between your and the other person's biochemistry and behaviors; and third, a reflected motive to invest in each other's well-being that brings mutual care". Words used to refer to love (according to the number of references using Nvivo word

frequency counts) were: 'love' (10), 'relationship' (42), 'close' (7) and 'care' (9). The dominance of the positive emotion of love is consistent with theories on positive emotions, stating that love is one of the strongest emotions, in terms of intensity, and an emotion that usually lasts over a longer period of time (Frederickson, 2004). Furthermore, the emotions 'happiness' (46 word counts for the word happy), 'amusement' (29 word counts for the word laughing and 8 word counts for the word fun), 'gratitude' (15 word counts for the word thanks and 10 word counts for the word appreciate), 'enjoyment' (10 word counts for the word enjoy and 8 word counts for the word enjoyed), 'hope' (11 word counts for the word hope) emerged. An overview with the word count search results can be viewed in Table 34.

Table 34. Word count result for positive emotions

Positive Emotions – Word Query Results							
Positive Emotions	Total N of references	Word search	N of sources	N of references			
Love	68	Love	4	10			
		Care	4	9			
		Relationship	13	42			
		Close	5	7			
Happiness	46	Нарру	5	46			
Amusement	37	Fun	3	8			
		Laughing	8	29			
Gratitude	25	Thanks	6	15			
		Appreciate	10	10			
Enjoyment	18	Enjoy	5	10			
	_	Enjoyed	7	8			
Норе	11	Норе	4	11			

Yet, it needs to be noted that these findings were based on pure word counts. However, the whole citation of individual words needed to be analysed further to gain a better understanding of whether a statement using an emotional word referred to a real emotion related to the higher education experience (e.g. remembering that the university was fun and that a student laughed a lot during their time at university) or whether it was an emotional word in a different context (e.g. laughing, because students had to laugh about a question raised during the interview). Hence, in a second step, emotional coding was conducted. Two

further emotions were distinguished based on emotional coding, empathy (especially felt towards other students) and pride. Exemplary references for the eight different categories of positive emotions can be found in Table 35.

References on love reveal that Sternberg's (1986) conceptualisation of interpersonal love fits well into the HE context, as references were made to love in general and its dimensions of passion, intimacy and commitment (CEB.E4). Happiness (CEB.E5) appeared as an emotion expressing satisfaction (affective) with the educational offer. Amusement (CEB.E6) indicated that students were having fun during their studies, yet not necessarily in the classroom. Gratitude (CEB.E7) was mentioned especially in the context of CEBs and motivations to give back to the university. Enjoyment (CEB.E8) referred to participants enjoying certain activities, such as studying or giving back to university. Hope (CEB.E9) emerged as a future-oriented concept. Empathy (CEB.E10) was found to be an emotion that participants feel with other students (and not the university). Pride (CEB.E11) was a positive emotion that was explicitly mentioned in terms of being proud of being part of a specific university.

Table 35. Categories of positive emotions

Positive E	Positive Emotions									
Citation Index	Thematic Category	Name (synonym)	Sample	Reference						
CEB.E4	Love, love	Kate	FocusGroup- UK-Y3-3	"I <u>love</u> my degree because of more the individuals. I love the subject, but I do feel naturally sort of passionate about it, it's the individuals."						
	Love, passion	Shaun	FocusGroup- UK-Y3-2	"it seems that a lot of students from other universities really have passion for their university."						
	Love, passionate	Maria	FocusGroup- UK-Y3-2	"I was so <u>passionate</u> about uni."						
	Love, relationship, intimacy	Ruby	Alumni UK	"The <u>relationship</u> that we have with friends and academic staff."						
	Love, relationship, intimacy	Zachary	Alumni UK	"There has always been a relationship and I think my University is very, very good at keeping that relationship."						
	Love, close, intimacy	Lisa	Alumni AT	"The climate also to the lectures was always very <u>close</u> and good."						

Positive Emotions								
Citation Index	Thematic Category	Name (synonym)	Sample	Reference				
	Love, care, commitment	Emma	Alumni AT	"they still <u>care</u> about former students and they're happy when they have this interaction."				
CEB.E5	Happiness	Dylan	Alumni UK	"I came back and did an internship at my University doing research, and through that I was able to really consolidate what I wanted to do with my career, so I found that really, really useful and I was really, really happy with that."				
CEB.E6	Amusement	Aden	Alumni UK	"I think what is important is, that there's an element of <u>fun</u> from the university."				
		Dylan	Alumni UK	"Most of my fun I had was during the student activities rather than me enjoying lectures, because, no one really enjoys lectures <chuckle>, it's all the fun stuff behind university."</chuckle>				
CEB.E7	Gratitude	e Armin Focu UK-Y		"I think then I would undertake some activities, which are going to be efficient for the university as well as I kind of say thank you, like as being thankful to the university."				
		Nathan	Alumni UK	"I do feel that I benefitted a lot from my time here and so I want to reciprocate."				
CEB.E8	Enjoyment	Emma	Alumni AT	"I am (studying) with such a pleasure, that I don't have the feeling that I have to sacrifice a lot."				
		Michael	FocusGroup- UK-Y3-2	"If there is something that works for the student in some way, I would enjoy (giving back)."				
CEB.E9	Норе	Eleonor	Alumni UK	"My University is named as a good quality business school. It's a brand really, I guess you leave there with a brand attached to you. And you hope that business school or institution continues to get better and better."				

Positive E	Positive Emotions								
Citation Index	Thematic Category	Name (synonym)	Sample	Reference					
		Victoria	Alumni AT	"The internal contacts we made with the global students or the network established during the semester abroad I hope I can benefit from while looking for a job."					
CEB.E10	Empathy	Dylan	Alumni UK	"Because I can empathise with (other students) about what they're going through."					
		Nathan	Alumni UK	"First and foremost it would be the students because I think you have a natural degree of empathy with them because you've been in that position, you know the challenges they're facing and uh the situation that they're in."					
CEB.E11	Pride	Ruby	Alumni UK	"I am quite <u>proud</u> to be part of my University."					
		Aden	Alumni UK	"I'm quite <u>proud</u> of being a graduate of my University and I think it will help me." (Aden, Alumni UK)					

Two different emotional categories emerged through an analysis of the word counts with a negative magnitude. Negative feelings were feelings of being pressurised (8 word counts for the word 'pressure') and feelings of annoyance (6 word counts for the word 'annoying'). Emotional coding revealed three further emotions, being 'regret' (2 word counts, see CEB.E13), anger (1 word count for the word 'angry', 1 word count for 'feeling cheated', see CEB.E12), and shame (2 word counts for 'ashamed', see CEB.E14). The results from the emotional coding can be viewed in Table 36, in which different statements referring to negative emotions are listed.

Table 36. Categories of negative emotions

Negative	Negative Emotions								
Citation Index	Thematic Category	Name (synonym)	Sample	Statement					
CEB.E12	Anger	Emma	Interview AT Emma	"And even if I would have to sacrifice a lot, and I think I would be <u>angry</u> about the programme. *laugh*"					
		Stephanie	Focus Group Y3-2 UK	"I feel being <u>cheated</u> of things."					
CEB.E13	Regret	Jonas	Focus Group AT Y2-1	"That's for me one thing and what I wanted to add about our study program is that I think or I regret that we have not enough economic subjects"					
		Jana	Alumni Interview AT Jana	"I would <u>regret</u> these costs (for education)."					
CEB.E14	Shame	Kate	FocusGroup- UK-Y3-2	"We're <u>ashamed</u> to be a part of Aston."					
		Nathan	Alumni UK	"I don't wish to be belittling of Aston University, but I think that's just, for me, I'll always feel a little apologetic when I'm meeting new people and I say "well, I went to Aston University."					

# 4.2.5.2 Reflections by the Second Reviewer

The second reviewer commented on "strong emotional attachment", a main theme that emerged in her analysis, which appeared as incidental data that has not been directly asked about during the interviews. She perceived that emotional attachment was based on the relationships between people that know each other, rather than with a university as a brand or building. The building would become a symbolic memory of the community of specific people and concrete experiences at that place.

The second reviewer also noted how Love and hate appeared close to one another. The researcher explained that strong emotional attachment has been coded as "Love". The second reviewer agreed with this definition and categorisation. She also identified gratitude and being proud as emotions that were antecedent to 'giving back' behaviours. Her

interpretation from reading the data was that most students were very emotionally attached, with hardly any neutral students. There were different categories or levels of feelings but hardly anyone did not feel anything. Even those who did not display emotions at the beginning, tended to do so as the conversation developed.

## 4.2.5.3 Reflections by the Researcher

The researcher perceived that participants tried to rely on their rational judgement, for instance, when they explained their level of satisfaction or dissatisfaction or expressed their motives for giving back to the university. Yet, there was a general tendency, as the discussion progressed and became more in-depth, that participants reflected on their emotions when evaluating their educational experience and their own behaviours (e.g. CEB.2). The use of words conveying strong emotions had a vibrant impact on focus group discussions. Participants tended to become more excited about the discussion, talking faster in pace and sometimes making overlapping comments. Participants who avoided eye contact started to look around in the group and listened more attentively. The focus group that revealed the largest variety of emotions was the second focus group in the UK, with third-year students who had already undertaken a placement. In general, there was a tendency for third-year students and alumni to refer more frequently to different categories of emotions than second-year students. Furthermore, there was a tendency among UK students and alumni to speak more openly about positive and negative emotions, in contrast to the AT sample.

# 4.2.5.4 Implications for Quantitative Research

The analysis reveals the vital role of positive emotions. Further qualitative investigations will be conducted on the relationship between main themes, in order to obtain a concrete understanding of which positive emotion(s) should be integrated into a conceptual framework of CS and CEBs.

# 4.2.6 Critical Theme: Relationships

Finally, the qualitative study aims to explore the relationship between CS and CEBs and the mediating mechanisms of Perceived Employability and Positive Emotions. In order to encourage discussions on the relationships between the main themes, the participants received Sticky notes with the main themes of 'Satisfaction', 'Employability' and 'Activities' (used to represent CEBs) written on them. They were asked to put the notes in order and express why one construct led to another. Participants had different starting points. Most started with Satisfaction which led to Employability and then led to Activities. Yet, some started with Activities which then led to Satisfaction and Employability. Others made a circular

relationship (expressing that when alumni of a university perform CEBs it will potentially increase the CS and employability of the students studying at that time at this particular university and will in turn increase the probability that these students will perform CEBs once they graduate). These discussions on relationships (i.e. the mechanisms linking the variables drawn on the notes), but also the reasoning of why participants would be inclined to reciprocate, and their references involving emotions, informed this analysis section and formed incidental material. A content analysis was conducted with the objective:

- To investigate which of these explored positive emotions broaden the through-action repertoire and lead to CEBs; and
- To get a qualitative understanding on the relationship between CS and CEBs by exploring potential cognitive and affective mediating mechanisms.

The content analysis results are presented in the next subsections.

# 4.2.6.1 On the Relationship Between Satisfaction and CEBs - The Mediating Role of Positive Emotions

The content analysis results provide a first indication that Customer Service (CS) might be a necessary, but not sufficient condition, for Customer Engagement Behaviour (CEB). This is in line with Pansari and Kumar's (2017) view. Indeed, only a few study participants mentioned that they would engage in voluntary behaviours because they felt satisfaction alone:

"Being satisfied and now that I got my degree, I think this is leading me back to activity, I want to give something back." (Aden, Alumni UK)

Commonly students and alumni referred to their satisfaction with the service received at university, but then mentioned further mechanisms (being mostly positive emotions) that appeared to be relevant as well, in order to 'give back' to the university voluntarily, as can be viewed in Ruby and Stephanie's statements:

"Because I'm <u>satisfied</u> with my degree, the way the degree worked out with what I got from the university and with the <u>friendships</u> I've got, and the <u>relationship</u>, all that, the <u>good relationship</u>. So I am quite <u>proud to be part</u> of Aston University, so that is my major motivation." (Ruby, Alumni UK)

"I would be prepared to give back if I hadn't had such a <u>terrible experience</u> from my first year and like in <u>support</u>, if I had felt more supported, I would have felt having a <u>stronger connection</u> to the university." (Stephanie, FocusGroup\_UK\_Y3\_2)

Positive emotions emerged as key mediating mechanisms between CS and CEBs. Valentina, an Austrian alumnus explained:

"Only if I have an emotion, I would probably do an activity." (Valentina, Alumni AT)

An in-depth analysis of the statements about why students and alumni, who participated in the qualitative study, would 'give back' to the university in terms of different CEBs, revealed five different mechanisms. First and foremost was Love, in terms of strong emotional bonds (a total of 27 references in 13 different sources) with references made to Passion, Intimacy and Commitment (to stay connected). Gratitude, in terms of feelings of reciprocation, (total of 28 references in 15 different sources) included sub-nodes referring to the desire to give back (9 references), wanting to help (9 references), reciprocation to other students (partly also because of felt empathy) (7 references) and gratitude (3 references). A further reason was the appreciation of own experiences made (total of 8 references in 5 sources); for example, guest lectures from other alumni were perceived as interesting during a participant's own studies. Pursuing own interests when giving back to the university was a further motivation (total of 4 references in 3 sources), and consequently only engaging in activities voluntarily when there was a value-added to the person themselves. Finally, satisfaction with the educational service received would lead directly to giving back behaviour (total of 3 references in 3 sources).

In a second step, in-depth analysis was conducted on all references from the initial word query search on those referring to emotions (see critical theme Emotions). The following table provides an overview of the relationship between positive emotions and CEBs. Whenever a reference was made to CEBs and an emotion was also explicitly mentioned within it, the statement was indicated with a cross. The table provides a first indication that positive emotions affect CEBs. Furthermore, the table reveals that within the 34 analysed references there is an explicit indication of a relationship between CEBs and Love (12 references), Gratitude (12), Empathy (9), Happiness (8), Enjoyment (5), Pride (4), Hope (4) and Amusement (3).

Table 37. Emotions emerging from qualitative data in relation to CEBs

Participant (Intending) to Give Back to University (Source) / Emotion	Love	Happiness (*happv)	Amusement (*fun)	Gratitude	Enjoyment (*eniov)	Hope (*hope)	Empathy (*ompathico)	Pride (*pride,
Aden (Alumni UK)	х	х	X	х	Χ	х		Х
Andrew (FocusGroup-UK-Y3-3)						х		
Alexander (FocusGroup-AT- Y3-2)	Х	Х					x	
Armin (FocusGroup-UK-Y3-1)				х				
Dylan (Alumni UK)		Х	Х		Х		Х	
Edward (FocusGroup_UK_Y3_2)	х							
Eleonor (Alumni UK)						х		
Elias (FocusGroup-AT-Y2-1)		х						
Emma (Alumni UK)	Х				Х			
Fabian (Alumni AT)								
Felix (Alumni AT)								
Joseph (Alumni UK)				х			х	
Jana (Alumni AT)		Х						
Julian (Alumni UK)							Х	
Kate (FocusGroup-UK-Y3-2)	Х							
Lena (FocusGroup-AT-Y3-1)			negative <b>X</b>	х				
Leonie (FocusGroup-AT-Y2-1)								
Lisa (Alumni AT)	Х							
Lukas (FocusGroup-AT-Y3-1)				х			х	
Maria (FocusGroup-UK-Y3-2)	Х							х
Mia (Alumni AT)								

Participant (Intending) to Give Back to University (Source) / Emotion	Love	Happiness (*hapov)	Amusement (*fun)	Gratitude	Enjoyment (*eniov)	Hope (*hope)	Empathy (*ompathics)	Pride (*pride,
Nathan (Alumni UK)	Х			х	Χ			negative X
Oscar (Alumni UK)		Х		х	Χ		Х	
Ruby (Alumni UK)	Х							Х
Sarah (FocusGroup-AT-Y3-1)				х				
Sebastian (Alumni UK)							х	
Shaun (FocusGroup-UK-Y3-2)	Х							
Sophie (FocusGroup-AT-Y2-2)				х			Х	
Stephanie (FocusGroup_UK_Y3_2)	Х							
Steven (FocusGroup-UK-Y3-1)				Х		х		
Valentina								
Victoria (Alumni AT)							Х	
Zachery (Alumni UK)	х	Х		Х				
Zarah (FocusGroup-UK-Y3-1)		х		х				

Finally, all statements on CEBs (see content analysis results theme CEB) have been analysed using emotional coding; the statements were assessed as to whether specific references to positive emotions were made. Emotional coding brought similar insights on the impact of specific emotions on CEBs. When analysing the reasons why participants intended to 'give back' to a university, two predominant emotional categories were found to have a strong impact on CEBs; Love (with 27 references in 13 different sources) and Gratitude (with 21 references in 12 different data sources). Emotional coding revealed seven references to the relationship between Empathy with other students and CEBs. Exemplary statements are outlined in the Appendix C.12.

Other reasons to 'give back' to the university, apart from positive emotions, were: positive memories, in terms of a person's positive experiences made in the past (8/5); self-interest,

hence more egoistic reasoning (4/3); and the feeling of indebtedness or obligation (1/1). Exemplary statements are outlined in Appendix C.13.

Both analysis techniques (content analysis on word query results on positive emotions, and emotional coding on CEB references) revealed that Love and Gratitude are the strongest positive emotions potentially mediating the link between CS and CEBs. Therefore, these relationships are in more detail in the following subsections.

# 4.2.6.2 On the Relationship Between Love and CEBs

Emotional bonds were explored in terms of emotions that can be categorised as 'love', according to Sternberg's Theory of Triangular Love (Sternberg 1986). Sternberg (1986) understood love to be composed of three elements: passion (i.e. a strong feeling of enthusiasm and excitement); intimacy (i.e. feelings of closeness and attachment to one another); and commitment (i.e. the wish to maintain a relationship).

According to theory, Passion arises in the early stages of a relationship and diminishes over time (Bügel et al., 2011). In fact, the data reveals that the hot component of love (,i.e. passion) triggered reciprocal behaviours, but it was often stated as a reason why students 'gave back' in their early years of studies, but would not be willing to do so after graduation (CEB.E4). Maria described her passionate relationship with the university as follows:

"When I started, Aston identity was a big thing, I mean we were shouting from the roofs 'Aston till I die' type of chants and that's really changed. I mean, we were singing songs about other unis that aren't as great as we perceived ourselves, but that's changed dramatically over the last few years." (Maria, FocusGroup-UK-Y3-2)

Yet, over her time as a student, her relationship with the university changed and that passion seemed to fade. When asked whether she would give back to the university after graduation, Maria mentioned:

"Not necessarily, no, I mean like myself, I've been (giving back) over the last couple of years and that passion about being part of Aston, that community feeling is just completely gone." (Maria, FocusGroup-UK-Y3-2)

Similarly, Kate stated that she was passionate about the university and its people, which motivated her in the past to perform different forms of engagement behaviours, and stated that she might have engaged sufficiently upon graduation:

"I feel that I'm giving back now in my final year, I'm part of the committee, I'm doing open days, I'm doing presentations, so for me personally, I feel like my giving back is

made in the final year. I still love my degree and I'm giving back now to the point, well, I think after uni, I can't imagine me giving back anymore. Yeah, [I love my degree because of] the individuals. I love the subject, but I do feel naturally sort of passionate about it, it's the individuals." (Kate, FocusGroup-UK-Y3-3)

Her passionate relationship can further be observed when, at a certain point of the discussion about dissatisfying factors, she mentioned:

"We're ashamed to be a part of Aston." (Kate, FocusGroup-UK-Y3-3)

Yet, she reconsiders the above statements at a later stage of the focus group discussion when referring to the university as her "hometown" and in seeing herself as playing in the "team" of the university. Hence, her initial passion felt especially at early stages of her study may possibly change into a warmer feeling, such as Intimacy.

"I don't hate Aston, it's kind of like I'll always be on team Aston compared to, I don't like university, because it's just where you're from, so you'll always have ties to your hometown, so that would be my way to come, give back, like, if I just give a guest lecture at any university, it would be Aston, because I got these ties to them." (Kate, FocusGroup-UK-Y3-3)

The statements by Maria and Kate also show a potential inverse relationship of passion, as it appears to be a strong emotion that can also 'backfire' and turn into negative emotions such as shame or hate.

Further statements that indicate that Passion could positively or negatively affect CEBs are provided in Table 38.

Table 38. The Relationship between Love and Giving Back to University (Dimension Passion)

The Rela	The Relationship between Love and CEB (Dimension Passion)								
Citation Index	Thematic Category	Name (synonym)	Sample	Statement					
R.L1	Love (Passion)	Maria	FocusGroup- UK-Y3-2	"When I started, Aston identity was a big thing, I mean we were shouting from the roofs "Aston till I die" type of chants and that's really changed. I mean, we were singing songs about other unis that aren't as great as we perceived ourselves, but that's changed dramatically over the last few years."					
R.L2	Love (Passion)	Maria	FocusGroup- UK-Y3-2	"Not necessarily, no, I mean like myself, I've been (giving back) over the last couple of years and that passion about being part of Aston, of being uh having that community feeling is just completely gone."					
R.L3	Love (Passion)	Shaun	FocusGroup- UK-Y3-2	"But it's a shame [that many students do not want to give back to university], because it seems that a lot of students from other universities really have passion for their university."					
R.L4	Love (Passion)	Kate	FocusGroup- UK-Y3-2	"I feel that I'm giving back now in my final year, I'm part of the committee, I'm doing open days, I'm doing presentations, so for me personally, I feel like my giving back is made in the final year. I still love my degree and I'm giving back now to the point, well, I think after uni I can't imagine me giving back anymore. Yeah, [I love my degree because of] the individuals. I love the subject, but I do feel naturally sort of passionate about it, it's the individuals."					
R.L5	Love (Passion, being fond, connection, giving back)	Aden	Alumni UK	"Because I am fond of the university, I actually want to stay in touch in different ways, so for example agreeing to do this call is my way of staying in touch with the university and giving something back."					

Intimacy, as warm dimension of Love, reflects bondedness and connectedness (Sternberg, 1986). It was found to have a positive impact CEBs after graduation. Intimacy, being defined

as the feelings of closeness and attachment to one another, is well reflected in statements by Lisa and Stepanie:

"Everyone was very nice and there was a good climate. And also to the lecturers, (the relationship) was always very close and good. And I always had the feeling that I was respected." (Lisa, Alumni AT)

"I feel more attached to the buildings in the campus and the people than to my university." (Stephanie, FocusGroup-UK-Y3-2)

Kate used metaphors to describe the university as being her 'hometown' and 'team' when describing her intimate relationship with the university. Zachery, an alumnus from the UK, found another analogy to describe his warm and intimate feelings towards the university; university is the mother and the father who brings the children up, the alumni (like him) would be the big sisters who give back their expertise by performing CEBs, and the little brothers would be the students who are still studying at university. As in a family relationship, one should nurture each other (which fits well with Frederickson's (2013) definition of Love as a reflective motive to invest in each other's well-being that brings mutual care):

"I see it like a family and you're nurturing each other, so it's a mother-father, mother-son relationship, mother, son and sibling relationship where the university is the mother and the father, and they teach and inspire and bring up, you know, the child in the way that they want, and the values ... and then they graduate and they leave the house, but then their parents always want to know how they're progressing in their job ..and when they get a little bit older .. they're still part of that relationship, but that relationship kind of changes, when they're adults and got their own children and progressing, they take them along to the grandparents. So one might say that the university takes those relationships through the transition points of someone's career even when they're old. And then you got sibling relationships, the brother-sister relationship, the brother would be the student trying to graduate, go through that transition point and the older sister who comes back to university and offers their insights and expertise and does mentoring and those kind of things. So, I think the family analogy is a very nurturing one and an empowering one." (Zachery, Alumni UK)

Katharina, a female alumnus from Austria, sees her relationship with the university and her motivation to give back to the university in a similar way to Zachery:

"Personally you can kind of feel that you support something that you may say made you grow into who you are today." (Katharina, Alumni AT)

Statements referring to Intimacy and its positive effect on engagement behaviours can be seen in Table 37.

Table 39. The Relationship between Love and Giving Back to University (Dimension Intimacy)

The Relationship between Love and CEBs (Dimension Intimacy)							
Citation Index	Thematic Category	Name (synonym)	Sample	Statement			
R.L6	Love (Intimacy, connection, family ties)	Zachery	Alumni UK	"I see it like a family and you're nurturing each other, so it's a mother-father uh mother-son relationship, mother, son and sibling relationship where the university is the mother and the father, and they teach and inspire and bring up, you know, the child in the way that they want, and the values and then they graduate and they leave the house, but then their parents always want to know how they're progressing in their joband when they get a little bit older they're still part of that relationship, but that relationship kind of changes, when the uh they're adults and got their own children and progressing, they take them along to the grandparents. So one might say that the university takes those relationships through the transition points of someone's career even when they're old. Uh and then you got sibling relationships, the brother would be the student uh trying to graduate, go through that transition point and uh the older sister who comes back to university and offers their insights and expertise and does mentoring and those kind of things. So, I think the family analogy is a very nurturing one and an empowering one."			
R.L7	Love (intimacy, making you grow)	Katharina	FocusGro up-UK- Y3-1	"Personally you can kind of feel that you support something that you may say made you grow into who you are today."			

The Relationship between Love and CEBs (Dimension Intimacy)							
Citation Index	Thematic Category	Name (synonym)	Sample	Statement			
R.L8	Love (Intimacy, Passion, ties, belonging, team)	Kate	FocusGro up-UK- Y3-3	"I don't hate Aston, it's kind of like I'll always be on team Aston compared to, I don't like university, because it's like just where you're from, so you'll always have ties to your hometown, like that kind of thing, so that would be my way to come/give back, (?) when they like, if I just give a guest lecture at any university, it would be Aston, because I got these ties to them."			
R.L9	Love (Intimacy, connection, fond memories)	Nathan	Alumni UK	"Well, I think that's interesting because I spoke probably quite negative, but I do have very fond memories of my time here, you know on the flipside I could have said, you know, it allowed me to get a good graduate job with a good salary."			
				"I guess there is a sense that even when you leave a university, you still feel a part of it as an alumni, that really enforces it, you forever have an association with the university, you are a part of the community."			
R.L10	Love (Intimacy, feeling close)	Lisa	Alumni AT	"Overall I have to say that I'm very satisfied with my studies here. Yeah, everyone was very nice and there was a good climate. And also to the lecturers, (the relationship) was always very close and good. And I always had the feeling that I was respected."			
R.L11	Love (Intimacy, feeling attached)	Stephanie	FocusGro up-UK- Y3-2	"I <u>feel more attached</u> to the buildings in the campus and the people than to my university."			

The third dimension of Love is Commitment. Commitment reflects the rational elements involved in the decision to love someone and the commitment to maintain that love (Sternberg, 1986). Alumni mentioned that they engage in different voluntary behaviours that are of benefit to the university because they perceive that they have a committed

(inter)relationship with the university, they are fond of the university, and they want to maintain that relationship:

"Because I am fond of the university, I actually want to stay in touch in different ways, so for example agreeing to do this call is my way of staying in touch with the university and giving something back." (Aden, Alumni UK)

"I also would do activities because I'm really (.) tied with the university and I really want that also other people have the chances I got." (Alexander, FocusGroup-AT-Y3-2)

In contrast, a lack of Love or an absence in feelings of connectedness appeared to be an indication of why students and alumni would not give back to the university. Edward makes a clear point in that respect:

"I don't think I must give back, there is personal freedom you have at university, there's no connection between me and university." (Edward, FocusGroup-UK-Y3-2)

Stephanie elaborates more on this point. Her statement indicated that she was not satisfied with the university experience because she felt a lack of support and communication was difficult. Consequently, she did not feel connected to the university. As a result, she does not feel compelled to reciprocate and give back to university in the future:

"I would be prepared to give back if I hadn't had such a terrible experience from my first year and like in support, if I had felt more supported, I would have felt having a stronger connection to the university and I find that every time I spoke on the phone or had to deal with them it was just more stress, and it's just so complicated, they make it so hard, they make it really difficult." (Stephanie, FocusGroup\_UK\_Y3\_2)

An overview of statements referring to Commitment and its relation to CEBs are presented in Table 40.

Table 40. The Relationship between Love and Giving Back to University (Dimension Commitment)

The Relationship between Love and CEBs (Dimension Commitment)						
Citation Index	Thematic Category	Name (synonym)	Sample	Statement		
R.L12	Love (Commitment, being fond, connection)	Aden	Alumni UK	"Because <u>I am fond</u> of the university, I actually want to <u>stay in touch</u> in different ways, so for example agreeing to do this call is my way of staying in touch with the university and giving something back."		
R.L13	Love (caring)	Emma	Alumni AT	"(When you attend events organized by the University you) have the feeling, that it is appreciated when you come, that they show you, that they still care about former students and they're happy when they have this interaction. I think you get this feeling, somehow a feeling."		
R.L14	Love (relationship)	Ruby	Alumni UK	"Because I'm satisfied with uh my degree, the way the degree worked out with what I got from the university and with the friendships I've got, and the relationship, all that, the good relationship. So I am quite proud to be part of Aston University, so that is my major motivation."		
R.L15	Love (connection, personal inter- relationship)	Alexander	FocusGrou p-AT-Y3-2	"I really think that we have a strong personal interrelationship between each other."		
				"I also would do activities because I'm really (.) tied with the university and I really want that also other people have the chances I got."		
R.L16	Love (not giving back, missing connection)	Edward	FocusGrou p_UK_Y3_ 2	"I don't think I must give back, there is personal freedom you have at university, there's no connection between me and university."		
R.L17	Love (not giving back, missing connection)	Stephanie	FocusGrou p_UK_Y3_ 2	"I would be prepared to give back if I hadn't had such a terrible experience from my first year and like in support, if I had felt more supported, I would have felt having a stronger connection to the university and I find that every time I spoke on the phone or had to deal with them it was just more stress, and it's just so complicated, they make it so hard, they make it really difficult."		

# 4.2.6.3 On the Relationship between Gratitude and CEBs – The Mediating Role of Gratitude

Gratitude is the emotional appreciation of benefits received, accompanied by a desire to reciprocate (Palmatier et al., 2009). This conceptualisation of Gratitude also emerged from the data. Nathan, an alumnus from the UK states:

"I do feel that I benefitted a lot from my time here and so I want to reciprocate."

Feelings of Gratitude were found to positively affect CEBs:

"In terms of the actual contribution it's just something that I want to give back to university considering how much the university helped me during the years of my studies." (Oscar, Alumni UK)

Interestingly, Gratitude with the university was found to lead to the desire to reciprocate back to the university in general, but also to students specifically:

"I think it's because I want to give back to the university, they taught me and it was a very good experience for me and it was something that was a very important part of my life and I want to make sure that other students as well understand (the importance)." (Lucas, Alumni UK)

Nathan describes that he would like to give back to the university and students, but is unsure about how to reciprocate to the university directly, when he mentions:

"First and foremost it would be (giving back to) the <u>students</u> because I think you have a natural degree of empathy with them, because you've been in that position, you know the challenges they're facing and the situation that they're in. I can't really imagine how I could ever give something back to those lecturers that inspired me and captured my imagination. I mean, if I could, that's certainly something I would want to do. But I can't really envisage how I could do that." (Nathan, Alumnus UK)

In total, through emotion coding, 21 references were found in 12 different data sources on the relationship between Gratitude and CEBs. Further references outlining the relationship between Gratitude and CEBs are presented in Table 41.

Table 41. The Relationship between Gratitude and CEBs

The Relationship between Gratitude and CEBs				
Citation Index	Thematic Category	Name (synonym)	Sample	Statement
R.G1	<b>Gratitude</b> , giving back to university	Nathan	Alumni UK	"It's perhaps <u>natural to want to give</u> something back again, I did <u>enjoy my time</u> here, I was <u>inspired by a number of the lecturers</u> and they kind of led me to the path where I'm now, doing this PhD. So I do feel that <u>I benefitted</u> a lot from my time here and so I <u>want to reciprocate</u> ."
R.G2	Gratitude, giving back to university, giving back to students	Oscar	Alumni UK	"Just for the trade fairs I get the day off from workI enjoy the time with students because they are now in the position that I was a few years ago and in terms of the actual contribution it's just something that I want to give back to university considering how much the university helped me during the years of my studies."
R.G3	Gratitude CEBs to university and students	Joseph	Alumni UK	"It's just a way to say, you know, thank you. And also to give students that are currently going through what I went through four years ago or three years ago, to give them an idea of what awaits them at the other end of the university."
R.G4	Gratitude, CEBs to university and students	Lucas	Alumni UK	"I think it's because I want to give back to the university, they taught me and it was a very good experience for me and it was something that was a very important part of my life and I want to make sure that other students as well understand (the importance)."
R.G5	Gratitude, CEBs to university	Steven	FocusGro up-UK- Y3-1	"I am a placement mentor for a second issue, so that's one of the things I'd like to give back to university."
R.G6	Gratitude, CEBs to students	Katharina	FocusGro up-AT- Y2-2	"I think I can actually give students something that I have experienced."
R.G7	Gratitude, empathy, giving back to students in general (and specific lecturers if possible)	Nathan	Alumni UK	"First and foremost it would be (giving back to) the students because I think you have a natural degree of empathy with them, because you've been in that position, you know the challenges they're facing and the situation that they're in. I can't really imagine how I could ever give something back to those lecturers that inspired me and captured my imagination. I mean, if I could that's certainly something I would want to do. But I can't really envisage how I could do that.
R.G8	Gratitude, helping the university	Lena	FocusGro up-AT-Y3	"In this way you also help the university and give something back."

# 4.2.6.4 On the Relationship Between Satisfaction and CEBs – The Mediating Role of Employability

Nathan, an alumnus from the UK, reflected very extensively on the relationship between CS and different CEBs. He concluded that even when CS and Perceived Employability are high, a student or alumnus would not give back in terms of CEBs of direct benefit to a firm (such as Participation, WOM or Monetary Giving), as there might be different factors for why students or alumni would do that. Instead, he believes that the main outcome for a student would be actual employability. Hence, Nathan suggests that CS and Perceived Employability lead to Actual Employability:

"There are also people who might have a positive opinion of Aston University, their time here, a positive perception of how university influenced their employment prospects, but would never get involved in anything because they don't have time or they're just not that way inclined (to give back) whether monetary or non-monetary or with social behaviours. I think there are the more practical factors that will determine this. I guess it comes down to what's the purpose for going to university. Is it going to university to get a job or is there something more around the experience of going to university, broadening your world-view, exposing yourself to a lot of different experiences? I think in more objective terms, employability would be the outcome." (Nathan, Alumni UK)

When Nathan continued his reflections, he mentioned that he had loving memories of the university and that he generally would be willing to engage in CEBs:

"I spoke probably quite negative, but I do have very <u>fond</u> memories of my time here. You know on the flipside I could have said, it allowed me to get a good graduate job with a good salary, so I would be willing to contribute to the university in a monetary or probably more in a non-monetary way." (Nathan, Alumni UK)

Hence, when he mentioned earlier in the interview that there might be other "practical factors" why he would engage in CEBs rather than CS and Perceived Employability, it could be that the mediating link are positive emotions, such as love or affection. This would be in line with Frederickson's (2004) statement that positive emotions in general, but Love in particular, broadens the action repertoire of individuals.

One of Nathan's statement suggests that there might also be a further cognitive variable which has a role in the linkbetween CS and Perceived Employability; aspiration.

"Your level of satisfaction causes you to perceive your employability or has an effect on perceptions of employability. I think it's really difficult because people vary at their level of <u>aspiration</u>. Does going to Aston make you more ambitious, aspired to go work in the top graduate jobs, I don't think it does."

The perspective that CS positively affects Perceived Employability and that Perceived Employability would positively affect Employment (and not directly CEBs) is shared by David and Florian, third and second-year students from Austria. In different focus groups they both described why CS leads to higher Perceived Employability. Like Nathan, they state that Perceived Employability leads to employment (and financial resources). Only in a subsequent step (after having a job), would a student or alumni reciprocate in terms of CEBs:

"Out of <u>satisfaction</u> you get the perceived <u>employability</u>, because when you're satisfied you're also more confident and this also shows that you may be more employable. And through the perceived employability you finally <u>have a job</u>, you also have the financial resources and then you can start to <u>give back</u> and also involve yourself in the activities, which may also augment the value of the education then." (David, FocsGroup-AT-Y3-2)

"If you're <u>satisfied</u> with your education and you can identify yourself with the education, if you can do that you're <u>employable</u>, you got very good employability and when you got a job and you really have a good job, you <u>want to give back</u>, you want to give some monetary spending or some non-monetary things and this of course again adds value to the education." (Florian, FocusGroup-AT-Y2-2)

Hannah, a second-year student, also sees a connection between CS and Perceived Employability, leading subsequently to the main outcome of education, employment. As with Nathan, David and Florian, she does also not see a direct connection between Perceived Employability and giving back, in terms of CEBs. Nathan outlined that there might be other factors or mechanisms that explain why a student or alumnus would give back in terms of CEBs. Hannah also believes that evoking CEBs would necessitate different mechanisms. She outlines how she would probably 'give back' if she felt Gratitude:

"I think the only way to be really <u>satisfied</u> is that I feel that I have a good chance on the <u>labour market</u>. So on the <u>employability</u> and I personally think the activities do not really relate to them. What's the goal for me of the education if I did any activities, so I think the activities are separated, maybe I think the last is going back, so if I think the value is high then I will do because of some kind of <u>thank you</u> or whatever I will do activities and <u>give back</u> to the university."

This is in line with Leonie, an Austrian second-year student, who describes why she would give back to a university, thereby outlining the effect of CS on Perceived Employability, and how that would evoke feelings of Gratitude and the desire to reciprocate:

"When I'm <u>satisfied</u> with my education, I perceive my <u>employability</u> really high and then I will take activities, to <u>give something back</u> to the university." (Leonie, FocusGroup-AT-Y2-1)

#### 4.2.6.5 Reflections by the Second Reviewer

With regard to these relationships, the second reviewer commented that satisfaction alone would not be sufficient to evoke the feeling of a need to give back. There also must be an emotional attachment; Love or Gratitude. Strong emotional attachment leads to reciprocal behaviours. Students who were not attached to the university tended not to want to maintain a relationship or feel a need to reciprocate. She observed that strong emotional attachment was caused by personal experiences and relationships with lecturers, staff and other students. Students gave back because they had warm memories and strong emotional feelings. Love appeared to be stronger than Gratitude. Other reasons for giving back which were noted were: helping others, personal interest or own benefits in giving. Hence, the second reviewer confirmed the analysis results, with this independent coding of data.

#### 4.2.6.6 Reflections by the Researcher

The findings suggest that Satisfaction is a necessary condition for CEBs, and an important predictor of feelings of Love and Gratitude and perceptions of Employability. The insights gained through the exploratory study propose a positive relationship between student satisfaction and Perceived Employability, based on the premise that human-capital related outcomes are built on satisfactory outcomes between exchange partners (Luo & Homburg, 2007). It is suggested that if students are satisfied with the rendered educational service, it has a positive effect on their employability perceptions. These positive employability perceptions will then turn to actual employability or employment (HCP). This is in line with Human Capital Theory, which suggests the positive effect of investments in education, knowledge and skills on human capital-related outcomes, such as employment and job performance (Becker, 1993). Qualitative study results further provide indications that the link between CS and the different CEB behaviours of direct benefit would be mediated through affective variables. Affective mediators expressed by study participants were Gratitude and Love. These emerged as the strongest emotions, in terms of their potential impact on CEBs of direct benefit to a firm. This might be because Gratitude and Love are inter-personal feelings leading to reciprocation to the focal firm (Frederickson, 2004).

#### 4.2.6.7 Implications for the Quantitative Study

The main implication of this research for the quantitative study is that Perceived Employability (as a cognitive mediator between CS and CEBs) and Gratitude and Love (as affective mediators between CS and CEBs) should be integrated in the conceptual framework.

#### 4.2.7 Limitations

Notwithstanding its advantages, this sampling approach had some limitations. Firstly, it was a non-probability sampling method and the sample size severely limited the generalisability of data. Yet, in this qualitative research phase, the selected theoretical approach of sampling is not intended to focus on the generalisability of the sample, but rather puts emphasis on the sample adequacy (Creswell, 2008). In addition, within the non-probability sampling approaches, theoretical sampling is considered as one of the more robust (Richards & Morse, 2007). Secondly, the study is limited to two countries. These countries have been selected due to their characteristics in tertiary education. Exploring the model in further countries would strengthen it. Thirdly, a sampling bias could occur due to data collection with students who are studying at the institution at the time of evaluation. Students might answer questions differently when knowing that the institution collecting the data is the institution they are studying in at the time. This limitation was minimised by both carefully designing the interview guideline and a random element in interviewee sampling. It needed to be clear that the study was in the frame of doctoral research and that an open and honest discussion was welcome. Furthermore, the selection process was conducted in a sensitive way to ensure voluntary and open participation to the study.

Data was analysed on a content-level, but not on an individual level. However, Cohen et al. (2013) underlines that at a certain amount of data analysis on a content level should be preferred.

# 4.2.8 Conclusion and Implications for the Quantitative Research

The qualitative research phase aimed at exploring positive CEBs that are of direct and indirect benefit to universities in a HE context, and to investigate cognitive and affective mediating mechanisms between CS and CEBs.

The investigation was focused around five themes; Satisfaction, CEBs, Employability, Positive Emotions and Relationships. Firstly, the eight different types of CEBs that participants were willing to perform were explored and a qualitative understanding of Participation, WOM, Monetary Giving, Cooperation, Mobilising, Socialising, HCP and Career Community Behaviours was reached. The CEBs were clustered into CEBs of direct versus CEBs of indirect benefit to the organisation; and contrasted as CEBs with high/medium/low impact to a firm and CEBs requiring high/medium/low efforts by customers in terms of time, physical/mental efforts or money. The CEBs that should be assessed to be of direct benefit to an organisation, based on the literature and findings from the qualitative study, are: WOM (low effort CEB), Participation (medium effort CEB) and Monetary Giving (high effort CEB).

Human Capital Performance (high effort CEB) should be assessed as a CEB of indirect benefit to an organisation.

Secondly, it was found that CS evaluations change over the customer's lifetime, in terms of both magnitude (i.e. evaluations tend to become more positive over time) and scope (i.e. evaluations become more holistic over time). Furthermore, it was found that CS appeared as a cognitive-affective construct (with a predominance on cognitive evaluations).

Thirdly, the content analysis on Employability showed that some participants referred to Perceived Employability and some to Actual Employment. This resulted in Employability being either a mediator (i.e. Perceived Employability) or an outcome variable (i.e. Actual Employability/HCP). Analyses of the relationships suggested the mediating effect of Perceived Employability between CS and CEBs of indirect benefit (HCP). Furthermore, CS and Perceived Employability were found to evoke positive emotions.

Finally, emotional coding and word query search methods uncovered eight positive emotions in the data: Love, Gratitude, Empathy, Happiness, Pride, Hope, Enjoyment, and Amusement. Love and Gratitude were found to have the strongest impact on CEBs. These qualitative investigations on relationships provided the first indications of the mediating effects of Gratitude and Love between CS and CEBs of direct benefit.

# Chapter 5. Theoretical Underpinning and Conceptual Framework

Several competing theories have developed in service marketing and educational knowledge, as in other disciplines, each with limits to its usefulness. Hence, the objective of this chapter is to identify a suitable theory to unify and systemise knowledge (Keeves, 1999) and guides the development of the conceptual model of this study.

# 5.1 Theoretical Underpinning

The specifications of the overall research framework draw from the theory of reasoned action (TRA) (Fishbein & Ajzen, 1975), due to its strengths in predicting customer intentions and behaviours (Hale, et al., 2003). Taking into account criticisms of the theory (see Bagozzi, 1992), we consider Bagozzi's (1992) recommendation to refine TRA by including intervening mechanisms of emotional self-regulation between cognitive intentions/behaviours (Oliver's 1997, 1999; Lazarus's, 1991), as acknowledged by several leading authors in the field (see Brady et al., 2005). As regards the sequential order of emotions (the relationship between multiple emotions leading to behaviours), TRA is enhanced with Frederickson's (1998; 2004, 2013) Broaden and Build Theory of Positive Emotions, which suggests how the experience of positive emotions (such as gratitude, love, pride and hope) in different ways broaden the momentary through-action repertoires of individuals and lead to behaviours that yield benefits.

Consequently, the following sections present an adapted Theory of Reasoned Action (Fishbein & Ajzen, 1975), and the Broaden and Build Theory of Positive Emotions (Frederickson, 2004).

#### 5.1.1 Theory of Reasoned Action

TRA (Fishbein & Ajzen 1975) assumes that individuals are usually rational and consider the consequences of their actions before deciding whether or not to perform a specific behaviour (Fishbein & Ajzen, 1975). It consists of four constructs: *behavioural intentions*, which are a function of *attitude* and the *subjective norm*, and *behaviour*, which is a function of behavioural intentions (Figure 8). Thus, the authors propose that attitudes and subjective norms have an influence on intentions and behaviour; attitudes are a function of beliefs about a particular behaviour, weighted by evaluations of these beliefs; and subjective norms are a set of normative beliefs, beliefs about the likelihood that important referent individuals or groups would approve or disapprove of a specific behaviour. Fishbein and Ajzen (1975) distinguish

between two types of intentions (or behaviours); namely intentions to perform a certain behaviour (or actual behaviour) and choice intentions (or choice behaviours).

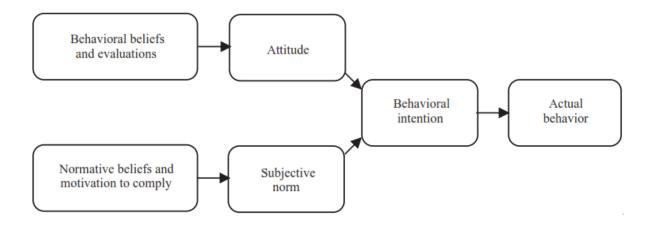


Figure 8. The theory of reasoned action (Fishbein & Ajzen, 1975)

TRA is selected as an underpinning theory for this dissertation because of its strengths in predicting customer behavioural intentions and behaviours. The theory is well established in the literature (Hale et al., 2003) and has also been tested in the HE context to evaluate its services (Kara & DeShields, 2004; Paranto & Kelkar, 1999; Sanchez et al., 2006) and its students' employability (Kolvereid, 1996; Tomlinson, 2007; Van Hooft el al., 2004; Vinokur & Caplan, 2006).

However, the theory also has its limitations. Firstly, Hale et al. (2003) state that the exploratory scope excludes spontaneous, impulsive, and habitual behaviour. A further point of critique is that the predictor "perceived behavioural control" is not reflected, which was later added by Ajzen & Fishbein (1980) in their Theory of Planned Behaviour. (A critical reflection on the Theory of Planned Behaviour can be viewed in Ajzen, 2011). In the present study, though, the predictive power of TRA cannot be enhanced by the inclusion of perceived behavioural control from the Theory of Planned Behaviour. As the attitudes and behaviours addressed in this dissertation address voluntary rather than impulsive or habitual behaviour (as CEBs are voluntary forms of behaviours). Hence, CEBs are under under the behavioural control of customers as they are voluntary behaviours and therefore can be examined using a TRA approach. This is in line with the suggestion that most actions of relevance are under volitional control (Fishbein & Ajzen, 1975; Liska, 1984).

Secondly, Bagozzi (1992), a major critic, argues that attitudes and subjective norms are not sufficient predictors of intentions, and that intentions are not sufficient determinants for behaviours. He focuses on the link between attitudes and intentions, arguing that a favourable attitude towards a behaviour is not sufficient for stimulating an intention to performing that

behaviour. One missing element is a mechanism that translates attitudes into intentions. A premise of TRA is that if the researcher's evaluative appraisal of the consequences of acting or non-acting is strong enough, intentions will emerge. In order to strengthen these evaluative qualities, Bagozzi (1992) enhanced the TRA approach by also considering the intervening mechanism of emotional self-regulation, between attitude and intention. This intervening mechanism is based on Lazarus's (1991) theory of emotion and adaptation, which proposes that evaluative appraisal processes of internal and situational conditions lead to emotional responses. These emotional responses in turn lead to coping activities. Oliver (1997, 1999) introduced a similar attitude based framework to the marketing field, when proposing the cognition - affect - conation - action control - action interia pattern. In his framework, a cognitive evaluation is based on prior or vicarious knowledge or on recent experience-based information, and is followed by an affective evaluation; an emotional appraisal of the prior cognitive state. The next stage is the conative phase, in which behavioural intentions are formed. This is influenced by repeated episodes of positive affect. In the action control stage, the motivated intention from the conative phase is transformed into a readiness to act. Finally, in the action interia phase, the behaviour is repeated (Oliver, 1999). Both the "appraisal -> emotional response -> coping sequence" (Lazarus, 1991) and the "cognition-affect-causal order" (Oliver, 1997) have been acknowledged by several leading authors investigating service evaluation models (Andreassen, 1998; Bolton & Drew, 1991; Brady et al., 2005; Cronin et al., 2000; Ostrom & Iacobucci, 1995). In order to respond to this well-acknowledged limitation of TRA, an adapted TRA will form the basis of this dissertation, which considers the intervening mechanisms of emotional self-regulation, between cognition and behavioural intentions, as proposed by Bagozzi (1992).

Thirdly, this dissertation underlines that the sequence between multiple emotional responses is not reflected within this adapted TRA. The Broaden and Build Theory of Positive Emotions by Frederickson (1998) captures the unique effects of positive emotions. The theory holds that different positive emotions broaden in unique ways a people's momentary thought-action repertoires and lead to actions. This critique is addressed within this dissertation by suggesting the integration of the broaden and build theory of positive emotions to explain the sequence between multiple positive emotions.

#### 5.1.2 Broaden and Build Theory of Positive Emotions

This study aims to investigate multiple positive emotions within one conceptual model. Therefore, the question arises as to how different emotions mediate the relationship between cognition and behavioural intentions. To theoretically underpin the sequential order of emotions (the relationship between multiple emotions leading to behaviours), TRA is enhanced with Frederickson's (1998; 2004) Broaden and Build Theory of Positive Emotions.

This captures the unique effects of positive emotions. The theory holds that different positive emotions (such as gratitude, love, pride, contentment, and joy) *broaden* people's momentary thought-action repertoires and lead to actions that build enduring personal resources (for example, joy creates social bonds, the urge to play, be creative, and push the limits) (Frederickson, 1998; 2001; 2004; 2013) (see Figure 9). In contrast, negative emotions (such as anger, hate or sadness) *narrow* people's momentary thought-action repertoire and leads them to act in a certain way (for example, escape, attack, and expel).

Frederickson specifically addresses the broadening functions of Gratitude (Frederickson, 2004) and Love (Frederickson, 1998). Although Gratitude and Love are both positive emotions that generally broaden, they are distinct in terms of how they are theorised to broaden an individual's thought-action repertoire, and consequently to which actions the emotions can lead. These different broadening mechanisms will be discussed in the section setting out the research hypotheses.



Figure 9. Frederickson (2013, p.16)

Hence, the adapted TRA (claiming a cognition-affect-behavioural intention causal order) and the Broaden and Build Theory of Positive emotions (proposing different broadening functions of positive emotions) guide the conceptual development which is outlined in this section.

# 5.2 Conceptual Framework

After an explanation for the inclusion of selected construct in the conceptual framework, the development of the conceptual framework is structured as follows. Firstly, the essence of each construct is defined. Secondly, the theoretical underpinning for the proposed

relationship between selected latent constructs is described. Thirdly, empirical evidence from former studies is provided that provide evidence of a relationship between two latent constructs (reference is made to the literature review sections on the constructs in a nomological framework). Fourthly, findings from the qualitative study are reflected upon. Finally, the hypotheses for the proposed relationships between constructs are presented.

#### 5.2.1 Outcome Variables: CEBs of Direct and Indirect Benefit to the Firm

CEBs are defined as customer's behavioural manifestations that go beyond transactions and occur when customers voluntarily contribute to a broad range of monetary and non-monetary resources that directly or indirectly affect the firm and customers, in varying degrees of magnitude and impact (Jaakkola & Alexander, 2014; Kumar et al., 2010; Van Doorn et al., 2010). This study distinguishes between four types of CEBs, including firm-level CEBs of direct benefit to the firm (i.e. Participation, WOM, and Monetary Giving) personal-level CEBs of indirect benefit to the firm (i.e. HCP).

Current research leaves questions about how CEBs are developed largely unanswered. Existing empirical studies investigating the antecedents of CEBs typically focus on the direct effect of CS on one specific CEB (e.g. Luo & Homburg, 2008). Very few studies research the antecedents of multiple types of CEBs in an integral model. Van Doorn et al. (2010) and Pansari and Kumar (2017) offer two conceptual frameworks, which put CEBs in a nomological framework and address the drivers of CEBs. Both studies highlight the role of CS as antecedent to CEBs. Existing studies typically focus on the direct effect of CS on CEBs (e.g. Bettencourt 1997; Dai, 2003; Eisingerich et al., 2014). However, the findings of these studies are generally equivocal. While Eisingerich et al. (2014) found a direct relationship between CS and CEBs; other studies find no direct relationship between the two constructs, other studies found no direct relationship between CS and selected CEBs (Bettencourt, 1997; Dai, 2003). Authors suggest that that CS is a key predictor of behavioural outcomes, but that the variance explained by CS itself is small and that comprehensive modles including further mediating mechanism between CS an CEBs generally better predict CEBs (Brown et al., 2005; Kumar et al., 2013). Consequently, this conceptual framework foresees CS as predictor variable and further considers cognitive (Perceived Employability) and affective (Gratitude and Love) mediating mechanisms between CS and CEBs.

#### 5.2.2 Predictor Variable: Customer Satisfaction

Customer Satisfaction is chosed as the predictor variable, because conceptual frameworks suggest that CS is the main predictor variable for CEBs (Kumar, 2013; Pansari & Kumar, 2017). This study defines CS as a cognitive construct with affective facets. It is a customer's

overall evaluation of the performance of an offering to date and a psychological state that a customer experiences after consumption; a customer fulfilment response (Gustafsson, et al., 2005; Oliver, 1997).

According to the adapted **TRA**, CS can be categorised as a cognitive (- affective) attitude leading to affective variables and then to behavioural intentions and behaviours.

Recent findings from **empirical research** demonstrate that the links between CS and the various CEBs, as discussed above, are not as simple and direct as they first appear; mediating mechanisms play a key role in defining these links more clearly (Brown et al., 2005). Customer Satisfaction is understood as key predictor of CEBs (Van Doorn et al., 2010). However, studies linking Customer Satisfaction and different CEBs show that the variance explained by only CS is small, and that models which include further relevant mediators are generally better predictors (Kumar et al., 2013).

These observations are confirmed by the findings of this present **qualitative study**, which indicate that CS might be a necessary, but insufficient condition on its own. The qualitative study also revealed that CS is a predominantly cognitive construct, yet with affective facets.

In conclusion, CS is a cognitive (-affective) construct that according to TRA indirectly affects CEBs via underlying mediating mechanisms as outlined in the following hypotheses developments.

# 5.2.3 The Mediating Role of Perceived Employability

When considering cognitive antecedents of CEBs, an important question arises: Which customers are not only willing to engage, but also feel capable to do so? With the adapted TRA lense, Perceived Employability is conceptualised as a cognitive construct. It is defined as the perceived ability to attain sustainable employment appropriate to one's qualification-level, based on an individual's perception of their own attributes, skills and abilities.

Firstly, it is hypothesised that customers who experience high levels of satisfaction with the service received at their university will also perceive themselves to be more competent in terms of Perceived Employability. The mediating role of Perceived Employability between Customer Satisfaction and CEBs is based on **Human Capital Theory** (Becker, 1993). In essence, Human Capital Theory by Becker (1964) suggests that investments into a person's knowledge and skills leads to human capital in terms of their knowledge, skills, health or values. Becker (1993, p. 17) specifically outlines that "education and training are the most important investments in human capital." The main proposition of this theory is that people

are considered a form of capital for development (Becker, 1993; Nafukho et al., 2004). Therefore, higher investments in education lead to increased human capital.

Applying Human Capital Theory and previous empirical findings to this study, Perceived Employability can be used to measure human capital, as defined by Becker (1993). In fact, the latent construct, Employability, has been explained predominantly in terms of human capital theory (e.g. Benson, 2003; Berntson & Marklund, 2007; Berntson et al. 2006). Education is an investment into Perceived Employability. Therefore, in this study, an evaluation of overall educational experience is measured using the construct overall CS.

Empirical studies show only a limited number of studies place employability into a nomological framework (Berntson & Marklund, 2007; McArdle, 2007; McQuaid, 2006; van Dam, 2004; Nauta et al., 2009; Tomé, 2007). In these selected studies, the antecedents are primarily derived from Human Capital Theory, being education (Tomé, 2007), skills (Tomé, 2007), and qualifications (Gasteen & Housten, 2007); individual-difference factors such as self-efficacy (e.g. Nauta et al., 2009; Ngo et al., 2017); or from an organisational perspective, such as organisational support, career development support, tenure, employability culture (van Dam, 2004; Nauta et al., 2009). Satisfaction was assessed in an organizational setting either as antecedent in terms of career satisfaction (e.g. Nauta et al., 2009) or as a consequence, in terms of job satisfaction and life satisfaction (e.g. de Cuyper et al., 2011; Ngo et al., 2017). In the competitive HE context, CS and Employability have become two central benchmarking measures (see Introduction). Yet, the role of CS (with the organisational service) as antecedent to Perceived Employability has not been tested in prior research in the HE context. Still, empirical evidence suggests that human-capital related outcomes are built on satisfactory interactions between exchange partners (Luo & Homburg 2007). Furthermore, there is evidence that human capital increases through formal education, competence development and work experience (Judge et al., 1995). Although the qualitative study found circular relationships between Customer Satisfaction and Perceived Employability, the majority of the participants mentioned that a higher level of satisfaction with the service would lead to a more positive perception of their own employability.

In conclusion, according to the adapted TRA, Customer Satisfaction and Perceived Employability are cognitive constructs which leads to affective constructs and then to behavioural intentions and behaviours. As regards the relationship between the cognitive constructs Customer Satisfaction and Perceived Employability, Human Capital Theory (Becker 1993) proposes that customers who experience high satisfaction with the service received at their university will also perceive themselves to have more human capital (or competency), in terms of Perceived Employability:

# H1: Customer Satisfaction positively affects Perceived Employability.

Secondly, besides its indirect affect on CEBs via underlying affecting mediators this study further hypothesises that Perceived Employability positively and directly affects Human Capital Performance, in terms of Job Performance and Actual Employability. A student's perceived employability/competency appears to be a main predictor for CEBs of indirect benefit to the focal firm, because the CEBs of indirect benefit to the focal firm are not intentionally reciprocal to the firm, but are rather personal-level outcomes. **Human Capital Theory** (Becker, 1993) elaborates on the economic effects (i.e. returns) of investment in education. He finds evidence, theoretically and empirically, that:

- a) Human capital increases a worker's productivity in all tasks (i.e. Job Performance), and
- b) Investments in education have positive effects on employment and earnings (i.e. Actual Employability).

He stresses that "education and training [are] advancing productivity in the manufacturing and service sector" (Becker, 1993, p. 25). Finally, although he uses monetary terms to measure the return of education (i.e. salary), he acknowledges that there are also non-monetary benefits (Becker, 1993).

Empirical studies confirm that human capital attributes, including competences, qualifications and experiences, positively affect firm outcomes (Hitt, Bierman & Shimizu 2001; Luo & Homburg, 2007; Pennings et al, 1998). Human resource studies have found that different types of human capital (e.g. employees' human capital, management human capital) have a positive effect on firm profitability (Benson et al., 2004; Hauser & Simester, 1996). Research also indicates that Perceived Employability has positive effects on both firm-level (i.e. career outcomes, firm outcomes) and personal-level (i.e. job performance and long-term performance) outcomes (Van der Heijden & Van der Heijden, 2006). This qualitative study provides further evidence that when levels of Customer Satisfaction and Perceived Employability are high, a student would generally 'give back' to the university (indirectly) through Actual Employability or Job Performance (see CEB.H1; Nathan on the relationship between CS and CEB – the mediating role of Perceived Employability).

In line with Human Capital Theory (Becker 1993), it is proposed that Perceived Employability has a direct positive effect on Human Capital Performance, in terms of both Actual Employability and Job Performance:

H2: Perceived Employability positively affects Job Performance.

H3: Perceived Employability positively affects Actual Employability.

# **5.2.4** The Mediating Role of Gratitude

In Pansari and Kumar's (2017) conceptual framework it is suggested that CS and Emotions predict CEBs, such as WOM and Participation. Consequently, an understanding of emotions as potential mediating mechanisms is central to gaining an empirical understanding of what drives customers to perform CEBs. When reviewing the ten representative positive emotions (Frederickson, 1998; 2004; 2013), Frederickson highlights that Gratitude, Love and Amusement would be emotions that create social bonds. The feelings of Gratitude or Love are theorised to last for a longer period of time than Amusement, and can especially evoke reciprocity behaviours and mutual care (Frederickson, 2004). Hence, according to the Broaden and Build Theory, Love and Gratitude appear to be potential emotional mediators between CS and CEBs.

Gratitude is defined as a customer's emotional appreciation of the benefits received (evaluated through Customer Satisfaction and Perceived Customer Competency), and is accompanied by a desire to reciprocate (Palmatier et al., 2009). The affective component of Gratitude refers to a person's feeling of gratefulness, thankfulness or appreciation generated when another person or organisation has intentionally given, or attempted to give, something of value (benevolence) (Bartlett & DeSteno, 2006).

According to the **adapted TRA**, Gratitude is conceptualised as an affective construct. It is presumed that primarily cognitive constructs (i.e. CS and Perceived Employability) lead to affective constructs (i.e. Feelings of Gratitude).

**Empirical studies** have specifically highlighted how Gratitude should be included in future studies as a relational mediator in investigations on social relationships. This is because it can promote positive behaviours and also explain behaviours in a different way to commonly studied relational constructs such as commitment and trust (Raggio et al., 2014). Past research suggests that in general customers would experience Gratitude for good outcomes (Oliver, 1997). In particular, Oliver (1997) and Westbrook and Oliver (1997) show that

Gratitude is an emotional response to Customer Satisfaction. The **qualitative study** provides evidence that both CS (see R.G1; R.G4) and Perceived Employability (see Hannah and David: On the Relationship between CS and CEBs – the Mediating role if Employability) lead to Feelings of Gratitude.

Therefore, in line with the adapted TRA, it is hypothesised that when a customer is satisfied with the service received, perceives his or her internal employability as high, and recognises that this benevolence was received intentionally (McCullough et al., 2001), they will engage the emotional systems which evoke feelings of gratitude (Palmatier et al., 2009). In line with the discussion above, it is hypothesised:

H4: Customer Satisfaction positively affects Feelings of Gratitude.

H5: Perceived Employability positively affects Feelings of Gratitude.

#### 5.2.5 The Mediating Role of Love

The conceptualisation of Love is based on Sternberg's (1986) triangular theory of interpersonal love, which defines three constituent dimensions: Passion, Intimacy, and Commitment. Firstly, it is hypothesized that CS and Perceived Employability lead to Love. Secondly, it is hypothesized that Gratitude leads to Love. Finally, it is proposed that Love leads to CEBs of direct benefit to the focal firm.

Firstly, it is hypothesised that Feelings of Customer Satisfaction and Perceived Employability lead to Love. According to the adapted TRA, Love is an affective construct. Based on the cognitive-affective-causal order suggested by the **adapted TRA**, cognitive(-affective) constructs (i.e. CS and Perceived Employability) lead to affective constructs (i.e. Love). According to the **Broaden and Build Theory of Positive Emotions** by Frederickson (2013), Love arises when pleasurable appraisals are received (such as a satisfactory service experience or competences received), but also when another positive emotion (such as Gratitude) is felt in the context of a safe, interpersonal connection and relationship.

Indeed, **empirical studies** in the marketing field have found that cognitive appraisals lead to Love (e.g. Long-Tolbert & Gammoh, 2012; Yim, et al., 2008), providing evidence that Customer Satisfaction and Perceived Customer Competency will lead to Love. In addition, the **qualitative findings** of this study suggest that Customer Satisfaction (see R.L14, R.L17) and Perceived Employability (see R.L14) positively relate to Love.

Hence, in line with the adapted TRA and the Broaden and Build Theory of Positive Emotions, it is proposed that:

**H6: Customer Satisfaction positively affects Love.** 

H7: Perceived Employability positively affects Love.

Secondly, this thesis enhances the adapted TRA by integrating **Frederickson's Broaden** and **Build Theory of Positive Emotions** (1998) to explain the sequence of multiple emotions. In specific it is hypothesised that Gratitude leads to Love, based on Frederickson's Broaden and Build Theory of Positive Emotions (1998; 2004). Frederickson discusses the specific broadening function of Gratitude as follows:

"Drawing more directly from the broaden-and-build theory, I add to this list that gratitude also builds people's skills for loving and showing appreciation. That is, to the extent that gratitude broadens people's momentary thought-action repertoires, it prompts them to stretch themselves to think creatively on how to repay kindness." (2004, p. 159)

She specifically calls for research to investigate this relationship (2004, p. 160).

The prevailing view in **empirical research** is that Gratitude directly leads to CEBs (Bartlett & deSteno, 2006; Palmatier et al., 2009). Yet, this study supports the line of reasoning of Algoe et al. (2010), who suggest that Gratitude promotes high-quality relationships, which includes an increase in the relational well-being of a benefactor, thereby promoting Love. When investigating the role of Gratitude in commercial relationships, Raggio et al. (2014) and Palmatier et al. (2009) highlight that Gratitude should be considered along with other relational mediators to better predict reciprocal behaviours. In the service marketing context, one study found support for the premise that Feelings of Gratitude lead to Love (Long-Tolbert & Gammoh, 2012). This **qualitative study** provides no clear indication of the relationship between Gratitude, Love and CEBs. Yet, indicative statements reveal (see R.L5, R.L6, R.L7, R.L9) that Gratitude and Love are central emotions in the development of enduring emotional bonds, leading to CEBs, and that Gratitude has to be felt by customers for received benefits, in order for them to feel emotionally close and to reciprocate.

Hence, in line with the Broaden and Build Theory on Positive Emotions, this study proposes that:

H8: Feelings of Gratitude positively affect Love.

Finally, it is hypothesised that Love leads to CEBs that are of direct benefit to the firm and

which are intentionally reciprocal behaviours by the customers. In line with the adapted TRA

suggests that affective constructs lead to behavioural intentions and behaviours. Further, the

Broaden and Build Theory (Frederickson, 2013) proposes that, like other positive emotions,

Love triggers motivational changes. Yet, beyond the thought-action tendencies associated

with whichever particular positive emotion it is, Love broadens in a specific way, as it

motivates mutual care for the other's well-being (Frederickson, 2013).

In fact, empirical studies tested the effects of Love, Hope, Pride and Compassion on

prosocial behaviours, and found that Love is unique among positive emotions in fostering

connectedness and in inducing prosocial behaviour toward distant others (Cavanaugh et al.,

2015). This qualitative study found indicative statements that Love positively related to

Participation (see R.L5, R.L6), WOM (see R.L9), and Monetary Giving (see CEB.M5).

In conclusion, Frederickson (1998) specifically addresses how Love broadens the momentary

through-action repertoires of individuals and lead to actions. On this basis, it is proposed that

Love will positively evoke reciprocal CEBs that are of direct benefit to the firm:

H9: Love positively affects Participation.

H10: Love positively affects Word-of-Mouth.

H11: Love positively affects Monetary Giving.

5.2.6 Conceptual Framework

To conclude, TRA is selected as an underpinning theory for the conceptual framework with

two adaptions. Firstly, based on Bagozzi (1992), attitudes are not sufficient predictors of

intention and that emotions are the missing element that translate attitudes into intentions.

This intervening mechanism is based on Lazarus's (1991) theory of emotion and adaptation,

which proposes that evaluative appraisal processes of internal and situational conditions lead

to emotional responses. These emotional responses in turn lead to coping activities.

Secondly, this thesis theoretically underpins the sequential order of different categories of

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emotions, i.e. the relationship between multiple emotions leading to behaviours. TRA is enhanced with Frederickson's (1998; 2004) Broaden and Build Theory of Positive Emotions. This captures the unique effects of positive emotions. The theory holds that different positive emotions (such as gratitude, love) *broaden* people's momentary thought-action repertoires and lead to actions.

Consequently, the conceptual framework translates the cognitive – affect - causal order (Oliver, 1997) as follows: The cognitive-affective constructs Customer Satisfaction and Perceived Employability – lead to the affective constructs Gratitude and Love – which lead to the different Customer Engagement Behaviours. Based on Frederickson (1998), Gratitude leads to Love, because according to the Broaden and Build Theory of Positive Emotions by Frederickson (2013), Love arises when pleasurable appraisals are received (such as a satisfactory service experience or competences received), but also when another positive emotion (such as Gratitude) is felt in the context of a safe, interpersonal connection and relationship.

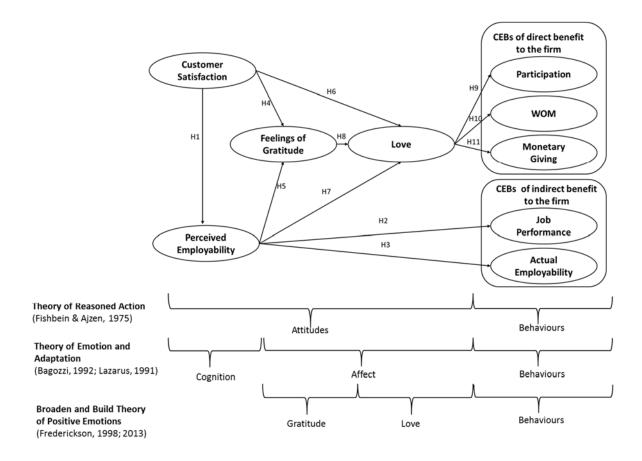


Figure 10. Conceptual framework

# **Chapter 6. Quantitative Study**

# 6.1 Quantitive Study

The overall methodology and research strategy of this study have been discussed in the section on the mixed methods methodology (see Chapter 3). As Figure 11 outlines, the quantitative study forms the final phase of the mixed method sequential research methodology. In this section, the quantitative study is presented in detail. This includes: quantitative research objectives; the research design; sampling procedure; survey design; data collection; as well as all analysis steps and findings.

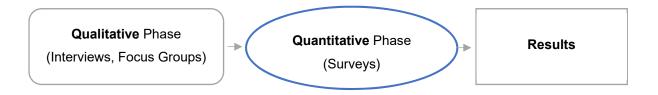


Figure 11. Quantitative study within the mixed-methods methodology

#### 6.1.1 Quantitative Research Objectives

The overall objective of the quantitative research phase was empirically to assess the nature of the relationships between CS, Perceived Employability, Gratitude, Love, and CEBs in a HE context.

The specific objectives were:

- 1. To validate the reflective measures for the latent constructs; Satisfaction, Perceived Employability, Gratitude, Love, Participation, WOM, Monetary Giving, Job Performance, and Actual Employability:
- 2. To test the hypotheses elaborated in the conceptual model with sample data;
- 3. To test the simple mediation effects of Perceived Employability between CS and HCP:
- 4. To test the serial mediation effects of Perceived Employability, Gratitude, and Love between CS and Participation/WOM/Monetary Giving.

In order to reach these objectives, the research design, as well as the sampling, data collection and data analysis procedures needed to be aligned, as discussed in the following sections.

# 6.1.2 Research Design

According to Byrman and Bell (2010) the research design is a framework for the collection and analysis of data. The critical consideration to be taken was how to best obtain data from the real world to answer theoretically grounded research questions (Lee & Lings, 2008). In essence, research designs can be classified as exploratory or conclusive research designs (Malhotra, 2012). While the qualitative study followed an exploratory research design (as the intention was to gain new or a deeper understanding of the research problem), the quantitative study follows a conclusive research design, because formal and structured hypotheses, as outlined in conceptual framework (see Chapter 3), were intended to be tested. Within conclusive research designs, a distinction can be made between descriptive and causal research (Malhotra, 2012). The main purpose of causal research is to assess the nature and causality of relationships between variables. The main purpose of descriptive research can be divided into cross-sectional (i.e. data is collected once) and longitudinal research (i.e. data is collected during a certain time interval from the same sample).

Cross-sectional data was collected to test the hypotheses considering the time factor and accessibility of the sample. Cross-sectional research is more evident within service marketing research (Rindfleich et al., 2008) in contrast to longitudinal research. However, it needs to be noted that cross-sectional data is limited to identifying patterns of associations from correlations among variables (Malhotra, 2012). Causal linkages can only be drawn from theory or the proposed conceptual model, respectively. However, the proposed conceptual model presents several new linkages (in terms of novel mediators and outcome variables). Thus, at this early stage of theory development, a cross-sectional research design was deemed appropriate (Lee & Lings, 2008). Once tentative conceptual and empirical support was found for the proposed conceptual model, more causally-grounded research designs such as longitudinal - or experimental research designs - could then investigate causality (Lee & Lings, 2008).

The study was also novel in terms of the context of study, which is outlined in the following subsection.

#### 6.1.3 Context of Study

The hypotheses were tested in a HE context, being an extended service encounter setting. Testing direct and indirect effects on CEBs is of high relevancy in a HE context, as outlined in Chapter 1. As the HE context is a rather large one, the sample needed to be well selected. The sampling procedure will be outlined in the following section.

#### 6.1.4 Sampling Procedure

Sampling is the process of selecting a representative group of the target population in study (Cohen et al., 2013). The target population for this study was defined in keeping with the objectives of the study, and can first be broadly defined as students and alumni of HE institutions. To test the proposed model, it was vital to sample students or alumni with longterm experiences with a HE institution, because they needed to have developed a satisfaction/dissatisfaction level and some deeper emotions, such as Intimacy and Commitment, which according to Sternberg's theory of love (1986) only evolve over time. Furthermore, the sample needed to have employment experience, in order to make an informed judgement about their perceived employability. To ensure that employability of individuals was linked predominantly with competences received through their university education (and not through job experiences unrelated to their university education), the most suitable target population would be students who had finished a placement in an organisation or employed alumni who had graduated not longer than six months ago (as suggested by Harvey, 1998). In addition, in order to appropriately assess HCPs in terms of Job Performance and Actual Employability, the most suitable target population would be the direct supervisors of work placement students or alumni. This is because past research has revealed that employees (or placement students) tend to overrate their own performance (Netemeyer et al., 2005). Furthermore, using multi-source data mitigates common-method bias (Chan et al., 2010).

How the sampling units were derived from the target population is explained below.

#### 6.1.4.1 Selection of Sampling Units

Undergraduate full-time students of HE institutions in their second or final year of studies, who had conducted a placement and their direct supervisors from their placement companies, were both selected as the sampling unit. This was due to better accessibility to this target population in contrast to alumni and their respective employers. Undergraduate full-time students were preferred over post-graduate and part-time students to further ensure that employability perceptions were predominantly based on competences acquired through the university (Harvey, 1998). CS, Perceived Customer Competence, Feelings of Gratitude, Love, Influencing, Participating and Monetary Giving were evaluated by students, while Job Performance and Actual Employability were assessed by work placement supervisors. This distinction was made to account for the inflation of correlations by common-method variance in cross-sectional studies of attitude-behaviour relationships (Lindell & Whitney, 2001). Work placement supervisors were the managers of organisations who directly supervised a student

during a placement year. They were selected for their ability to make an informed judgement about the student's job performance and actual employability.

As the qualitative study indicated no significant differences between the AT and the UK sample, students were selected from one representative university in the UK (i.e. Aston University located in Birmingham), based on judgmental sampling (see Cohen et al., 2013). The rationale for choosing Aston University was that employability is part of the University's mission and it is renowned for its employability efforts. Furthermore, the university offers a placement year for undergraduate students and, thereby, enables students to have a real-life employment experience as part of their degree program (www.aston.ac.uk, 09th of June 2017). In addition, Aston University formed part of the qualitative research sample. Testing this novel conceptual model with a sample similar to the student sample of the qualitative research phase appears to be a reasonable approach in this first model confirmation stage.

The work placement supervisors were the direct employers/managers or direct supervisors of the respective placement students during their internship term in a company. For instance, if a student conducted a placement in the marketing department at the automotive company Jaguar, then the work placement supervisor would be the marketing manager of Jaguar or a marketing employee who directly supervised the placement student during the internship period. The work placement supervisors were employed in an organisation that offered internship places to students from Aston University. They were directly responsible for a placement student from Aston in order to be able to judge the Human Capital Performance (, i.e. Job Performance and Actual Employability) of the respective placement student.

The selection of the sampling units adds value to the service marketing and educational research domains. In former research, data was mainly collected from customers in the service marketing field (e.g. Verleye et al., 2014); and from students, and sometimes professors/lecturers or employers, in educational research (examining satisfaction and employability) (e.g. Alves & Raposo, 2010). Only a few studies have collected multi-source or dyadic data from placement students working in 'real-life' organisations and their immediate supervisors (e.g. Chan & Lam, 2011). Furthermore, there is a lack of research on emotions and CEBs in an extended service encounter (Long-Tholbert & Gammoh, 2012).

#### 6.1.4.2 Units of Analysis

Consequently, the precise units of analysis in the present study were:

- Work placement students of undergraduate studies at Aston University, UK, in their third or final year of studies (in the academic year 2013/14), and who had undertaken a work placement year, and;
- Their direct work placement supervisors (or immediate managers) at the organisations in which they worked during their placement year.

#### 6.1.4.3 Sample Limitations

Although the sample has been selected with judgment, there are limitations that are noteworthy. Firstly, the sample was selective in the sense that students were selected from one university and from one country only. To some extent this limitation was accounted for in the conceptual model development phase, with focus groups and interviews not only in the UK, but also in a second country (AT) with a very different HE system. Secondly, while real data could be assessed for CEBs of indirect benefit to the firm (with HCP evaluations by the company), CEBs of direct benefit to the firm were assessed via self-reported intentional data by undergraduate students. Thirdly, cross-sectional data was collected, which does not allow for temporal causal inference about CEBs to be made. This limitation could be accounted for in future research, as student participants were asked if they could be contacted again after their graduation. Consequently, a follow-up study with graduated students would allow for a longitudinal design, making inference about their real behaviour and their job positions. Yet, as the conceptual model is in its early stage of development the sample appears appropriate, in order to gain tentative conceptual and empirical support.

#### 6.1.5 Data Collection

The section on data collection covers the questionnaire design process, the selected measures, control variables and provides insights into the pre-testing phase that informed the final questionnaire. Finally, the data collection process is described in detail.

#### 6.1.5.1 Questionnaire Design

The questionnaire was designed as a self-completion questionnaire (Bryman & Bell, 2007). This design seems appropriate for several reasons: Firstly, it decreases the interviewer effect on answering sensitive questions, such as those on Love, Gratitude and Perceived Employability. Secondly, it avoids interviewer variability as all respondents received the same form of questionnaire. Thirdly, a wider set of questions could be asked. Fourthly, a self-completion questionnaire provided higher convenience for respondents, as they could respond to the survey at a time and with a speed that was opportune to them.

The disadvantages of self-completion questionnaires were to some extent addressed with the preceding qualitative study, in which the interviewer or focus group moderator could probe or prompt questions. Other disadvantages, such as asking questions that were not salient to the respondent, were identified in the pre-test of the questionnaire. In order to minimise missing data, an online tool (SurveyMonkey) was used to programme the questionnaire, so participants were prompted to answer specific questions. Finally, to improve the response rate, different strategies were applied (see data collection section 6.1.5).

There are different forms of self-completion questionnaires (see Bryman & Bell, 2007). In the current study, mail questionnaires were used in order to reach the geographically rather widely dispersed sample. The sample had already been informed well in advance about receiving an online questionnaire for the general placement evaluation (in which the PhD questionnaire was integrated). Both the work placement supervisors and work placement students received an information package before starting the placement, in which the placement questionnaire was introduced.

The questionnaire was structured in a way to ensure a high response rate, a low rate of missing data and a clear presentation, as suggested by Malhotra (2012). The suggestions by Podsakoff et al. (2003) about questionnaire design to control for common method bias have been integrated. Firstly, each question was introduced with a clear statement about how to respond to it, and if appropriate, the respective scale poles. The questionnaire started with a short introduction about the study in general and more specifically the questionnaire, to ensure that the respondents were informed about the objectives of the study, were instructed on what they were expected to do when answering to questions, and understood their privacy rights. Secondly, attitude questions that required lower cognitive processing (e.g. Overall Satisfaction) were at the beginning of the questionnaire, followed by attitude questions that required a higher level of cognitive processing and time (e.g. Love, Gratitude). Thirdly, as it was a self-completion questionnaire, closed questions were used, with a vertical format. Finally, respondents were asked for their contact data, and their willingness to receive an Amazon voucher and participate in a follow-up study after graduation, in which, for instance, changes in attitudes and employment situations could be investigated. The questionnaire was closed with a thank you note.

The measurements are discussed in the next section.

# 6.1.5.2 Measurements

The measures were designed to assess the occurrence of the employed latent constructs. These measures were adapted from previous research, with minor wording modifications to

fit the context. The constructs were measured by multiple items, accounting for the limitations of single-item measures (Gerbing & Anderson 1988).

CS was based on two evaluative items ("I am satisfied with the service I have received at my university"; "I am satisfied with the student experience at my university"); and two emotive items ("I am happy with the service I have received at my university"; "I am delighted with the service I have received at my university"). These were based on Westbrook & Oliver (1991), and Oliver (1997), and validated by Brady et al. (2005) and Cronin et al. (2000; 2002).

Perceived Employability was measured with three items by Rothwell et al. (2008) in "My confidence in my skills and abilities" section, referring to internally-perceived employability from a multidimensional employability scale (e.g. "The skills and abilities that I possess due to my studies are what employers are looking for").

Feelings of Gratitude were based on the three-item scale by Palmatier et al. (2009). Love was conceptualised as a higher-order factor. The dimensions of Passion, Intimacy and Commitment were based on Sternberg (1986, 1997), Yim, et al. (2008), and Bügel et al., 2011). These included: four items for Passion (e.g. "I adore my university"); four items for Intimacy ("I feel emotionally close to my university"); and six items on Commitment (e.g. "I care about maintaining my relationship with my University").

WOM was measured with a four-item scale based on Bettencourt (1997) and Bove et al. (2009) (, e.g. "...encourage friends and relatives to go to my university"; "...say positive things about my university to other people").

Participating was measured with a four-item scale based on Bettencourt (1997) and Bove et al. (2009) (e.g. "...make suggestions to my University as to how their service could be improved"; "...contribute ideas to my University that could improve their service").

Monetary Giving was measured by three items based on Sargeant (2006) and adapted to the HE context according to the qualitative findings (, e.g. "give monetary contributions to my university"; "give donations to my university"; "sponsor events of my university").

Human Capital Performance was assessed through the Job Performance of the student during their placement, and was based on three items from Becker et al. (1996): e.g. "the overall performance of the placement student was satisfactory"; "The quality of the work of the placement student was satisfactory". Actual Employability was rated by the employer based on Rothwell (2008) (, e.g. "I know of organisations/companies where the placement student could get a job based on his/her studies"; "The placement student has acquired

competences through his/her studies that are sought after in the labour market"). A detailed description and justification of these measures is outlined in Appendix D.1.

All metric scales were formatted as five-point Likert scales, and questions were phrased in a manner to allow for answers according to the respective level of agreement; in which '1' indicated disagreement and '5' indicated agreement. Likert scales were appropriate, because they are the most widely used approach when scaling responses in survey research (Burns & Burns, 2008) and most measurements used in this study were drawn from research originally assessed using Likert scales. Likert scales assume that distances between each scale value are equal, and it contains equal numbers of positive and negative positions that are symmetrically apart from the neutral (middle) value (Burns & Burns, 2008).

#### 6.1.5.3 Controls

Statistical control variables have been included in the latent path analysis to rule out alternative explanations for the findings, thereby enhancing internal validity (Becker, 2005). Researchers emphasise that the inclusion of control variables will impact the significance levels and the estimated effect sizes of other variables, unless the control variable is completely unrelated (Becker, 2005). Statistical controls that were pertinent to the current study were mood, gender, and school of study. These three variables were selected as they are understood to be biasing rather than substantive variables (Spector et al., 2000). As recommended by Becker (2005), only control variables that were intended to correlate with the dependent variable were chosen (as a lack of correlation can be found to reduce power). Moreover, the research adopted a very selective approach to the inclusion of control variables based on theory and prior empirical findings. Mood was included in the primary analysis to mathematically partial the effect of mood (as further component of emotions besides subjective feelings) on the outcomes (Carlson et al., 2010). Mood is a common control variable in research on Consumer Behaviour in general, and on the outcomes of CS in particular (Liljander & Mattsson, 2002). One item on mood (i.e. "As I answer these questions I feel cheerful") was measured on a five-point scale (1= disagree, 5=agree). This measure was based on Peterson & Sauber (1983).

Gender was controlled with a dummy variable in order to control its effect (0 = male, 1 = female). Dummy variables are variables that do not have a linear quantitative ordering. Gender was an important control variable, as previous research has found that emotional attachment, as well as CEBs, can be stronger amongst women than men (Dubé and Morgan, 1996).

Finally, the school of study was controlled with a dummy variable (0 = business, 1 = non-business). The survey was conducted with students from different schools. Business students have been previously found to be more demanding about CS, and are more difficult to satisfy than students from other courses (Obermiller, 2005). Furthermore, employability perceptions could differ between students from different schools of study (e.g. higher among students from business in contrast to languages) (Harvey, 2001, Rothwell et al., 2008). Consequently, there also might be an influence of the school of study on the endogenous variables. School was expected to correlate with CEBs.

#### 6.1.5.4 Pre-tests and Final Questionnaire

The questionnaire was pre-tested using protocol interviews with 15 Austrian students fulfilling the sampling criteria outlined above who had conducted a placement during their studies, the placement office manager as well as the marketing manager from the Aston University. The questionnaire was handed to the students individually (one-by-one) by the researcher, and as they completed the questionnaire they commented on the questionnaire items.

Moreover, an online survey with a sample of 119 UK work placement students fulfilling the sampling criteria specified above and 105 work placement supervisors was conducted. The insights gained from the pre-tests for the development of the final questionnaire are outlined in Appendix D.2. In essence, the initial set of CS questions has been reduced to the CS items outlined in the measurement section. One item on Perceived Employability measuring academic engagement was dropped, as it tended to confuse respondents. The order of questionnaire parts on CS, Gratitude and Love has been changed within the questionnaire to avoid common response patterns. Additionally, introductory sections were written for main questionnaire parts to make the meaning of each part of the questionnaire more explicit. As regards the measures on CEBs of direct benefit to a firm, the initial wording of the scale poles (, being the intended frequency to perform a specific behaviour) was changed to a five-point Likert scale ranging from "1-1 disagree" to "5-1 agree" to ensure consistency of scale poles throughout the questionnaire. Finally, the University placement office added two Job Performance measures. The final questionnaire is in Appendix D.3. The feedback received in the two pilot studies was reflected in this final version.

#### 6.1.5.5 Data Collection Process and Procedure

Data was collected via two separate online self-administered survey instruments (a work placement student questionnaire and a work placement supervisor questionnaire) hosted by SurveyMonkey. Self-administered questionnaires were preferred to other data collection methods, such as face-to-face interviews, because they were found to perform better when

sensitive questions (such as on Love and Job Performances) were asked (DeLeeuw, 2005). Online surveys were also preferred to hard-copy/mail surveys due to its low-threshold access and return, the positive effect on data quality, the greater cost and time efficiencies and the more effective case management for non-respondent follow-ups (DeLeeuw, 2005).

Despite its numerous advantages, the disadvantages with online questionnaires can be a lower response rate, compared to personal data collection techniques, resulting in nonresponse error. Furthermore, it requires the target groups to have internet access and be capable of answering an online survey (Ritter & Sue, 2007).

To increase the response rate, the PhD research questionnaires were integrated into the standard questionnaires sent out annually by Aston University's placement office to work placement students and their work placement supervisors. This integration helped to ensure that the research questionnaires both received a high level of attention and had credibility, thereby maximising the response rate.

The sample comprises of university students in an advanced level of studies, and work placement supervisors with whom contact per email was the norm. Therefore, the sample should have had sufficient ICT skills and internet access to fill out an online questionnaire.

Finally, the placement office sent the questionnaire to all students who conducted a placement year in 2013/14, as well as all work placement supervisors, which meant the questionnaire was sent to the whole sample, thereby avoiding discrimination or bias in selection. Data was collected between the 25th of June 2014 and the 31st of October 2015.

The placement student survey was sent out with a personalised email, which included an introduction to the survey, an invitation to participate and an online link to the research questionnaire. The students were also incentivised to complete the questionnaire; by being offered a £5 Amazon voucher. This not only helped to increase response rates, but also to avoid skewed satisfaction ratings. It provided a motivation for a broader range of students to respond, rather than only those who were highly satisfied or dissatisfied. Vouchers were selected as previous research has found them to be the most effective incentive in increasing response rates for long questionnaires (Deutskens, et al., 2004).

As response rates were still rather low, five reminders were sent out by the placement office on a regular basis. The PhD student could track 'not-opened' questionnaires or non/incomplete questionnaires, via the SurveyMonkey questionnaire administrator tool and prepared contact lists for the reminders. Finally, the PhD student contacted individual students, sending them two emailreminders.

The employer survey was sent out with a personalised email, which included a standard introduction to the survey, named the relevant placement student, and the online link to the questionnaire. The PhD research questions were integrated into the general employer questionnaire. Employers were informed about the questionnaire at the start of placement, and so were aware that they were expected to complete one. Seven targeted reminders were sent out by the placement office, based on a contact list provided by the PhD student (based on missing employer/student matches). Data was collected between the 22nd of July 2014 and the 31st of October 2015.

# 6.2 Quantitative Data Analysis

The data analysis was conducted in three steps. Firstly, the data was explored and purified, using descriptive analysis. All multi-items scales were examined using exploratory factor analysis (EFA) to identify poorly performing items, followed by confirmatory factor analysis (CFA) to remove redundant or non-reflective items (Gerbing & Hamilton 1996; Lee & Hooley 2005). Secondly, structural equation modelling (SEM) was conducted to confirm the measurements and test the hypotheses of the conceptual model. Finally, simple and serial multiple mediation effects were tested using the bootstrapping method.

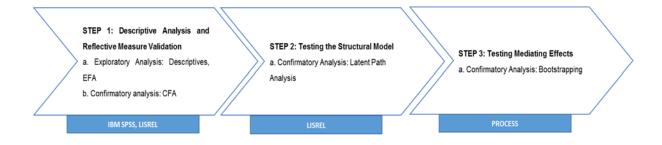


Figure 12. Data analysis steps

All steps were conducted with the aid of suitable software programmes. Firstly, the data was explored and purified, using descriptive analysis and EFA in IBM SPSS Statistics 24. Secondly, SEM was conducted in LISREL 8.80 student version (Jöreskog & Söborn 1993). LISREL is in contrast to PLS a covariance-based SEM approach that is using the empirical variance-covariance matrix (Henseler, 2017). The estimation technique of Maximum Likelihood (ML) was applied for the matrix of covariance. Although some scholars discuss the appropriateness of the LISREL with ML estimation approach for SEM due to its restrictive underlying assumptions (e.g. multi-normality, large sample size) as well its shortcomings in contrast to PLS as regards formative measurements which may result in improper solutions or factor indeterminacy (see Fornell & Bookstein, 1982), it is argued that LISREL is a suitable software package and ML an appropriate parameter estimation technique for the present

analysis. This decision is supported through the following three arguments: First, LISREL with ML parameter estimation is an acknowledged SEM approach in marketing research (Fornell & Bookstein, 1982). Second, LISREL 8.80 is a suitable software package for the assessment of multi-item reflective measures (Bagozzi 2007; Bollen 2007) and all measurements in the present analysis are reflective. Third, in contrast to other estimation techniques (e.g. GLS, ULS, SLS, ADF) the ML method delivers the most precise estimations, given that the sample size exceeds 100 and under the assumption of multi normal distributions (Backhaus et al 2006). The ML estimator of covariance based SEM is considered relatively robust to violations of normality assumptions (Bollen, 1989; Diamantopoulos, Siguaw & Siguaw, 2000) and Monte-Carlo experiments found no major differences, in terms of SEM analysis results, using ML estimator on samples with different Skewness and Kurtosis levels (Reinartz, Haenlein & Henseler, 2009). Finally, normality can have a serious impact when the sample size is small (less than 50 cases), but the effect diminishes and may become negligible when the sample size reaches 200 cases or more (Hair et al., 2006). As the research data set included 209 cases, it reduces the detrimental effects of non-normality.

In addition, it was used to assess the hypotheses, as it has the ability to estimate interrelated relationships of latent and manifest variables, whilst accounting for measurement errors in the estimation process (Hair et al., 2006). Finally, mediation effects were tested using the bootstrapping method, with the PROCESS macro developed by Hayes (2013). The steps are depicted in Figure 12.

# 6.3 Descriptive Analysis and Reflective Measure Validation

As a preliminary step to data analysis, the data was merged, the impact of missing data was evaluated, outliers were identified and the assumptions underlying the applied multivariate analysis techniques were tested. The results of this data preparation and examination steps are outlined in the following sections.

#### 6.3.1 Data Preparation and Examination

Before starting with the data analysis preliminary data preparation and examination steps were conducted. After composing a student survey data file and an employer survey data file the cases were matched by student name and placement company. Then, the data was for redundant and missing cases. Finally, outliers were treated. Details on data preparation and examination can be found in Appendix D.4.

# 6.3.2 Characteristics of the Student and Employer Sample

479 employer/work placement supervisor responses and 484 student responses were collected. Of this total of 963 questionnaires, 931 questionnaires were valid cases (for a more detailed discussion on the treatment of missing or redundant cases and outliers, please see the discussions above). From this valid data set, there was a sample of 209 direct matches between a work placement student's questionnaire and his/her work placement supervisor's. The absolute minimum recommended number of cases appropriate for SEM is 150 (Anderson & Gerbing, 1988). Therefore, the sample size of 209 sufficiently met these recommendations.

The employer sample was composed of 209 direct supervisors of Aston University undergraduate business students working in placement organisations. These employers had supervised a student during the academic year 2013/14, and evaluated retrospectively each individual student on their actual job performance during the placement period and future employability. To enable data matching, every employer was asked to name the placement student he or she had supervised. Data was collected between the 22nd of July 2014 and the 31st of October 2015.

The student sample was composed of 209 undergraduate students from Aston University who undertook a professional placement year in the academic year 2013/14. Each student was asked to name his or her supervisor to enable matching of cases. Within the student sample 62.7 percent of the respondents were female and 37.2 percent were male. The age group of students was mainly between 20 and 23 years (89.5 percent). The rest of the students were aged between 24 and 30 years (7.6 percent) or with missing values (2.9 percent). Most students within the sample were undergraduate business students (46.9 percent, of which 39.2 percent were enrolled in a purely undergraduate business programme and 7.7 percent were enrolled in a combined honours programme with business), followed by undergraduate students from engineering (20.1 percent), life and health sciences (15.3 percent), languages and social sciences (11 percent), or combined honours not including business (4.8 percent) and missing cases (1.9 percent).

The majority of students' placement were within the UK (68.9 percent), while 26.3 percent conducted their placement outside the UK, and 4.8 percent were missing values. Around one third of the placement roles were unpaid (32.5 percent), 19.14 percent had an annual salary of below 12,000 Pounds (Sterling), 21.05 percent earned 12,000 to 14,9999 Pounds, 14.35 percent received between 15,000 and 16,999 Pounds, 7.18 percent received 17,000 to 20,000 Pounds and 5.74 percent of the respondents earned annually above 20,000 Pounds.

#### 6.3.3 Assumption Testing

The final step in examining the data involved a fundamental set of assumptions representing the statistical requirements for multivariate analysis. The most important statistical assumptions that potentially affect subsequently used multivariate techniques are (i) normality, (ii) homoscedasticity, (iii) linearity, and (iv) absence of correlated errors (Hair et al. 2006). These assumptions were tested both for each individual variable and for the multivariate model variate (Hair et al, 2006). The analysis process and results are summarised in Appendix D.5.

# 6.3.4 Analysis of Multi-Item Reflective Measures

When analysing the multi-item reflective measures, the first step was to examine all multi-items scales using EFA and reliability analysis to identify poorly performing items. A confirmatory factor analysis, dimensionality and validity assessments followed, in order to further purify the measures by removing redundant or non-reflective items (Gerbing & Hamilton 1996; Lee & Hooley 2005). These two preliminary analyses for the assessment of the structural model developed in Chapter 5 will now be discussed in detail.

#### 6.3.4.1 Exploratory Factor Analysis and Reliability Assessment Procedure

In essence, factor analysis refers to a set of statistical procedures designed to determine which sets of observed variables/measured items share common variance-covariance characteristics that define theoretical constructs/factors (Schumacker & Lomax, 2010). Alternatively stated, factor analysis is used to determine whether a large set of variables can be more parsimoniously represented as measures of one or only a few underlying constructs (Fabrigar & Wegener 2010). The rationales for choosing first an exploratory (rather than confirmatory) approach were to assess whether the data satisfied the assumptions of the model, and to address the current lack of understanding of how the substantive measures behave (Fabrigar & Wegener 2012).

The objectives of the EFA were to elucidate: (a.) the number of common factors underlying the set of measures; (b.) the nature of factors/the review of which items related to which factor, through the assessment of the estimated strength and direction of influence of each of the factors on the examined measures (i.e. the factor loadings); (c.) whether the factors were correlated or uncorrelated; (d.) which items were problematic and needed in particular to be regarded in the following CFA, in order to improve the common factors.

Overall, EFA was used to purify the scale, thereby improving the assessed measures (Churchill, 1979; Gerbing & Anderson, 1988). Firstly, the variables were tested as to whether they were appropriate for EFA, and secondly, the EFAs were used for all constructs of the present conceptual model. These stepes are discussed below.

#### 6.3.4.1.1 Suitability of Data for EFA

In order to determine whether the variables were appropriate for EFA, the following measures were used: (a.) the Bartlett's test for Sphericity; and (b.) the Kaiser-Meyer-Olkin measure (KMO). The Bartlett's test for Sphericity is a statistical test to measure item homogeneity. It measures the presence of correlations amongst the variables (Hair et al. 2006). A significant result from the Bartlett's test would suggest that the correlation matrix is not orthogonal (i.e. the variables are intercorrelated), and consequently the data is appropriate for factoring (Sharma 1996). However, the Bartlett's test is rather sensitive to sample size (Hair et al. 2006; Sharma 1996), and thus it should not be used solely to assess appropriateness of the data for EFA.

Therefore, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was additionally applied. This index (ranging from 0 to 1) determines the extent to which variables are homogenous (Sharma 1996). While there are no statistical tests for the KMO measure, it is generally considered that values above 0.5 imply that the data is appropriate for factor analysis (i.e. KMO values less than 0.5 require remedial action) and values greater than 0.8 that the data is good, (i.e. an indication that component or factor analysis will be useful for these items) (Sharma 1996).

#### 6.3.4.1.2 Choice of Factor Extraction Method

Once the data was regarded as suitable for EFA, three decisions need to be made before running the analysis:

- To select a suitable factor extracting method (principal component versus principal axis),
- 2. To select a suitable rotation method in order to transform the provisional factors to new factors that would be easier to interpret, and
- 3. To set the thresholds when calculating the factor scores.

From a mathematical paradigm, there are several different factor exaction procedures, such as: principal component, principal axis, image analysis, alpha factor analysis, canonical analysis, and Minres analysis (Hair et al., 2006). However, Cattell (1988) states that there is

no noticeable difference between the results from these differing factor extraction procedures, except possibly in the distinction between component and common factor analyses. The most widely used extraction procedure is principal factor analysis, either from the correlation matrix (principal component analysis) or from a correlation matrix with communality estimates in the main diagonal (principal axis analysis) (Cattell ,1988). Both principal component analysis and principal axis analysis were conducted to explore the data. However, the results of principal axis factoring are reported in this study, as it is the preferred factor extraction procedure for the purposes of structural equation modelling in the reviewed literature (Cattell, 1988). Principal axis factoring accounts for the covariation among variables, whereas principal component analysis accounts for the total variance of variables. Indeed, Widaman (1993) systematically compared the two factor extraction procedures and noted that principal axis factoring, rather than principal component analysis, should be used when parameters reflecting latent constructs need to be obtained.

#### 6.3.4.1.3 Choice of Factor Rotation Method

Factor rotations can be orthogonal or oblique. With orthogonal rotation, the new factors are uncorrelated, while with oblique rotations, the new factors are correlated. Although orthogonal rotation (and especially VARIMAX) is the predominantly applied rotation method in marketing research, oblique rotation is theoretically superior (Lee & Hooley, 2005). The theoretical superiority is based in the main on the argument that social sciences constructs are correlated in the real world (Cattell, 1988); the EFA was conducted via principal axis factoring with oblique rotation (direct oblimin) (i.e. factors may be correlated with each other) for each construct. This was in order to seek for the fewest number of factors which can account for the common variance of the set of variables per construct (Backhaus et al., 2013).

#### 6.3.4.1.4 Assessment of Factor Loadings

When examining the loadings on the extracted factors, a minimal loading of 0.4 and an intended minimal loading of 0.6 were used as the lower bounds to indicate a significant factor loading. A loading of 0.4 was adopted because it has been suggested by Hair et al. (2006) that the sample size should be taken into account when determining thresholds for factor loading cut-offs. When the sample size is around 200 cases, the critical value for the factor loading is 0.4 at the 5% level (Hair et al. 2006). This is illustrated in Table 42. This threshold is in line with Stevens (1992), who suggests a cut-off of 0.4 irrespective of sample size, for interpretative purposes.

Table 42. Table of Loadings for Practical Significance (Hair et al., 2006, p. 128)

Factor Loading	Sample size needed for significance
0.30	350
0.35	250
0.40	200
0.45	150
0.50	120
0.55	100
0.60	85
0.65	70
0.70	60
0.75	50

Yet, some authors suggest even more stringent cut-offs (Comrey & Lee, 1992; Field, 2005; Fidell, 2007; Guadagnoli & Velicer 1988; Tabachnick & Fidell, 2007). Field (2005) advocates the suggestion of Guadagnoli & Velicer (1988) to regard a factor as reliable if it has four or more loadings of at least 0.6, regardless of sample size. When the items have different frequency distributions Tabachnick and Fidell (2007) follow Comrey and Lee (1992) in suggesting more stringent cut-offs going from 0.32 (*poor*), 0.45 (*fair*), 0.55 (*good*), 0.63 (*very good*) or 0.71 (*excellent*).

Despite these even stricter approaches, the 0.4 minimum loading is still more stringent than the more traditional 0.3 cut-off, which is commonly considered (Spector, 1992). Yet, factor loadings above 0.6 were aimed for in the analysis, and items with factor loadings close to the 0.4 threshold have been documented and received special attention when conducting the CFA.

### 6.3.4.1.5 EFA: Group Analyses

The minimum sample size to parameter estimate ratio suggested by Bentler & Chou (1987) is five cases per parameter estimate. This is in order to achieve more reliable results and ensure a higher stability of factor loadings for the exploratory (and consequent confirmatory) factor analysis. When this item per parameter estimate cannot be met, it has been

recommended to split the analysis into groups based on sets of theoretically-related variables (Baker & Sinkula, 1999).

In the present study, the sample size amounted to 209 matched cases and 49 items to be assessed. To achieve the recommended 5 cases per parameter estimate ratio, the analysis needed to be split into two groups with theoretically-related variables.

# 6.3.4.1.6 Assessment of Internal Consistency

Cronbach's alpha is a measure of internal consistency. It measures how closely related a set of items are as a group. Cronbach's alpha is a function of the number of test items and the average inter-correlation of these test items (see Equation 1):

Equation 1:

$$\alpha = \frac{N.\overline{c}}{\overline{v} + (N-1).\overline{c}}$$

In the outlined formula of the standardised Cronbach's alpha, N equals the number of items, c-bar is the inter-item covariance among the items, and the v-bar is equal to the average variance. It becomes apparent that Cronbach's alpha is sensitive to: a.) the number of items (i.e. as the number of items increases the Cronbach's alpha value increases, even without any increase in internal consistency); and b.) the average inter-item correlation (i.e. as the average inter-item correlation increases, Cronbach's alpha increases [holding the number of items constant]). These limitations have been considered when interpreting the Cronbach's alpha results.

#### 6.3.4.2 EFA and Reliability Assessment Results

EFA and internal consistency assessments were conducted for a.) individual multi-item reflective measures and b.) measurement groups. All items that should conceptually load on one factor were in individual EFAs. Within measurement group analysis 1, the conceptually strongly related items for the constructs of Satisfaction, Gratitude, Love, Participation, WOM and Monetary Giving were assessed. Within group analysis 2, all human capital related items were measured, including Perceived Employability, Job Performance and Actual Employability.

The following subsections present the two group analysis results, as well the results of the individual factor analyses for Overall Satisfaction, Perceived Employability, Gratitude, Love, Participation, WOM, Monetary Giving, Job Performance, and Actual Employability.

Principal axis factor analysis was conducted on five items with oblique rotation (direct oblimin), which conceptually should represent the construct Overall Satisfaction. The KMO measure verified the sample adequacy for the analysis, with a value for KMO = 0.858 indicating homogenous variables (Hutchesson & Sofroniou, 1999). An initial analysis was done to assess the Eigenvalues over Kaiser's criterion of 1; in combination this accounted for 72.7% of the variance.

Table 43 shows the factor loadings after rotation. All items clustered on the same factor. The loadings of the items on their respective factor were .787 or higher, thus well above the cutoff level of 0.4 (Hair et al. 2006). The Cronbach's alpha was 0.928, which is above the threshold level of 0.7, suggesting probable internal reliability. The Cronbach's alpha output labelled "if the item is deleted" revealed that removing an item would not further improve the Cronbach's alpha, deleting the lowest loading item SAT\_02 would lead to an internal reliability of  $\alpha$ = 0.922.

Table 43. EFA and internal reliability analysis: CS

	EFA and Cronbach's Alpha										
Ecotoro	KMO and Bartletts test	Factor Lo	adings	Cronbach's Alpha	Eigenvalue	% of Variance					
Factors	KMO > 0.5; BT sig < 0.05		6	> 0.7	> 1						
		SAT_01	0.860								
	KMO: .858	SAT_02	0.787								
Customer Satisfaction	Bartletts test: x <sup>2</sup> : 858 df: 10	SAT_03	0.891	0.928	3.9	72.7					
	sig.: .000	SAT_04	0.907								
		SAT_05	0.812								

The multi-item scales of the constructs Perceived Employability, Gratitude, Love, Participation, WOM, Monetary Giving, Job Performance and Actual Employability were accordingly, using principal axis factor analysis with oblique rotation (direct oblimin). For all constructs, the Bartlett's test was significant and verified the sample adequacy for the analysis

(Hutchesson & Sofroniou, 1999). All Eigenvalues were found to be above Kaiser's criterion of 1. All factor analysis results revealed one-factor solutions, and factor loadings were above the 0.4 threshold, and except for EMP\_4 (0.0446) even above the stringent 0.6 cut-off level. The Cronbach's alpha was found to be above 0.7 for all assessed multi-item scales. The results are described in detail in Appendix D.6.

### 6.3.4.2.1 EFA: Group Analysis 1

For Group 1, a principal axis factor analysis was conducted on 34 items with oblique rotation (direct oblimin). The KMO measure verified the sample adequacy for the analysis; KMO = 0.946 ("marvellous" according to Hutchesson & Sofroniou, 1999) and a significant Bartlett's Test of Sphericity with  $x^2 = 8216.13$ ; df = 561; sig. 0.000. The factor loadings after rotation, with the extraction of factors with Eigenvalues greater than 1, revealed a five-factor solution. The loadings of the items on their respective factor were greater than 0.61, which is well above the acceptable limit of .4 (Hair et al., 2006) and the intended stringent cut-off of 0.6 (Field, 2005). The items that cluster on the same factor suggest that factor one represents Passion, Intimacy and Commitment, factor two represents Participation, factor three represents Monetary Giving, factor four Satisfaction and Gratitude and factor five WOM (see Appendix D.7). Therefore, there were cross-loadings of items on factor two and factor four. Factor two represented Love. According to theory (Sternberg, 1986), Passion, Intimacy and Commitment should represent a higher-order factor, hence, the items should show high interrelation. In the CFA, the individual dimensions and the higher-order structure were further examined. Regarding factor four, items that should be conceptually linked to Satisfaction and Gratitude did load on one factor instead. Hair et al. (2006) suggests that one method to remedy variables that have cross-loadings would be to specify the number of factors as conceptually foreseen. This allows for the detection of problematic items. Fixing the number of factors to be extracted to six factors revealed that Satisfaction and Gratitude load on separate factors. The item SAT 2 appears to be a problematic item, as it showed no loading above the 0.4 threshold level. All other items showed a factor loading above the acceptable limit of .4 (Hair et al., 2006), yet some items fell below the stringent cut-off of 0.6 as suggested by Field (2005). For instance, SAT 5 (0.435); LOVE IN2 (0.454); LOVE PA1 (0.568); LOVE CO4 (0.555); and WOM 4 (-0.559).

Fixing the number of factors to be extracted to eight revealed that all items load on individual factors as conceptually foreseen (see Table 42); items conceptually related to Passion, Intimacy and Commitment also loaded on separate factors. Within the eight-factor solution, items SAT\_2, IN\_1 and PA\_1 showed no loading. All other items showed a factor loading above the acceptable limit of .4 (Hair et al., 2006), yet some items fell below the stringent cut-off of 0.6 as suggested by Field (2005). For instance, SAT\_5 (0.495); LOVE\_IN2 (0.521);

LOVE\_IN4 (0.493); LOVE\_PA2 (0.533); LOVE\_PA5 (0.815); LOVE\_CO1 (0.558); and LOVE\_CO2 (0.505). The VIF test ascertained that there was no multicollinearity between Satisfaction and Gratitude (see Section 6.3.3). In the following individual EFA, as well as in the CFA, the unidimensionality of all factors was further tested.

Table 44. EFA group analysis 1: 8 factor solution

	Passion / Intimacy /		Monetary	Satisfaction /	
Exploratory Factor Analysis Group Analysis 1 (Pattern Matrix)	Commitment	Participation	Giving	Gratitude	WOM
SAT_1I am happy with the service I have received at my University.		*		0.878	
SAT_2I am satisfied with my decision to enrol in my University.					
SAT_3I am delighted with the service I have received at my University.				0.844	
SAT_4I am satisfied with the service I have received at my University.				0.920	
SAT_5I am satisfied with the student experience at my University.					
GRAT_1 I feel grateful to my University.				0.627	
GRAT_2 I feel thankful to my University.				0.662	
GRAT_3 I feel appreciative to my University.					
LOVE_IN1 I feel emotionally close to my University.	0.712				
_OVE_IN2 I enjoy the experience at my University.					
OVE_IN3 I have a warm and comfortable feeling when visiting my University.	0.689				
_OVE_IN4 I experience great happiness when I am at my University.	0.718				
_OVE_PA1 I am very enthusiastic about my University.	0.646				
OVE_PA2 I do not get bored of going to my University.	0.785				
OVE_PA3 I find myself thinking about going to my University.	0.767				
_OVE_PA4 Every time I am looking forward to go to my University.	0.778				
_OVE_PA5 I adore my University.	0.853				
OVE_CO1 I care about maintaining my relationship with my University.					
_OVE_CO2 I have decided that this is "my" University.	0.611				
OVE_CO3 I could not let anything get in the way of my commitment to my	0.696				
OVE_CO4 I really care about my University and its future.					
_OVE_CO5 I feel a strong sense of belonging to my University.	0.673				
OVE_CO6 I would describe myself as a loyal supporter of my University.	0.675				
CVP_PAR1make suggestions to my University as to how their service could		0.870			
CVP_PAR2let my University know of ways that could better serve my		0.891			
CVP_PAR3share my opinions with my University if I felt they might be of		0.832			
CVP_PAR4contribute ideas to my University that could improve their		0.897			
CVP_WOM1encourage friends and relatives to go to my University.					-0.708
CVP_WOM2recommend my University to others.					-0.80
CVP_WOM3say positive things about my University to other people.					-0.72
CVP_WOM4recommend my course to others.					
CVP_MON1give monetary contributions to my University.			-0.930		
CVP_MON2give donations to my University.			-0.917		
CVP_MON3sponsor events of my University.			-0.801		
Extraction Method: Principal Axis Factoring.					
a. Rotation converged in 9 iterations.					

# 6.3.4.2.2 EFA: Group Analysis 2

For Group 2, a principal axis factor analysis was conducted on 14 items with oblique rotation (direct oblimin). The KMO measure verified the sample adequacy for the analysis, with a KMO = 0.887 (Hutchesson & Sofroniou, 1999) and a significant Bartlett's Test of Sphericity with  $x^2$  = 2372.209; df = 105; sig. 0.000. The factor loadings after rotation, with extraction of factors with Eigenvalues greater than 1, revealed a two-factor solution. EPERF\_5 showed no factor loading above the 0.4 cut-off level. All other items' loadings on their respective factor were greater than 0.41, which is above the acceptable limit of .4 (Hair et al., 2006), yet some items were below the more stringent cut-off of 0.6 (Field, 2005); i.e. EMP\_4 (0.410) and EEMP\_3

(0.563). The items that clustered on the same factor suggest that factor one represented Job Performance and Actual Employability and factor two represented Perceived Employability (see Appendix D.7). Therefore, the employer rating measures on Actual Employability and Job Performance should have been loaded on two different factors according to the theory, yet the EFA showed a one-factor solution. Hair et al. (2006) suggests that one method to remedy variables that have cross-loadings would be to specify the number of factors as conceptually foreseen. Fixing the number of factors to be extracted to three revealed no conceptually sound solution, as the Job Performance items EPERF1 and EPERF2 loaded on a separate factor. As both items were inserted following feedback in the pre-test phase, but were not within the original Job Performance scale validated by Becker et al. (1996), both items were removed from further analysis. This is in line with Hair et al. (2006), who suggest omitting problematic variables, considering their conceptual significance as further remedy for cross-loading items. When omitting EPERF 1, EPERF 2 and EPERF 5, the three factors were extracted as conceptually foreseen. The Actual Employability item EEMP 3 showed no loading above the 0.4 threshold. All other items showed a factor loading above the acceptable limit of 0.4 (Hair, 2006), and only one items fell below the stringent cut-off of 0.6 as suggested by Field (2005); i.e. EMP 4. The result of the EFA group analysis 2 can be viewed in Table 45.

Table 45. EFA group analysis 2: 3 factor solution

	lab.	Danasiasad	A -41
	Job Performance	Perceived Employability	Actual Employability
EMP_1 The skills and abilities that I possess due to my studies are what employers are looking for.		0.771	<u> </u>
EMP_2 I feel I could get any job as my skills and competences acquired at my University are reasonably relevant.		0.837	
EMP_3 My University makes me confident of success in job interviews and selection events.		0.726	
EMP_4 In my University I achieve high grades in relation to my studies.		0.495	
EEMP_1 The placement student has acquired competences through his/her studies that are sought after in the labour market			0.667
EEMP_2 The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for			0.954
EEMP_3 I know of organisations/companies where the placement student could get a job based on his/her studies			
EPERF_3 The placement student completed work in a timely and effective manner	0.939		
EPERF4 The placement student performed high-quality work	0.935		
EPERF_6 The quality of the work of the placement student was satisfactory	0.812		
EPERF_7 The quantity of work of the placement student was satisfactory	0.873		
EPERF_8 The overall performance of the placement student was satisfactory	0.948		
Extraction Method: Principal Axis Factoring. Rotation Method: Oblimin with Kaiser Normalization.			
a. Rotation converged in 5 iterations.			
KMO = 0.884; Bartlett's Test of Sphericity Approx. X <sup>2</sup> = 886.341; df = 66; sig. 0.000			

#### 6.3.4.2.3 On the Reflective Nature of Multi-Items Measures

The measures of Satisfaction, Gratitude, Perceived Employability, Love, Participation, WOM, Monetary Giving, Job Performance and Actual Employability all comprised a set of items,

which were hypothesised to conceptually reflect the relevant latent constructs (for a detailed discussion on formative and reflective measurement theory see (Edwards & Bagozzi, 2000; and Diamontopulus & Siguaw, 2006). Reflective measurement theory suggests that constructs cause the measured items and measurement error results in the inability to fully explain these measures. In this case the construct is latent. In contrast, formative measures are assumed to cause the construct and the measurement error is an inability to fully explain the construct. With formative measures a construct is not latent (Hair et al., 2006).

Thus, it is of conceptual importance that reflective items are internally consistent; that they correlate with each other (Churchill, 1979). Yet, not all items originally developed for this purpose will perform as expected, and these items must be identified (DeVellis, 2003). For this reason, both EFA and reliability assessments were conducted.

The measured constructs Satisfaction, Perceived Employability, Gratitude, and CEBs are well established in literature and have been constructed and tested as reflective scales (see Section 6.1.5.2). This was confirmed through exploratory data analysis and reliability analysis using Cronbach's alpha. One construct which could raise a debate about its reflective or formative nature would be the second-order factor, Love. Some authors (Lee & Cadogan, 2013) argue that higher-order reflective variables would mostly be formative in nature. Yet, the most important distinguishing criterion between reflective and formative measures is whether the measurement items are expected to have high inter-correlations (reflective measure) or whether they are not expected to correlate (formative measure). Conceptually, Love has been established as a reflective higher-order factor with three dimensions (Passion, Intimacy, Commitment). Theory and past empirical evidence suggest a reflective nature of the Love scale (Sternberg, 1997, Yim et al., 2008). The data of the present study confirms the reflective understanding of Love. Indeed, the results of the EFA (see EFA group analysis 1 results above) clearly showed that the items of Passion, Intimacy, and Commitment are highly inter-correlated and load on one factor. Further EFA tests on the Love items also revealed a one-factor solution, both with Principal component factoring with varimax rotation and with Principal axis factoring with oblimin rotation. Only when forcing a three-factor solutions, the individual factors of Passion, Intimacy and Commitment became apparent. Consequently, the sample data suggested a high inter-correlation of all Love items.

While some authors have summated Love items or individual dimensions on a single (unidimensional) construct (e.g. Bügel et al. (2011) placed the passion and intimacy items on one factor and the commitment items on a separate factor), the theoretical and empirical scale development by Sternberg (1986, 1997), as well consequent studies in the service marketing field, have modelled Love as a reflective three-dimensional scale (e.g. Yim, et al., 2008). As

a consequence, this study follows this prevalent view and models Love as reflective latent factor that is caused by the three dimensions of Passion, Intimacy and Commitment.

# 6.3.4.3 Confirmatory Factor Analysis Procedure

Although EFA is a useful preliminary technique for scale construction, CFA is considered superior to more traditional criteria (e.g. Cronbach's alpha and EFA) in the context of scale validation. This is due to its less restrictive assumptions (Bagozzi, Yi & Philipps, 1991).

The rationales for conducting a CFA are as follows. While in EFA there are no constraints on the variable loadings, as each observed variable has a loading on each factor, in CFA the loadings and path coefficients can be specified by the researcher (and thereby, can vary or be fixed at a particular value). Furthermore, in EFA the researcher has no control over which variables describe each factor. In contrast, in CFA the researcher can specify whether variables are independent of each other or whether they co-vary, and can thereby control which variables describe each construct, resulting in a smaller number of loadings (Bollen, 1989). Finally, within CFA measurement error, latent as well as observed variables can be taken into account. Classical measurement theory suggests that a scale item's observed score is caused by its correlation with the latent construct's true score, as well as a measure of unique measurement error, which is assumed to be uncorrelated with error terms of other scale items (deVellis, 2003). In CFA, these assumptions can be directly examined. A CFA is understood to provide improved parameter estimates, which are likely to be closer to the actual population values (Byrne, 1998). Therefore, in a second step, CFA was applied to ensure that the final set of items to be used reflected the underlying construct as fully as possible (Lee & Hooley 2005).

The main objectives of the CFA were to verify the proposed factor structure from the EFA; to assess the discriminant and convergent validity of all latent constructs included in the measurement model; and to assess whether any significant modifications were required in the measurement model (Hair et al., 2006).

The following steps (as suggested by Hair et al., 2006) were conducted: data preparation, model specification, model structure identification, evaluation of parameter fit, evaluation of overall fit, and model re-specification. These steps are illustrated in Figure 13:



Figure 13. CFA procedure (acc. to Hair et al., 2006)

Following the re-specification of both measurement models, the within-convergent validity, the composite reliability and the average variance extracted (AVE) were calculated for each of the final multi-item scales. Then, the discriminant validity of the final measures was established. Finally, the second-order structure of Love was examined within one measurement model.

These individual steps are described in detail in the following paragraphs.

### 6.3.4.3.1 Data Preparation

To conduct the CFA in LISREL 8.80 (Jöreskog & Sörbom 2006), the original data set in .sav format was imported from IBM SPSS Statistics 24 (IBM 2016) into LISREL 8.80 (Jöreskog & Sörbom, 2006) and saved as a PRELIS data file. All metric variables were defined as continuous, and a covariance matrix and a means file were computed using SIMPLIS. The covariance matrix and the means file were used to run the CFAs. A covariance matrix was used (not a correlation matrix) because the statistical theory for structural model analysis has been developed for covariance matrices, and therefore allow correct test statistics, standard errors and parameter estimates (Kelloway, 1998).

#### 6.3.4.3.2 Model Specification

After data preparation, the measurement model was specified. According to Schumacker and Lomax (2010, p.55), model specification involved both "using all of the available theory, research and information to develop a theoretical model" and "determining every relationship and parameter in the model that is of interest to the researcher". The measurement model structure was exactly defined based on underlying theory (Sharma, 1996). The development of this conceptual model based on the available theory is outlined in Chapter 5.

The proposed theoretical model consisted of eight first-order constructs (Satisfaction, Perceived Employability, Gratitude, WOM, Participation, Monetary Giving, Job Performance, and Actual Employability) and one second-order construct (Love with the dimensions of Passion, Intimacy and Commitment) and a total of 53 indicators. With a sample size of 209, standard measurement validation procedures for multi-item scales, as suggested by Bentler

and Chou (1987), could not be employed. Instead, the suggestions by Bentler and Chou (1987) and the practices of Bell et al. (2004) to divide the model's constructs into theoretically plausible groups and run separate measurement models for each group were followed. Two confirmatory factor models were estimated in LISREL 8 (Jöreskog & Sörbom, 1993). This was in order to ensure the suggested sample size to parameter estimate (i.e. min. 5 cases per parameter estimate) (Bentler & Chou, 1987) and thereby enhance the stability of the factor loadings.

Following Baker and Sinkula's (1999, p. 418) approach, the two groups were chosen based on "sets of theoretically related variables". Measurement Model 1 contained all latent constructs that had been evaluated by the placement students: Satisfaction, Gratitude, Passion, Intimacy, Commitment, WOM, Participation and Monetary Giving. Measurement Model 2 contained all latent constructs that have been evaluated by students and employers relating to employability and job-related outcome measures: Perceived Employability, Job Performance, and Actual Employability. It is a common practice in marketing research to include such multi-source data within one measurement model (e.g. Chan & Lam, 2011).

Measurement Model 1 contained 8 constructs (and 34 items), Measurement Model 2 contained 3 constructs (and 19 items). This led to a case per parameter ratio of 6.1 for Measurement Model 1, and a case per parameter ratio of 11 for Measurement Model 2.

Both measurement models were specified graphically and mathematically. Finally, model specification required the formulation of a statement about a set of parameters, specified as either free or fixed. Free parameters were left 'free to vary', in order to test the hypothesised causal relationship between variables. In contrast, fixed parameters were not estimated from the data, although they have been estimated previously, usually in earlierstudies. Fixed parameters are usually fixed at zero, while free parameters are estimated by the data (and are suggested to be non-zero) (Backhaus et al., 2013).

## 6.3.4.3.3 Model (Structure) Identification

Model identification is concerned with the question of whether (or not) there is a unique set of parameters consistent with the data, in order to estimate the parameters and test the model (Schumacker & Lomax, 2010). Measurement and structural models can be just-identified, over-identified or under-identified (Byrne, 1998). In a just-identified model, the number of data variances and covariances is equal to the number of parameters to be estimated. As there is a one-to-one correspondence between the observed data and the parameters to be estimated, the model has no degrees of freedom and can never be rejected (i.e. scientifically not interesting) (Byrne, 1998). In an over-identified model the number of data variances and

covariances is larger than the number of parameters to be estimated, resulting in positive degrees of freedom and allowing for the rejection of the model. In contrast, a model is underidentified when the number of parameters to be estimated exceeds the number of data variances and covariances. As there is not sufficient information from the input data, an infinite number of solutions is possible and any set of values would be arbitrary (Byrne, 1998). Therefore, the aim of this study is to specify models that are over-identified.

Byrne (1998, p. 29) suggests the t-rule for assessing model identification, which constitutes the variances and covariances of the observed variables with p variables. There are the following number of elements:

#### Equation 2:

$$p(p + 1)/2$$

In a first-order factor model, the parameters that need to be estimated are: the measurement regression paths (i.e. the factor loadings of the exogenous variables and the factor loadings of the endogenous variables given that the first variable is fixed to 1); the structural regression paths; the error variances; the residual error variances; and covariances (Byrne, 1998).

When the number of elements (i.e. data variances and covariances) is larger than the number of parameters to estimate, then there are positive degrees of freedom resulting in an over-identified model.

#### 6.3.4.3.4 Evaluating Parameter Fit

Once the measurement models were specified, the free parameters were estimated. The free parameters were derived from the survey data set. Parameter estimation was conducted by contrasting the actual covariance matrices with the best fitting model. This estimation was obtained through numerical maximisation of a fit criterion, as provided by different estimation techniques. The most common form of estimation technique for a matrix of covariance is Maximum Likelihood (ML). In contrast to other estimation techniques (e.g. GLS, ULS, SLS, ADF), the ML method delivers the most precise estimations, given that the sample size exceeds 100 and under the assumption of multi normal distribution (Backhaus et al., 2013).

The assessment of model fit was conducted in two steps. In the first step, the fit of parameter estimates was examined. Then in the second step, the overall fit of the measurement model was analysed. This subsection covers the assessment of fit of parameter estimates. The next subsection covers the assessment of the overall measurement model fit.

A measurement model is set to fit the observed data, when the covariance matrix it implies is equivalent to the observed covariance matrix, and the elements of the residual matrix are close to zero (Hoyle, 1995). In particular, three points were :

- 1. The feasibility of parameter estimates,
- 2. The appropriateness of standard errors, and
- 3. The statistical significance of parameter estimates.

First, the feasibility of parameter estimates was assessed. In particular, it was investigated whether the parameter estimates exhibited the correct sign and size and were consistent with the underlying theory. Correlations >1.00, negative covariances or covariance matrices that were not positive all clearly indicated that either the model was wrong or the input matrix lacked sufficient information (Byrne, 1998).

Second, the appropriateness of standard errors was . Extremely small standard errors (i.e. standard error approaching 0) indicated that the test statistic for its related parameter cannot be defined. In contrast, excessively large standard errors would have specified parameters that cannot be determined (Bentler, 1995).

Third, the statistical significance of parameter estimates was tested via the t-statistic. Thereby, the parameter estimate was divided by its standard error, in order to measure (with the z-statistic) whether the parameter estimate was statistically different from zero. The t-statistics needed to be above the threshold of +/-1.96 on a significance level of .05, before the hypothesis (that the parameter estimate equals zero) could be rejected (Byrne, 1998. According to Byrne (1998), non-significant parameter estimates may be dropped from the model.

#### 6.3.4.3.5 Assessing Overall Fit

After examining the fit of parameters, the overall fit of the measurement model was assessed. In general, overall fit relates to how well the conceptually specified measurement or structural model (in the present analysis, using maximum likelihood estimation) reproduces the covariance matrix obtained from observed data (Hu & Bentler, 1999). Several goodness-of-fit (GOF) indices have been developed to assess the validity of a measurement model (Marsh, Hau & Wen, 2004). A distinction can be made between absolute - incremental - and parsimony fit measures for assessing overall fit in SEM (Hair et al., 2006).

Absolute fit indices measure how well the specified model fits the sample data. Each specified model is evaluated individually and no comparison is made to any other model (Jöreskog &

Sörbom, 1993). The most fundamental absolute fit index is the chi square ( $x^2$ ). The  $x^2$  examines whether a relationship exists between measures. In contrast to chi square tests in other cross-classification assessments, a low  $x^2$  is preferred over a high  $x^2$  value, as it indicates that there is little difference between the sample and fitted covariance matrices (Hu & Bentler, 1999). A good model fit would provide an insignificant result; at the 0.05 threshold (Barrett, 2007). However, the  $x^2$  is sensitive to sample size, the difference between estimated and observed covariance matrices, and the deviations from multivariate normality. As the sample size and/or the number of observed variables increases, the  $x^2$  value increases. Consequently, the statistical  $x^2$  test and its resulting p-value, had to be interpreted with caution for both measurement models, as the sample size was rather large (with 209 cases) and the measurement models were rather complex (particularly Measurement Model 1). As a result, it has been recommended to use the relative chi square ( $x^2$ /df) and/or other absolute fit measures, such as the root mean square error of approximation (RMSEA), the Goodness-of-fit Index (GFI) or the adjusted goodness-of-fit index (AGFI), or the Standardised Root Mean Residual (SRMR).

The  $x^2/df$  adjusts for sample size by dividing the chi-square with the degrees of freedom. Recommendations regarding an acceptable ratio for the measure, range from as high as 5:1 (Wheaton et al., 1977) to as low as 3:1 (Kline, 2015), or even 2.1 (Tabachnick & Fidell, 2007). Hooper, Couglan & Mullen (2008) suggest a ratio of 3:1 or lower, which appears to be the common practice in recent research in the social sciences. The RMSEA stemming from early work by Seiger and Lind (1980) is a standardised measure of empirical discrepancy and is considered as one of the most informative criteria in SEM (Byrne, 1998; Marsh, Hau & Wen, 2004). The RMSEA indicated how well the model, with unknown but optimally chosen parameter estimates, would fit the population covariance matrix, taking in account the error of approximation in the population. The empirical discrepancy is expressed per degrees of freedom, making it sensitive to the number of parameters to be estimated in the model (i.e. model complexity) (Byrne, 1998). A RMSEA value in the range of 0.5 to 1.0 was considered a good fit in research up to the early nineties. Then, a RMSEA value of 0.08 to 1.0 indicated a mediocre fit, and only values below 0.08 provided a good fit. More recently, a stringent upper limit of 0.07 appears the general consensus amongst authors in the field (Hooper, Couglan & Mullen, 2008; Steiger, 2007).

The SRMR is the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance matrix. The values of the SRMR range from zero to 1.0, and values up to 0.08 are considered as an acceptable fit (Hooper, Couglan & Mullen, 2008; Hu & Bentler, 1999). The GFI and the AGFI are alternative to the  $x^2$  test. The GFI measures the proportion of variance that is accounted for by the estimated population covariance. The AGFI adjusts the GFI based upon the degrees of freedom. Both the GFI and

AGFI are not recommended to be used due to their sensitivity to sample size and model complexity (Hooper, Couglan & Mullen, 2008).

Incremental fit indices (or comparative fit indices) use the chi square value to a baseline model, and apply the null hypothesis that all variables are uncorrelated (Hooper, Couglan & Mullen, 2008). The Normed Fit Index (NFI), the Non-Normed Fit Index (NNFI, also known as Tucker-Lewis index), and the Comparative Fit Index (CFI), are examples of incremental fit indices. The NFI is one of the original incremental fit indices. It measures the difference in the chi square value for the fitted model and a null model, divided by the chi square value for the null model (Hair et al., 2006). The null model divided by the fitted model is the worst solution, as it specifies that all variables are uncorrelated. The NFI value can range between 0 and 1. The NNFI is the not normed and its value can go above 1.0, which makes it difficult to interpret (Hooper, Couglan & Mullen, 2008). Most recommendations suggest that the NFI and NNFI values should be above 0.90 to indicate good model fit (Bentler & Bonnet, 1980; Hair et al., 2006). However, more recent suggestions state that the NFI and NNFI values should be above 0.95 (Hooper, Couglan & Mullen, 2008). Yet, both the NFI and the NNFI are sensitive to sample size. When sample size is below 200, model fit can be underestimated by the NFI and NNFI (while other fit indices indicate good model fit) (Bentler, 1990).

The CFI was developed by Bentler (1990) and is a revised and improved form of the NFI, which takes into account sample size (Byrne, 1998). The CFI value can range between 0 and 1, with values larger than 0.9 indicating good model fit (Backhaus et al., 2013). More recent studies indicate, however, that a CFI value greater than 0.95 is now recognised as an indication of agood fit and also ensures that misspecified models are not accepted (Hooper, Couglan & Mullen, 2008; Hu & Bentler, 1999).

Parsimony fit indices provide information about which model among a set of competing models is best, considering its fit relative to its complexity (Hair et al., 2006). Mulaik et al. (1989) have developed two parsimony fit indices: the Parsimony Goodness-of-Fit Index (PGFI) and the Parsimonious Normed Fit Index (PNFI). The PGFI is based upon the GFI by adjusting for the loss of degrees of freedom, and the PNFI is based upon the NFI by adjusting for the loss of degrees of freedom (Hooper, Couglan & Mullen, 2008). Hair et al. (2006) argue that the use of parsimony fit indices is controversial and when used, the PNFI is the preferred index. For both indices, there is no clear recommendation as regards the minimum threshold level. Yet, Hooper, Couglan and Mullen (2008) suggest to use such measures only in combination with other fit statistics, while Mulaik et al. (1989) suggest that they can have a value within the 0.50 region, while other goodness of fit indices achieve values greater than 0.9.

In general, it is recommended in literature (and also applied in marketing research) to use multiple fit indices instead of a single fit index (Hair et al., 2006). However, there is a debate amongst authors on which (combination of) GOF indices to select and which cut-off values to set (Hu & Bentler, 1999; Marsh, Hau & Wen, 2004; Hooper, Coughlan & Mullen, 2008). Consequently, two decisions needed to be taken for the present analysis when evaluating overall model fit:

- 1. Selecting a combination of fit indices; and
- 2. Setting cut-off levels for the selected fit indices.

As regards the selection of a combination of fit indices, Hair et al. (2006) recommend reporting the x<sup>2</sup> and the df, and an additional three to four fit indices. The authors suggest the following values (for LISREL analyses): CFI, NNFI, SRMR and RMSEA. With a sample of below 250 cases, and a Measurement Model 1 with more than 30 variables, Hair et al. (2006) expect a significant p-value for the x<sup>2</sup> statistics, and recommend a CFI and NNFI above 0.92, an RMSEA lower than 0.08 with a CFI above 0.92, and a SRMR below 0.9. In contrast, Hu and Bentler (1999) suggest a two-index presentation strategy, with the following fit index combinations: a CFI of 0.96 or higher and a SRMR of 0.09 or lower; or a NNFI of 0.96 or higher and a SRMR of 0.09 or lower; or a RMSEA of 0.06 or lower and a SRMR of 0.90 or lower. Kline (2005) recommends presenting the x<sup>2</sup>, its degrees of freedom and p-value, the RMSEA, the CFI and the SRMR. Similarly, Hooper, Coughlan & Mullen (2008) suggest reporting the x<sup>2</sup>, its degrees of freedom, p-value, and relation to degrees of freedom, the RMSEA and its associated confidence intervals, the CFI, the SRMR and the PNFI. Based on these recommendations from renowned authors in the field, it was sensitive to include the x2, its degrees of freedom and p-value, the relative x<sup>2</sup> to degrees of freedom, the RMSEA, the CFI, the SRMR, and the PNFI. These indices were chosen over other indices, as they have been found to be the most insensitive to sample size, model misspecification and model complexity (in terms of parameters to be estimated). As the recommendations for the cut-off values for most goodness of fit indices have changed over the years, this study follows the more stringent cut-off levels as suggested by Hooper, Coughlan & Mullen (2008). Table 46 summarises fit indices and their respective recommended cut-off levels for the present study:

Table 47. Goodness-of-fit statistics and their recommended threshold level

Goodness of Fit Statistic	Accepted Threshold Level
Absolute Fit Indices	
X <sup>2</sup>	Significant p-values can be expected for models with a sample below 250 cases and more than 12 observed variables. (Hair et al., 2006)
x²/df	3:1 (Kline, 2015)
RMSEA	Values less than 0.07 (Hooper, Coughlan & Mullen, 2008; Steiger, 2007)
SRMR	Values less than 0.08 (Hooper, Coughlan & Mullen, 2008;Hu & Bentler, 1999)
Incremental Fit Indices	
CFI	Values greater than 0.95 (Hooper, Coughlan & Mullen, 2008)
NNFI	Values greater than 0.95 (Hooper, Coughlan & Mullen, 2008)
Parsimony Fit Index	
PNFI	No clear recommendation, values can be within the 0.50 region while other goodness of fit indices achieve values greater than 0.9 (Mulaik et al., 1989)

#### 6.3.4.3.6 Model Re-Specification

Due to the model complexity in SEM, model fit can be poor and a model might need to be respecified. Yet, model modification needs to be undertaken with caution, and the process must be theory-driven (Hooper, Coughlan & Mullen, 2008). In order to diagnose problems which might cause poor model fit, individual path estimates, standardised residuals and modification indices can be assessed (Hair et al., 2006).

In the LISREL 8.80 output (Jöreskog & Sörbom, 2006) the residual matrix and the modification indices are reported. Any large values in the residual matrix provide an indication of the parameters that should be treated because the hypothesised covariance matrix does not appropriately represent the sample covariance matrix (Kelloway, 1998; Sharma, 1996). There is no agreement amongst authors in the field about which standardised residual value would indicate a large value. While some suggest standardised residual values above 2.58 (Byrne, 1998), others indicate values above 4.0 (Hair et al., 2006) would be problematic. Modification

indices are calculated for every possible relationship that is not free to be estimated. They show to what extent the overall chi square value would be improved (i.e. reduced) by freeing that single path (Hair et al., 2006). Any large values within the modification indices indicate that the model fit could be improved by freeing the problematic parameter (Kelloway, 1998; Sharma, 1996). There is no general threshold level for modification indices to be considered large, as their absolute value is sensitive to the way by which variables and factors are scaled or identified (Bentler, 1992).

Model misspecifications represented by large values in the residual matrix or modification indices are generally due to violations of the unidimensionality assumption (Gerbing & Anderson, 1988); through correlating error terms, misspecified factor loadings, or both. In order to be treated, the model can be largely modified and re-specified by the deletion of problematic parameters (keeping the unidimensionality assumption in mind) (Backhaus et al., 2013).

As a rule of thumb, Hair et al. (2006) suggest that model modifications affecting less than 2 out of 15 measured variables can be regarded as minor, while comparably more changes would require a new data set (Hair et al., 2006). Thus, the modification rate (number of observed variables modified/total number of observed variables) should be below 13%. Yet, as Hooper, Coughlan and Mullen (2008, p. 56) state: "Allowing modification indices to drive the process is a dangerous game". Poor-performing observed variables may be retained in a study, although diagnostic information may suggest that they are due, for instance, to high content validity (Hair et al., 2006). Thus, model modification within this study was conducted, with a strong emphasis on theoretical reasoning for any changes made.

#### 6.3.4.3.7 Dimensionality Assessment

The underlying principle of reflective measurement theory is that a single construct underlies any set of scale items used to measure that construct (Gerbing & Anderson, 1988). It is assumed, that the construct affects its measurement items. For instance, any change in the construct Satisfaction is presumed to lead to changes in the items SAT\_1, SAT\_2, SAT\_3, SAT\_4 and SAT\_5. The measurement items should measure the construct (Satisfaction), and no other latent variable to any significant extent (or systematic error) (Gerbing & Anderson, 1998). According to Hair et al. (2006), unidimensionality can be tested by EFA or by CFA.

### Validity Assessment

Although the unidimensionality assessment is a necessary condition for validity (Churchill, 1979), it is not sufficient for a comprehensive assessment of a measure's validity. In essence, validity assessment is concerned with the accuracy with which measures track variations in a construct (Lee & Lings, 2008). The next subsection covers the most renowned validity assessments: content, convergent, and discriminant validity (Hair et al., 2006).

### Content Validity

Content validity (or face validity) is the systematic, but subjective, assessment of whether the measures apparently reflect the content of the construct in question (Bryman & Bell, 2011). The present study has been able to ensure content validity by the adoption of validated scales from prior research and a qualitative research phase that elaborated the meaning of the different constructs; as well as thorough pre-testing.

## Within-Method and Across-Method Convergent Validity

Convergent validity assesses the extent to which measures correlate positively with other measures of the same construct (Malhotra, 2012). Three conditions need to be fulfilled for a multi-item scale to show adequate within-method convergent validity (Steenkamp & van Trijp, 1991):

- 1. The factor coefficients are statistically significant (weak condition),
- The factor loadings on the respective latent construct exceed 0.50 (stronger condition), and
- 3. These two conditions are assessed, given that the overall measurement model fit is acceptable (strong condition for adequate within-method convergent validity).

In order to examine across-method convergent validity, the same constructs need to be measured by at least two different methods (Steenkamp & van Trijp, 1991); the most prominent approach for this (and discriminant validity) is the Multitrait-Multimethod Model (MTMM) (Campbell & Fiske, 1959; Byrne, 1998).

Thus, in the present study, the overall model fit, as well as the factor loadings, were assessed to ensure the within-method convergent validity of the multi-item measurements. Acrossmethod convergent validity was not assessed thoroughly, as no additional data set was collected. However, across-method convergent was assessed to the extent that firstly, only existing measurement scales previously tested and validated in prior studies have been used,

and secondly, the quantitative survey pre-testing phase included a rather large sample which informed the final measurement items within the survey.

Composite Reliability and Average Variance Extracted (AVE)

Further indicators of convergent reliability are composite (or construct) reliability (CR) and the average variance extracted (AVE) (Hair et al., 2006). In contrast to Cronbach's coefficient alpha, CR does not assume equal reliabilities across items, which allows for acceptable reliability of composite scores even if the individual scale items have different reliabilities (Gerbing & Anderson, 1988). The CR equation provided by Fornell and Larcker (1981, p. 45) is:

Equation 3:

$$CR = \frac{\left(\sum \lambda_i\right)^2}{\left(\sum \lambda_i\right)^2 + \left(\sum \epsilon_i\right)}$$

Where,  $\lambda$  is the standardised factor loading for item *i* and  $\varepsilon$  is the respective error variance for item *i*. It is widely accepted that the CR value should be above 0.60 (Bagozzi & Yi, 1988).

The extracted average variance assesses the amount of variance that is captured by a latent construct, in relation to the amount of variance due to measurement error (Fornell & Larcker, 1981). The AVE equation provided by Fornell and Larcker (1981, p. 46) is:

Equation 4:

$$AVE = \frac{\sum \lambda_i^2}{\sum \lambda_i^2 + \sum_i \text{var}(\varepsilon_i)}$$

Where,  $\lambda$  is the standardised factor loading for item i on a factor y, and Var is the variance of  $\varepsilon$ , the respective error variance for item i. It is widely accepted that the AVE value should be above 0.50 (Bagozzi & Yi, 1988).

### Discriminant Validity

Discriminant validity examines the extent to which a measure does not correlate with other constructs from which it is supposed to differ (Malhotra, 2012). Therefore, a latent construct is able to account for more variance in those observed items associated with it, compared to the measurement error (or other unmeasured influences) or other latent constructs within the conceptual framework (Farrell, 2010). A renown approach to assess discriminant validity is the Fornell and Larcker (1981) criterion (see Lee et al., 2011; Sichtmann, van Selasinky & Diamontopoulos, 2011). This foresees a comparison of the AVE of each latent construct with the squared correlations (i.e. the shared variance) between constructs. Discriminant validity is established if the AVE of each latent construct exceeds the squared correlations with all other latent constructs.

#### 6.3.4.3.8 Higher-order Factors

The construct Love is suggested by theory to be a multidimensional construct. The measurement instrument of Love assesses the related constructs of Intimacy, Passion and Commitment, each of which is measured by multiple items. The second-order model represents the hypothesis that Intimacy, Passion and Commitment, though seemingly distinct, according to the Triangular Theory of Love are related constructs that can be accounted for by one underlying construct, namely Love (Sternberg, 1986).

For the latent construct Love, a second-order factor modelling was applicable, as

- 1. The lower-order factors of Passion, Intimacy and Commitment are substantially correlated with each other, and
- 2. There is a higher-order factor that is hypothesised to account for the relations among the lower-order factors.

Some authors suggest that statistical tests of the fit of a second-order factor require four or more first-order factors to be included in a data set; as only then the model is over-identified and can be properly tested (Chen, Sousa & West, 2005; Rindskopf & Rose, 1988). Other authors propose a higher-order factor can be tested with three first-order factors, if additional constraints are imposed to this just-identified model (e.g. Byrne 1998). Yet, there is the general agreement that higher-order factor models with only two first-order factors should be reformulated (Byrne, 1998; Rindskopf & Rose, 1988). In the present study, the second-order factor Love is composed of three first-order factors, which leads to a just-identified model with six parameters to estimate and six pieces of information (3[3+1])/2). In order for this model to be tested, additional constraints needed to be imposed, as suggested by Bryne (1998); for

instance, the first regression path of the higher-order factor, and of each first-order factor, was constrained equal to 1.0.

# 6.3.4.4 Confirmatory Factor Analysis Results

The results of the CFA are presented in this section. As data preparation has already been presented in Section 6.3.4.3.1, the results for the consequent CFA steps are highlighted.

## 6.3.4.4.1 Model Specification

Measurement Model 1 and Measurement Model 2 were specified as first-order factor models. First-order factor models are models in which correlations between the observed variables from the survey data are described by a smaller number of latent factors, each of which are considered to be on one level (Byrne, 1998). The measurement models were specified both graphically and mathematically as outlined in the following subsections.

### Graphical Specification of the Measurement Model 1

In first-order factor models all latent factors are depicted as one unidimensional arrow away from the observed variables. Measurement Model 1 was specified with eight factors (Satisfaction, Gratitude, Passion, Intimacy, Commitment, Participation, WOM, Monetary Giving). The eight factors were intercorrelated. Five observed variables (SAT\_1 to SAT\_5) reflected Satisfaction; three observed variables (GRAT\_1 to GRAT\_3) reflected Gratitude; five observed variables (LOVE\_PA1-LOVE\_PA5) reflected Passion; four observed variables (LOVE\_IN1-LOVE\_IN4) reflected Intimacy; six observed variables (LOVE\_CO1-LOVE\_CO6) reflected Commitment; four observed variables (PART\_1 to PART\_4) reflected Participation; four observed variables (WOM\_1 to WOM\_4) reflected WOM; and three observed variables (MON\_1 to MON\_3) reflected Monetary Giving. Each variable loaded only on one factor. Errors of measurement associated with each observed variable were specified as uncorrelated. Figure 14 shows the graphical specification of the Measurement Model 1 (with the results of the initial CFA standardised solution with all items).

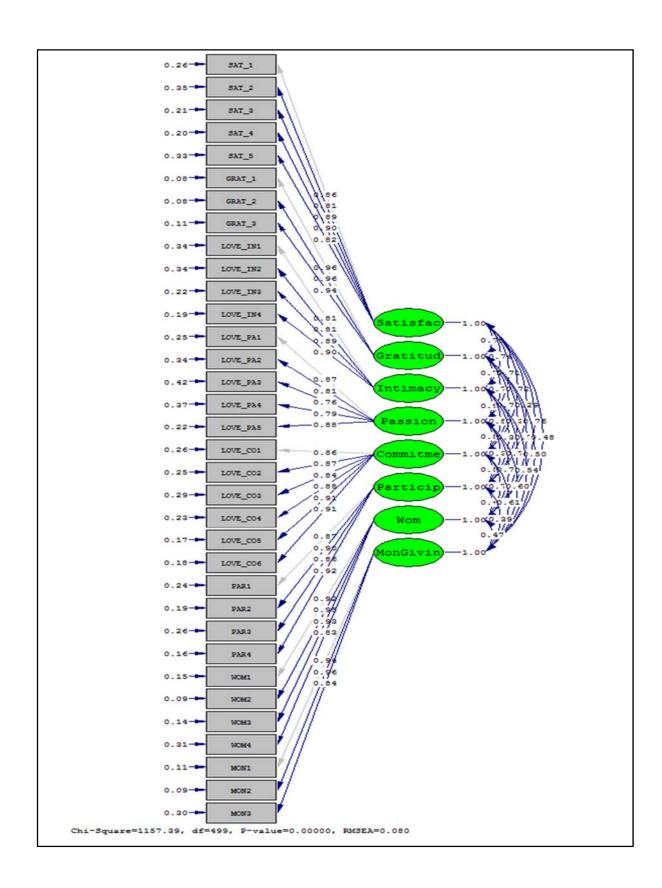


Figure 14. Measurement model 1

Graphical Specification of the Measurement Model 2

The Measurement Model 2 was specified with three factors (Perceived Employability, Job Performance, Actual Employability). The three factors were intercorrelated. Four observed

variables reflected internally Perceived Employability (EMP\_1 to EMP\_4); eight observed variables reflected Job Performance (EPERF\_1 to EPERF\_8); and three observed variables reflected Actual Employability (EEMP\_1 to EEMP3). Each variable loaded only on one factor. Errors of measurement associated with each observed variable were specified as uncorrelated. Figure 15 shows the graphical specification of the Measurement Model 2 (with the results of the initial CFA standardised solution with all items).

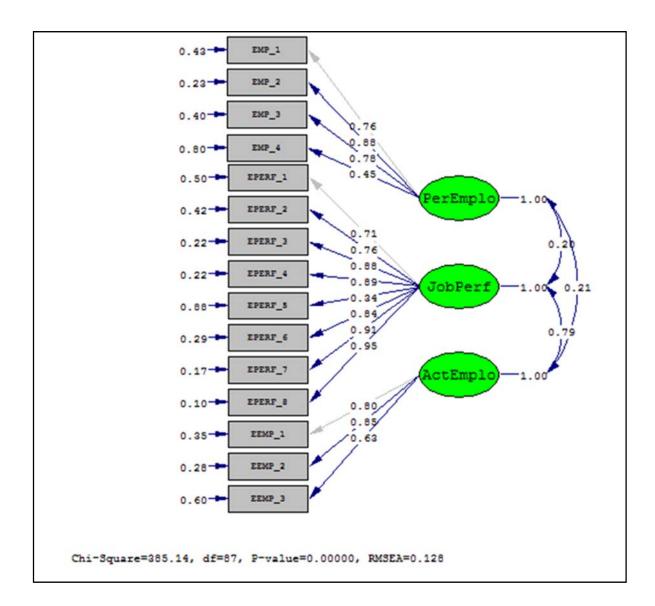


Figure 15. Measurement model 2

Mathematical Specification of the Measurement Models 1 and 2

The measurement models were programmed with a SIMPLIS programming syntax to specify the relevant regression equations and using the covariance matrix and means data files. The regression equations can be expressed as the relations between the observed variables ( $\mathbf{x}$ ), the latent variables  $\boldsymbol{\xi}$  and the errors of measurement  $\boldsymbol{\delta}$  (Byrne, 1998):

#### Equation 5:

$$x = \Lambda_x \xi + \delta$$

The parameters of this model are  $\Lambda_x$  (the matrix of regression coefficients related to the  $\xi s$ ), an  $n \times n$  symmetrical variance-covariance matrix among the n exogenous factors, and a symmetrical  $q \times q$  variance-covariance matrix among the errors of measurement for the exogenous observed variables (Byrne, 1998).

The regression equations for the first-order reflective factors of Measurement Model 1 can be exemplified as follows:

#### Equation 6:

$$SAT_{-}1 = \lambda_{11}Satisfaction + \delta_{1}$$
 
$$SAT_{-}2 = \lambda_{21}Satisfaction + \delta_{2}$$
 
$$SAT_{-}3 = \lambda_{31}Satisfaction + \delta_{3}$$
 
$$SAT_{-}4 = \lambda_{41}Satisfaction + \delta_{4}$$
 
$$SAT_{-}5 = \lambda_{51}Satisfaction + \delta_{5}$$
 
$$GRAT_{-}1 = \lambda_{62}Gratitude + \delta_{6}$$
 
$$GRAT_{-}2 = \lambda_{72}Gratitude + \delta_{7}$$
 
$$GRAT_{-}3 = \lambda_{82}Gratitude + \delta_{8}$$
 ...
$$MON_{3} = \lambda_{348}Monetary\ Giving + \delta_{34}$$

Consistent with the series of exemplary regression statements for Measurement Model 1, the factor analytical model can be expanded as:

#### Equation 7:

The factor loading matrix shows the patterns by which each of the 34 observed variables of Measurement Model 1 were linked to their respective factor. The zeros are fixed values

indicating that, for instance SAT\_1 loads on Factor 1 (Satisfaction) and not on the factors from 2 (Gratitude) to 8 (Monetary Giving).

The variances for all eight factors in Measurement Model 1 and all three factors in Measurement Model 2, as well as the measurement errors, needed to be estimated. Additionally, the eight factors of Measurement Model 1 were related, as were the three factors of Measurement Model 2. Consequently, their covariance also needed to be estimated. The matrix equation was expanded to a symmetric variance-covariance matrix.

Finally, the model specification included the formulation of a statement about a set of parameters, specified as either free or fixed. The first indicator of each multi-item construct was set to 1, implying that this parameter is not to be estimated.

#### 6.3.4.4.2 Model Identification

The t-rule for assessing model identification was applied, which constitutes that with the variances and covariances of the observed variables with p variables. There are the following number of elements:

Equation 8:

$$p(p+1)/2$$

Reviewing Measurement Model 1, there were 34 observed variables which resulted in 34(34+1)/2 = 595 data points. There were 26 regression coefficients, 42 variances (34 error variances and 8 factor variances) and 28 factor covariances, resulting in a total of 96 parameters to be estimated, Measurement Model 1 is over-identified with 499 (595 – 96) degrees of freedom.

In Measurement Model 2, there were 15(15+1)/2 = 120 data points. There were 12 regression coefficients, 18 variances (15 error variances and 3 factor variances) and 3 factor covariances, resulting in a total 33 parameters to be estimated. Consequently, Measurement Model 2 is over-identified with (120-33) 87 degrees of freedom.

# 6.3.4.4.3 Evaluating Parameter Fit

The initial CFA for both Measurement Model 1 and Measurement Model 2 were performed with all items simultaneously, as this is suggested to provide a more powerful test of unidimensionality (Lee & Cadogan 2006). The parameter estimation technique of Maximum

Likelihood was applied, because: a.) it is the most common form of estimation technique for a matrix of covariance; and b.) in contrast to other estimation techniques, the ML method delivers the most precise estimations, given that the sample size exceeds 100 and under the assumption of multi normal distribution (Backhaus et al., 2013).

The assessment of model fit involved the analysis of the fit of parameter estimates and the overall fit of the measurement model. This subsection covers the assessment of the fit of parameter estimates. The next subsection covers the assessment of the overall measurement model fit. A measurement model is set to fit the observed data, when the covariance matrix it implies is equivalent to the observed covariance matrix, and the elements of the residual matrix are close to zero (Hoyle, 1995). In particular, three points were:

- 1. The feasibility of parameter estimates,
- 2. The appropriateness of standard errors, and
- 3. The statistical significance of parameter estimates.

Firstly, the feasibility of parameter estimates was assessed. In particular, it was investigated whether the parameter estimates exhibit the correct sign and size and are consistent with the underlying theory. Correlations >1.00, negative covariances or covariance matrices that are not positive definite, provide an indication that either the model is wrong or the input matrix lacks sufficient information (Byrne, 1998). As all correlations were <1.00 no parameter exhibited unreasonable estimates. Additionally, there were no negative variances or covariance matrices that were not positive definite. Thus, it can be concluded that for Measurement Model 1 and Measurement Model 2, the individual parameters in the model fit; that their estimated values are viable.

Secondly, the appropriateness of standard errors was assessed. Extremely small standard errors (i.e. standard error approaching 0) indicate that the test statistic for its related parameter cannot be defined. In contrast, excessively large standard errors specify parameters that cannot be determined (Bentler, 1995).

In Measurement Model 1, the smallest residuals were those for LOVE\_PA1 and LOVE\_PA4 (-4.858) and for SAT\_1 and SAT\_5 (-4.769). In Measurement Model 1, the largest positive residuals were the residual for LOVE\_PA1 and WOM\_2 (6.278) and those for LOVE\_PA1 and SAT\_2 (5.474).

In Measurement Model 2 the smallest residuals were thosefor EPERF\_6 and EPERF\_2 (-5.048) and for EPERF\_7 and EPERF\_2 (-4.055). In Measurement Model 2 the largest

positive residuals were the residual for EPERF\_1 and EPERF\_2 (10.059) and those for EPERF\_4 and EPERF\_3 (6.897).

Standard errors within Measurement Model 1 and Measurement Model 2 were between 0.08 and 0.88. As the units of measurement in observed variables, latent variables, or both, as well as the magnitude of the parameter estimate itself all influence standard errors, no definitive criterion of small or large was established (Byrne,1998). Thus, variables with the highest (EPERF\_5: 0.88; EMP\_4: 0.80; EEMP\_3: 0.60; EPERF\_1: 0.50; LOVE\_PA3: 0.42) and lowest (GRAT\_1: .08, GRAT\_2: .08, WOM\_2: .09; EPERF\_8: .10) standard errors were especially taken into consideration when assessing the fit of the measurement model.

Thirdly, the statistical significance of parameter estimates was tested via the t-statistic. Thereby, the parameter estimate was divided by its standard error in order to measure (with the z-statistic) whether the parameter estimate is statistically different from zero. The test statistics needed to be above the threshold of +/-1.96 on a significance level of .05 before the hypothesis (that the parameter estimate equals zero) could be rejected. Non-significant parameter estimates may be dropped from the model (Byrne, 1998). Within Measurement Model 1 all t-values were above 13.53 and all paths were significant, with loadings higher than 0.79. Within Measurement Model 2, all t-values were significant, with values above 4.82. Yet, two had path coefficients below the .05 level (EPERF\_5: 0.34 and EEMP\_4: 0.45). All other paths showed loadings above 0.63. Consequently, EPERF\_5 in particular, but also EEMP 4, needed to be further examined.

# 6.3.4.4.4 CFA, Composite Reliability and AVE Results: Group 1

Multi-item scales for Satisfaction, Gratitude, Passion, Intimacy, Commitment, Participation, WOM, and Monetary Giving were examined to purify the measures by removing redundant or non-reflective items (Gerbin & Hamilton 1996; Lee & Hooley 2005).

Multiple fit indices can be used to assess the overall model fit, as suggested by previous authors (e.g. Backhaus et al. 2013; Hair et al., 2006) and in line with the methodology literature in the respective field (Hooper, Coughlan & Mullen, 2008; Hu & Bentler, 1999). This is summarised in Table 48. The initial overall fit measures of the Measurement Model 1 revealed an acceptable fit with chi-square statistics =1157, df = 499 and p = 0.000, x2/df =2.32, RMSEA = 0.080, CFI =0.981, NNFI = 0.979, SRMR = 0.0482 and PNFI = 0.86.

				С	FA Mea	surement	Model	1						
Steps	Chi square	x2/df	<2.5	p value	>0.05	RMSEA	<0.08 with CFI>.9 2	CFI	>.95	NNFI	>.95	SRMR	<0.08 <b>PNFI</b>	
ALL ITEMS	Chi square	1157 <b>x2/df</b>	2.32	p value	0.000	RMSFA	0.080	CEL	0.981	NNFI	n 979	SRMR	0.0482 <b>PNFI</b>	0.86
ALL II LIIIO	df	499	2.02	p value	0.000	TUNOLA	0.000	<b>0</b>	0.001		0.070	Ortimit	0.0402 11411	0.0

Table 48. Overall model fit results for Measurement Model 1

Absolute fit indices ( $x^2$ ,  $x^2$ /df, RMSEA and SRMR) measured how well the specified model fitted the sample data. The  $x^2$  examined whether a relationship existed between measures. A low  $x^2$  value is preferred over a high one, as it indicates that there is little difference between the sample and fitted covariance matrices (Hu & Bentler, 1999). A good model fit would provide an insignificant result at the 0.05 threshold (Barrett, 2007). The results indicated a high and significant  $x^2$  value.

However, as outlined in Section 6.3.4.3, the  $x^2$  is sensitive to sample size, the difference between estimated and observed covariance matrices, and deviations from multivariate normality. As the sample size and/or the number of observed variables increases, the  $x^2$  value increases. Consequently, the statistical  $x^2$  test and its resulting p-value was not meaningful for Measurement Model 1 because the sample size was large (209 cases) and the model itself had a very high number of observed variables (34 items)., In such circumstances, the use of relative chi square ( $x^2$ /df) has been recommended. The  $x^2$ /df adjusts for sample size by dividing the chi-square with the degrees of freedom. With a  $x^2$ /df of 2.32, Measurement Model 1 was well below the 3:1 ratio suggested by Hooper, Couglan and Mullen (2008).

The RMSEA test is a standardised measure of empirical discrepancy and indicates how well a model, with unknown but optimally chosen parameter estimates, would fit the population covariance matrix, taking into account the error of approximation in the population. The RMSEA of Model 1 showed a value of 0.80 in this study. Based on Hair et al. (2006) this value would indicate an acceptable model fit. However, if the more stringent upper limit of 0.07 was applied, as suggested more recently (McCallum et al., 1996; Hooper, Couglan & Mullen, 2008; Steiger, 2007), it is sensitive to improve this fit-measure by model re-specification.

The final absolute fit index, the SRMR, is the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance matrix. The values of the SRMR range from zero to 1.0; values up to 0.08 are considered as acceptable fit (Hooper, Couglan & Mullen, 2008; Hu & Bentler, 1999). The SRMR is the square root of the difference between the residuals of the sample covariance matrix and the hypothesised

covariance matrix. With a value of 0.0482, the SRMR of Model 1 indicated a good model fit, as SRMR values up to 0.08 are considered as acceptable fit (Hooper, Couglan & Mullen, 2008; Hu & Bentler, 1999).

The incremental fit indices (NNFI and CFI) used the chi square value to a baseline model and applied the null hypothesis that all variables were uncorrelated (Hooper, Couglan & Mullen, 2008). Recent studies state that the NNFI and CFI values should be above 0.95 (Hooper, Couglan & Mullen, 2008). The CFI value of 0.981 and the NNFI value of 0.979 indicated a good fit for Model 1, and ensured that misspecified models were not accepted.

Parsimony fit indices provide information about which model among a set of competing models is best, considering its fit relative to its complexity (Hair et al., 2006). PNFI is based upon the NFI, by adjusting for the loss of degrees of freedom (Hooper, Couglan & Mullen, 2008). The PNFI had a value of 0.86, yet there are no clear recommendations as regards the minimum threshold level.

All scales within Measurement Model 1 returned composite reliabilities greater then 0.91, which is well above the minimum threshold recommended by Bagozzi & Yi (1988). The average variance extracted for all constructs was above the threshold value of 0.50, as suggested by Bagozzi & Yi (1988). Indeed, the AVE for all latent constructs was above 0.67. The t-statistics showed that all factor loadings were highly significant (all greater than 1.96, as suggested by Byrne, 1998), thus providing evidence for convergent validity (Anderson & Gerbing 1988). The squared multiple correlations all met the 0.50 threshold suggested by Fornell & Larcker (1981).

Modification indices and residuals for error term estimates were used within CFA to improve the model fit to an extent that it returned acceptable results using the absolute fit index, RMSEA. The modification indices for cross-loading estimates (reported as Lamda X in the LISREL output) and the modification indices for error term estimates (reported as Theta Delta in the LISREL output) have been summarised for each individual observed variable in the model, in order to detect problematic items. It is important to note that the model modification was undertaken with a careful consideration of the underlying theory and the composite reliability of each construct. Three items were withdrawn on a step by step basis. The improvement of the overall fit measures can be viewed in Table 46.

	Chi square	x2/df	<2.5	p value	>0.05	RMSEA	<0.07	CFI	>.95	NNFI	>.95	SRMR	<0.08	PNFI	
Steps	df														
ALL ITEMS	Chi square	1157 <b>x2/df</b>	2.32	n valuo	0.000	RMSEA	0.080	CFI	0.981	NNFI	0.979	SRMR	0.0482	PNFI	0.86
	df	499		•											
Step 1: No SAT2	Chi square	1051 <b>x2/df</b>	2.25	p value	0.000	RMSEA	0.077	CFI	0.982	NNFI	0.979	SRMR	0.0475	PNFI	0.858
	df	468													
Step 2: No LOVE_PA1	Chi square	897 <b>x2/df</b>	2.06	p value	0.000	RMSEA	0.071	CFI	0.983	NNFI	0.98	SRMR	0.0436	PNFI	0.852
	df	436													
Step 3: No WOM_2	Chi square	793 <b>x2/df</b>	1.95	p value	0.000	RMSEA	0.068	CFI	0.983	NNFI	0.981	SRMR	0.0529	PNFI	0.848
	df	407													

Table 49. Overall model fit and modifications for Measurement Model 1

Firstly, the evaluative Satisfaction item, SAT\_2 ("Overall, I am satisfied with my decision to enrol in my university") was removed from the analysis. It had already been identified as a poor-performing item (when examining multi-item scales within the EFA). Within the CFA analysis, SAT\_2 revealed high modification indices and residual values. The average variance extracted for the factor Satisfaction within the initial solution exceeded the threshold level (AVE = 0.702); yet compared to the other factors in Measurement Model 1, it showed a lower AVE. When omitting SAT\_2 from the CFA, the AVE of the factor Satisfaction could be improved (AVE = 0.759). Conceptually, the construct Satisfaction is still reflected by two evaluatives (SAT\_4 and SAT\_5) and two emotional Satisfaction measures (SAT\_1 and SAT\_3). Therefore, the conceptualisation of Satisfaction as a cognitive-affective construct is still given. Furthermore, the three items from the original Brady et al. (2005) study, which formed the basis for this Overall Satisfaction scale, are still included in the study.

Secondly, the Passion item, PAS\_1 ("I am very enthusiastic about my university.") was removed because it showed the highest modification indices and residual values (in terms of modification indices for Lamda X and Theta Delta) of all assessed items; it was the item with the lowest loading on the factor Passion within the EFA and CFA; and the factor Passion had the lowest average variance extracted amongst all assessed factors with an AVE of 0.679. After removing PAS\_1 from the analysis, the overall fit of the model, as well as the average variance extracted for the factor Passion (AVE = 0.702), was improved. Conceptually, all three validated items from Yim et al. (2008) study, which formed the basis of the Passion construct, remained in the analysis (PAS\_2, PAS\_3, PAS\_5).

Thirdly, the WOM item, WOM\_2 ("...recommend my university to others.") was removed from the analysis because of its VIF values between 10.0 and 10.1, and its high modification

indices in the CFA analysis. The WOM multi-item scale showed a very high Cronbach's alpha (larger than 0.9), indicating that the number of items from the scale could be reduced. Conceptually, the construct WOM is still represented by three items: WOM\_4 is a very similar item, which assesses whether the course would be recommended; and WOM\_1 and WOM\_3, which refer to positive WOM with regards to the university.

After scale purification, an adequate model fit was obtained with a chi-square statistics = 793, df = 407 and p = 0.000, x2/df = 1.95, RMSEA = 0.068, CFI = 0.983, NNFI = 0.981 and PNFI = 0.848. Collectively, these results indicated that the group one measurement model adequately fitted the data (Byrne, 1998). Importantly, the fit indices - RMSEA (< 0.07), CFI (> 0.95), NNFI (> 0.95) and SRMR (< 0.08) - all met the more stringent recommended cut-off values for well-fitting models (as discussed in Section 6.3.4.3.5).

Although the chi-square test was significant, this statistic is dependent on sample size (amongst other issues, see Section 6.3.4.3.5). In order to account for sample size effects and model complexity, the examination of the chi-square to degrees of freedom ratio (x²/df) has been recommended (Baumgartner & Homburg, 1996; Byrne, 1989). Generally, it has been stated that this ratio should be below 3.0 (however, preferably below 2.0), with the model improving in fit as the ratio gets closer to 1.0 (Baumgartner & Homburg, 1996; Byrne, 1989). Thus, the chi-square to degrees of freedom ratio of 1.95 further supports the model's acceptable fit to the data.

The individual scale results for the final version of Measurement Model 1 are depicted in Table 47, showing the standardised factor loadings and t-values, as well as the composite reliabilities and the average variance extracted.

Confirmatory Factor Analysis R	esults - Measurem	ent Model 1	ı	actor Loadi	ng¹ (t-value)		Word-of-	Monetary
Scale Item	Satisfaction	Gratitude	Passion	Intimacy	Commitment	Participation	Mouth	Givin
SAT_1	0.873 (fixed) 0.902							
SAT_3	(18.522)							
SAT_4	0.91 (18.837)							
SAT_5	0.796 (14.623)							
GRAT_1		0.958 (fixed)						
GRAT_2		0.96 (32.788)						
GRAT_3		0.942 (29.842)						
LOVE_PA2			0.821 (fixed)					
LOVE_PA3			0.809 (13.633)					
LOVE_PA4			0.849 (14.665)					
LOVE_PA5			0.87 (15.216)					
LOVE_IN1				0.808 (fixed)				
LOVE_IN2				0.816 (13.674)				
LOVE_IN3				0.888 (15.463)				
LOVE_IN4				0.894 (15.620)				
LOVE_CO1					0.856 (fixed)			
LOVE_CO2					0.865 (16.805)			
LOVE_CO3					0.84 (15.927)			
LOVE_CO4					0.878 (17.283)			
LOVE_CO5					0.914 (18.714)			
LOVE_CO6					0.906 (18.393)			
CVP_PAR1						0.871 (fixed)		
CVP_PAR2						0.902 (18.453)		
CVP_PAR3						0.857 (16.691)		
CVP_PAR4						0.918 (19.096)		
CVP_WOM1						. ,	0.894 (fixed)	
CVP_WOM3							0.938 (21.224)	
CVP_WOM4							0.846 (17.075)	
CVP_MON1							. ,	0.94 (fixed
CVP_MON2								0.95 (26.574
CVP_MON3								0.83 (18.664
Composite Reliability (C Average Variance Extracted (AV		0.967 0.908	0.904 0.708	0.914 0.730	0.952 0.769	0.937 0.787	0.922 0.798	0.93

Table 50. CFA results, CR, AVE for Measurement Model 1

Within the Measurement Model 1, all scale loadings were above 0.8, thereby exceeding the 0.50 threshold suggested by Fornell & Larcker (1981). The t-statistics showed that all factor loadings were highly significant (all are greater than 1.96). Furthermore, the composite reliabilities values for all constructs were above 0.9 and the average variance extracted values were above 0.7, thereby exceeding the threshold values for composite reliability of 0.7 and for AVE of 0.5 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981).

In conclusion, the overall model fit; the statistically significant factor loadings; the high composite reliabilities and average variance extracted values suggest within-method convergent validity of the measures (Anderson & Gerbing 1988).

## 6.3.4.4.5 CFA, Composite Reliability and AVE Results: Group 2

The CFA results for Measurement Model 2 on overall model fit indicated a high and significant  $x^2$  value of 314, with a p-value of 0.000. However, as outlined in Section 6.3.4.3.5, the  $x^2$  is sensitive to sample size. In such circumstances, the use of the relative chi square ( $x^2$ /df) is recommended. Despite this, the Measurement Model 2 was above the 3:1 ratio suggested by Hooper, Couglan and Mullen (2008), with a  $x^2$ /df ratio of 4.25. Also the RMSEA showed a value of 0.125. Based on Hair et al. (2006), this value further indicates a poor model fit. Acknowledging that the empirical discrepancy is expressed per degrees of freedom using RMSEA, making it sensitive to the number of parameters to be estimated in the model, this fit measure could be improved by model re-specifications.

The SRMR is the square root of the difference between the residuals of the sample covariance matrix and the hypothesised covariance matrix. The values of SRMR range from zero to 1.0, with values up to 0.08 considered as an acceptable fit (Hooper, Couglan & Mullen, 2008; Hu & Bentler, 1999). The SRMR of Model 2 had a value of 0.0763, whichindicates acceptable model fit).

The incremental fit indices (NNFI and CFI) used the chi square value to a baseline model and applied the null hypothesis that all variables were uncorrelated (Hooper, Couglan & Mullen, 2008). While some authors suggest that the NNFI and CFI values should be above 0.90 (Hair et al., 2006), more recent studies state that the NNFI and CFI values should be above 0.95 (Hooper, Couglan & Mullen, 2008). The CFI value of 0.930 and the NNFI value of 0.913 for Model 2 indicated that the model fit was not enough and should be improved. The PNFI had a value of 0.74, yet there are no clear recommendations as regards the minimum threshold level.

The scales within the initial solution of Measurement Model 2 returned composite reliabilities of 0.816 for Perceived Employability, 0.808 for Actual Employability and 0.934 for Job Performance, which is well above the minimum threshold recommended by Bagozzi & Yi (1988). The average variance extracted for all constructs was above the threshold value of 0.50, as suggested by Bagozzi & Yi (1988). Indeed, the AVE for the latent construct Perceived Employability was 0.537; for Actual Employability it was 0.588 and for Job Performance it was 0.650. The t-statistics showed that all factor loadings were highly significant (all are greater than 1.96), thus providing evidence for convergent validity (Anderson & Gerbing 1988). The squared multiple correlations all met the 0.50 threshold suggested by Fornell & Larcker (1981), except for EMP4 (0.447) and particularly EPERF5 (0.34).

To improve the overall model fit, modification indices and residuals for error term estimates were used within CFA to modify the model to an extent that it returned acceptable results. The modification indices for cross-loading estimates (reported as Lamda X in the LISREL output) and the modification indices for error term estimates (reported as Theta Delta in the LISREL output) have been summarised for each individual observed variable in the model, to detect problematic items. It is important to note, that the model modification was undertaken with careful consideration of the underlying theory and the composite reliability of each construct.

The modification indices revealed that the Job Performance items were problematic. In the EFA, three Job Performance items were removed as they appeared to be problematic: the negatively worded item EPERF 5, as well as the non-validated items EPERF 1 and EPERF 2. Reviewing the measurement section, Job Performance was operationalised with a combination of two Job Performance scales (i.e. the first scale with items EPERF3 to EPERF5, and the second scale with items EPERF6 to EPERF8), which loaded on one factor in the original study (Becker et al., 1996) The EFA and CFA results revealed that EPERF 5, - one of three items of Becker et al.'s first set of measures (1996) was problematic. Therefore, only one of the two Job Performance measures was used in the study (i.e. the scale with items EPERF6, EPERF7 and EPERF8). These items conceptually cover all central facets of Job Performance. All items from the first measure of job performance (EPERF1 to EPERF5) were removed on a step-by-step basis. Each individual modification step provided further evidence from the sample data that this would be a reasonable modification, because EPERF1 to EPERF5 items turned out to be the highest in terms of modification indices. Using only one Job Performance measurement scale resulted in a significant improvement of the overall model fit. The overall fit measures can be viewed in Table 51.

			CFA M	easuremei	nt Mode	12									
	Chi square	x2/df	<2.5	p value	>0.05	RMSEA	<0.07	CFI	>.95	NNFI	>.95	SRMR	<0.08	PNFI	
Steps	df			•											
	Chi square	314													
ALL ITEMS	df	<b>x2/df</b> 74	4.25	p value	0.000	RMSEA	0.125	CFI	0.93	NNFI	0.913	SRMR	0.0529	PNFI	0.74
	Chi square	374	5.06		0.000	RMSEA	0.140	O.E.I	0.022	NNFI	0.040	SRMR	0.0763	DNE	0.746
No EPERF5	df	<b>x2/df</b> 74	5.06	p value	0.000	KWSEA	0.140	CFI	0.933	NNFI	0.918	SKIVIK	0.0763	PNFI	0.746
	Chi square	207	0.04		0.000	DMCEA	0.400	O.E.I	0.004	NNFI	0.054	CDMD	0.0000	DNE	0.754
No EPERF2	df	<b>x2/df</b> 62	3.34	p value	0.000	RMSEA	0.106	CFI	0.961	NNFI	0.951	SRMR	0.0689	PNFI	0.751
	Chi square	119	0.00		0.000	D140E4	0.000	051	0.070	MAIE	0.000	0040	0.0740	BUE	0.744
No EPERF3	df	<b>x2/df</b> 51	2.33	p value	0.000	RMSEA	0.080	CFI	0.976	NNFI	0.969	SRMR	0.0716	PNFI	0.741
	Chi square	86													
No EPERF1	df	<b>x2/df</b> 42	2.05	p value	0.000	RMSEA	0.071	CFI	0.979	NNFI	0.973	SRMR	0.0683	PNFI	0.734
	Chi square	63													
No EPERF4	df	<b>x2/df</b> 32	1.97	p value	0.001	RMSEA	0.068	CFI	0.979	NNFI	0.97	SRMR	0.0669	PNFI	0.683

Table 51. Overall model fit and modifications for Measurement Model 2

After scale purification, an adequate model fit was obtained with a chi-square statistics = 63, df = 32 and p = 0.001, x2/df = 1.97, RMSEA = 0.068, CFI = 0.979, NNFI = 0.970, SRMR = 0.669 and PNFI = 0.683. Collectively, these results indicated that the group two measurement model adequately fits the data (Byrne, 1998). Importantly, the fit indices SRMR (< 0.08), RMSEA (< 0.07), CFI (> 0.95), and NNFI (> 0.95) all meet the more stringent recommended cut-off values for well-fitting models (as discussed in Section 6.3.4.3.5). Although the chi-square test was significant, this statistic is dependent on sample size (amongst other issues. The chi-square to degrees of freedom ratio of 1.97 further supports the model's acceptable fit to the data.

The individual scale results for the final Measurement Model 2 are depicted in Table 52. This includes the standardised factor loadings and t-values, as well as the composite reliabilities and average variance extracted from all factors.

Confirmatory Factor Analysis Result	s - Measurement Mode	12	
	Factor Loading	g¹ (t-value)	
<b>-</b>	Perceived		
Scale Item	Employability	Job Performance	Actual Employability
	0.757		
EMP1	(fixed)		
	0.879		
EMP2	(11.421)		
	0.777		
EMP3	(10.809)		
	0.447		
EMP4	(6.087)		
		0.888	
EPERF6		(fixed)	
		0.95	
EPERF7		(22.173)	
		0.931	
EPERF8		(21.240)	
			0.781
EEMP1			(fixed)
			0.874
EEMP2			(12.116)
			0.63
EEMP3			(8.921)
Composite Reliability (CR)	0.815	0.946	0.809
Average Variance Extracted (AVE)	0.537	0.853	0.590
Notes: <sup>1</sup> Completely Standardized So	lution (LAMDA-X).		
<sup>2</sup> t-values are not returned fo	r fixed items.		

Table 52. CFA results, CR and AVE for Measurement Model 2

Within the Measurement Model 2, all scale loadings were above 0.63, thereby exceeding the 0.50 threshold suggested by Fornell & Larcker (1981), except for EMP4 (0.447). For conceptual reasons, EMP4 was retained in the model as it covered one important aspect of perceived employability in a HE context, namely the perceived academic performance of a student (which is likely to have an impact on their internally-perceived employability). Although the scale loading was below 0.50, it was very close to the threshold value. Furthermore, the t-statistic revealed that the factor loading was significant with a t-value of 6.087. And also the composite reliability and AVE of the Perceived Employability scale were above the acceptable threshold limits. Besides, the t-statistics show that also all other factor loadings were highly significant (all are greater than 1.96). The composite reliabilities values for all three latent constructs in Measurement Model 2 were above 0.8 and the average variance extracted values were above 0.53, thereby exceeding the threshold values for composite reliability of 0.7 and for AVE of 0.5 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981).

In conclusion, in the EFA, the items EPERF\_5, EPERF\_1 and EPERF\_2 were removed, as they appeared to be problematic both in terms of data analysis, and also conceptual terms;

as EPERF\_5 was a negatively worded item and EPERF\_1 and EPERF\_2 were added by the placement office in the pre-testing phase and not based on prior validated studies. It has been outlined in the measurement section already, that these items needed to be interpreted with caution. The CFA confirmed that these three items needed to be excluded from the analysis. Furthermore, the CFA results revealed that EPERF\_3 and EPERF\_4 were also problematic. Consequently, these two items were removed. Instead Becker et al.'s (1996) 3-item measure of overall performance was used to assess Job Peformance, which conceptually well reflects the facts of the construct. I conclusion, the overall model fit; the statistically significant factor loadings above the 0.5 threshold (except for one item); the high composite reliabilities and average variance extracted values show within-method convergent validity of the measures (Anderson & Gerbing 1988).

Overall, in Measurement Model 1 three items were removed and Measurement Model 2 two items were removed, leading to a total of 5 removed items out of a total of 46 items. The resulting a ratio of model modification amounts 10.87 percent. This can be regarded as minor modifications, according to Hair et al. (2006).

## 6.3.4.4.6 Testing the Higher-Order Structure

The final step was to integrate Model 1 and Model 2 into one measurement model. In the final sample size of 209, there were 41 observed variables. Therefore, the recommended five cases per item ratio of Bentler & Chou (1987) could be sufficiently met. While Satisfaction, Gratitude, Perceived Employability, Participation, WOM, Monetary Giving, Job Performance and Actual Employability were specified as first-order factors, Love was specified as a second-order factor in the final measurement model. The correlations among Passion, Intimacy and Commitment can be represented by Love.

		CFA Measurement Model 1 and Measurement Model 2											
	Chi square	x2/df	<2.5	p value	>0.05	RMSEA	<0.07	CFI	>.95	NNFI	>.95	PNFI	
	df	X2/Uj	aj \2.5	p value	×0.03	KWOLA	10.07	011	2.00		2.55		
MM1 and MM2	Chi square	1195 <b>x2/df</b>	1.65	p value	0.000	RMSEA	0.056	CFI	0.982	NNFI	0.98	PNFI	0.85
	df	725											
MM1 and MM2 with Love as highe	Chi square	1271 <b>x2/df</b>	1.71	p value	0.000	RMSEA	0.059	CFI	0.981	NNFI	0.979	PNFI	0.868
order factor	df	742											

Table 53. Overall model fit with higher-order factor solution

The full measurement model (including all observed variables from Measurement Model 1 and Measurement Model 2) resulted in an adequate model fit with chi-square statistics = 1195, df = 725 and p = 0.000, x2/df = <math>1.65, RMSEA = 0.056, CFI = 0.982, NNFI = 0.980 and PNFI = 0.85 (see Figure 16).

With the full measurement model including Love as a higher-order structure, an adequate model fit was also obtained with chi-square statistics = 1271, df = 742 and p = 0.000, x2/df = 1.71, RMSEA = 0.059, CFI = 0.981, NNFI = 0.979 and PNFI = 0.868.

Collectively, these results indicated that the full measurement model adequately fitted the data (Byrne, 1998). Importantly, the fit indices SRMR (< 0.08), RMSEA (< 0.07), CFI (> 0.95), and NNFI (> 0.95) all met the more stringent recommended cut-off values for well-fitting models as discussed above. The chi-square test was significant, yet, this statistic is dependent on the sample size. In order to account for sample size effects and model complexity, an examination of the chi-square to degrees of freedom ratio ( $x^2$ /df) has been recommended (Baumgartner & Homburg, 1996; Byrne, 1989). Generally, the recommendation is that this ratio should be below 3.0 (however, preferably below 2.0), with the model improving in fit as the ratio gets closer to 1.0 (Baumgartner & Homburg, 1996; Byrne, 1989). Thus, the chi-square to degrees of freedom ratio of 1.71 further supports the model's acceptable fit to the data.

Within the full measurement model, with the higher factor solution for Love, all scale loadings were above 0.63, thereby exceeding the 0.50 threshold suggested by Fornell & Larcker (1981), except for EMP4 (0.447) (see discussion in Section 6.3.4.4.6 on Measurement Model 2 results). The t-statistics showed that also all other factor loadings were highly significant (all greater than 1.96). The composite reliabilities and AVE of all latent constructs exceeded the threshold values for composite reliability of 0.7 and for AVE of 0.5 (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). As regards Love, the factor loadings were 0.927 for Passion, 0.957 for Intimacy and 0.935 for Commitment. All three loadings were significant. The composite reliability of Love was 0.958 and the average variance extracted was 0.883. The standard solution for the full measurement model, with the higher-order structure, is depicted in Figure 16.

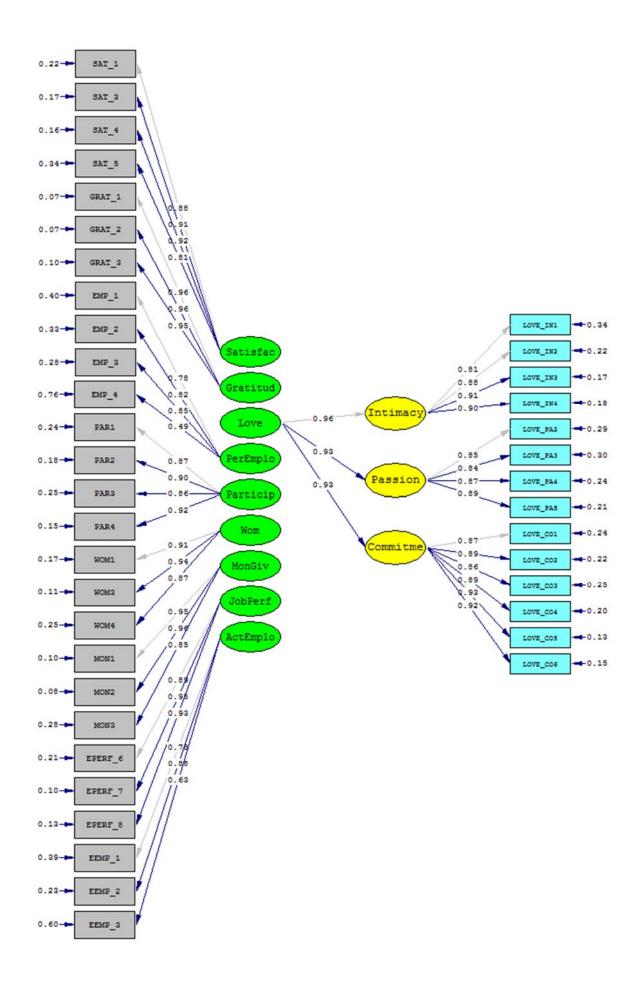


Figure 16. Full measurement model with higher-order factor solution

### 6.3.4.4.7 Validity Results

It was important to establish discrimant validity of all latent constructs based on Fornell and Larcker's (1981) criterion. The results indicate discriminant validity, because: the correlations between all employed reflective measures were significantly below 1 with the highest correlation being 0.630 between WOM and Love; and most importantly, each construct's AVE exceeds each of its shared variance with any of the other latent constructs (see Table 51).

	Satisfaction	Gratitude	Love	PerEmplo	Participation	Wom	MonGiv	JobPerf	ActEmplo
Satisfac	0.759	0.616	0.594	0.465	0.107	0.608	0.276	0.006	0.013
Gratitud	0.616	0.908	0.679	0.517	0.163	0.596	0.309	0.006	0.005
Love	0.594	0.679	0.883	0.537	0.214	0.724	0.457	0.004	0.031
PerEmplo	0.465	0.517	0.537	0.537	0.185	0.469	0.261	0.028	0.050
Particip	0.107	0.163	0.214	0.185	0.787	0.235	0.185	0.018	0.024
Wom	0.608	0.596	0.724	0.469	0.235	0.798	0.307	0.013	0.040
MonGiv	0.276	0.309	0.457	0.261	0.185	0.307	0.835	0.003	0.015
JobPerf	0.006	0.006	0.004	0.028	0.018	0.013	0.003	0.835	0.588
ActEmplo	0.013	0.005	0.031	0.050	0.024	0.040	0.015	0.588	0.590

Table 54. Discriminant validity results

### 6.3.4.5 Results of Descriptive Analysis of Final Reflective Measures

Finally, the final reflective measures were examined in terms of their distributional characteristics. The results for CS will be presented below. The analysis was conducted accordingly for all other latent constructs of the study and can be found in Appendix D.8.

The latent construct Satisfaction was composed of four observed measures (SAT\_1, SAT\_3, SAT\_4 and SAT\_5). The summated Satisfaction scale had a mean value of 4.033. Its minimum value was 1.25 and its maximum value was 5.0.

The normality of distribution of the Satisfaction scale was assessed in the following ways: a histogram was used as a graphical technique to gain a picture of the distribution; the Kogomorov-Smirnoff test (KS) was applied as a statistical test of the normality of distribution; and the kurtosis and skewness values were examined for a numerical understanding of the distribution (Hair et al., 2006; West, Finch & Curran, 1995).

Figure 17 shows the histogram and distribution of the Satisfaction scale. The Satisfaction scale was positively skewed and right-edged. The KS test statistic returned a significant KS result; with a value of 0.178 and a two-tailed asymptotic significance of 0.000. The non-significant KS test result indicated that the observed distribution did not approximate normality

(Hair et al., 2006). Yet, it has been argued that the KS test (as well as similar statistical tests) is extremely sensitive to minor departures from normality (Sharma, 1996) and 'normal' distributed data within the social sciences rarely exists (Bentler & Chou, 1987; Barnes, Cote, Cudeck & Malthouse, 2001). The skewness and kurtosis of the Satisfaction scale was analysed in a further step (West, Finch & Curran, 1995). The Satisfaction scale variable had a skewness value of -0.958 and a kurtosis value of 0.532. Severely non-normal variables have been described in the relevant research fields as having skewness and kurtosis in the range of 3 and 21 respectively (West, Finch and Curran, 1995). The respective values for the Satisfaction scale were well below the suggested threshold levels (West, Finch & Curran, 1995)., Therefore, the Satisfaction scale was not severely non-normal and required no further modification before covariance based SEM analysis.

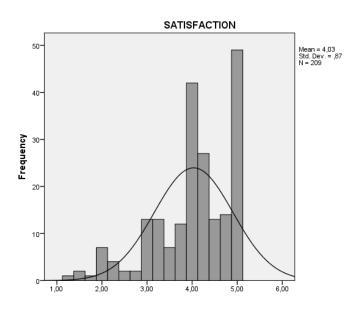


Figure 17. Histogram of Overall Satisfaction

# 6.4 Hypotheses Testing

After the descriptive analysis and reflective measure validation followed the testing of the structural model (see Figure 18), as outlined below.

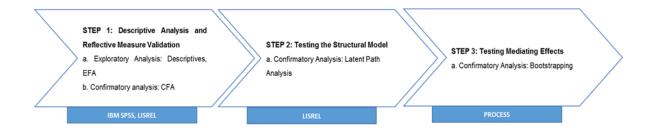


Figure 18. Data analysis step 2: Testing the structural model and individual paths

### 6.4.1 Latent Variable Path Analysis

After the descriptive analysis and the reflective measure validation, the structural model was tested via latent variable path analysis. The analysis procedure and results are presented in the subsequent sections.

In the conceptual model, interrelationships between latent constructs (i.e. unobservable factors that are represented by multiple variables) were hypothesised. In particular, Satisfaction was hypothesised to directly and indirectly (though the mediators of Perceived Employability, Gratitude and Love) influence CEBs. Latent variable path analysis was chosen to assess the hypothesised relationships developed in the conceptual model. This is because it is an application of SEM that allows for incorporating both measurement and structural (i.e. latent and observable) construct interrelationships (Kelloway, 1998). As SEM can involve different analysis methods, it is important to note that within this study SEM refers to CFA and latent variable path analysis.

Although SEM requires stringent assumptions regarding data quality and can be challenging in the interpretation of results, the method offers multiple advantages over other competing methods of analysis, such as ANOVA or multiple regression.

Firstly, SEM approaches, such as latent variable path analysiss, allow for the examination of the effects of multiple independent variables on each other (Hooley, 1995). In contrast, in multiple regression analysis, the direct effects of multiple independent variables can only be measured on one outcome variable at a time (Backhaus, 2013). As the present conceptual model incorporateds multiple independent, mediating and outcome variables, SEM allows for testing all these variables simultaneously. Therefore, a more robust hypothesis testing approach was possible with SEM. Secondly, latent variable path analysis allows the researcher to estimate multiple and interrelated dependence relationships between unobserved factors, and corrects them for measurement error in the estimation process. Thirdly, SEM is a flexible approach to examining the interrelationships of observed and unobserved factors that allows for different applications (Hoyle, 1995).

Despite these outlined advantages, SEM has shortcomings as regards the testing of causal relationships using cross-sectional data (Hoyle, 1995).

## 6.4.1.1 Stages in Structural Equation Modelling

Latent variable path analysis is a SEM approach reflecting both measurement and structural considerations (Kelloway, 1998). Interrelated relationships between latent constructs are tested simultaneously, using elements of factor analysis and multiple regression analysis, while incorporating the effects of measurement error on the relationships (Hair et al., 2006). According to Schumacker and Lomax (2010), the stages in SEM include:

- 1. The establishment of a theoretical model,
- 2. Model specification,
- 3. Model estimation,
- 4. Model testing, and
- Model modification.

The established conceptual framework formed the basis for model specification. Model specification, identification, estimation, testing and modification are necessary for both the measurement and the structural models. These individual stages have been elaborated on in depth for the measurement model in the CFA section. Therefore, the following sections focus on the specifics or structural models.

# 6.4.1.2 Model Specification

In latent variable path analysis, both the measurement model and the structural model need to be specified. Having established a measurement model (see the results of the CFA), a structural model can be specified by assigning relationships from one construct to another, based on the proposed conceptual model. The structural model can be visualised via a path diagram. Furthermore, the structure of interrelationships between the hypothesised constructs can be expressed in a series of equations. In contrast to other multivariate techniques, SEM estimates a series of separate, but interdependent, multiple regression equations simultaneously. An equation is set up for each endogenous variable (Backhaus et al., 2013). The structural equations for latent constructs can be summarised as:

Equation 9:

$$n = Bn + \Gamma \xi + \zeta$$

Whereby, **B** represents a mxm regression matrix that relates the m endogenous latent constructs  $(n_s)$  to one another.  $\Gamma$  is the representation of the mxn matrix, i.e. the regression of n exogenous latent constructs  $(\xi_s)$  on m endogenous latent constructs  $(n_s)$ .  $\zeta$  represents the matrix of residuals (Byrne, 1998). The structural model was specified as follows:

#### Equation 10:

```
Employability = \gamma_1 Satisfaction + \zeta_1

Gratitude = \beta_1 Satisfaction + \beta_2 Employability + \zeta_2

Love = \beta_9 Satisfaction + \beta_{10} Employability + \beta_5 Gratitude +\zeta_3

Participation = \beta_6 Love + \zeta_4

WOM = \beta_7 Love + \zeta_5

Monetary Giving = \beta_8 Love + \zeta_6

Job Performance = \beta_3 Employability + \zeta_7

Actual Employability = \beta_4 Employability + \zeta_8
```

The equations for the measurement model of the latent exogenous variables follow as specified in the CFA section.

For the structural model to run, both the measurement and the structural specifications need to be coded in the SIMPLIS syntax in LISREL.

# 6.4.1.3 Structural Model Identification

This section considers the identification of the structural model. One condition of over-identification in structural models is a one-way causal flow (i.e. recursive) in which specified relationships are set to zero. A further condition for over-identification is that each latent variable is measured with three or more indicators (or two when the sample size is large and/or the respective two variables are specified to be related) (Bollen, 1989). All latent constructs in the full measurement model are either measured with three or more variables. Therefore, this condition was fulfilled in this study.

As there were 41 observable variables in the full structural model, there were 861 pieces of information (41\*(41+1)/2) from which to derive the parameters of the model. Counting up the unknown parameters in the model, there were 95 parameters to be estimated: (sum of measurement regression paths (, i.e. factor loadings of the exogenous variables and factor loadings of the endogenous variables, given that the first variable is fixed to 1); structural

regression paths; error variances; residual error variances; and covariances). This resulted in 766 degrees of freedom and, as a consequence, an over-identified model.

#### 6.4.1.4 Parameter Estimation

Once the model was specified and the identification problem addressed, the next step was to decide on the parameter estimation strategy and establish the parameters of the specified model. A two-step analysis approach was chosen (Anderson & Gerbing, 1988) in which first, the measurement model was estimated, modified and fixed, and second, the structural model was estimated. The rationale for this two-step approach (instead of a one-step approach in which both the measurement and structural model are estimated simultaneously) is that an accurate representation of the reliability of the indicators is best accomplished in two steps, as the interaction between the measurement and structural model is avoided (Hair et al., 2006).

The structural path model represents a series of hypotheses about how CS, directly and indirectly, leads to CEBs. The parameters of the model are the regression coefficients, variances and covariances of variables. These parameters are fundamental to interpreting the model fit, yet they are unknown and need to be estimated from the data (Chou & Bentler, 1995). Both the estimates of parameters and the goodness-of-fit statistic  $x^2$  test as well the results for estimates and model tests depend on the parameter estimation technique (Chou & Bentler, 1995). As for the CFA analysis, the ML estimation technique was chosen for parameter estimation for the structural model. ML was appropriate for the latent variable path analysis as well, because the multivariate normality assumption was met with acceptable skewness and kurtosis values (see Appendix D.8), missing data and outliers were treated and there were continuous variable data. In addition, there were no multicollinearity issues (see VIF test results above). Moreover, ML is recommended for multivariate normal data with small to modest sample sizes (Schuhmacker & Lomax, 2010).

## 6.4.1.5 Assessing the Structural Model

Bagozzi (1981, p. 375) acknowledges:

"The evaluation of structural equation models is a complex conceptual and empirical activity [which] requires a confluence of at least three activities to ensure even a minimal degree of success. That is, the assessment of structural equation models involves theoretical, methodological, and statistical analyses."

The algorithms that perform SEM estimations have the objective to firstly calculate an estimated covariance matrix derived from the path estimates of the model, and then to assess the degree of fit to the observed covariance model. By comparing the estimated covariance matrix with the observed covariance matrix, the overall structural model fit can be assessed. Statistically, a structural model is considered valid by the extent to which it demonstrates acceptable fit, and the path estimates are significant and in the predicted direction (Hair et al., 2006).

The overall model fit is assessed with different measures of fit. The different measures of fit are discussed in detail in CFA section (see Section 6.3.4.3.5). The choice of fit measures is relevant for the structural model as well.

## 6.4.1.6 Modification of the Structural Model and Competing Model Testing

Jöreskog and Söborn (1996) distinguish between three different model testing strategies: the model confirmation strategy; the alternative model testing strategy; and the model generation strategy. The theoretically most robust strategy is the model confirmation strategy. Thereby, a single conceptual model is established theoretically and then tested via structural equation modelling. Based on the sample data, the structural model is accepted or rejected. In an alternative model testing strategy, a set of different conceptual models are hypothesised. Based on the sample data, the structural model showing the most acceptable overall model fit is selected. Finally, the model generation approach is the least theoretically grounded approach, as only a tentative conceptual model is specified. Based on the sample data, the tentative structural model is re-specified and modified until the overall structural model fit is acceptable. Although the model generation approach is widely used, it is a highly controversial strategy (Hair et al., 2006; Hoyle, 1995). This study followed a model confirmation strategy due to its ascertained theoretical robustness.

#### 6.4.2 Overall Structural Model Fit Results

Before testing the structural model, it was important to review that all assumptions for SEM were met (see Appendix D.5). As regards the normality assumption, it is outlined in the descriptive analysis in Appendix D.8 that all variables were retained, without transformation, for future analysis in covariance based structural equation modeling (CBSEM), as the variables were not severely non-normal. This decision is further supported through the following arguments: (i) the Maximum-Likelihood (ML) estimator of CBSEM is considered relatively robust to violations of normality assumptions (Bollen, 1989; Diamantopoulos, Siguaw & Siguaw, 2000); (ii) Monte-Carlo experiments found no major differences, in terms of SEM analysis results, using ML estimator on samples with different Skewness and Kurtosis

levels (Reinartz, Haenlein & Henseler, 2009); and (iii) normality can have a serious impact when the sample size is small (less than 50 cases), but the effect diminishes and may become negligible when the sample size reaches 200 cases or more (Hair et al., 2006). As the research data set included 209 cases, it reduces the detrimental effects of non-normality.

#### 6.4.2.1 Structural Model Fit

The final step of the SEM analysis was an assessment of the structural model representing path analysis. The results clearly showed that (except for the  $x^2$  statistics) the model fitted adequately on all fit measures, according to threshold values suggested in the literature (Hu & Bentler, 1999; Hooper, Coughlan & Mullen, 2008), with a chi-square = 1432, df = 766 and p = 0.000, x2/df = 1.87, RMSEA = 0.066, CFI = 0.976, NNFI = 0.975; SRMR = 0.0831 and PNFI = 0.892. The chi-square test needed to be assessed with caution, as it is sensitive to sample size (Bagozzi, 1981). That is, as the chi-square is directly proportional to the sample size, "virtual any model is likely to be neglected if the sample is large enough" (Bagozzi, 1981, p. 378). The results confirmed Hair et al.'s (2006) recommendation for a sample below 250 cases (i.e. a CFI and NNFI above 0.92, an RMSEA lower than 0.80 with a CFI above 0.92 and a SRMR below 0.90). Also Hu and Bentler (1999) suggested a two-index presentation strategy, with the fit index combination (and suggested thresholds) of a CFI of 0.96 or higher and a SRMR of 0.9 or lower was met.

#### 6.4.2.2 Structural Model Fit with Control Variables

The primary results were reported both with and without the control variables, as is recommended as good practice by Becker (2005). The selection and measurement of control variables is expanded on in Section 6.1.5.3. Before inputting the control variables to the SEM analysis (and thereby enhancing model complexity), the effect of the individual control variables was assessed, using bivariate correlations and the non-parametric independent samples t-test in IBM SPSS. The independent samples Mann-Whitney U and the Kolmogorov-Smirnov tests indicated that the distribution of CS, Perceived Employability, Gratitude, Love, Participation, WOM, Monetary Giving, Job Performance and Actual Employability was the same across the two categories of gender, (male and female) and that the null hypothesis (indicating that there is no relationship) should be retained. Also, the bivariate correlations indicated no significant correlations between Gender and any of the exogenous, mediating or endogenous variables. As no significant impact of gender on the latent construct was found, the variable was not included in the SEM analysis.

Similarly, the independent samples Mann-Whitney U and the Kolmogorov-Smirnov tests indicate that the distribution of CS, Perceived Employability, Gratitude, Love, Participation,

WOM, Monetary Giving, Job Performance and Actual Employability was the same across the two categories of school (business versus non-business students) and that the null hypothesis (indicating that there is no relationship) should be retained. The bivariate correlations further indicated no significant correlation between school and any of the exogenous, mediating or endogenous variables. As no significant impact of school on the latent construct was found the variable was not included in the SEM analysis.

Finally, as regards the impact of mood, an independent samples Kruskal Wallis test was conducted for the metric variable mood. The results indicated that the distribution of CS, Perceived Employability, Gratitude, Love, Participation, WOM, Monetary Giving, Job Performance and Actual Employability was different across the five different mood states and that the null hypothesis (indicating that there was no relationship) should be rejected. Furthermore, the bivariate correlations indicated significant correlations at the .000 level between Mood and Satisfaction, Employability, Gratitude, Love, Participation, WOM and Monetary Giving. No correlation was found (as expected) between Mood and Job Performance or Actual Employability. Consequently, the variable mood was included in the SEM analysis, and was specified as impacting the endogenous CEBs of direct benefit to the firm variables (i.e. Participation, WOM and Monetary Giving).

The SEM analysis was repeated with the inclusion of the control variable mood. The results with the control variable clearly showed that (except for the x² statistics) the model fitted adequately on all fit measures, according to threshold values suggested in the literature (Hu & Bentler, 1999; Hooper, Coughlan & Mullen, 2008) with a chi square = 1466.93 (df = 802) p = 0.000; x2/df = 1.83; RMSEA = 0.063; CFI = 0.976; NNFI = 0.976; SRMR = 0.0795; PNFI = 0.89. As can be seen, the structural model with the control variable mood had a slightly improved fit than the structural model without the control variable. As the results barely differed, further analyses were conducted without the controls (Becker, 2005).

#### 6.4.2.3 Model Modification and Alternative Model Testing

A model confirmation approach was chosen for the present study. A theoretical review, as well as a qualitative study, informed the development of the conceptual model proposed in Chapter 5. The structural model tested the hypotheses as outlined in the conceptual framework. No alternative models were hypothesised and it was not intended to generate models based on sample data.

Despite this, due to discussions and equivocal findings on the direct or indirect effect of CS on different CEBs (see Chapter 1) and the novelty of the mediating effects tested, four alternative models were tested empirically, only to further confirm the structural model

hypothesised. The first alternative model tested the direct effect of CS on all outcome variables (i.e. Participation, WOM, Monetary Giving, Job Peformance and Actual Employability). In this direct effect model, there were no mediating effects. As the three mediators (Perceived Employability, Gratitude and Love) are novel mediators in terms of indirectly linking CS to the different CEBs, three alternative models were tested in which one mediator was dropped from the analysis. The overall fit measures for the conceptual and the four alternative models are outlined in Table 55.

				SEM - Al	ernative	Model Test	ing						
	Chi square	x2/df	<2.5	p value	>0.05	RMSEA	<0.08 with	CFI	>.95	NNFI	>.95	PNFI	
SEM	df						CFI>.92						
Comments of Adada	Chi square	1432	1.87	p value	0.000	RMSEA	0.066	CFI	0.976	NNFI	0.975	PNFI	0.892
Conceptual Model	df	<b>x2/df</b> 766	1.87	p value	0.000	RIVISEA	0.000	CFI	0.970	MINE	0.975	PNFI	0.692
	Chi square	1638	2.13	p value	0.000	RMSEA	0.074	CFI	0.972	NNFI	0.97	PNFI	0.892
Direct Effects Model	df	<b>x2/df</b> 769						011		1414[1			0.892
Conceptual Model	Chi square	1187	4.00		0.000	RMSEA	0.000	OFI	0.077		0.075	DUE	0.000
without Perceived Employability	df	<b>x2/df</b> 619	1.92	p value	0.000		0.066	6 CFI	0.977	NNFI	0.975	PNFI	0.889
Conceptual Model	Chi square	1314	2.04	p value	0.000	DMCEA	0.070	CFI	0.074	MMEI	0.000	PNFI	0.004
without Gratitude	df	<b>x2/df</b> 655	2.01	p value	0.000	RMSEA	0.070	070 <b>CFI</b>	0.971	NNFI	0.969	FINFI	0.884
SEM Conceptual Model	Chi square	656	0.00		0.000	D140E4	0.070	051	0.004		0.00	DUE	0.045
without Love	df	<b>x2/df</b> 316	2.08	p value	0.000	RMSEA	0.072	CFI	I 0.964	NNFI	0.96	PNFI	0.845

Table 55. Overall model fit for conceptual and alternative structural models

The results indicate that the only model that did not show an adequate fit was the direct effects model, with  $x^2/df = 2.13$ , RMSEA = 0.074, a CFI = 0.972 and a NNFI = 0.97. The models with the best overall model fit were the conceptual model with the lowest  $x^2/df = 1.87$  and RMSEA = 0.074 and the highest NNFI = 0.975 and PNFI = 0.892. There were similar strong results for the alternative model with the mediators Gratitude and Love (i.e. without Perceived Employability). Although the CFI = 0.977 was slightly higher and the RMSEA and NNFI were equal to the values of the conceptual model, the  $x^2/df = 1.92$  was higher and the PNFI = 0.889 was lower than for the conceptual model.

The results of the alternative model testing indicate that the conceptual model with all three mediators had a better overall model fit than the direct effect model. Therefore, although CS is an important predictor for different CEB s, it appears to be not a sufficient predictor. The affective and cognitive constructs, Gratitude, Love and Perceived Employability, also appeared to be central mediators between CS and the different CEBs. To further test and understand the mediating effects, a bootstrapping method was applied as described in the following section.

# 6.4.3 Individual Hypothesis Testing Results

The individual hypotheses were tested in a three-step approach. First, individual hypotheses were tested via latent variable path analysis. Second, control paths were examined. The results of these analysis steps will be outlined in the following subsections. Finally, hypothesised simple and multiple serial mediation effects were further assessed via bootstrapping method.

For individual analysis, all proposed hypotheses were supported, with parameter estimates being significant at the 5% level. The individual standardised and unstandardised parameter estimates and corresponding t-values are reported in the individual hypotheses analysis results Table 56.

Table 56. Individual hypotheses analysis results

Conceptual Model Hypotheses Testing via Path A	ınalys	iis	Unstandardized parameter estimates	Standardized parameter estimates	t-values
H1 Customer Satisfaction	>	Perceived Employability	0.522	0.636	8.222
H2 Perceived Employability	>	Job Performance	0.191	0.179	2.346
H3 Perceived Employability	>	Actual Employability	0.151	0.22	2.709
H4 Customer Satisfaction	>	Feelings of Gratitude	0.666	0.544	7.784
H5 Perceived Employability	>	Feelings of Gratitude	0.49	0.328	4.559
H6 Customer Satisfaction	>	Love	0.268	0.28	3.748
H7 Perceived Employability	>	Love	0.275	0.235	3.324
H8 Feelings of Gratitude	>	Love	0.343	0.438	5.614
H10 Love	>	Participation	0.468	0.456	6.349
H9 Love	>	Word-of-Mouth	0.851	0.848	13.019
H11 Love	>	Monetary Giving	0.941	0.635	9.53

Chi square = 1432.43 (df = 766) p = 0.000; x2/df = 1.87; RMSEA = 0.066; CFI = 0.976; NNFI = 0.975; SRMR = 0.083; PNFI = 0.892 Critical t-value (one-tailed): +/- 1.645

Hypothesis 1, which states that CS is positively related to Perceived Employability was supported with parameter estimates being significant at the 5% level ( $\lambda = 0.636$ ; t = 8.222).

When assessing the relationship between Perceived Employability on HCPs, the results indicated that both hypothesis 2, which states that Perceived Employability is positively related to Job Performance ( $\lambda$  = 0.179; t = 2.346) and hypothesis 3, postulating that Perceived Employability leads to Actual Employability as rated by employers ( $\lambda$  = 0.220; t = 2.709), were supported.

As regards the affective constructs, both hypothesis 4, which postulates that CS leads to Feelings of Gratitude ( $\lambda$  = 0.548; t = 7.828) and hypothesis 5, which states that Perceived Employability leads to Gratitude ( $\lambda$  = 0.324; t =4.5), were supported. Similarly, both hypothesis 6, indicating that CS leads to Love ( $\lambda$  = 0.259; t =3.34) and Hypothesis 7, stating that Perceived Employability is positively related to Love ( $\lambda$  = 0.106; t =2.767) were supported, with parameter estimates being significant at the 5% level.

In regard to the sequence of the affective constructs Gratitude and Love, hypothesis 8 suggests that Feelings of Gratitude positively relate to Love. This hypothesis was supported ( $\lambda$  = 0.441; t =5.391). The following sequences were also supported with parameter estimates at the 5% level: Hypothesis 9, indicating that Love leads to Participation ( $\lambda$  = 0.585; t = 6.240); hypothesis 10, proposing that Love positively affects WOM ( $\lambda$  = 0.677; t =9.956); and hypothesis 11 stating that Love leads to Monetary Giving ( $\lambda$  = 0.587; t =7.252).

# 6.4.4 Individual Hypothesis Testing Results with Control Paths

When re-running the analysis with the control variable, the results essentially do not change. All hypotheses were supported. The detailed individual hypotheses analysis results, with control paths including unstandardised parameter estimates, standardised parameter estimates and t-values, can be viewed in Table 57. As regards the control variable paths, it can be noted that Mood had a significant effect on WOM ( $\lambda$  = 0.452; t =3.313), but not on Participation ( $\lambda$  = -0.386; t =-2.441) and Monetary Giving ( $\lambda$  = 0.143; t =1.204).

-				Unstandardized	Standardized	
Con	ceptual Model with Contro	ols		parameter	parameter	
Нур	otheses Testing via Path A	nalys	is	estimates	estimates	t-values
H1	Customer Satisfaction	>	Perceived Employability	0.525	0.635	8.192
H2	Perceived Employability	>	Job Performance	0.191	0.178	2.339
НЗ	Perceived Employability	>	Actual Employability	0.151	0.219	2.7
H4	Customer Satisfaction	>	Feelings of Gratitude	0.674	0.548	7.828
H5	Perceived Employability	>	Feelings of Gratitude	0.482	0.324	4.5
Н6	Customer Satisfaction	>	Love	0.296	0.259	3.34
Н7	Perceived Employability	>	Love	0.332	0.24	3.271
Н8	Feelings of Gratitude	>	Love	0.41	0.441	5.391
H10	Love	>	Participation	0.504	0.585	6.24
Н9	Love	>	Word-of-Mouth	0.58	0.677	9.056
H11	Love	>	Monetary Giving	0.736	0.587	7.252
C1	Mood	>	Participation	-0.319	-0.386	-2.441
C2	Mood	>	Word-of-Mouth	0.37	0.452	3.313
С3	Mood	>	Monetary Giving	0.172	0.143	1.204

Chi square = 1466.93 (df = 802) p = 0.000; x2/df = 1.83; RMSEA = 0.063; CFI = 0.976; NNFI = 0.976; SRMR = 0.0795; PNFI = 0.89

Critical t-value (one-tailed): +/- 1.645

Table 57. Individual hypotheses analysis results with control paths

# 6.4.5 Mediation Analysis

Finally, in order to further analyse the mediating mechanisms hypothesised, the simple and serial mediation effects between CS and CEBs were examined (see Figure 19). After a general discussion on mediating effects, the results of the mediation analysis are presented.



Figure 19. Data analysis step 3: Testing mediating effects

# 6.4.5.1 Mediation Analysis

The conceptual framework suggests that observed relationships are part of a more complex chains of effects. These complex relationships are modelled as mediators (Little, Card, Bovaird et al., 2007). Mediation is a process when an exogenous variable affects an endogenous variable indirectly, through at least one intervening (mediating) variable (Preacher & Hayes, 2008). Therefore, variations in the exogenous variable causes variations

in one or more mediator variable(s), which in turn causes variation in the endogenous variable (Hayes, 2013). In contrast, moderation is a changer of a relationship as a function of an interaction effect, whereby a nonlinear combination (product) of two variables accounts for a unique amount of variability in Y, above and beyond the linear main effects of X and the moderator variable W. These conditions must be based on theoretical or procedural grounds (Bagozzi, 1981). A distinction can be made between different mediation designs (simple, multiple, serial mediations). Furthermore, there are different methods for testing mediation effects. These distinctions will be explained in the following subsections.

### 6.4.5.2 Simple Mediation Analysis

In terms of mediation design, a distinction can be made between simple mediation analysis and multiple and serial mediation analysis (Hayes, 2013), depending on the number and sequence of mediators.

Simple mediation occurs when a single mediating variable is involved in a mediation process (Preacher & Hayes, 2008). Two forms of design are depicted in Figure 20. The Figure presents one exogenous variable **X** on mediator **M**, and one endogenous variable **Y**.

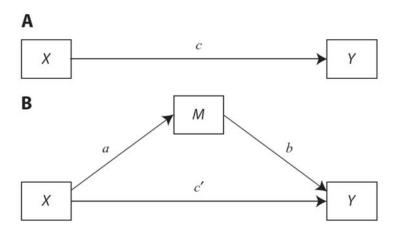


Figure 20. (A) Illustration of a direct effect. (B) Illustration of a simple mediation design. (Preacher & Hayes, 2008, p. 880)

Design A shows a direct effect of X on Y. Design B shows a simple mediation design. Path c denotes the direct effect of X on Y. Path a illustrates the effect of X on M; path b represents the effect of M on Y; and path c' shows how X effect on Y can be apportioned into its direct effect of X on Y and in its indirect effect of X on Y through M. The total effect of X on Y is the sum of the direct and indirect effects, which can be expressed as c = c' + ab (Preacher & Hayes, 2008). Equivalently, c' is the difference between the direct effect of X on Y and the indirect effect of X on Y through M, which can be quantified as c' = c - ab (Preacher & Hayes,

2008). All paths are quantified typically with unstandardised regression coefficients (Hayes, 2013).

As there are two consequent variables in this diagram (i.e. M and Y), two linear models are required, which can be represented in two equations:

Equation 101:

$$M = i_1 + aX + e_M$$

Equation 12:

$$Y = i_2 + c'X + bM + e_Y$$

where  $i_1$  and  $i_2$  are regression intercepts,  $e_M$  and  $e_Y$  are errors in the estimations of M and Y respectively, and  $e_Y$  are the regression coefficients consequents (Hayes, 2013).

## 6.4.5.3 Multiple Mediation Analysis

Simple mediation is conceptually often an oversimplification of reality. In contrast to simple mediation, multiple mediation assesses simultaneously two or more mediators between  $\boldsymbol{X}$  and  $\boldsymbol{Y}$ . Assessing multiple mediators allows for:

- Testing whether a mediator variable causes an endogenous variable (and is not simply correlated with another variable, which causes an endogenous variable as could be the case in simple mediation designs), and
- Comparing the size of the indirect effects of X through the different mediators (Hayes, 2013).

Within multiple mediation designs, a further distinction can be made between the parallel multiple mediation model and the serial multiple mediation model (Hayes, 2013).

In a **parallel multiple mediator** design, the direct effect of X on Y, as well as the indirect effect of X on Y through two or more mediators, are modelled, with the condition that no mediator is modelled as influencing another mediator in the same model. Although in reality, mediators might be correlated, this type of multiple mediation model specifies that they are not causally so. Parallel multiple mediator models are often used to test and compare the sizes of indirect effects through different mediators (Hayes, 2013).

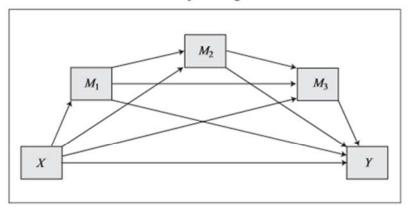
In contrast, **multiple serial mediation** rejects this assumption that there is no causal relation between two or more mediators. Indeed, multiple serial mediation occurs when two or more mediators remain correlated, even after adjusting for X, because one mediator affects another (Hayes, 2013).

Figure 21 is a depiction of a serial multiple mediation model with three mediators. X is the exogenous variable, Y is the endogenous variable and M1, M2, and M3 are three mediators that are in a causal chain. The arrows show all possible ways in which X effects, either directly or indirectly via M, the endogenous variable Y. The statistical model shows eight distinct effects of X on Y. Firstly, C' is the direct effect of X on Y. Secondly, there are three indirect paths of X to Y though a single mediator ( $X \rightarrow M1 \rightarrow Y$ ;  $X \rightarrow M2 \rightarrow Y$ ;  $X \rightarrow M3 \rightarrow Y$ ). Thirdly, there are three indirect paths of X to Y through two mediators ( $X \rightarrow M1 \rightarrow M2 \rightarrow Y$ ;  $X \rightarrow M1 \rightarrow M2 \rightarrow M3 \rightarrow Y$ ). Finally, there is one through all three mediators in serial ( $X \rightarrow M1 \rightarrow M2 \rightarrow M3 \rightarrow Y$ ).

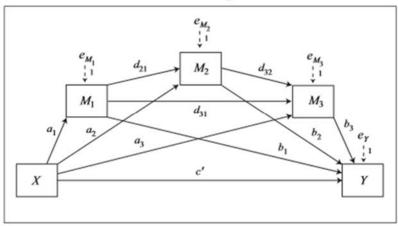
#### Model 6

(3 mediators)

#### Conceptual Diagram



## Statistical Diagram



Indirect effect of X on Y through  $M_i$  only =  $a_i b_i$ Indirect effect of X on Y through  $M_1$  and  $M_2$  in serial =  $a_1 d_{21} b_2$ Indirect effect of X on Y through  $M_1$  and  $M_3$  in serial =  $a_1 d_{31} b_3$ Indirect effect of X on Y through  $M_2$  and  $M_3$  in serial =  $a_2 d_{32} b_3$ Indirect effect of X on Y through  $M_1$ ,  $M_2$ , and  $M_3$  in serial =  $a_1 d_{21} d_{32} b_3$ Direct effect of X on Y = c'

Figure 21. Serial mediation design with 3 mediators (Hayes, 2013)

The equations for each of the four consequent variables are:

# Equation 113:

$$M1 = iM1 + a1X + eM1$$
 $M2 = iM2 + a2C + d21M1 + eM2$ 
 $M3 = iM3 + a3X + d31M1 + d32M2 + eM3$ 
 $Y = iY + c'X + b1M1 + b2M2 + b3M3 + eY$ 

All paths are quantified typically with unstandardised regression coefficients (Hayes, 2013).

Hayes (2013) outlines how most empirical studies in the social sciences use simple mediation analysis. Yet, given the complexity of models within the social sciences, there would be a void of serial mediation models. There are some reference studies within the service marketing field which apply serial multiple mediation (e.g. Jaarsveld, Walker & Skarlicki, 2010; Malhotra, Sahadev & Purani, 2017). Yet, this study provides, to a certain extent, a methodological contribution to the field; of serial mediation analyses in service marketing and educational studies.

# 6.4.5.4 Methods for Measuring Indirect Effects

There are different methods to test for mediation. These tests intend to quantify: how much two cases that differ by a unit on X are estimated to differ on Y, as a result of X's influence on M, which in turn influences Y. Tests are needed to assess whether the data allows for the claim that this estimated difference in Y, attributable to this mechanism, is different to zero, and in which case M serves as a mediator of the effect of X on Y (Hayes, 2013). MacKinnon, Lockwood, Hoffman et al. (2002) count more than 14 different methods. Yet, the most prominent methods used in the marketing discipline are the causal steps strategy, the Sobel test (or product-coefficient approach), the distribution of the product approach, and bootstrapping (MacKinnon et al., 2002; Preacher & Hayes, 2008). For a description of these four strategies please view Appendix D.9.

### 6.4.5.4.1 Contrasting the Methods for Testing Simple and Multiple Mediation Effects

When testing for simple mediation, simulation studies have found that bootstrapping and the distribution of the product approach are to be preferred over the causal step strategy and the Sobel test. This is due to their higher statistical power, in terms of the propensity to detect real effects that exist in a population, while maintaining reasonable control over the Type I error rate (i.e. the propensity of incorrectly rejecting a true null hypothesis), or in other words the risk of finding non-significant effects (MacKinnon et al., 2002).

Among the above mentioned tests, the most suitable method for multiple meditation to date is the bootstrapping method by Preachers & Hayes (2008). For examples, see Fritz, Taylor & MacKinnon (2012) or Hayes & Scharkow (2013). This can be calculated using Hayes' (2013) developed computational tool for path-analysis-based mediation analysis, called PROCESS.

#### 6.4.5.5 Results for Simple Mediations

The mediating effect of Perceived Employability between CS and Job Performance, as well as the mediating effect of Perceived Employability between CS and Actual Employability, were tested using the Bootstrap method and implemented with PROCESS. Although LISREL (or other SEM programs) would have allowed for more control over the estimation method and how variables are configured in the mode, no constraints would have been made on the direct effect a priori. PROCESS appears to be the more prominent computation tool for separate testing of mediation effects (Hayes, 2013).

A summated scale was computed for the respective constructs under analysis. A summated scale is a renowned method for combining several items that measure the same construct into a single variable, in order to increase the reliability of the measurement through multivariate measurement (Hair et al., 2006). For each construct the final set of items, as suggested by the CFA results, were summated and then their average score was used for further analysis. All respective paths were quantified via unstandardised regression coefficients.

The reported results provided estimates of the indirect effects, with a bootstrap sample of 5000 cases, along with the symmetric and 95% bias corrected bootstrapped confidence intervals (CI) for the path estimates as recommended by Hayes (2013).

# 6.4.5.5.1 Perceived Employability as Mediator between CS and Job Performance

The simple mediation model of the mediating effect of Perceived Employability (PerEmp) between CS (Sat) and Employer Rated Job Performance (JobPerf) was tested using the **bootstrapping method** developed by Preacher and Hayes (2008) and implemented through the **PROCESS** macro offered in Hayes (2013) with the PROCESS model template 4 (see Figure 22). The simple mediation model can be represented in two equations where  $i_1$  and  $i_2$  are regression intercepts,  $e_{\text{PerEmp}}$  and  $e_{\text{EPerf}}$  are errors in the estimations of **Sat** and **EPerf**, respectively, and  $e_{\text{EPerf}}$  are the regression coefficients consequents (Hayes, 2013). The inserted regression intercepts, regression coefficients and error estimates were derived from the PROCESS model summary output.

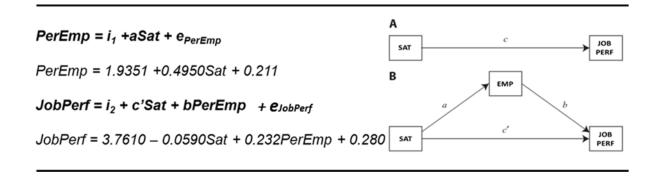


Figure 22. Simple mediation equation for the mediating effect of Perceived Employability between CS and Job Performance

The direct effect of CS on Job Performance was negative, but statistically not significant with c' = -0.059, t = -0.853, p = 0.395, and the limits of the CI (-0.195/0.077) contained the value 0. The indirect effect of Perceived Employability on Job Performance through CS was estimated as a1b1 = 0.1150. This indirect effect can be interpreted as significant and positive because the bias-corrected bootstrap confidence interval is entirely above zero (0.0418/0.2054). The results are illustrated in Appendix D.10.

These results revealed that work placement students who were satisfied perceived themselves to have a higher level of employability, and this increased the employer rating of their individual job performance. This finding further strengthens the finding of hypotheses H1 and H2 that Perceived Employability is a central cognitive mediator between CS and Job Performance.

#### 6.4.5.5.2 Perceived Employability as Mediator between CS and Actual Employability

The simple mediation model of the mediating effect of Perceived Employability (PerEmp) between CS (Sat) and Employer Rated Actual Employability (ActEmp) was tested with the PROCESS model template 4 (Hayes, 2013). The simple mediation model can be represented in two equations (see Figure 23) (Hayes, 2013). The inserted regression intercepts, regression coefficients and error estimates were derived from the PROCESS model summary output.

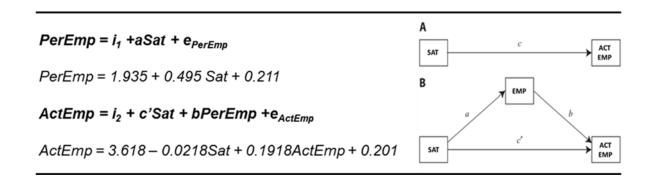


Figure 23. Simple mediation equation of the mediating effect of Perceived Employability between CS and Actual Employability

The direct effect of CS on Actual Employability was negative, but statistically not significant, with c' = -0.0218, t= -0.338, p = 0.736, and the limits of the CI (-0.142/0.105) contained the value 0. The indirect effect of Perceived Employability on Job Performance through CS was estimated as **a1b1** = 0.095. This indirect effect can be interpreted as significant and positive because the bias-corrected bootstrap confidence interval was entirely above zero (0.0190/0.177). The results are illustrated in Appendix D.10. The results revealed that work placement students who were satisfied perceived themselves to have a higher level of employability, and this increased the employer rating of their individual actual employability. This finding further strengthens the finding of hypotheses H1 and H3 that Perceived Employability is a central cognitive mediator between CS and Actual Employability.

In summary, Perceived Employability significantly and positively mediates the relationship between CS and HCP Outcomes assessed.

#### 6.4.5.6 Results for Serial Mediations

The serial mediation roles were tested using the **bootstrapping method** developed by Preacher and Hayes (2008) and implemented by **PROCESS**. Model 6 from Hayes's (2013) process macro was selected. This three mediator serial multiple mediation model presumes that all variables that are modelled first affect all variables that are modelled later in the causal sequence. Although, conceptually Perceived Employability and Gratitude are not hypothesised to have a direct effect on the CEBs of direct benefit outcomes, all potential effects are investigated to ensure further validation of the latent variable path analysis results.

# 6.4.5.6.1 Perceived Employability, Gratitude, and Love as Serial Mediators Between CS and Participation

A serial multiple mediator model, with three mediators in the sequence M1 = Emp, M2=Grat and M3 = Love was established, in order to examine the effects of Perceived Employability (Emp), Feelings of Gratitude (Grat), and Love (Love) between CS (Sat) and Participation (Part). This identified eight distinct effects of Sat on Part. These eight effects included: one direct effect (Sat  $\rightarrow$  Part); three passing through a single mediator (Sat  $\rightarrow$  Emp  $\rightarrow$  Part; Sat  $\rightarrow$  Grat  $\rightarrow$  Part; Sat  $\rightarrow$  Love  $\rightarrow$  Part); three passing through two mediators in serial (Sat  $\rightarrow$  Emp  $\rightarrow$  Grat  $\rightarrow$  Part; Sat  $\rightarrow$  Emp  $\rightarrow$  Love  $\rightarrow$  Part; Sat  $\rightarrow$  Cove  $\rightarrow$  Part); and one through all three mediators in serial (Sat  $\rightarrow$  Emp  $\rightarrow$  Grat  $\rightarrow$  Love  $\rightarrow$  Part). The four equations (one for each of the four consequent variables) representing the three-mediator serial multiple mediator model are depicted in Figure 24.

```
Emp = i_{Emp} + a_{Sat,Emp}Sat + e_{Emp}
Emp = 1.771 + 0.539Sat + 0.228
Grat = i_{Grat} + a_{Sat,Grat}Sat + d_{Emp,Grat}Emp + e_{Grat}
Grat = -0.103 + 0.663Sat + 0.372Emp + 0.251
Love = i_{Love} + a_{Sat,Love}Sat + d_{Emp,Love}Emp + d_{Grat,Love}Grat + e_{Love}
Love = 0.139 + 0.288Sat + 0.197Emp + 0.390Grat + 0.214
PART = i_{PART} + c'Sat + b_{Emp,PART}Emp + b_{Grat,PART}Grat + b_{Love,PART}Love + e_{PART}
PART = 2.357 - 0.107Sat + 0.174Emp + 0.078Grat + 0.279Love + 0.292
```

Figure 24. Serial mediator equations for the mediating effects of Perceived Employability, Gratitude, Love between CS and Participation

The direct effect of CS on Participation was negative but statistically not significant with c' = -0.107, t = -1.110, p = 0.269 and the limits of the CI (-0.297/0.831) contain the value 0.

The first indirect effect passing through a single mediator was the specific indirect effect of Perceived Employability on Participation through CS, estimated as  $a_1b_1 = 0.936$ . This indirect effect can be found in the PROCESS output table labelled "Ind1" (see Appendix D.10). This can be interpreted as positive but not significant, because the bias-corrected bootstrap confidence interval contained the value of zero (-0.007/0.209). The first indirect effect was not hypothesised in the conceptual model. This result also shows that Perceived Employability was not a single mediator between CS and Participation.

The second indirect effect passing through a single mediator was the specific indirect effect of Gratitude on Participation through CS, estimated as  $a_2b_2 = 0.052$ . This indirect effect can be found in the PROCESS output table labelled "Ind5" (see Appendix D.10). This specific

mediation effect was not significant, as the bias-corrected bootstrap confidence interval contained the value of zero (-0.074/0.190). This result was consistent with the conceptual framework.

The third indirect effect passing through a single mediator was the specific indirect effect of Love on Participation through CS, estimated as  $a_3b_3 = 0.080$ . This indirect effect can be found in the PROCESS output labelled "Ind7" (see Appendix D.10). The single mediating effect was positive and significant, with the bootstrap CI limits (0.029/0.167) not containing the value of 0. In the conceptual framework, CS is hypothesised to lead to Love (estimated with the regression coefficients consequent  $a_3$ ) and Love is hypothesised to have a positive effect on Participation (estimated with the regression coefficients consequent  $b_3$ ). The results show that both  $a_3$  and  $b_3$  were positive and significant, being in line with hypotheses 6 and 9. Therefore, higher levels of CS lead to higher levels of Love, which in turn lead to a higher tendency for Participation.

The fourth indirect effect passing through two mediators in serial was the serial indirect effects of Perceived Employability and Gratitude on Participation through CS, estimated as  $a_1d_{21}b_3$  = 0.016. This indirect effect can be found in the PROCESS output labelled as "Ind2" (see Appendix D.10) This path cannot be claimed as different from zero because the bootstrap confidence interval straddled zero (-0.021/0.063). This path was not hypothesised in the conceptual model.

The fifth indirect effect passing through two mediators in serial wasthe serial indirect effects of Perceived Employability and Love on Participation through CS, estimated as  $a_1d_{31}b_3 = 0.023$ . This indirect effect can be found in the PROCESS output labelled as "Ind3" (see Appendix D.10). This specific mediation effect was significantly positive because the bootstrap confidence interval was above zero (0.008/0.073). Thus, higher CS leads to a higher Perceived Employability (because  $a_1$  is positive), which in turn leads to higher levels of perceived Love (as  $d_{31}$  is positive), and these higher levels of Love translate into a greater intention to participate (as  $b_3$  is positive). The individual paths  $a_1$ ,  $d_{31}$ , and  $b_3$  were hypothesised in the conceptual model with hypotheses H1, H7 and H9.

The sixth indirect effect passing through two mediators in serial was the serial indirect effects of Gratitude and Love on Participation through CS, estimated as  $a_2d_{32}b_3 = 0.072$ . This indirect effect can be found in the PROCESS output labelled as "Ind6". This specific indirect effect was significantly positive, as the BI was above zero (0.029/0.167). Thus, higher levels of CS lead to higher levels of Gratitude (as  $a_3$  is positive), which then leads to higher levels of Love (because  $d_{32}$  is positive), which in turn results in higher levels of Participation. The results of

Ind5 and Ind6 provide empirical support for the claim that Gratitude leads to Love, which then leads to Participation.

The seventh indirect effect passing through all three mediators in serial are the serial indirect effects of Perceived Employability, Gratitude and Love on Participation through CS, estimated as  $a_1d_{21}d_{32}b_3$ = 0.022. This indirect effect can be found in the PROCESS output labelled "Ind4" (see Appendix X). This specific indirect effect was positive and significant as the biascorrected bootstrap confidence interval did not contain the value of zero (0.007/0.058). Therefore, a hypothesised serial mediation effect of Perceived Employability, Gratitude, and Love between CS and Participation was found in the sample. The mediating effects of Perceived Employability, Gratitude and Love appeared in a causal chain. Serial multiple mediation occurred because CS, Gratitude and Love remained correlated, even after adjusting for CS, because one mediator affects another (Hayes, 2013). Consequently, CS leads to Perceived Employability (as  $a_1$  is positive), which in turns leads to Gratitude (because  $d_{21}$  is positive), which then leads to Love (as  $d_{31}$  is positive), and Love translates into Participation (as  $b_3$  is positive).

The total indirect effect size is 0.364 and positively significant, with a BI of 0.210/0.532, not containing a zero. As a result, it can be claimed with 95% confidence that the total indirect effect of the three mediators Perceived Employability, Gratitude, and Love simultaneously is between 0.210/0.532. This supports the claim that collectively all three mediators fully mediate the effect of CS on Participation.

# 6.4.5.6.2 Perceived Employability, Gratitude, and Love as Serial Mediators Between CS and WOM

A serial multiple mediator model with three mediators in the sequence M1 = Emp, M2=Grat and M3 = Love was established to examine the serial multiple mediating effects of Perceived Employability (Emp), Feelings of Gratitude (Grat), and Love (Love) between CS (Sat) and WOM (WOM) (see Figure 25) This identified eight distinct effects of Sat on WOM. These eight effects included one direct effect (Sat  $\rightarrow$  WOM), three passing through a single mediator (Sat  $\rightarrow$  Emp  $\rightarrow$  WOM; Sat  $\rightarrow$  Grat  $\rightarrow$  WOM; Sat  $\rightarrow$  Love  $\rightarrow$  WOM), three passing through two mediators in serial (Sat  $\rightarrow$  Emp  $\rightarrow$  Grat  $\rightarrow$  WOM; Sat  $\rightarrow$  Emp  $\rightarrow$  Love  $\rightarrow$  WOM) and one through all three mediators in serial (Sat  $\rightarrow$  Emp  $\rightarrow$  Grat  $\rightarrow$  Love  $\rightarrow$  WOM). The four equations (one for each of the four consequent variables) representing the three-mediator serial multiple mediator model are:

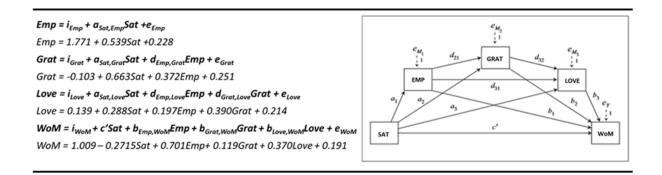


Figure 25. Serial mediator equations for the mediating effects of Perceived Employability, Gratitude, Love between CS and WOM

The direct effect of CS on WOM was positive and statistically significant, with c' = 0.272, t = 4.312, p = 0.000, and the limits of the CI (0.147/0.396) contained the value 0.

The first indirect effect passing through a single mediator was the specific indirect effect of Perceived Employability on WOM through CS, estimated as  $a_1b_1 = 0.038$ . This indirect effect can be found in the PROCESS output in Appendix D.10 labelled "Ind1". This indirect effect can be interpreted as positive but not significant, because the bias-corrected bootstrap confidence interval contained the value of zero (-0.038/0.117). The first indirect effect was not hypothesised in the conceptual model.

The second indirect effect passing through a single mediator was the specific indirect effect of Gratitude on WOM through CS, estimated as  $a_2b_2 = 0.079$ . This indirect effect can be found in the PROCESS output table labelled as "Ind5" (see Appendix D.10). This specific mediation effect was not significant as the biascorrected bootstrap confidence interval contained the value of zero (-0.005/0.178). The second indirect effect was not hypothesised in the conceptual model.

The third indirect effect passing through a single mediator was the specific indirect effect of Love on WOM through CS, estimated as  $a_3b_3 = 0.106$ . This indirect effect can be found in the PROCESS output table labelled as "Ind7" (see Appendix D.10). The single mediating effect was positive and significant, with the bootstrap CI limits (0.053/0.183) not containing the value of 0. In the conceptual framework CS is hypothesised to lead to Love (estimated with the regression coefficients consequent  $a_3$ ) and Love is hypothesised to have a positive effect on WOM (estimated with the regression coefficients consequent  $b_3$ ). The results show that both  $a_3$  and  $b_3$  were positive and significant, being in line with hypotheses H6 and H9. Therefore, higher levels of CS lead to higher levels of Love, which in turn lead to a higher tendency for WOM.

The fourth indirect effect passing through two mediators in serial was the serial indirect effects of Perceived Employability and Gratitude on WOM through CS, estimated as  $a_1d_{21}b_3 = 0.024$ . This indirect effect can be found in the PROCESS output table labelled as "Ind2" (see Appendix D.10). This path cannot be claimed as different from zero because the bootstrap confidence interval straddled zero (-0.001/0.061). This path was not hypothesised in the conceptual model.

The fifth indirect effect passing through two mediators in serial was the serial indirect effects of Perceived Employability and Love on WOM through CS, estimated as  $a_1d_{31}b_3 = 0.039$ . This indirect effect can be found in the PROCESS output table labelled as "Ind3" (see Appendix D.10). This specific mediation effect was significantly positive because the bootstrap confidence interval was above zero (0.010/0.087). Thus, higher CS leads to a higher Perceived Employability (because  $a_1$  is positive), which in turn leads to higher levels of felt Love (as  $d_{31}$  is positive) and these higher levels of Love translate into a greater intention to pursue positive WOM (as  $b_3$  is positive). The individual paths  $a_1$ ,  $d_{31}$ , and  $b_3$  were hypothesised in the conceptual model with hypotheses H1, H7 and H10.

The sixth indirect effect passing through two mediators in serialwas the serial indirect effects of Gratitude and Love on WOM through CS, estimated as  $a_2d_{32}b_3 = 0.096$ . This indirect effect can be found in the PROCESS output table labelled as "Ind6" (see Appendix D6.10). This specific indirect effectwas significantly positive as the BI was above zero (0.049/0.169). Thus, higher levels of CS lead to higher levels of Gratitude (as  $a_3$  is positive), which then leads to higher levels of Love (because  $d_{32}$  is positive) which in turn results in higher levels of WOM. The results of Ind5 and Ind6 provide empirical support for the claim that Gratitude leads to Love which then leads to WOM (as suggested in hypotheses H4, H8 and H10).

The seventh indirect effect passing through all three mediators in serial was the serial indirect effects of Perceived Employability, Gratitude and Love on WOM through CS, estimated as  $a_1d_{21}d_{32}b_3 = 0.029$ . This indirect effect can be found in the PROCESS output table labelled as "Ind4" (see Appendix D.10). This specific indirect effect was positive and significant, as the bias-corrected bootstrap confidence interval did not contain the value of zero (0.013/0.059). Therefore, a hypothesised serial mediation effect of Perceived Employability, Gratitude, and Love between CS and WOM was found in the sample. The mediating effects of Perceived Employability, Gratitude and Love appeared in a causal chain. Serial multiple mediation occurred because CS, Gratitude and Love remained correlated even after adjusting for CS, because one mediator affects another (Hayes, 2013). Therefore, CS leads to Perceived Employability (as  $a_1$  is positive), which then leads to Love (as  $d_{31}$  is positive), and Love translates into WOM (as  $b_3$  is positive).

The total indirect effect size was 0.410, and positively significant with a BI of 0.316/0.531, not containing a zero. Therefore, it can be claimed with 95% confidence that the total indirect effect of the three mediators Perceived Employability, Gratitude, and Love simultaneously is between 0.316 and 0.531. This supports the claim that collectively all three mediators partially mediate the effect of CS on WOM.

# 6.4.5.6.3 Perceived Employability, Gratitude, and Love as Serial Mediators Between CS and Monetary Giving

A serial multiple mediator model with three mediators in the sequence M1 = Emp, M2=Grat and M3 = Love was established to examine the serial multiple mediating effects of Perceived Employability (Emp), Feelings of Gratitude (Grat), and Love (Love) between CS (Sat) and Monetary Giving (MON) (see Figure 26). This identified eight distinct effects of Sat on MON. These eight effects included one direct effect (Sat  $\rightarrow$  MON), three passing through a single mediator (Sat  $\rightarrow$  Emp  $\rightarrow$  MON; Sat  $\rightarrow$  Grat  $\rightarrow$  MON; Sat  $\rightarrow$  Love  $\rightarrow$  MON), three passing through two mediators in serial (Sat  $\rightarrow$  Emp  $\rightarrow$  Grat  $\rightarrow$  MON; Sat  $\rightarrow$  Emp  $\rightarrow$  Love  $\rightarrow$  MON) and one through all three mediators in serial (Sat  $\rightarrow$  Emp  $\rightarrow$  Grat  $\rightarrow$  Love  $\rightarrow$  MON). The four equations (one for each of the four consequent variables) representing the three-mediator serial multiple mediator model are:

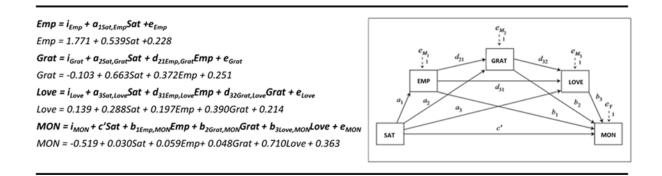


Figure 26. Serial mediator equations for the mediating effects of Perceived Employability, Gratitude, Love between CS and Monetary Giving

The direct effect of CS on Monetary Giving was positive but statistically not significant with c' = 0.030, t = 252, p = 0.802 and the limits of the CI (-0.206/0.266) contained the value 0.

The first indirect effect passing through a single mediator was the specific indirect effect of Perceived Employability on Monetary Giving through CS, estimated as  $\mathbf{a}_1\mathbf{b}_1 = 0.019$ . This indirect effect can be found in the PROCESS output table in Appendix D.10 labelled "Ind1". This indirect effect can be interpreted as positive but not significant, because the bias-

corrected bootstrap confidence interval contained the value of zero (-0.076/0.133). The first indirect effect was not hypothesised in the conceptual model.

The second indirect effect passing through a single mediator was the specific indirect effect of Gratitude on Monetary Giving through CS, estimated as  $a_2b_2 = 0.032$ . This indirect effect can be found in the PROCESS output table labelled as "Ind5" (see Appendix D.10). This specific mediation effect was not significant as the bias corrected bootstrap confidence interval contained the value of zero (-0.005/0.178). The second indirect effect was not hypothesised in the conceptual model.

The third indirect effect passing through a single mediator was the specific indirect effect of Love on Monetary Giving through CS, estimated as  $a_3b_3 = 0.204$ . This indirect effect can be found in the PROCESS output table labelled as "Ind7" (see Appendix D.10). The single mediating effect was positive and significant, with the bootstrap CI limits (0.096/0.336) not containing the value of 0. In the conceptual framework, CS is hypothesised to lead to Love (estimated with the regression coefficients consequent  $a_3$ ) and Love is hypothesised to have a positive effect on Monetary Giving (estimated with the regression coefficients consequent  $b_3$ ). The results show that both  $a_3$  and  $b_3$  are positive and significant, being in line with hypotheses H6 and H11. Therefore, higher levels of CS lead to higher levels of Love, which in turn lead to a higher tendency for Monetary Giving.

The fourth indirect effect passing through two mediators in serial was the serial indirect effects of Perceived Employability and Gratitude on Monetary Giving through CS, estimated as  $a_1d_{21}b_3 = 0.010$ . This indirect effect can be found in the PROCESS output table labelled as "Ind2" (see Appendix D.10). This path cannot be claimed as different from zero because the bootstrap confidence interval straddled zero (-0.031/0.057). This path was not hypothesised in the conceptual model.

The fifth indirect effect passing through two mediators in serial was the serial indirect effects of Perceived Employability and Love on Monetary Giving through CS, estimated as  $a_1d_{31}b_3 = 0.075$ . This indirect effect can be found in the PROCESS output table labelled as "Ind3" (see Appendix D.10). This specific mediation effect was significantly positive because the bootstrap confidence interval was above zero (0.018/0.164). Thus, higher CS leads to a higher Perceived Employability (because  $a_1$  is positive), which in turn leads to higher levels of perceived Love (as  $d_{31}$  is positive), and these higher levels of Love translate into a greater intention to pursue positive Monetary Giving (as b3 is positive). The individual paths,  $a_1$ ,  $d_{31}$ , and  $b_3$ , were hypothesised in the conceptual model with hypotheses, H1, H7 and H11.

The sixth indirect effect passing through two mediators in serial was the serial indirect effects of Gratitude and Love on Monetary Giving through CS, estimated as  $a_2d_{32}b_3 = 0.183$ . This indirect effect can be found in the PROCESS output table labelled as "Ind6" (see Appendix D.10). This specific indirect effect was significantly positive as the BI was above zero (0.107/0.302). Thus, higher levels of CS lead to higher levels of Gratitude (as  $a_3$  is positive), which then leads to higher levels of Love (because  $d_{32}$  is positive), which in turn results in higher levels of Monetary Giving. The results of Ind5 and Ind6 provide empirical support for the claim that Gratitude leads to Love, which then leads to Monetary Giving.

The seventh indirect effect passing through all three mediators in serial was the serial indirect effects of Perceived Employability, Gratitude and Love on Monetary Giving through CS, estimated as  $a_1d_{21}d_{32}b_3 = 0.055$ . This indirect effect can be found in the PROCESS output table labelled "Ind4" (see Appendix D.10). This specific indirect effect was positive and significant, as the bias-corrected bootstrap confidence interval did not contain the value of zero (0.024/0.112). Therefore, a hypothesised serial mediation effect of Perceived Employability, Gratitude, and Love between CS and Monetary Giving was found in the sample. The mediating effects of Perceived Employability, Gratitude and Love appeared in a causal chain. Serial multiple mediation occurred because CS, Gratitude and Love remained correlated, even after adjusting for CS, because one mediator affects another (Hayes, 2013). Therefore, CS leads to Perceived Employability (as  $a_1$  is positive), which in turns leads to Gratitude (because  $d_{21}$  is positive), which then leads to Love (as  $d_{31}$  is positive), and Love translates into Monetary Giving (as  $b_3$  is positive).

The total indirect effect size was 0.592, and positively significant with a BI of 0.420/0.784, not containing a zero. Consequently, it can be claimed with 95% confidence that the total indirect effect of the three mediators, Perceived Employability, Gratitude, and Love, simultaneously was between 0.400 and 0.784. This supports the claim that collectively all three mediators fully mediate the effect of CS on Monetary Giving.

#### 6.4.5.7 Assuring Meaningful Mediation Analysis

To assure that causal inferences can be made based on the results presented in Chapter 6 – Mediation Analysis, the six conditions for meaningful mediation analysis by Pieters (2017a) have been followed (for a more detailed discussion please view Pieters, 2017b). Pieters (2017b) suggests that six conditions need to be made to ensure meaningful causal inferences from mediation analysis. The first condition concerns directionality. The hypothesized causal direction from the mediators to CEBs and as specified between the mediators is based on the adapted TRA which was enhanced by Bagozzi (1992) and the Broaden and Build Theory of Positive Emotions by Frederickson (1998), prior empirical findings and a thorough qualitative

research (see chapter 5 - Conceptual Framework). The hypothesized causal directions are more plausible than indicated alternatives. The second condition concerns the reliability of measures. The reliability of measures has been tested using EFA and CFA. Unreliability of measures was accounted for all mediators and CEBs using SEM (see Chapter 6 -Confirmatory Factor Analysis). The third condition concerns unconfoundedness. To reduce common-method bias multi-source data was collected from placement students and their direct supervisors (see Chapter 6 - Data Collection). The fourth condition concerns distinctiveness. To ensure that mediators and CEBs are theoretically and empirically distinct, a profound literature review was conducted (see Chapter 2), the reliability of measures was tested and improved (see Chapter 6 - Confirmatory Factor Analysis) and multi-source data was collected (see Chapter 6 – Data Collection). The fifth condition concerns statistical power. The sample size n=209 is close to the recommended sample size of n=250 by Pieters (2017b). To ensure that the statistical power is sufficient to identify true non-null direct and indirect effects, reliability tests for all mediators and CEBs was conducted and unreliable measures were accounted for by using SEM (see Chapter 6 – Confirmatory Factor Analysis). The sixth condition concerns mediation. Conclusions about size, sign, and significance of indirect effects were drawn as the above five conditions were met.

#### 6.5 Conclusion

The quantitative study encompassed cross-sectional multi-source mail survey data from undergraduate students and their immediate supervisors or managers. From a total of 485 student responses and 441 company responses, 209 directly-matched responses were obtained. Data analysis was conducted using SPSS 24, LISREL 8.80 (Jöreskog & Sörbom 1993) and the PROCESS macro by Hayes (2013). The analysis was conducted in four steps.

Firstly, all multi-items scales were examined using EFA and reliability analysis to identify poorly-performing items.

Secondly, a CFA, dimensionality and validity assessments followed in order to further purify the measures by removing redundant or non-reflective items (Gerbing & Hamilton 1996; Lee & Hooley 2005). The detailed results for measurement model 1 and measurement model 2 are outlined in the following tables. After scale purification, both measurement models were included in one measurement model and a satisfactory measurement model fit (x2/df = 1.65, p = 0.000; RMSEA = 0.056, CFI = 0.982, NNFI = 0.980 and PNFI = 0.85) was obtained.

		sults - Measurement Model 1 Factor Loading <sup>1</sup> (t-value)								
Scale Item	Satisfaction	Gratitude	Passion	Intimacy	Commitment	Participation	Word-of- Mouth	Monetar Givin		
SAT_1	0.873 (fixed)			•		•				
SAT_3	0.902 (18.522)									
SAT_4	0.91 (18.837) 0.796									
SAT_5	(14.623)	0.050								
GRAT_1		0.958 (fixed) 0.96								
GRAT_2		(32.788)								
GRAT_3		(29.842)	0.004							
LOVE_PA2			0.821 (fixed) 0.809							
OVE_PA3			(13.633) 0.849							
.OVE_PA4			(14.665) 0.87							
OVE_PA5			(15.216)	0.808						
OVE_IN1				(fixed) 0.816						
OVE_IN2				(13.674) 0.888 (15.463)						
OVE_IN3 OVE_IN4				(15.463) 0.894 (15.620)						
.OVE_CO1				(10.020)	0.856 (fixed)					
.OVE_CO2					0.865 (16.805)					
.OVE_CO3					0.84 (15.927)					
.OVE_CO4					0.878 (17.283)					
OVE_CO5					0.914 (18.714)					
.OVE_CO6					0.906 (18.393)	0.074				
CVP_PAR1						0.871 (fixed) 0.902				
CVP_PAR2						(18.453) 0.857				
CVP_PAR3						(16.691) 0.918				
CVP_PAR4						(19.096)	0.894			
CVP_WOM1							(fixed) 0.938			
CVP_WOM3							(21.224) 0.846			
CVP_WOM4							(17.075)	0.9		
CVP_MON1								(fixe		
CVP_MON2								(26.57 0.8		
CVP_MON3  Composite Reliability (	CR) 0.926	0.967	0.904	0.914	0.952	0.937	0.922	(18.66 <b>0.9</b> ;		
Average Variance Extracted (A		0.908	0.708	0.730	0.769	0.787	0.798	0.8		

Table 58: Final CFA Results for Measurement Model 1

Confirmatory Factor Analysis Results - Measurement Model 2									
Factor Loading <sup>1</sup> (t-value)									
Scale Item	Perceived Employability	Job Performance	Actual Employability						
Scale Item	0.757	Job Feriorillance	Actual Employability						
EMP1	(fixed)								
	0.879								
EMP2	(11.421)								
LIVII Z	0.777								
EMP3	(10.809)								
	0.447								
EMP4	(6.087)								
<del></del>	(0.007)	0.888							
EPERF6		(fixed)							
		0.95							
EPERF7		(22.173)							
		0.931							
EPERF8		(21.240)							
		, ,	0.781						
EEMP1			(fixed)						
			0.874						
EEMP2			(12.116)						
			0.63						
EEMP3			(8.921)						
Composite Reliability (CR)	0.815	0.946	0.809						
Average Variance Extracted (AVE)	0.537	0.853	0.590						
Notes: <sup>1</sup> Completely Standardized Solut									
<sup>2</sup> t-values are not returned for f	ixed items.								

Table 59: Final CFA Results for Measurement Model 2

Thirdly, an assessment of the structural model representing path analysis showed that the model had adequate fit with x2/df = 1.87, p = 0.000; RMSEA = 0.066, CFI = 0.976, NNFI = 0.975; SRMR = 0.0831 and PNFI = 0.892. All proposed hypotheses were supported with parameter estimates being significant, at the 5% level.

Conceptual Model Hypotheses Testing via Path Analysis	Unstandardized parameter estimates	Standardized parameter estimates	t-values	Significance of hypothesis
H1 Customer Satisfaction positively affects Perceived Employability	y. 0.522	0.636	8.222	sig.
H2 Perceived Employability positively affects Job Performance.	0.191	0.179	2.346	sig.
H3 Perceived Employability positively affects Actual Employability	. 0.151	0.22	2.709	sig.
H4 Customer Satisfaction positively affects Gratitude.	0.666	0.544	7.784	sig.
H5 Perceived Employability positively affects Gratitude.	0.49	0.328	4.559	sig.
H6 Customer Satisfaction positively affects Love.	0.268	0.28	3.748	sig.
H7 Perceived Employability positively affects Love.	0.275	0.235	3.324	sig.
H8 Feelings of Gratitude positively affects Love.	0.343	0.438	5.614	sig.
H9 Love positively affects Participation.	0.468	0.456	6.349	sig.
H10 Love positively affects WOM.	0.851	0.848	13.019	sig.
H11 Love positively affects Monetary Giving.	0.941	0.635	9.53	sig.

Chi square = 1432.43 (df = 766) p = 0.000; x2/df = 1.87; RMSEA = 0.066; CFI = 0.976; NNFI = 0.975; SRMR = 0.083; PNFI = 0.892 Critical t-value (one-tailed): +/- 1.96

Table 60: SEM Final Results Table

Fourthly, in order to further analyse the mediating mechanisms hypothesised, the simple and serial mediation effects between CS and CEBs were examined via a bootstrapping method and by safeguarding the conditions for meaningful mediation analysis (Pieters 2017b). A simple mediation of Perceived Employability and CEBs of indirect benefit to a firm were found. As regards the relationship between CS and CEBs of direct benefit to the firm, the results of the serial mediation analyses revealed a full serial multiple mediation effect of Perceived Employability, Gratitude and Love in the relationship between CS and Participation, as well as in the relationship between CS and Monetary Giving. A partial serial multiple mediation effect of Perceived Employability, Gratitude and Love between CS and WOM could also be detected. Besides, the pure affective route was also confirmed: Serial multiple mediation effects of Gratitude and Love were found in the relationship between CS and CEBs of direct benefit. The indirect effect sizes these serial mediating models were larger than the direct effect sizes. Furthermore, indirect effect sizes were positively significant in all three serial mediation models. Therefore, it can be claimed with 95% confidence that the total indirect effect of the three mediators - Perceived Employability, Gratitude, and Love - simultaneously and in sequence mediate the relationship between CS and CEBs of direct effect. The results provide empirical evidence for the conceptual model hypothesising the cognitive-affective causal-order of CS→EMP→ GRAT/LOVE → CEB, based on the adapted theory of reasoned action (Fishbein & Aizen, 1975), and the emotional sequence of GRAT → LOVE → CEB, based on the theory of positive emotions (Frederickson, 2004).

### **Chapter 7. Discussion and Conclusion**

This chapter firstly presents a discussion on the quantitative findings. Theoretical, contextual, methodological and practical implications are then considered. Finally, a conclusion for the whole thesis is reached.

A quantitative study was conducted to meet the research objectives. This comprised of 209 multi-source cases from placement students and their direct work placement supervisors. In order to address the first research objective, the following items were validated through exploratory and confirmatory factor analyses: the reflective measures of different types of CEBs of direct and indirect benefit to a university (i.e. Participation, WOM, Monetary Giving, and HCP); as well as CS, Perceived Employability, Gratitude and Love. In order to address the second research objective, the relationships established in the conceptual framework, and cognitive and affective mediating mechanisms between CS and CEBs, have been empirically tested, via latent path analysis and the PROCESS macro developed by Hayes (2013). By these methods, the established hypotheses were confirmed (see story line in Figure 27) and some interesting findings emerged that were not apparent in previous literature (see discussion below).

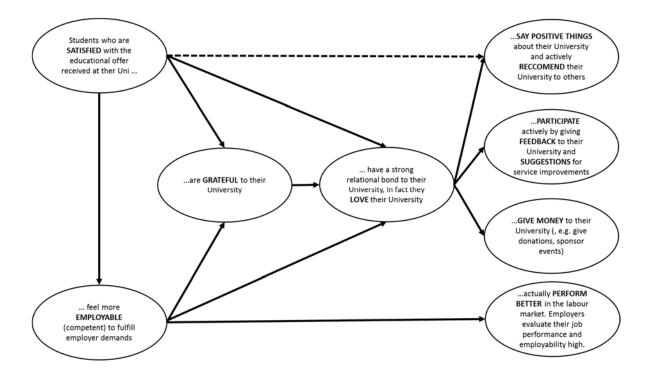


Figure 27. Story line of the conceptual framework

### KEY FINDING 1: The relationship between CS and CEBs is not direct as assumed in the literature. Cognitive and affective mediators better explain the relationship between CS and CEBs.

The main predictor of CEBs is CS (Van Doorn et al., 2010). Yet, findings from literature demonstrate that the links between CS and the various CEBs are not as simple and direct as they first appear. The literature suggests mediating mechanisms play a key role in defining these links more clearly (Brown et al., 2005). Although affective mediators are understood to have a significant impact on CEBs (Pansari & Kumar, 2017), research integrating multiple emotions within one conceptual model remain limited (Cavanaugh et al. 2015). Furthermore, while research focuses on affective mediators, further cognitive mediators need to be taken into consideration as well (Canziani, 1997). Therefore, this study contrasted the direct relationship between CS and CEBs (i.e. Participation, WOM, Monetary Giving, and HCP) with the effect of different cognitive and affective mediators, after controlling for the effect of CS.

CS was found to be a key predictor of CEBs. Yet, CS only directly affected one type of CEB; WOM. Students who are satisfied, say positive things about their university and recommend it to others. The effect of CS on WOM was partially mediated in serial by Perceived Employability, Gratitude and Love.

CS had an indirect effect on Participation, Monetary Giving or Human Capital Performance. The relationship between CS and CEBs of direct benefit were found to be fully mediated in serial by Employability, Gratitude and Love. Furthermore, CS indirectly effects CEBs of indirect benefit to the firm. The relationship between CS and CEBs of indirect benefit is mediated by Perceived Employability.

# KEY FINDING 2: The relationships between CS and CEBs of indirect benefit to a firm are mediated by Perceived Employability.

The quantitative study empirically confirmed a link between CS within an educational service (and experience) with Perceived Employability. This finding is in line with Human Capital Theory (Becker, 1993). Former studies provided empirical evidence that human capital attributes in general, and perceived employability in particular, positively affect firm outcomes (De Cuyper et al., 2008; Hitt, Bierman & Shimizu, 2001; Luo & Homburg, 2007; Ngo, Liu and Cheung 2017; Pennings et al., 1998). This study contributes to this stream of research by adding that Perceived Employability has positive effects on individual Job Performance and Actual Employability, as rated by the direct supervisors. Simple mediation effects of Perceived Employability between CS and HCP could be found. Yet, it is noteworthy that the size of the effect is rather small. Hayes (2013, p. 88) states: "A simple mediation model is the most

rudimentary mediation model one can estimate, and no doubt it oversimplifies the complex dynamics through which **X** Influences **Y** in real processes that scientists study." Hence, there may be more intervening or interaction effects that even better explain the relationship between CS and Human Capital-related outcomes.

With Perceived Employability as a cognitive mediator, the present thesis contributes to service marketing and HE knowledge. CS and affective mechanisms such as emotions have been conceptualised or assessed as mediators linking CS with CEBs, yet research has ignored how cognitive mechanisms may lead to CEBs (Canziani, 1997). This study has filled this gap by finding Perceived Employability as a key cognitive mechanism linking CS with CEBs of indirect benefit to the firm. Assessing Perceived Employability as a key mediating variable within a conceptual framework further advances research in the HE field, as prior research has focused either on the construct's antecedents or consequences, leaving a void for integrated models assessing the dynamics of Perceived Employability (see Ngo et al., 2017). Indeed, prior research suggests that student behaviour in general, and perceived employability in particular, varies widely across different fields of study (Obermiller et al., 2005). These findings are contrary to the results of this study. These findings suggest that, within the constructs studied in the conceptual framework, student behaviours did not differ significantly across different schools of study.

# KEY FINDING 3: The relationship between CS and CEBs of direct benefit is mediated in serial by Perceived Employability and the positive emotions of Gratitude and Love.

Two routes lead to CEBs of direct benefit to a firm. Firstly, the affective route suggests that CS and CEBs of direct benefit are mediated in serial by Gratitude and Love. Secondly, a cognitive-affective route was found; Perceived Employability indirectly impacts CEBs of direct benefit to a firm. Thus, CS and CEBs of direct benefit are mediated in serial by Perceived Employability, Gratitude and Love.

In a review of the individual relationships between constructs, the findings suggest that when a customer is satisfied with the service offer received and competences acquired (i.e. they have received something of value) and recognises that this benevolence was received intentionally (McCullough et al., 2001), the customer will engage the emotional systems, evoking feelings of Gratitude (Palmatier et al., 2009). Furthermore, the results of the quantitative study on the relationship between CS and Love confirm the findings of past studies in the marketing field, which found that cognitive appraisals lead to Love (Long-Tolbert

& Gammoh, 2012; Yim et al., 2008). Both results are in line with the adapted TRA (Fishbein & Ajzen, 1975; Bagozzi, 1992) as cognitive(-affective) attitudes lead to affective attitudes.

This study contributes significantly to the current literature with regards to the relationship between Gratitude and Love. The prevailing view in literature is that Gratitude directly leads to CEBs (Bartlett & deSteno, 2006; Palmatier et al., 2009). However, Frederickson's (2004) Broaden-and-Build Theory of Positive Emotions proposes the specific broadening function of Gratitude that builds on a customer's skills for loving and showing appreciation. Authors have stressed that Gratitude should be considered with other relational mediators, in order to better predict reciprocal behaviours such as CEBs (Palmatier et al., 2009; Raggio et al., 2014). Long-Tolbert & Gammoh (2012) found indicative empirical evidence that Gratitude would positively relate to Love in a transactional service context, yet both emotions were not linked to any outcome variables. The present study responds to Frederickson's call for research (2004) and has found empirical evidence for the theorised claim that Feelings of Gratitude positively relate to Love, and Love positively relates to all CEBs of direct benefit to the firm.

Moreover, the quantitative study found that Love is the key antecedent of CEBs of direct benefit to the firm; Participation, WOM, and Monetary Giving. When students are feeling this love-like relationship, they will participate actively by giving feedback and making suggestions for service improvements, saying positive things about the university, and recommending the university to others. Loving students would even engage in monetary terms, by giving donations to the university or sponsoring university events. This is in line with the adapted TRA (Fishbein & Ajzen, 1975; Bagozzi, 1992) that affective attitudes lead to behavioural intentions. Furthermore, this positive relationship is based on Frederickson's (2004, 2013) theory that Love is a particular positive emotion that broadens in a specific way, and motivates mutual care for others' well-being. Cavanaugh et al. (2015) tested the effects of Love, Hope, Pride and Compassion on prosocial behaviours and found that Love is unique among positive emotions in fostering connectedness and in inducing prosocial behaviour toward distant others. This current study not only confirmed the findings of Cavanaugh et al. (2015), as Love was found to be the strongest predictor for CEBs in this study, but also further advanced it, as the authors identified that future research should assess whether Love would also lead to monetary giving. Hence, the special broadening function of Love was strengthened with the present study results.

This study concludes that the pre-dominant definition of CEBs by Van Doorn et al. (2010) should be enhanced by defining CEBs as a customer's behavioural manifestations that go beyond transactions, resulting from motivational, <u>cognitive and affective drivers</u>, and which occur when customers voluntarily contribute to a broad range of <u>monetary or non-monetary resources</u> (such as time, knowledge, skills, labour, actions, mental efforts, time, relationships,

and money) that <u>directly or indirectly</u> affect the firm and customers in varying degrees of magnitude and impact. Furthermore, the quantitative study found empirical evidence for the underlying cognitive mediating mechanism of Perceived Employability and the affective serial mediating mechanisms of Gratitude and Love underlying the relationship between CS and CEBs.

#### 7.1 Theoretical, Contextual and Methodological Contributions

The present research offers theoretical contributions that respond to specific calls for research in different study disciplines, including service marketing, HE and consumer behaviour (see Table 61).

In response to research gap 1, this research explored neglected types of CEBs, including monetary CEBs and CEBs of indirect benefit to the organisation. In responde to research gap 2, this study explored multiple CEBs that are of relevancy in a HE context and further empirically assessed the drivers of four selected CEBs in a higher education context, i.e. Participation, WOM, Monetary Giving and Human Capital Performance.

In response to research gap 3, the dissertation contributed empirically in four significant ways. Firstly, the study finds that although CS is central, it does not directly impact CEBs; except for the relationship between CS and WOM the link between CS and CEBs is at best indirect. Secondly, this study investigates the affective mediating mechanisms of Feelings of Gratitude and Love in serial between CS and CEBs that are of direct benefit to the firm (i.e. WOM, Participation and Monetary Giving); these have not been previously investigated. Thirdly, while past research has focused mainly on affective mechanisms between CS and CEBs, this study provides the first empirical investigation of an important cognitive mechanism, Perceived Employability, underpinning the relationship between CS and CEBs of indirect benefit to the firm (i.e. HCP). Finally, by segregating the CEBs into direct and indirect benefit to the firm, this study finds that cognitive mechanisms link CS to CEBs that are of indirect benefit to the firm (, being not intentionally reciprocal behaviours by the customer to the focal firm but rather personal-level outcomes), while affective mechanisms are more useful in achieving CEBs that are of direct benefit to the firm (, being intentional reciprocal behaviours by the customer to the focal firm).

In response to research gap 4, this study advances current consumer behaviour theory. The TRA was enhanced not only by the inclusion of affective mediating mechanisms between cognitive and behavioural constructs as suggested by Bagozzi (1992), but further by reflecting the mediating mechanisms of multiple affective constructs. In particular, Frederickson's Broaden and Build Theory of Positive Emotions (1998; 2004) suggests different broadening

functions of positive emotions and thereby informed the sequence of multiple positive emotions within one conceptual framework.

Table 61. Inter-disciplinary contributions of the thesis

Discipline	Construct	Contributions	
Service Marketing	CEBs	Exploring CEBs of direct and indirect benefit to a firm (Kumar et al., 2010).	
		<ol> <li>Exploring different types of CEBs that require different types of monetary and non-monetary resources (Jaakkola &amp; Alexander, 2014).</li> </ol>	
	CS	Investigating neglected outcomes of CS, such as HCP as personal-level outcome (Luo & Homburg, 2007).	
		4. Assessing the direct versus indirect effect of CS on CEBs (Kumar et al., 2010).	
HE	CEBs	5. Exploring different types of CEBs in a HE context (Van Doorn, et al. 2010).	
	Employability	6. Assessing the link between CS, Perceived Employability and actual HCP outcomes, as rated by direct supervisors.	
	Role of Students	7. The role of students changes in the consumption stage from being customers (CS and Perceived Employability assessments) to being co-creators or citizens (Participation, WOM, Monetary Giving behaviours), and into products (HCP) in the post-consumption stage (Obermiller et al., 2005).	
Consumer Behaviour	Positive Emotions	8. Exploring which positive emotions lead to CEBs of direct benefit to a firm (Pansari & Kumar, 2017).	
		9. Assessing the effects of multiple positive emotions within one study (Cavanaugh et al., 2015).	
		<ol> <li>Advancing the Broaden-and-Build Theory of Positive Emotions (Frederickson, 2004) by showing the different broadening functions of Gratitude and Love.</li> </ol>	

Contextually, this study responds to calls for research on CEBs (Pansari & Kumar, 2017) and positive emotions (Cavanaugh et al., 2015) in a HE context. It has found that students and alumni can increase university value by being promoters (through positive WOM), consultants (through Participation), investors (through Monetary Giving) or human capital (through Human Capital Performance). In addition, the role of students appears to change in the consumption stage from being customers (CS and Perceived Employability assessments) to being co-creators or citizens (Participation, WOM, Monetary Giving behaviours) and in the post-consumption stage to being products (HCP) (Obermiller et al., 2005). Gratitude and Love

appears to be central affective variables within a HE context, to evoke CEBs of direct and indirect benefit to a university, including monetary and non-monetary CEBs.

Although this study predominantly contributes in terms of theory, three methodological contributions might be noteworthy. Firstly, while the plethora of studies investigating antecedents of CEBs are conceptual (e.g. Pansari & Kumar, 2017) or qualitative (e.g. Jaakkola & Alexander, 2014) in nature, this study followed a sequential mixed methods approach, including a qualitative and a subsequent quantitative study. Secondly, CEBs of indirect benefit were assessed with real performance data, as evaluated by the direct work placement supervisors of students. Thirdly, this study is the first in the field of CEBs to investigate multiple cognitive and affective mediators between CS and CEBs in serial.

#### 7.2 Managerial Implications

Several managerial implications can be drawn from the study, which will be outlined in this section. As this study was conducted in a HE context, the managerial implications will be directed at institutional managers.

Overall, the thesis helps institutional managers to understand the mechanisms that evoke CEBs. The study shows how customers can increase firm value beyond purchase, for instance, by being promoters (through positive WOM), consultants (through Participation) or investors (through Monetary Giving). The findings imply that managerial focus should remain on CS as it is the main predictor for CEBs. Customer Satisfaction enhances Perceived Employability and evokes feelings of Gratitude and Love, which in turn lead to different types of CEB outcomes. It has been found that students who feel satisfied with the educational offer received tend also to feel more employable (or competent) to fulfill employer demands. And when students feel more employable, they actually perform better in the labor market. Their employers rate their job performance and employability as high. This indirectly benefits a HE institution, as it can enhance the university's image in the labor market, increase the levels of cooperation with companies, and further appeal to future students when employability rates of a university's graduates are high. Institutional managers must ensure that they evoke positive emotions of Gratitude, and especially Love, throughout the duration of a student's study programme and even after graduation, in order to attain students and alumni who actively participate to improve an institution's educational offer, and to attract diversified funding through monetary contributions given by students and alumni. The findings suggest that when students are satisfied and perceive themselves to be employability, they tend to also feel grateful to their university and to feel a strong relational bond between them and their university, in fact, they love their university. When students love their university, they tend to say positive things about it and recommend it to others, they give feedback to the

university and provide suggestions for service improvements, they are also even more likely to be willing to give their money to the university by sponsoring events or giving donations.

These findings lead to the following managerial implications:

It is fundamental for institutional managers to identify the student segment that is grateful and feels passionate/intimate/committed to the university. The Customer Engagement Matrix by Pansari & Kumar (2017) could be applied to segment customers into engagement-focused (high satisfaction – high positive emotions), value-focused (high satisfaction – low positive emotions), altruistic focused (low satisfaction – high positive emotions) and 'fill in need' focused (low satisfaction – low positive emotions) customer segments (see Figure 28). The engagement-focused customer segment will be called "lovers" within the subsequent discussion. Consequently, measures to increase Customer Satisfaction and measures to increase positive emotions will be discussed, in order to provide practical guidance on how to develop engagement-focused customers.



Figure 28. Customer Engagement Matrix (Pansari & Kumar, 2017, p.306)

#### 7.2.1 Setting Actions to Increase Customer Satisfaction

Given the importance of CS, the pure monitoring of CS (e.g. through the National Student Satisfaction Survey in the UK or regular course evaluations) might not suffice. It becomes central to pro-actively plan actions to increase CS levels. Therefore, the determinants of CS need to be elaborated. The qualitative study, as well as former empirical evidence (De Shields, Kara & Kaynak, 2005), suggest that the most influential antecedents to CS are course/curriculum (e.g. real-world relevance of classes) and relational factors (e.g.

helpfulness of faculty). In that light, activities such as curricula revisions reflecting feedback from students, as well as relationship-building initiatives or awareness-building programmes for faculty on how to treat and support students, could be beneficial. Indeed, if costs for increasing CS are rather low, it may be logical to move budgets from advertising to activities that raise CS (Luo & Homburg, 2007). For instance, literature suggests that the factor with the highest impact on a new student's choice of university is WOM (Alves & Raposo, 2010), and CS has been found to lead to WOM.

#### 7.2.2 Setting Actions to Increase Positive Emotions

Firstly, opportunities must be given to students and alumni to show their Gratitude or Love, in order to detect who has a strong relational bond to the university. Through social media activities, students are given the possibility to show their emotions, for example by reacting to university posts with likes, hearts, positive emoticons, as well as positive comments. Student engagement at all levels would need to be tracked in a database. Surveys could assist in assessing Gratitude or Love levels. The present survey instrument could be used at different stages of the student/alumni life-cycle to further track changes in the emotions.

Secondly, a portfolio of engagement opportunities should be offered to "lovers". Different options how students can reciprocate to the University should be thought off upfront. Some "lovers" might be willing to 'give back' but do not know how to, others may already enjoy giving back time, while others may prefer 'giving back' money (Reed II et al, 2007). Therefore, engagement opportunities must be well thought-through, targeted to the "lover" group and communicated in a regular, but sensible manner.

Thirdly, students and alumni who have been identified as "lovers" should be treated as 'key accounts' by the university. The close relationship must be maintained by not only taking (e.g. contacting the "lovers" only when their participation or money is needed), but also giving (e.g. inviting them to exclusive events, honoring them, supporting them in their professional endeavors). Only in this way would the feelings of Gratitude and Love, and the subsequent desire to reciprocate and invest into a university's well-being, remain over the years.

Overall institutional managers need to shift their focus from pure customer satisfaction management to an overall CEB management strategy, which includes the management of positive emotions.

#### 7.3 Limitations and Areas for Future Research

While there are limitations to this study, they can present some promising opportunities for future research. Hence, in this section both the limitations and opportunities for future research are outlined.

## 7.3.1 Limitations and Call for Replication of the Conceptual Model in Other Research Contexts

The study focuses on the HE context, which affects the generalisability of results. While it is possible to make some allowances for this study's single-industry focus when considering industry differences (Hartline & Ferrell, 1996), the conceptual model should be replicated in comparable industries, such as relational services with extended services encounters, such as the health industry. This replication would not only provide valuable insights as regards the whole service model, but also in respect to its individual constructs. For instance, instead of the cognitive mediator of Perceived Employability which is specific to a HE context, the more general concept of Customer Competency could provide further insights (Canziani, 1997). In a health context, this could be the ability to use medicines as prescribed or the competence to stay physically and mentally healthy. Moreover, while different components of Love were integrated into the study, additional work is still needed to uncover the differential effects of these components and their relative roles in various service settings (Yim, et al., 2008). Furthermore, the types of CEBs can also be advanced. Further research is needed on the indirect benefits of CEBs to a firm, as there is no research in this field (Van Dorn, 2010). In a health context, CEBs of direct benefit to the customer and indirect benefit to the firm (and society) could be mental and physical health. In addition, the qualitative research revealed the occurrence of a further CEB, in which customers invest efforts and intellectual resources (e.g. giving guest lectures, mentoring students, conducting common projects with students). Scales for such intellectual cooperative CEBs need to be developed, in order to advance the conceptual model with a further relevant CEB of direct benefit to the firm.

#### 7.3.2 Limitations and Call for Longitudinal Research Designs

This study faces a further limitation stemming from its cross-sectional research design. Further studies should apply a longitudinal design to assess, for instance, how feelings can change over the time. Passion can fade over (Bügel et al., 2011) or Intimacy can be challenged (Yim, et al., 2008). With a longitudinal research design, relational changes (e.g. passion fades or transforms to intimacy or commitment) and emotion duration (e.g. does Gratitude last beyond when a CEB has been performed?) could be assessed. Furthermore, results can be strengthened by measuring real CEB, ideally via second-source data, such as

student records on monetary contributions within a certain period and feedback received from students. Indeed, an experimental research design could enable a control for different events (e.g. different satisfying/dissatisfying actions, performance of a reciprocal behavior) and to test how and why CS leads to CEBs.

#### 7.3.3 Limitations and Call for Researching Further Potential Antecedents

The service model proposed was based on customer-firm relationships; student-company relationships. Yet, from the qualitative findings, it becomes apparent that the consumer-staff and especially the consumer-consumer level needs further exploration. CS was the key predictor variable for positive emotions, and for CEBs to occur. Yet, there might be further antecedents of Gratitude and Love that go beyond the satisfactory provision of the core service (e.g. personal support, preferential treatment, social connection) which need further exploration (Cavanaugh et al., 2015; Palmatier et al., 2009).

#### 7.3.4 Limitations and Call for Further Research on Emotions

This study shed light on the relationship between multiple positive emotions and has shown a serial mediation effect between CS, Gratitude, Love and Participation/WOM/Monetary Giving. Yet, this study has focused on the positive emotions of Gratitude and Love. Other positive emotions, such as empathy or compassion for other students or pride, might according to Frederickson (2004) and Cavanaugh et al. (2015) broaden the action repertoire of customers in a different way. Accordingly, there might be an affective mediating mechanisms on the employer side between Perceived Employability and their evaluations of the Human Capital Performance of students (e.g. trust). Furthermore, this study has focused on positive emotions. However, the qualitative research has shown that negative emotions such as regret, shame or hate were apparent amongst the study participants. There is a lack of research linking negative emotions with CEBs. For instance, regret could lead to negative WOM, shame and hate might either hinder positive CEB or lead to CEBs directed to others students, due to compassion. Finally, emotional theories suggest emotion dynamics (Yim, et al., 2008). As in inter-personal love, in customer-firm love the dynamics can change. Further research is needed to understand the changing dynamics of emotions over time; for example, when Love turns to hate or Gratitude to indebtedness and its relative effect on CEBs.

#### 7.4 Conclusion

CEBs research still represents a relatively new frontier for marketers as well as educational managers. It is therefore critical at this stage to understand different types of CEBs in a HE

context, and the cognitive and affective mediating mechanisms between CS and CEBs (Pansari & Kumar, 2017). The overall research objectives of this study were:

- 1) To explore and conceptualise different types of CEBs that are of direct or indirect benefit in a HE context; and
- 2) To investigate the underlying cognitive and affective mediating mechanisms between CS and CEBs in a HE context.

To reach these research objectives, substantial contributions from existing literature from the fields of service marketing, consumer behaviour and education have been gathered, followed by empirical research applying a sequential qualitative-quantitative mixed-method approach. Study 1 comprised of: 8 focus groups with 48 undergraduate business students from Austria and England; 21 semi-structured interviews with alumni from undergraduate business studies from England and Austria; and 9 background expert interviews. Study 2 encompassed a mail survey with 209 multi-source cases from undergraduate business students, who had conducted a placement year, and their immediate work placement managers or supervisors in England.

Research objective 1 was reached though the qualitative and quantitative study. The qualitative exploration of CEBs within a HE context revealed eight different types of CEBs. An overview of the different conceptualisations is provided in Table 62.

Emerging types of CEBs that have been conceptualised in previous marketing research, correspond to the HEcontext, and which are based on the qualitative insights gathered in this study are: Participation, WOM, Mobilising, Augmenting, and Socialising. CEBs that do not correspond in a linear way to the HE context are Cooperation and Career Community Behaviour as a form of helping behaviour. Two novel types of CEBs have emerged from the literature review and the qualitative findings; HCP and Monetary Giving. In the quantitative study, the multi-item operationalisations of the two most prominent CEBs (WOM and Participation) and two neglected CEBs in current service marketing research (Monetary Giving and HCP) have been validated, via exploratory and confirmatory factor analyses.

Table 63. Types of CEBs in a HE context

Type of CEBs in HE Context	Role of Customer	Definition For HE Context	Basis of Categorisation Author(s) (Year)
Participation	Customers as consultants	Students/alumni participate actively by giving feedback to their university and suggestions for service improvements	Bettencourt (1997)
WOM	Customers as promoters	Students/alumni say positive things about their university and actively recommend their university	Bettencourt (1997)
Monetary Giving	Customers as investors	Students/alumni give money to their university, e.g. donations, sponsoring an event organised by the university	Sargeant et al. (2006)
Cooperation in terms of Augmenting	Customers as human resource	Students/alumni directly augment and add to the university's offering beyond that which is fundamental to the transaction by giving guest lectures or act as student mentors.	Bettencourt (1997); Jaakkola & Alexander (2014)
Mobilising	Customers as initiators	Students/alumni mobilise other stakeholders' actions (e.g. decision makers within the company they work for) towards the university.	Jaakkola & Alexander, (2014)
Socialising	Customers as networkers	Students/alumni engage in non-functional interactions with other students/alumni and/or the university (staff) and acquire and/or develop attitudes norms and/or community language.	Brodie et al. (2011)
Career Community Behaviour	Customers as stepping stones	Students/alumni provide self-organised career support for other students/alumni of the university.	Parker et al. (2004)
Human Capital Performance	Customers as human capital	Students actually perform better in the labor market based on human capital excellence (in terms of employers rate their job performance and market attractiveness/actual employability as high).	Luo & Homburg (2007)

Research objective 2 was reached through the qualitative and quantitative study. The qualitative study found indicative evidence for the indirect impact of CS on CEBs, and suggested the potential mediating effects of Perceived Employability and Positive Emotions (especially Love and Gratitude) between CS and CEBs. The quantitative study investigated the underlying cognitive and affective mediating mechanisms in the relationship between CS and CEBs of direct (i.e. Participation, WOM, Monetary Giving) or of indirect benefit (HCP) to a HEI via SEM and Hayes (2013) PROCESS macro for mediation analysis. The effects of CS

on WOM were found to be partially mediated in serial by Perceived Employability, Gratitude and Love. The relationship between CS and CEBs of direct benefit were found to be fully mediated in serial by Employability, Gratitude and Love. The relationship between CS and CEBs of indirect benefit were found to be mediated by Perceived Employability.

Overall, this study contributes to the service field by developing and empirically testing a conceptual framework on CEBs, including neglected CEBs, for instance, CEBs of indirect benefit to an organisation, and monetary CEBs in a HE context. Furthermore, the study adds to the Broaden-and-Build Theory of Positive Emotions by Frederickson (2004), as it provides the first empirical evaluation of the serial mediation effects of two distinct positive emotions; Gratitude and Love between CS and CEBs. Finally, whilst most studies have focused on affective mediation effects and CEBs of direct benefit to a service provider, this study has found the simple cognitive mediation effect of Perceived Employability between CS and CEBs of indirect benefit to a service provider.

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# UNCOVERING THE DRIVERS OF CUSTOMER ENGAGEMENT BEHAVIOURS:

Investigating Key Mediating Mechanisms Underlying the

Link Between Customer Satisfaction and Customer Engagement Behaviours

in a Higher Education Context

**VOL II** 

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### **Appendix A - Appendix to Chapter 2**

#### A.1 Overview of Different Types of CEBs

Table A1. Definitions of different types of CEBs

Author (Year)	Type of CEB	Definition
Jaakkola & Alexander (2014)	Augmenting	Customer contributes resources, such as knowledge, skills, labor, and time to directly augment and add to the focal firm's offering beyond that which is fundamental to the transaction.
Bove et al. (2009)	Benevolent Acts of Service Facilitation	Kind, charitable acts on the part of consumers, within the immediate service exchange, which may include tolerance, patience and politeness.
Bijmolt et al. (2010) Bove et al. (2009)	Complaint Behaviour / Voice	Consumers directing complaints to service providers when problems occur.
Verleye et al. (2014), Van Doorn et al. (2010)	Compliance	Customers complying with organisational rules and procedures.
Bettencourt (1997)	Cooperation	Discretionary customer behaviours indicating respect for the provision of quality service delivery.
Bove et al. (2009)	Display of Relationship Affiliations	Customers communicate to others of their relationship with an organisation, through tangible displays on their person or in regards to their personal items
Bove et al. (2009)	Flexibility	Customers' willingness to adapt to situations beyond their control.
Rosenbaum & Massiah (2007); Bove et al. (2009); Verleye et al. (2014)	Helping Others	Customers helping each other by expressing empathy, encouraging each other to show appropriate behaviours, or helping each other to get a better service experience.
Jaakkola & Alexander (2014)	Mobilising	Customer contributions of resources, such as relationships and time, to mobilise other stakeholders' actions towards the focal firm.
Bove et al. (2009)	Policing of Other Customers	Observing other customers' behaviours, as well as potentially reacting to these behaviours.

Author (Year)	Type of CEB	Definition
Kumar et al. (2010); Kumar & Reinartz, (2016)	Purchase/Buyin g/ Customer Lifetime Value	Customer purchasing goods/services.
Brodie et al. (2011)	Sharing	A process where consumers contribute to organisations and/or organisational performance by assisting in the development of new products, services, brands or brand meanings.
Brodie et al. (2011)	Socialising	The two-way, non-functional interactions through which consumers acquire and/or develop attitudes, norms and/or community language.

#### A.2 Participation – Definitions and Operationalisations

**Table A2. Definitions on Participation** 

Definitions of Participation		
Authors (Year)	Definition	
Participation		
Bettencourt (1997)	Participation refers to customer behaviours indicating active and responsible involvement in the governance and development of the organisation, including complaints and suggestions for service improvements.	
Bove et al. (2009)	Customers provide the service organisation with ideas and suggestions that do not derive from specific instances of consumption dissatisfaction.	
Eisingerich et al. (2014)	Customers' willingness to provide the firm with constructive feedback and suggestions.	
Feedback		
Verleye et al. (2014)	Customers can give feedback to the firm and its employees via suggestions for service improvements or through participation in in new product and service development processes.	
Voice		
Beckers et al. (2017)	Customer feedback, e.g. a company inviting their customers to give feedback on, for instance, a new product or service.	
Knowledge Contribution		

Definitions of Participation		
Authors (Year)	Definition	
Kumar et al. (2010)	Participating in the knowledge development process by providing feedback.	
Customer Knowledge Value		
Kumar & Reinartz (2016)	Value added through feedback from the customer.	
Co-developing		
Brodie et al. (2011)	Co-developing is a process in which consumers contribute to organisations and/or organisational performance by assisting in the development of new products, services, brands or brand meanings.	
Jaakkola & Alexander (2014)	Customer contributions of resources such as knowledge, skills, and time, to facilitate the focal firm's development of its offering (e.g. through giving ideas, participation in product testing)	

**Table A3. Operationalisation of Participation** 

Operationalisation of Participation	
Authors (Year)	Definition
Bettencourt (1997)	I let this store know of ways that they can better serve my needs.
	I make constructive suggestions to this store on how to improve its service.
	If I have a useful idea on how to improve service, I give it to someone at this store.
	When I experience a problem at this store, I let someone know so they can improve service.
	If I notice a problem, I inform an employee of this store even if it does not affect me (e.g. broken glass in aisle, dairy items past expiration date).
	If an employee at this store gives me good service, I let them know.
	If a price is incorrect to my advantage, I still advise someone at this store.

Operationalisation of Participation		
Authors (Year)	Definition	
Bove et al. (2009)	I would make suggestionsas to how the service could be improved at the	
	I would let myknow of ways thatcould better serve my needs	
	I would share my opinions with my $\dots$ if I felt they might be of benefit to the $\dots$	
	I would contribute ideas to my that could improve service at the	
Chan, Kim & Lam (2009)	I spend a lot of time sharing information about my needs and opinions with the staff during the service process.	
	I put a lot of effort into expressing my personal needs to the staff during the service process.	
	I always provide suggestions to the staff for improving the service outcome.	
	I am very much involved in deciding how the service should be improved.	
Verleye et al. (2014) (based	I let this know of ways to better service my needs.	
on Bettencourt, 1997 and Bove, 2009)	I inform personnel if I experience a problem.	
2000, 2000)	I let the personnel know when they give good service.	
Beckers et al. (2017)	Company announcements of an engagement activity were analysed and a nominal value of 0/1 was given for an initiative being WOM or Participation.	

#### A.3 WOM – Definitions and Operationalisations

**Table A4. Definitions of WOM** 

Definitions of WOM	
Authors (Year)	Definition
Word-of-Mouth	
Bettencourt (1997)	Customer behaviours indicating allegiance to and promotion of the organisation's interests beyond individual interests.
Bove et al. (2009)	Favourable, informal, person-to-person communication between a perceived non-commercial communicator and a receiver regarding an object or issue.

Definitions of WOM			
Authors (Year)	Definition		
Verleye et al. (2014)	Spreading positive WOM or recommending the firm to other customers.		
Beckers et al. (2017)	Customer-to-customer interaction, such as company stimulating their customers to write a review or recommend the firm.		
Customer Influencer Value			
Kumar et al. (2010)	The spread of information by WOM.		
Influencing	Influencing		
Jaakkola & Alexander (2014)	WOM or blogging.		
Kumar & Reinartz (2016)	The spread of information by WOM.		
Customer Referral Value			
Kumar et al. (2010)	Incentivised referral of new customers.		
Referrals			
Kumar & Reinartz (2016)	Acquiring new consumers through referrals.		
Advocating			
Brodie et al. (2011)	Occurs when consumers actively recommend specific brands, products/ services, organisations, and/or ways of using products or brands.		

Table A5. Operationalisation of WOM

Operationalisation of WOM	
Authors (Year)	Definition
Bettencourt (1997)	I say positive things about this store to others.  I encourage friends and relatives to shop at this store.  I make an effort to use this store for all of my grocery shopping needs.

Operationalisation of WOM		
Authors (Year)	Definition	
Bove et al. (2009)	I encourage friends and relatives to go to my I have actually recommend my to others I recommend my to those who ask and seek my advice When the topic arisesI go out of my way to recommend I say positive things about to other people I am proud to tell others that I use	
Verleye et al. (2014)	I recommend this to people interested in nursing homes I recommend this to family and friends I say positive things about to others	
Hewett et al. (2016)	Twitter posts (volume and valence)	
Beckers et al. (2017)	Company announcements of an engagement activity were analysed and a nominal value of 0/1 was given for an initiative being WOM or Participation.	

### A.4 Monetary Giving – Definitions and Operationalisations

Table A6. Definitions on monetary giving

Definitions of Monetary Giving			
Authors (Year) Definition			
Monetary Giving Behaviour			
Sargeant et al. (2006)	Monetary gift to a charity organisation		
Charitable Giving			
Bekkers & Wiepking (2010)	Charitable giving is a form of helping behaviour in which the recipient of a charitable donation is usually absent from the context in which a donation is made.		
Reed II, Aquino & Levy (2007)	Consumer who donates time or money.		

Table A7. Operationalisations of monetary giving

Operationalisation of Monetary Giving			
Authors (Year) Definition			
Marr, Mullin & Siegfried (2002)	Likelihood of giving and expected amount of monetary gift		
Sargeant et al. (2006)	Average monetary gift to the charity in question		
Okunade & Berl (1997)	Dichotomous variable: Have you ever made a financial donation to?"		

#### A.5 HCP – Definitions and Operationalisations

**Table A8. Definitions of HCP** 

Definitions of HCP			
Authors (Year)	Definition		
НСР			
Luo & Homburg (2007)	Employee talent in work-related skills, knowledge, experience, and human resources.		
Actual Employability			
Harvey (2001)	The propensity of a graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organisation.		
Rothwell & Arnold (2007)	The extent to which people possess the skills and other attributes to find and stay in work of the kind they want.		
Job Performance			
Becker et al. (1997)	Overall job performance in terms of quantity and quality of work.		

Table A9. Operationalisations of HCP

Operationalisation of HCP				
Authors (Year)	Definition			
Luo & Homburg (2007)	Human capital of employee: employee talent in work-related skills, knowledge, experience, and human resources among 1000 of the largest firms (AMAC survey).			
Rothwell & Arnold (2007)	"Anyone with my level of skills and knowledge, and a similar job and organisational experience, will be highly sought after by employers", "I could get any job, anywhere, so long as my skills and experience were reasonably relevant", "If I need to, I could easily get another job like mine in a similar organisation", "I could easily get a job to mine in almost any organisation".			
	"I can easily retrain to make myself more employable elsewhere" and "I have a good knowledge of opportunities for me outside of this organisation even if they are quite different to what I do".			
Harvey (2001)	Graduates are having an actual job according to their qualification level within six months after graduation, the nature of employment, salary, and discipline according to qualification level.			
Lam, Chen & Schaubroeck (2002)	How would you rate the overall performance of this employee? (answered by supervisors)			
Becker et al. (1993)	Job Performance Scale 1:			
	Completed work in a timely and effective manner.			
	Performed high-quality work.			
	Completed tasks in an unsatisfactory manner.			
	Job Performance Scale 2:			
	I am satisfied with the quality of work.			
	I am satisfied with the quantity of work.			
	I am satisfied with the overall performance.			
	(evaluated by direct supervisor)			

### A.6 Customer Satisfaction - Operationalisations

Table A10. Operationalisations of CS

Operationalisation of CS			
Authors (Year)	Measures		
Anderson & Sullivan (1993)	<b>Overall Satisfaction</b> , Single-item scale: Satisfaction rating on a 10-point scale.		
Mittal, Kumar & Tsiros (1999)	Overall Satisfaction Single-item scale, 10-point scale: Overall, how satisfied are you with the product (service)? (Attribute Satisfaction: How satisfied are you with the performance on (attribute)?)		
Cronin, Brady & Hult (2000)	Overall Satisfaction, Multi-item scale:		
	<b>Affective Overall Satisfaction</b> : Satisfaction with "Interest", "Enjoyment", "Surprise", "Anger", and "Shame/Shyness"		
	Cognitive Overall Satisfaction: "My choice to purchase this survey was a wise one.", "I think I did the right thing when I purchased this service.", "This facility is exactly what is needed for this service."		
Brady et al. (2005)	Overall Satisfaction, Multi-item scale:		
	I am satisfied with the service I receive from the organisation.		
	I am happy with the service I receive from the organisation.		
	I am delighted with the service I receive from the organisation.		
Gustafsson et al. (2005)	<b>Overall Satisfaction</b> , Single-item scale: Satisfaction rating on a 10-point scale.		
	Expectancy disconfirmation: single-item scale on a 10-point scale.		
	Performance versus the customer's ideal service provider in the category single-item scale on a 10-point scale.		

## A.7 Perceived Employability – Definitions and Operationalisations

Table A11. Definitions of employability from a behavioural perspective (own depiction)

Definitions of employability from a behavioural perspective			
Author(s)	Definition		
Employability defined as	an attribute		
Fugate; Kinicki & Ashforth (2004)	Individual employability is a psycho-social construct that embodies individual characteristics which foster adaptive cognition, behaviour, and affect, and enhance the individual-work interface. Thereby, the onus is on the employees to acquire the knowledge, skills, abilities and other characteristics (KSAO) valued by current and prospective employers.		
Employability defined as	an attitude		
van Dam (2004)	Employability orientation refers to the attitudes of employees toward interventions aimed at increasing the organisational flexibility through developing and maintaining workers' employability of the organisation.		
Van der Heijden & Van der Heijden (2006)	Employability represents the combination of specific and generic competences.		
Tomlinson (2007)	Employability includes a subjective dimension on how individuals come to perceive and understand the labour market they are entering and the types of dispositions, attitudes and identities they develop around their future work and employability.		
Rothwell et al. (2008)	Self-Perceived Employability is the perceived ability to attain sustainable employment appropriate to one's qualification level which consists of beliefs about the internal and external labour market. Thereby, internal employability refers to an individual's perception of their own (internal) attributes, skills, abilities, engagement with study, and ambition. External employability regards an individual's perception of their university, respective field of study, and state of the external labour market.		
Nauta et al. (2009)	Employability refers to the continuous fulfilling, acquiring, or creating of work through the optimal use of one's competences. Employability orientation refers to an employees' openness to develop themselves and to adapt to changing working requirements.		

Definitions of employability from a behavioural perspective				
Author(s)	Definition			
VanHercke et al. (2014)	The individual's perception of his or her possibilities of obtaining and maintaining employment.			
Employability defined as	Employability defined as a behaviour			
van Dam (2004)	The activities employees undertake to improve and maintain their employability, such as engaging in development activities and extending their knowledge and work experiences.			
Rothwell & Arnold (2007)	Employability is a future-oriented perspective to do with individuals and their ability to proactively address the challenges of the labour-market.			
Thijssen et al. (2008)	Concept of lifetime employability defined as the behavioural tendency directed at acquiring, maintaining, and using qualifications aimed at coping with a changing labor market during all career stages.			

Table A12. Operationalisation of Perceived Employability

Operationalisation of Perceived Employability			
Authors (Year)	Measures		
Rothwell et al. (2008)	Perceived Internal Employability		
	Engagement with studies and academic performance: "I achieve high grades in relation to my studies.", "I regard my work as top priority."		
	Confidence in one's skills and abilities: "I feel I could get any job as long as my skills and experience are reasonable relevant.", "I am generally confident in job interviews and selection events."		
	One's awareness of opportunities in the external labour market: "I can easily find out about opportunities in my chosen field.", "The skills and abilities that I possess are what employers are looking for."		
	Perceived External Employability:		
	One's perception of the strength of the university's brand: "Employers are eager to employ graduates from my university.", "The status of this university is a significant asset to me in job seeking."		
	One's reputation of the university in one's field of study: "Employers specifically target this university in order to recruit individuals from my subject.", "My university has an outstanding reputation I my field of study."		
	The status and credibility of one's field of study: "A lot more		

	people apply for my degree than there are places available.", "My chosen subject(s) rank(s) highly in terms of social status."	
	The external labour market's demand for people in the field: "People in the career I am aiming for are in high demand in the external labour market.", "My degree is seen as leading to a specific career that is generally perceived as highly desirable."	
	One's perception of the external labour market: "There is generally a strong demand for graduates at the present time.", "There are plenty of job vacancies in the geographical area where I am looking."	
Van der Heijden & Van der Heijden (2006)	15 items on Occupational Expertise, e.g.: "I consider myself competent to engage in in-depth discussions in my job domain.", "During the past year, I was, in general, competent to perform my work accurately and with few mistakes.", "How would you rate the quality of your skills overall?"	
	<b>8 items on Anticipation and Optimisation</b> , e.g.: "I take responsibility for maintaining my market value.", "I am focused on continuously developing myself."	
	8 items on Personal Flexibility, e.g.: "How easily would you say you can adapt to changes in your workplace?", "How much variation is there in the range of duties you aim to achieve in your work?"	
	7 items on Corporate Sense, e.g.: "I am involved in achieving my organisation's/department's mission.", "I share my experience and knowledge with others."	
	8 items on Balance, e.g.: "I suffer from work-related stress.", My working, learning, and living are in harmony."	
DeCuyper et al. (2011) (based on de Witte 1992; also used in Ngo, Liu & Cheung (2017)	"I am optimistic that I would find another job, if I looked for one.", "I will easily find another job if I lose my job.", "I could easily switch to another employer, if I wanted to.", "I am confident that I could quickly get a similar job."	

### A.8 Love – Definitions and Operationalisations

Table A13. Definitions of Love, Brand Attachment and Brand Love

Definitions of	Love		
Authors (Year)	Components of Love	Definition	Theoretical Basis
(Inter-persona	l) Love		
Sternberg (1986)	Intimacy Passion Commitment	Love is composed of three components (i.e. Intimacy – the feelings of closeness, bondedness, and connectedness, Passion - the drives that lead to romance, physical attraction, and sexual consummation, and Commitment – the decision that one loves another and one's commitment to maintain that love) that together can be viewed as forming the vertices of a triangle whereby each vertices manifests a different aspect of Love.	Sternberg's Triangular Theory of Love
Shaver, Schwartz, Kirson et al. (1987)	Affection Lust Longing	Love is composed of three forms, whereby affection designates the generic form of love which applies to companionate love, whereas the lust (or passion) subcategory refers only to romantic or sexualised love. The joy category, the cheerfulness subcategory contains fairly general names for joyful or happy feelings.	Emotional Prototype Model
Shim & Madden, (1988)	Intimacy Passion Commitment	Consumers form relations with consumption objects (products, brands, stores, etc.), which range from feelings of antipathy, to slight fondness, all the way up to what would, in personperson relations, amount to love.	Sternberg's Triangular Theory of Love
Customer-Firm	n Affection		
Yim, Tse & Chan (2008)	Intimacy Passion Commitment	Customer-firm affection is the affectionate, enduring bond, often formed through multiple experiences and interactions.	Sternberg's Triangular Theory of Love
Choi & Choi (2014)	Intimacy Passion Commitment	A disposition or specific state of mind that is associated with the feeling of "liking" or a type of love.	Sternberg's Triangular Theory of Love
Companionate Love			

<b>Definitions of</b>	Love		
Authors (Year)	Components of Love	Definition	Theoretical Basis
Cavanaugh, Bettman & Frances Luces (2015)	Commitment Intimacy	Love are feelings of warmth and affection toward platonic others (i.e. family and friends) in close, nonsexual relationships.	Sternberg's Triangular Theory of Love
Brand Attachn	nent		
Thomson, MacInnis & Park (2005)	Affection Connection Passion	Consumer emotional attachment to consumption objects, including brands.	Attachment Theory
Brand Love			
Long-Tolbert & Gammoh (2012)	Passion Intimacy Decision/ Commitment	Brand love is a marketplace phenomenon that refers to a deep or intense emotion that customers experience in relation to a particular brand	Sternberg's Triangular Theory of Love
Batra, Ahuvia & Bagozzi (2012)	Passion driven behaviours Self-brand integration Positive emotional connection Long-term relationship Anticipated separation distress Overall attitude valence Certainty/ confidence	Feeling love toward a brand.	Brand Love Prototype

Table A14. Operationalisation of Love

Operationalisation of Love	Based on Sternberg's Triangular Theory of Love
Authors (Year)	Measures
Sternberg (1986)	<b>12 items on Intimacy</b> , e.g.: "I have a warm and comfortable relationship with", "I experience intimate communication with", I feel emotionally close to"
	<b>12 items of Passion</b> , e.g.: "I adore", "My relationship with is very romantic", "I find myself thinking about frequently during the day."
	<b>12 items on Commitment</b> , e.g. "I am committed to maintaining my relationship with", "I have decided that I love", "I would not let anything get in the way of my commitment to"
Yim, Tse & Chan (2008)	<b>Intimacy</b> : "You always enjoy your experience at the restaurant (hair salon)"; "You always have a warm and comfortable feeling when visiting this" "You experience great happiness with visiting"
	<b>Passion</b> : "You will never get bored of going to that restaurant." You find yourself always thinking about going to that", "You adore this"
	<b>Commitment</b> : "You care about maintaining your relationship with", "You have decided that this is 'your'", You could not let anything get in the way of your commitment to this"
Bügel et al. (2011) based on Lemieux & Hale (1999, 2000)	Intimacy: "I have a confidential relationship with my bank." "I attach much value to my bank", "I have a good understanding with my"
	<b>Passion</b> : "I cannot think of a, where I would feel as good as with my current", "I am fascinated by the things my does", I am very enthusiastic about my"
	<b>Commitment</b> : "To what extent do you intend to remain a customer with your?", "To what extent do you feel committed to your, even if you had a less than positive experience with this?", "How often do you consider switching to another?"
Choi & Choi (2014) based on Thomson et al. (2005) and Yim et al. (2008)	Generally speaking, I feel affectionate toward I feel friendly with I love

### A.9 Gratitude – Definitions and Operationalisations

**Table A15. Definitions of Gratitude** 

Definitions of Gratitude		
Authors (Year)	Definition	
Gratitude as an Attribute		
Watkins et al. (2003)	The tendency or disposition of individuals to experience the emotion of gratitude.	
Gratitude as an Attitude (emotion or feeling	ng)	
Emmons & Shelton (2002)	Gratitude is a felt sense of wonder, thankfulness, and appreciation of life. It can be expressed towards others, as well toward impersonal or non-human sources.	
McCullough, et al. (2002; 2008)	Gratitude is defined as a positive emotion that typically flows from the perception that one has benefited from the costly, intentional, voluntary action of another person.	
Frederickson (2004); Raggio, et al. (2013)	Gratitude is the emotion that arises when an individual (beneficiary) perceives that an exchange partner (benefactor) (e.g. person or organisation) has intentionally acted to improve the beneficiary's wellbeing.	
Palmatier et al. (2009)	Feelings of gratefulness, thankfulness or appreciation for benefits received.	
Agrawal et al. (2013)	Gratitude is experienced when individuals appraise others as responsible for positive events and grateful individuals feel that others have brought positive outcomes.	
Gratitude as a Behaviour		
Palmatier et al. (2009)	Action to repay or reciprocate benefits received in response to feelings of Gratitude.	

Table A16. Operationalisations of Gratitude

Operationalisation of Feelings of Gratitude	
Authors (Year)	Measures
Tsang (2006)	To express appreciation.
McCullough et al. (2002)	I have so much in life to be thankful for.
	If I had to list everything that I felt grateful for, it would be a very long list.
	When I look at the world, I don't see much to be grateful for.
	I am grateful to a variety of people.
	As I get older I find myself more able to appreciate the people, events, and situations that have been part of my life history.
	Long amounts of time can go by before I feel grateful to something or someone.
Palmatier et al. (2009)	I feel grateful to
	I feel thankful to
	I feel appreciative to

#### **Appendix B - Appendix to Chapter 3**

#### **B.1** Ontology, Epistemology and Axiology

**Ontology** is the theory of social entities and is concerned with what exists to be investigated. Bryman (2008) identifies two opposing theoretical attitudes to the nature of social entities, namely; objectivism (the belief that social phenomena and their meanings have an existence that is independent of social actors) and constructivism (the belief that social phenomena are in a constant state of change because they are constructed by social actors and rely on the social interactions as they take place).

**Epistemology** is concerned with how we know things, and what we can regard as scientific knowledge in a discipline. In principle, there are two ways of acquiring knowledge: empiricism (knowledge gained by sensory experience using inductive reasoning) and rationalism (knowledge gained by reasoning using deductive reasoning) (Walliman, 2006, p.15).

Another polarisation in the pursuit of knowledge has developed more recently. This relates to the status of scientific method and subjectivity. Dilthey (1991) drew the distinction, in connection to research in the field of psychology, between interpretation or understanding (verstehen) and explanation in causal terms (erklären). Dilthey (1991) suggested the former was the **axiology** (or goal) of **interpretivist** research, while the latter was of scientific (**realism**) research. (For a more comprehensive review on ontology and epistemology, see e.g. Bryman (2008); Lee & Lings (2008); Walliman (2006).)

#### **B.2** Qualitative Versus Quantitative Research

It is important to note that the categorisation in the following table is simplified, as each example of qualitative research has its own very distinct characteristics and this does not imply any value judgement.

Table B1. Qualitative versus quantitative research design (based on Bortz & Döring, 2002; Hair et al., 2008; Lee & Lings, 2006; Malhotra, 2002)

	Qualitative	Quantitative
Objective	Ideographic (describe singe events on an individual level).	Nomothetical (develop general natural laws).
	To gain a qualitative understanding of the underlying reasons and motivations.	To quantify the data and generalise the results from the sample to the population of interest.
Historical	Scientific roots in humanities.	Scientific roots in natural sciences.
development of the discipline	Evolution of qualitative sciences due to critique of quantitative methods. Refers back to hermeneutics and phenomenology, and received central impetus through the Chicago School, as well as the positivism conflict.	In the 19 <sup>th</sup> century when social sciences evolved, the natural sciences had already been well established. Consolidation of the social sciences with methods from natural sciences.
Philosophical	Interpretivism	Realism
paradigms	Hypothesis-generation	Hypothesis-testing
	Inductive method	Deductive method
Research design	Explorative	Explanative
Technics	Describing	Measuring
	Single case (small number of non- representative cases)	Sample (large number of representative cases)
	Non-statistical	Statistical
Data collection methods (examples)	Qualitative interviews, qualitative observations, non-reactive methods, field work, action research, gender research, biographical research.	Counting (quantitative content analysis), judging (paired comparisons, multidimensional scaling, ratings), testing (adaptive testing), interviewing (oral interviews, written interviews), observing.
Data analysis methods (examples)	Content analysis, grounded theory, global analysis, linguistic analysis.	Univariate statistics (descriptive statistics), bivariate statistics (correlation, regression, t-tests), multivariate dependent techniques (multiple regression, multiple discriminant analysis and logistic regression, multivariate analysis of variance, conjoint analysis), multivariate interdependence techniques (cluster analysis, multidimensional scaling, correspondence analysis), structural equation modelling.
Outcome	Develop an initial understanding.	Recommend a final course of action.

## **Appendix C - Appendix to Chapter 4**

#### **C.1** Focus Group Guideline

	INTERVIEW GUIDELINE FOR UNIVERSITY GRADUATES
Welcome (5 min.)	Welcome. I want to thank you for coming today. My name is Bernadette Frech and I will be the facilitator for today's discussion. I am a doctoral student at the Aston Business School in Birmingham, England.
	I have invited you to take part in this group discussion today because you are all students at Aston Business School. I would like to talk with you today about your perceptions of the quality and relevance of your undergraduate business programme. What I learn from today's discussion will help the university to improve their educational offers and services.
Ground rules	Before we begin, I would like to review a few ground rules for the discussion.
(10 min.)	a. I am going to ask you several questions; we do not have to go in any particular order but I do want everyone to take part in the discussion. I ask that only one person speaks at a time.
	b. Feel free to treat this as a discussion and respond to what others are saying, whether you agree or disagree. I am interested in your opinions. Whatever you have to say is fine with me. There are no right or wrong answers. I am just asking for your opinions based on your own personal experience. I am here to learn from you.
	c. Don't worry about having a different opinion than someone else. But please do respect each other's answers and opinions.
	d. If there is a particular question that you don't want to answer, you don't have to.
	e. I will be tape recording our conversation today and also be taking notes because I do not want to miss any of your comments.
	f. Please be assured, that I will treat your answers anonymously. I will not include your name or any other information that could identify you in any reports I write. I will destroy the notes and audiotapes after I have completed the thesis and publish the results. Are you okay with this conversation being tape recorded? [GET FORMAL CONSENT TO TAPE RECORD INTERVIEW.]
	g. I am not asking for anything that could identify you and I am only going to use first names during discussions. I also ask that each of you respects the privacy of everyone in the room and not share or repeat what is said here in any way that could identify anyone in this room.
	h. Finally, the interview will last two hours and I ask to stay for the entire meeting.
	Does anyone have any questions about my research?
	[HAND OUT THE CONTEXT DATA SHEET]
	May I ask you to please fill in the "Context Data Sheet" in front of you, including questions about your gender, age, country of birth, degree programme, and work experience? I collect this information to understand your answers in your personal context.

Introductions	[START TAPE RECORDER NOW]
(5 min.)	I'd like to go around the table starting on my right and have each person introduce him or herself. Please tell us your first name only, what year of your undergraduate study you are in and your major.
Topic 1 Satisfaction (10 min.)	1. To begin with, I would like to talk with you about your overall satisfaction with your undergraduate programme. In general, looking at your undergraduate programme what makes you satisfied or dissatisfied?
	PROBE: Which factors contribute to your satisfaction with your undergraduate programme?
	PROBE: Which factors contribute to your dissatisfaction with your undergraduate programme?
Topic 2 Employability	2. Next, I would like to discuss your impressions on your employability. What do you understand by the term employability?
(30 min.)	PROBE: How would you define the term employability?
	3. How do you perceive your own employability?
	PROBE: Do you think that you are employable? Why do you think that you are employable or not employable?
	4. What influences your employability?
	PROBE: Which different factors can you think of that influence your employability?
	5. How much does university support the development of your employability, and how?
Topic 3 Outcomes	6. If you are satisfied with your education and you feel that you are employable what do you think you can do in return that can help the university?
(10 minutes)	PROBE: Which actions do or did you set that are of benefit for your university?
Topic 4 Relationships between constructs (30 min.)	7. [PUTTING ONE CARD SET PER PARTICIPANT ON THE TABLE AND WRITE TOPICS ON THEM] The last thing that I would like to discuss with you today is how you believe that the topics we discussed today are related to each other. Please view the cards in front of you. Each card has a topic written on it which we discussed in the last minutes. You can see the topics satisfaction with your undergraduate business education, your Perceived Employability and the actions you would set which are of benefit for the university in return for the educational offers received. Now I would like to ask you to state how you believe that these topics interrelate with each other. Are there topics which lead to other topics?
	[PUTTING CARD SET 2 ON THE PINBOARD] To give you an example: You can see cards with the following words on it: milk, wheat, eggs, cake, birthday candle and birthday cake. Putting these cards in the present order means that milk, wheat and eggs lead to a cake, putting a birthday candle on it makes it a birthday cake.
	Coming back to our conversation topics, would you see an order in these cards? I'd like to go around the table starting on my right and have each one express your thoughts on why you put your cards in a specific order.
	8. Looking at these topics in order, would you think that there is something missing? [ASK FURTHER QUESTIONS TO UNDERSTAND THE RELATIONSHIPS]
Final thoughts	These were all the questions that I wanted to ask.
(5 min.)	9. Do you have any final thoughts about your undergraduate programme that you would like to share?
L	

Review and
Wrap-up
(5 min.)

Thank you for coming today and for sharing your opinions with me. I hope you enjoyed the discussion. Your input helps me to set up a survey instrument. At my table I have a contact pool list. In case you are willing to fill in my survey at the end of October, beginning of November, please write down your email address in this list. Also, please let me know if you wish to have a copy of my final thesis. Just make a tick next to your email address and I will send you a copy of it. I wish you a good remaining day.

#### C.2 Semi-structured Alumni Interview Guideline

INTERVIEW	GUIDELINE FOR UNIVERSITY GRADUATES
Introduction (5 min.)	Thank you for agreeing to meet with me. My name is Bernadette Frech. I am a doctoral student at the Aston Business School in Birmingham, England.
	I am speaking with university graduates to get various impressions on the quality and relevance of business degree programmes in Austria and England. As a researcher, I would like to talk with you about your perceptions of the quality and relevance of your undergraduate programme. What I learn from today's discussion will help the university to improve their educational offers and services. I am interested in your opinions. Whatever you have to say is fine with me. There are no right or wrong answers. I am just asking for your opinions based on your own personal experience. I am here to learn from you. If there is a particular question that you don't want to answer, you don't have to. The interview will last 30 to 40 minutes.
	I will be tape recording our conversation today and also be taking notes because I do not want to miss any of your comments. Please be assured, that I will treat your answers anonymously. I will not include your name or any other information that could identify you in any reports I write. I will destroy the notes and audiotapes after I have completed the thesis and publish the results. Are you okay with this conversation being tape recorded? [GET FORMAL CONSENT TO TAPE RECORD INTERVIEW.]
	Do you have any questions about my research? Would you like to have a copy of my research after completion?
	[HAND OUT THE CONTEXT DATA SHEET]
	As a start may I ask you to please fill in the "Context Data Sheet" in front of you, including questions about your gender, age, country of birth, degree programme, and work experience? I collect this information to understand your answers in your personal context.
Topic 1 Satisfaction (5 min.)	1. To begin with, I would like to talk with you about your overall satisfaction with your undergraduate programme. In general, looking back at your undergraduate programme what makes you satisfied or dissatisfied?
	PROBE: Which factors contribute to your satisfaction with your undergraduate programme?
	PROBE: Which factors contribute to your dissatisfaction with your undergraduate programme?

Topic 2 Employability	2. Next, I would like to discuss your impressions on your employability. What do you understand by the term employability?
(10 min.)	PROBE: How would you define the term employability?
	3. How do you perceive your own employability?
	PROBE: Do you think that you are employable? Why do you think that you are employable or not employable?
	4. What influences your employability?
	PROBE: Which different factors can you think of that influence your employability?
Topic 3 Outcomes	5. If you are satisfied with your education and you feel that you are employable what do you think you can do in return that can help the university?
(5 minutes)	PROBE: Which actions do or did you set that are of benefit for your university.
	6. What would your university need to do that you make the before mentioned actions?
	PROBE: What must be given so that you do the before mentioned actions?
Topic 4 Relationships between constructs (10 min.)	7. [PUTTING CARD SET 1 ON THE TABLE AND WRITE TOPICS ON THEM] The last thing that I would like to discuss with you today is how you believe that the topics we discussed today are related to each other. Please view the cards in front of you. Each card has a topic written on it which we discussed in the last minutes. You can see the topics satisfaction with your undergraduate business education, your Perceived Employability and the actions you would set which are of benefit for the university in return for the educational offers received. Now I would like to ask you to state how you believe that these topics interrelate with each other. Are there topics which lead to other topics?
	[PUTTING CARD SET 2 ON THE TABLE] To give you an example: You can see cards with the following words on it: milk, wheat, eggs, cake, birthday candle and birthday cake. Putting these cards in the present order means that milk, wheat and eggs lead to a cake, putting a birthday candle on it makes it a birthday cake.
	Coming back to our conversation topics, would you see an order in these cards? Please express your thoughts while putting your cards into order.
	8. Looking at these topics in order, would you think that there is something missing? [ASK FURTHER QUESTIONS TO UNDERSTAND THE RELATIONSHIPS]
Final thoughts	These were all the questions that I wanted to ask.
(5 min.)	9. Do you have any final thoughts about your undergraduate programme that you would like to share?
	Thank you for your time!

### C.3 Semi-structured Expert Interview Guideline

	INTERVIEW GUIDELINE FOR EDUCATIONAL EXPERTS
Introduction (5 min.)	Thank you for agreeing to meet with me. My name is Bernadette Frech. I am a doctoral student at the Aston Business School in Birmingham, England.
(3 111111.)	I am speaking with educational experts to get various impressions on the quality and relevance of business degree programmes in Austria and England. As a researcher, I would like to talk with you about your perceptions of the quality and relevance of undergraduate business programmes in the UK. What I learn from today's discussion will help universities to improve their educational offers and services. I am interested in your opinions. Whatever you have to say is fine with me. There are no right or wrong answers. I am just asking for your opinions based on your own personal experience. I am here to learn from you. If there is a particular question that you don't want to answer, you don't have to. The interview will last about 40 minutes.
	I will be tape recording our conversation today and also be taking notes because I do not want to miss any of your comments. Please be assured, that I will treat your answers anonymously. I will not include your name or any other information that could identify you in any reports I write. I will destroy the notes and audiotapes after I have completed the thesis and publish the results. Are you okay with this conversation being tape recorded? [GET FORMAL CONSENT TO TAPE RECORD INTERVIEW.]
	Would you like to have a copy of my thesis upon completion?
	Do you have any questions about my research?
	[HAND OUT THE CONTEXT DATA SHEET]
	As a start may I ask you to please fill in the "Context Data Sheet" in front of you, including questions about your gender, age, country of birth, and job position? I collect this information to understand your answers in your personal context.
Topic 1 Education in UK (5 min.)	1. To begin with, my thesis is about the quality of education, the image and value of education as perceived by students and how these factors relate to student employability. Being familiar with the UK educational context, why do you think that such a study on the quality and relevance of undergraduate education is of importance for universities in the UK?
Topic 2 Employability (10min)	2. My thesis focuses on the topic of Perceived Employability. I am looking at the Perceived Employability of students in their final year of studies. According to Rothwell et al. (2008) Perceived Employability is the perceived ability to attain sustainable employment appropriate to one's qualification level. From your point of you, what can a university do to support the Perceived Employability of their students?
	PROBE: Which factors support the Perceived Employability of students?
	3. Rothwell et al. (2008) claim that self-Perceived Employability of students consists of beliefs about the external labour market, one's university, the respective field of study, and self-belief. [Show items] What do you think about this operationalisation of Perceived Employability?
	PROBE: Is there anything missing to it?

Topic 3 Value (5 min.)	<ul> <li>4. Now, I would like to discuss with you your perception of the value of education. The term value is the tradeoff between give and get components. When studying you get something from your university education and you give something for that. From your point of view, what do students get from an undergraduate education in business?</li> <li>5. What do you believe are the costs for a student to attain an undergraduate education in business?</li> </ul>
Topic 4 Outcomes (5 min.)	6. Next, I would like to talk with you about things students would do for the university in return for a high quality and relevant educational offer received. Let us assume that students have received an educational offer which is of value to them, with which they are satisfied. Which actions do you think they would do in return to the educational offer received that are of benefit for the university.
Topic 5 Conceptual model	7. Finally I would like to show you my conceptual model as derived from theory. [SHOW COCEPTUAL MODEL AND EXPLAINING THE MODEL]. What are your general thoughts about the model?
(10 min.)	Are there any variables missing that lead to Perceived Employability? If yes, which ones?
	Are there any possible outcomes of Perceived Employability missing? If yes, which ones?
	What do you think about the relationships?
	From your point of view, what are the differences of this model when being tested among business undergraduate students and undergraduate students from other scientific fields?
Final thoughts	These were all the questions that I wanted to ask.
(5 min.)	8. Do you have any final thoughts about the undergraduate programme that you would like to share?
	Thank you for your time!

### **C.4** Demographic Questionnaire Student Sample

Context Data Sheet Gender: O male O female O other
Age: O age 18-21 O age 22-25 O age 26-29 O age 30-34 O age 35-44 O age 45-54 O age 55-64 O age 65+
Country of birth: O Austria O UK O Other:
University: O FH Joanneum O Aston Business School O Other:
Name of degree programme of undergraduate studies O Management internationaler Geschäftsprozesse O Other:
Major: O Marketing O Finance O Other:
Work experience (multiple answers are possible): O No O Internship O Part-time employment while studying O Full-time employment while studying O Self-employed O Volunteering O Other:

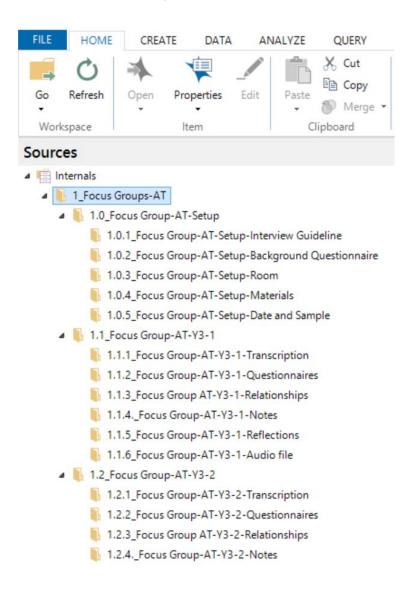
### C.5 Demographic Questionnaire Alumni Sample

Context Data Sheet Gender: O male
O female O other
Age: O age 18-21 O age 22-25 O age 26-29 O age 30-34 O age 35-44 O age 45-54 O age 55-64 O age 65+
Country of birth: O Austria O UK O Other:
University: O FH Joanneum O Aston Business School O Other:
Name of degree programme of undergraduate studies O Management internationaler Geschäftsprozesse O Other:
Major: O Marketing O Finance O Other:
Current work / other (multiple answers are possible): O No O Internship O Full-time studying O Part-time employment while studying O Full-time employment while studying O Employed O Self-employed O Volunteering O Other:

# C.6 Demographic Questionnaire Expert Sample

Context Data Shee	t	
Gender: O male	O female	O other
Age:		
O age 18-24		
O age 25-34		
O age 35-44		
O age 45-54		
O age 55-64		
O age 65+		
Country of birth:		
Current job position	1:	

# C.7 Data Management in NVIVO 10



### C.8 External Audit for Qualitative Research

#### **EXTERNAL AUDIT**

- ...FOR ENSURING INTERCODER RELIABILITY
- ... FOR QUALITY ASSURANCE OF QUALITATIVE RESEARCH METHODOLOGY

#### **Objectives of the External Audit**

Objective 1: Assessing Intercoder Reliability

Objective 2: Quality Assurance conc. Subjective Bias

External auditor: Mag. Mag. Edith Podhovnik, PhD

Edith Podhovnik received her PhD from the University of Wales, Swansea (United Kingdom), specialising in dialectology and sociolinguistics, and a Master's degree in English and Russian from the Karl Franzens Universität Graz. Currently she is senior lecturer at the Department of International Management and Department of Journalism and PR at FH JOANNEUM, University of Applied Sciences in Austria, teaching courses inter alia on academic writing and research, with emphasis on qualitative investigations. Between 1993 and 1999 she lived and worked in Swansea (United Kingdom). She has lectured in various countries, including the United Kingdom, the United States and Russia, and writes for a Russian online journal as a contributing editor.

Hence, as an external reviewer of the qualitative data at hand Edith Podhovnik brings in her professional expertise in English language and qualitative research methods as well as her understanding for Austrian and English university systems.

#### Materials sent to the external auditor:

- Preparation of qualitative research
  - description of research design
  - interview guidelines and context questionnaires for students, alumni and expert in AT and UK
- Data collection
  - o Transcripts of all interviews in AT and UK
  - Transcripts of all focus groups in AT and UK
  - o Data collection memos and notes
- Data analysis
  - o Data analysis memos
  - o Process memos
  - Reliability documents
  - External audit format

**External Audit Process/Steps:** 

Objective 1: Assessing Intercoder Reliability

1. Background information on the study given from the researcher to the external auditor

were based on the introductory words of the interview guideline. No prior information

regarding the dissertation focus or conceptual model/findings were given by the

researcher.

2. Raw data (, i.e. all interview and focus group transcripts) were printed

3. Inductive analyses of the transcripts on paper

4. Categories from each interview/focus group were summarised on a separate sheet of

paper

5. Analyses categories from the external auditor were finally compared with the coding

scheme from the researcher on consistency.

6. Consistencies/Inconsistencies were discussed in two meetings between the researcher

and the external auditor

7. The researcher reflected the feed-back received into the final analysis

Objective 2: Quality Assurance conc. Subjective Bias:

To evaluate the quality of the qualitative research the external auditor commented the

question list by Schwandt & Halpern (1988):

1. Are the findings grounded in the data?

2. Are inferences logical?

3. Are the themes appropriate?

4. Can inquiry decisions and methodological shifts be justified?

5. What is the degree of research bias?

6. What strategies are used for increasing credibility?

Feed-back on these critical questions were reflected in the qualitative research analysis

section of the PhD.

**Inter-Coder Consistency Check over Time** 

**MEMO: CODER CONSISTENCY OVER TIME** 

To assure reliability in terms of consistency over time (Richards, 2010) a coder consistency check over time has been conducted. Thereby, the coding of the same transcripts has been undertaken by the researcher at two points of time. The initial coding was done during the time frame of 11/2011-03/2012 and the consistency coding was conducted during the time from of 10/2013-02/2014. Between these two points of time the researcher was on maternity leave and could thereby get the necessary distance to the initial coding and thinking patterns. Inconsistencies in coding styles, categories selected and wording and if necessary how they were dealt with are documented in this file.

Consistency check	Documentation of inconsistencies	Treatment of inconsistencies
Main themes	no inconsistencies	no treatment
Node: People	no inconsistencies	no treatment
Node: Satisfaction	Satisfaction and dissatisfaction factors were rather straight forward and coding at the relevant child nodes (satisfaction factor and dissatisfaction factor) has consequently been equal.  A refinement to the existing coding was done by distinguishing between university and programme dis/satisfaction.  The wording of some dis/satisfaction factors differed, but not the meaning. This was valid for:  Initial coding: Administrative services vs. Consistency coding: Supportive services Initial coding: Programme structure vs. consistency coding: Organisation of study programme	For the final data analysis and reporting of findings the refined coding of dis/satisfaction factors from the consistency coding has been used.  The wording has been unified in the final analysis to "Administrative and support services" and "General degree programme organisation".

## Node: Perceived Employability

Coding on Perceived Employability was rather consistent, which is mainly based on the straight forward questioning in the interview guideline on this topic.

The initial coding of "definition of employability", "Perceived Employability" and "university supporting employability" have been refined by summarising comments into further child nodes (e.g. definition of employability: 1. Getting a job [a. easiness to get a job, b. getting a job according to one's aspirations, c. time to get a job after graduation, etc.], 2. to be invited to job interviews, 3. to have the right skills and competences, etc.)

A further category emerged in the consistency coding, i.e. importance of employability.

For the final data analysis and reporting of findings the refined coding of Perceived Employability from the consistency coding has been used.

New categories have been integrated to the final data analysis file.

#### Node: Activities

As the investigations on activities together with motivations for these activities were highly exploratory, most differences and amendments have been made within this node. The title of "giving behaviours" was changed to CEBs as a review of literature strengthened the use of this term. Wording of the child nodes have been refined with why. what and when to further stress the focus of the discussion on motivations to give back (why - or as in the initial coding: prerequisites and conditions to give back), what -giving behaviours outlining the different types of giving behaviours such as forwarding job offers and giving monetary donations) and under which conditions people give back, such as being employed, proximity to university, etc. The codes have been categorised according to concepts suggested in CEB literature (such as participation, mobilising)

Reviewing literature on motivations to give back allowed to further refine the coding of the why-motivations to give back child node in the consistency coding phase. Emotional bonds, statements that refer to love and feelings of reciprocation, gratitude and a desire to help emerged out of the data.

A review of the prerequisite "employment" for giving back was re-analyzed in detail by reviewing all statements in this respect again to see how employment might work in the conceptual framework (possible moderator or mediator).

The wording and refined coding of the consistency phase is used for the final data analysis.

Yet, the initial wording of the motivations to give back remained and further refinements with wordings from literature review were added. The emerging mediators of gratitude and love were used and tested in the quantitative study. Besides, the prerequisites of giving back to university showed that employment (which was initially thought of as outcome variable) might mediate or moderate the relationship between satisfaction and giving behaviours.

Node: Relationships Coding at relationships was consistent as the pictures showing the different relationships have been coded at separate child nodes. However, with the literature review on novel mediators in mind the researcher went over these statements on relationships during the consistency coding and some statements were used in the motivations to give back node.	Deeper insights were gained in the consistency coding concerning the links between the different constructs, especially between satisfaction and CEBs. These insights were coded in the respective nodes.
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# **C.10 Background of Study Participants**

The background of Austrian focus group participants including their acronym, gender and major or job position are presented below.

Table C1. Focus group participants from Austria

Focus Group	AT-Y3-1			Focus Group	AT-Y3-2		
Participant	Participant	Gender	Major	Participant	Participant	Gender	Major
number	acronym			number	acronym		
Interviewer	Interviewer	F	n.a.	Interviewer	Interviewer	f	n.a.
Person 1	Anna	F	Marketing	Person 1	Maximilian	m	Marketing
Person 2	Lukas	M	Finance	Person 2	Alexander	m	Marketing
Person 3	Sarah	F	Marketing	Person 3	David	m	Finance
Person 4	Lena	F	Marketing				
Focus Group	o-AT-Y2-1			Focus Group	-AT-Y2-2		
Participant	Participant	Gender	Major	Participant	Participant	Gender	Major
number	acronym			number	acronym		
Interviewer	Interviewer	F	n.a.	Interviewer	Interviewer	f	n.a.
Person 1	Hannah	F	n.a.	Person 1	Sophie	f	Marketing
Person 2	Jonas	M	n.a.	Person 2	Marie	f	Marketing
Person 3	Leonie	F	n.a.	Person 3	Lea	f	Marketing
Person 4	Simon	M	n.a.	Person 4	Katharina	f	Finance
Person 5	Julia	F	n.a.	Person 5	Florian	m	Marketing
Person 6	Jakob	M	n.a.	Person 6	Johanna	f	Marketing
Person 7	Elias	М	n.a.				

The background of UK focus group participants including their acronym, gender and major are presented below.

Table C2. Focus group participants UK

Focus Group	UK-Y3-1			Focus Group-	-UK-Y3-3		
Participant number	Participant acronym	Gender	Major	Participant number	Participant acronym	Gender	Major
Interviewer	Interviewer	f	n.a.	Interviewer	Interviewer	f	n.a. Business,
Person 1	Armin	m	Marketing, German	Person 1	Rachel	f	French
Person 2	George	m	Accounting, Chinese	Person 2	Andrew	m	Marketing Business and
Person 3	Zarah	f	Marketing Management and	Person 3	Callum	m	Management International
Person 4	Stephanie	f	Strategy	Person 4	Alex	m	Business
Person 5	Steven	m	HRM	Person 5	David	m	Marketing
Focus Group	o-UK-Y3-2			Focus Group-	·UK-Y2-1		
Participant number	Participant acronym	Gender	Major	Participant number	Participant acronym	Gender	Major
Interviewer	Interviewer	f	n.a.	Interviewer	Interviewer	f	n.a.
Person 1	Christina	f	Marketing	Person 1	Joshua	m	n.a.
Person 2	Stephanie	f	International Business	Person 2	Jack	m	n.a.
Person 3	Kate	f	Marketing	Person 3	Olivia	f	n.a.
Person 4	Michael	m	Marketing Management and	Person 4	Isabelle	f	n.a.
Person 5	Maria	f	Strategy Business and	Person 5	Harry	m	n.a.
Person 6	Edward	m	Management	Person 6	Emily	f	n.a.
Person 7	Shaun	m	Marketing	Person 7	Lily	f	n.a.
				Person 8	Chloe	f	n.a.
				Person 9	Jacob	m	n.a.
				Person 10	Charlie	m	n.a.

The acronyms, gender, undergraduate degree, and current job positions of the Austrian alumni sample is presented below.

Table C3: Austrian alumni participants

		Alumni Sam	ple AT
Participant Acronym	Gender	Undergrad. Degree	Current employment position
Emma	F	Business, MIG	Employed
Lara	F	Business, MIG	Employed
Lisa	F	Business, MIG	Employed
Mia	f	Business, MIG	Master student
Victoria	f	Business, MIG	Master student, part-time employed
Valentina	f	Business, MIG	Employed
Jana	f	Business, MIG	Employed
Sebastian	m	Business, MIG	Employed
Julian	m	Business, MIG	Employed
Felix	m	Business, MIG	self-employed
Fabian	m	Business, MIG	employed in past, currently searching for job

The acronyms, gender, undergraduate degrees, and current employment positions of the alumni sample from the UK is presented below.

		Alumni Sample UK	
Participant Acronym	Gender	Undergrad. Degree	<b>Current employment position</b>
Aden	m	Business	self-employed
Dylan	m	Business	employed
Eleonor	f	Comb. honours, business	employed
Joseph	m	Business	employed
Ruby	f	Comb. honours, business	employed
Nathan	m	Business	employed, PhD student
Zachery	m	Business	employed
Lucas	m	Business	employed
Oscar	m	Business	self-employed

The expert sample with the position acronym, gender, country, interview type and current employment position is presented below.

Table C4. AT and UK expert participants

		Ехр	ert Sample	
Participant Acronym	Gender	Country	Interview Type	Current employment position
Expert Management Board FH JOANNEUM	F	АТ	personal	Top management board member at FH JOANNEUM CEO board member at the World University Service,
Expert World University Service	M	AT	personal	expert for European higher education systems Business degree coordinator at AT
Expert Business Degrees	M	AT	personal	University Member of AQA, accrediation institution
Expert Austrian Quality Assurance Agency	F	АТ	phone	for higher education institutions in Austria, resp. for league tables  QA Management at WU Vienna, expert for
Expert Quality Assurance AT	M	AT	phone	employability
Expert Management Board Aston University	F	UK	personal	Top management board member at Aston University
Expert Quality Assurance UK	M	UK	personal	Expert for quality assurance in the UK
Expert League Tables UK	M	UK	personal	Expert for league tables in the UK
Expert Employability Research	F	UK	personal	Researcher on employability

# **C.11 Qualitative Insights on University Prestige**

When reviewing the reference counts, it becomes apparent that **students referred predominantly to their satisfaction with their degree programme**. Interestingly though, when being specifically asked about their satisfaction with the University as a whole, **students evaluated the University often against a reference point**. While the Austrian sample made comparisons with the regional traditional university and pointed out factors that were better or worse at their university of applied sciences in comparison to a traditional university, the UK sample made comparisons to so-called "redbrick universities" within the UK:

"When I was an undergraduate, there weren't any politics societies or debating societies or anything of that nature which form quite a big part of social activities at other universities. And I think in a way that's relating to this notion of this University not being a traditional university, seen as modern and I think these societies for debating and politics probably associate more with the classic redbrick universities." (Nathan, Alumni UK)

"Last term we made an exam and we had to wait for three months for our grades. This is not good, but in general the administration is quite ok in comparison to traditional universities. I know some people who study at traditional universities and they say the administration is awful." (Florian, FocusGroup-AT-Y2-2)

The comparisons made by the Austrian sample between traditional universities vs. universities of applied sciences is a discourse that exists since the 1990, when universities of applied sciences started to compete for prospect students (Expert Interview with a Vice Rector of Austrian University of Applied Sciences). The comparison within the UK sample against the most prestigious or most traditional Universities might be based on the prominence of national league tables which compare the quality of different higher education providers in the UK according to different types of criteria (, e.g. R&D outcomes, student satisfaction, graduate employment) (Expert Interview with a Management Board Member of an English University; Expert Interview with an Expert on League Tables in the UK). It is noteworthy though, that although the university sector has become increasingly international and Universities compete on a global scale (Expert Interview with Management Board Member of the World University Service), both samples national or even regional reference points.

## C.12 Relationship Table Between Empathy and CEBs

The Rela	tionship betw	veen Empathy	and CEBs	
Citation Index	Thematic Category	Name (synonym)	Sample	Statement
R.E1	Empathy	Dylan	Alumni UK	"When I do earn some more money, that I can give more away, then I'll be happy to give more to the students' guild or the union in order to help other students. Because I can empathise with them about what they're going through."
R.E2	Empathy	Joseph	Alumni UK	"To give students that are currently going through what I went through four years ago or three years ago, to give them an idea of what awaits them at the other end of the university."
R.E3	Empathy	Nathan	Alumni UK	"I think first and foremost it would be the students because I think you have a natural degree of empathy with them because you've been in that position, you know the challenges they're facing and the situation that they're in. I can't really imagine how I could ever give something back to those lecturers that inspired me and captured my imagination. I mean, if I could that's certainly something I would want to do. But I can't really envisage how I could do that."

# **C.13 Further Mechanisms Why Students Perform CEBs**

Other Re	asons why to giv	e back to Un	iversity	
Citation Index	Thematic Category	Name (synonym)	Sample	Statement
R.O1	Own experience (8/5)	Sarah	FocusGroup- AT-Y3-1	"Because that was a very interesting part in the last three years that we always had some people coming from the working life, not only the lecturers themselves but also people out of, business people."
R.O2	Own interest (4/3)	George	FocusGroup- Y3-1	"I think a lot of people are going to end up in situations in which they will promote the university and they will participate in alumni events and such, for their personal interest, only pursuing personal interest in a way that I will go out there and say — yeah, Aston is great, but yes you being there I want to get something from it, I want to get a contact with this person or that person, I want to move the job, I want to move the country, I want a perspective on how I can do this."
R.O3	Obligation (1/1)	Emma	Alumni AT	"That I pay? *sigh* I wouldn't like to do this because I think I don't have that much money. But if it would *breathing out* be a general rule, then I would also do it."

# Appendix D - Appendix to Chapter 6

### D.1 Details on Measure Choice

As **CS** was conceptualised as a cognitive-affective concept (see literature review section on CS in section and qualitative research results), both emotional and evaluative responses to a service encounter needed to be covered in a multi-item scale on CS. Furthermore, CS was operationalised as a customer's overall evaluation of the performance of an offering to date, which is in line with former service marketing research working with comprehensive service evaluation frameworks involving multiple constructs (e.g. Cronin et al., 2000; Brady et al., 2005). Initially, the individual items were selected from the 3-item scale on overall CS validated in a multi-national (, i.e. five countries) and multi-service setting (, i.e. two service settings) study by Brady et al. (2005) in the Journal of Retailing (see literature review section on CS). Brady et al. (2005) based their three items on Oliver (1997) and Westbrook and Oliver (1991) Two evaluative items of Cronin, et al. (2000) were further integrated in the CS scale to ensure that Overall CS remained a multi-item reflective scale as suggested by Anderson and Gerbing (1998) after potential modifications after the CFA. Cronin, Brady and Hult (2000) items were selected as the Satisfaction items were also based on Oliver (1997), they largely informed the Brady et al. (2005) study, were tested across different service industries, and the facet of decision choice for a service was not part of the evaluative items by Brady et al. (2005). The original items were "I think that I did the right thing when I purchased this service", "My choice to purchase this service was a wise one" and "This facility is exactly what is needed for this service" (Cronin, et al., 2000, p. 213). The first two items fitted into a HE context andwere validated in a study in the HE context by Brown and Mazzarol (2009). The measures can be well argued to be combined in one instrument. After the pre-testing phase, SAT 06 was dropped from the scale as outlined in the pre-testing section. Besides the evaluative items on Overall Satisfaction, Cronin, et al. (2000) have also developed emotional items for measuring Overall Satisfaction, including emotions such as enjoyment, surprise, interest, anger and shame (Cronin et al., 2000). However, results from the qualitative study showed that students referred to enjoyment in terms of delight and happiness when referring to their overall satisfaction level with their university. This is in line with Brady et al. (2005) study which also adopted the enjoyment measure as emotionbased measure for overall satisfaction. Therefore, the emotional satisfaction measure selected for the present study were enjoyment in terms of delight and happiness. Finally, the item SAT 5 is based on a more recent development on measuring CS, i.e. evaluating the overall customer experience (Kumar et al., 2013). In a HE context, Alves and Raposo (2009, p. 212) specifically used one Overall Satisfaction item based on Oliver (1980) measuring experiences, namely: "Considering the global experience with the university, in general what is your level of satisfaction?". To fit this item with the wording style of the other

Overall Satisfaction measures, it was slightly adapted to: "I am satisfied with the student experience at my University". To emphasise that an overall evaluation of the university experience was assessed, the term "overall" was placed in front of each Overall Satisfaction item. All items were worded consistently to decrease the cognitive processing of answering to the individual questions, the items on Overall Satisfaction started with "Overall I am satisfied with...". The scoring format for the Overall Satisfaction scale was a five-point Likert-type format ranging from "1 - disagree" to "5 - agree".

As a consequence, after the CFA the final Overall CS scale was based on two evaluative items (, i.e. "Overall, I am satisfied with the service I have received at my University"; "Overall, I am satisfied with the student experience at my University") and two emotive items (i.e. "Overall, I am happy with the service I have received at my University"; "Overall, I am delighted with the service I have received at my University") based on Westbrook & Oliver (1991), Oliver (1980; 1997) and validated by Brady et al. (2005), Cronin et al. (2000; 2002) and Alves and Raposo (2009) in different service contexts.

Perceived Employability is defined as a perception of an individual to get sustainable employment according to one's qualification level. Perceived Employability reflects how the individual perceived his or her opportunities in the labour market. Individuals with a high perceived employability think that it is easy to acquire new employment (Berntson & Marklund, 2008; Rothwell et al., 2007). To measure Perceived Employability Rothwell et al.'s (2008) scale was used. Rothwell et al. (2008) constructed and validated a scale to measure Self-Perceived Employability of university students. The authors initially developed a research instrument for Perceived Employability in an organisational setting (Rothwell & Arnold 2007) and then adapted it to the HE context both on undergraduate (Rothwell et al. 2008) and post-graduate level (Rothwell et al. 2009). Based on a literature review four dimensions of Perceived Employability were defined, being "self-belief", "my university", "my field of study", and "the state of the external labour market". For each dimension, thematic sub-categories with two items per sub-category were developed. The dimension self-belief was composed of three sub-categories (and two items each) (Rothwell et al., 2008, p. 10):

- 1. the engagement with one's studies and academic performance ("I achieve high grades in relation to my studies"; "I regard my work as top priority"),
- 2. the confidence in one's skills and abilities ("I am generally confident of success in job interviews and selection events") and
- 3. one's awareness of opportunities in the external labour market ("I can easily find out about opportunities in my chosen field; The skills and abilities that I possess are what employers are looking for").

The EFA results by Rothwell et al. (2008) revealed that the dimension of self-belief with two sub-categories (engagement with studies and academic performance and confidence in skills and abilities) formed a one-factor solution, namely "internal employability". The subcategory on awareness of opportunities in the external labour market showed no loading above the 0.4 level. All other dimensions and sub-categories formed a factor, named "external employability".

For the present study the dimension of self-belief reflecting internal employability was selected, because it is the dimension that the student can both assess and influence. (As regards the external employability, for instance, the university image or the external state of the labour market cannot be influenced by student directly, the decision on the field of study has been undertaken already and there might be incorrect answers as to the status of one's study programme which is not reflecting the true employability of a person. All students were assessed at the same time, the state of the external labour market was equal for all respondents. As the psychometric properties revealed that the field of study had the largest influence on the overall perceived employability scale, it was included as a control variable into the study.) Besides, when transferring the conceptual framework into other service context (especially extended service encounters), then Perceived Employability could be translated to the more general concept of perceived competency (Canziani, 1996). Thus, the dimension of self-belief best reflects the general notion of competency. As a result, Perceived Employability in a HE setting was covered with the four items from Rothwell et al. (2008) one-factor solution on internal employability. Furthermore, one item from the third sub-category of the self-belief dimension (, i.e. awareness of opportunities in the external labour market) was integrated in the questionnaire (although it did not load on any factor in the Rothwell et al. 2008 study), because it further covers the notion of self-belief and competency with special emphasis on the labour market, i.e. "The skills and abilities that I possess are what employers are looking for". In the pre-test, one item from the subcategory engagement with one's study and academic performance was dropped, because of misinterpretation of the meaning. This was the item: "I regard my work as top priority".

In the final measurement scale, internal Perceived Employability was reflected with items EMP\_1 ("The skills and abilities that I possess due to my studies are what employers are looking for."), EMP\_2 ("I feel I could get any job as my skills and competences acquired at my University are reasonably relevant."), EMP\_3 ("My University makes me confident of success in job interviews and selection events.") and EMP\_4 ("I achieve high grades in relation to my studies").

Feelings of **Gratitude** are a consumer's emotional appreciation of benefits received, accompanied by a desire to reciprocate. The affective component refers to the feeling of

gratefulness, thankfulness or appreciation generated when another person or organisation has intentionally given, or attempted to give, one something of value (Bartlett & DeSteno 2006; McCullough, et al., 2001; McCullough & Tsang, 2004; Palmatier et al., 2009). The three-item scale used in the present study was initially tested and published by Palmatier et al. (2009) in the Journal of Marketing. Palmatier et al.'s (2009) scale was constructed based on McCoullough, Emmons and Tsang (2002). The items in Palmatier et al. (2009) study were: "I feel grateful to (Target)", "I feel thankful to (Target)" and "I feel appreciative to (Target)". The psychometric properties of the scale were tested via CFA.

All three items were included in the study and remained in the final measurement scale for Gratitude, being coded as GRAT\_1 "I feel grateful to my University", GRAT\_2 "I feel thankful to my University" and GRAT\_3 "I feel appreciative to my University".

Love was conceptualised as a higher-order factor. The dimensions of passion, intimacy and commitment were based on Sternberg (1986); Yim, Tse & Chan (2008) and Bügel, Verhoef & Buunk, 2011. The Passion, Intimacy and Commitment items from the Yim, Tse and Chan (2008) published in the Journal of Marketing formed the basis for the present study, because in the study all three dimensions of Love were assessed within one study and in two different service contexts. Yim, Tse & Chan's (2008) items were mainly based on Sternberg's (1986) original Love scale and partly built on extant measures of brand love or brand attachment from the marketing field (Carroll and Ahuvia, 2006; Thomson, MacInnis, and Park 2005). The original items were (Yim, Tse & Chan, 2008, p. 43):

- 1. Intimacy: "You always enjoy your experience at the restaurant (hair salon)"; You always have a warm and comfortable feeling when visiting this restaurant (hair salon)"; You experience great happiness when visiting this restaurant (hair salon)"
- 2. Passion: "You will never get bored of going to this fast food restaurant (hair salon)"; You find yourself thinking about visiting this restaurant (hair salon)"; "You adore this restaurant (hair salon)"
- 3. Commitment: "You care about maintaining your relationship with this restaurant (hair salon); You have decided that this is "your" restaurant (hair salon)"; "You could not let anything get in the way of your commitment to this restaurant (hair salon)".

The psychometric properties of the three dimensions were tested in two service contexts (fast food restaurant (FF) and hair salon (HS)) via CFAs. Three further items from the original Sternberg (1986) scale have been used that emerged from the qualitative study, described the conceptual essence of the dimensions and have been tested in studies on Love in the marketing field (Bügel, Verhoef, & Buunk (2011), i.e. an item for Intimacy "I feel

emotionally close to (...)" and two items on Passion "I am very enthusiastic about..." and "Everytime I am looking forward to seeing..". As the AVE results in the study by Yim, Tse & Chan (2008) show, especially the commitment scale could be improved. Therefore, in addition to the three items from Yim, Tse and Chan (2008), the Relationship Commitment scale by Morgan & Hunt (1994) published in the Journal of Marketing has been included. The items were further refined and tested in the study by Sargeant, Ford & West (2006) published in the Journal of Business Research whose measurements of giving behaviour have also informed the present study (and also informed the study by Bettencourt (1997) whose measures formed the basis for the CVP scales). The original wording from the Sargeant, Ford and West (2006) study have been used as the wording was perceived to be cognitively easier to understand for respondents than the original wordings of the scale by Morgan and Hunt (1994). The items were (Sargeant, Ford and West, 2006, p.162): "I feel a sense of belonging to this organisation"; I care about the long-term success of this organisation", "I would describe myself as a loyal supporter of this organisation" and "I will be giving more to this non-profit next year". As the fourth item does not fit the present study context, it was not included in the questionnaire.

Consequently, Love was measured with five items assessing the dimension of Passion (, i.e. LOVE\_PA1 "I am very enthusiastic about my University"; LOVE\_PA2 "I do not get bored of going to my University", LOVE\_PA3 "I find myself thinking about going to my University"; LOVE\_PA4 "Every time I am looking forward to go to my University"; LOVE\_PA5 "I adore my University."); four items assessing the dimension Intimacy (e.g. LOVE\_IN1 "I feel emotionally close to my University"; LOVE\_IN2 "I enjoy the experience at my University"; LOVE\_IN3 "I have a warm and comfortable feeling when visiting my University"; and LOVE\_IN4 "I experience great happiness when I am at my University"), and 6 items assessing Commitment (e.g. LOVE\_CO1 "I care about maintaining my relationship with my University"; LOVE\_CO2 "I have decided that this is "my" University"; LOVE\_CO3 "I could not let anything get in the way of my commitment to my University"; LOVE\_CO4 "I really care about my University and its future"; LOVE\_CO5 "I feel a strong sense of belonging to my University"; LOVE\_CO6 "I would describe myself as a loyal supporter of my University"). The CFA results of the present study lead to dropping LOVE\_PA1. All other items remained in the study.

As regards the Commitment scale which was comparably weak in the original study by Yim, Tse and Chan (2008), the present scale showed high AVE and composite reliability values and can be regarded as improved measurement scale. All items were assessed on a five-point scale ranging from "1-I disagree" to 5 "I agree".

WOM was mainly derived from the original study on CEBs of direct benefit to the firm by Bettencourt (1997) and from Bove et al. (2009). WOM was composed of four items. The original items by Bettencourt (1997) (and the standard loading and t-value from the CFA analysis) were "I say positive things about this store to others". The third item by Bettencourt (1997) does not fit the present study context. Qualitative research as well as further studies in the field (Brown et al., 2005; Bove et al., 2009) suggest that the component of recommendation is integral to the WOM conceptualisation. The WOM items from Bove et al. (2009) on recommendation have been added ("I have actually recommended my ... to others."; "I recommend my... to those who ask or seek my advice"). Bove et al. (2009) items can well be integrated with Bettencourt (1997) measure, because Bove et al. (2009) study is based on Bettencourt (1997) study and also included the first two items in their measurement scale. To adapt all WOM items to the present study context the term "University" has been included and a distinction was made between my "University" and "my course". The pre-test has shown that the added words on the second recommendation item "to those who ask and seek my advice" was confusing for the sample.

To phrase the WOM questions more intuitively both recommendation questions addressed the recommendation to others. The study items for the present study were: "... recommend my University to others" and "... recommend my course to others". The question of positive WOM was further included: I say positive things about my University".

Participation was measured with a 4-item scale based on Bettencourt (1997) and Bove et al. (2009). As the Cronbach's alpha, the composite reliability and average variance extracted was higher in Bove et al. (2009) 4-item scale in contrast to Bettencourt's 7-point scale, Bove et al. (2009) reduced version of the scale has been used for the present study (, i.e. "I would make suggestions...as to how the service could be improved"; "I would let my ...know of ways that ... could better serve my needs"; "I would share my opinions with my ..if I felt they might be of benefit to the..." and "I would contribute ideas to my ... that could improve service at the..").

The Participation items were slightly adapted with the wording "University" in the present study (, i.e. "let my University know of ways that could better serve my needs"; "make suggestions to my University as to how their service could be improved"; "contribute ideas to my University that could improve their service"; "share my opinions with my University if I felt they might be of benefit to the University").

**Monetary Giving** was conceptualised as gifts of cash (Sargeant, 1999; 2006). Sargeant (1999) distinguished charitable giving in terms of gifts of cash from charitable giving in terms of gifts of time, gifts in kind, size of gift and loyalty. Sargeant (1999) acknowledges that

monetary giving, but also other behaviours such Participation (, a gift of time) and WOM (a gift of kind and loyalty) are giving behaviours. Sargeant et al. (2006) measure monetary giving in terms of average donation. As the students have not graduated yet, the intention to give back in a monetary form has been measured. The qualitative study revealed that monetary giving in a HE context can be giving donations, giving monetary contributions or sponsoring events of a University.

All three forms of gifts in cash have been assessed in the present study to measure Monetary Giving ("give monetary contributions"; give donations to my University"; "sponsor events of my University").

For the present study in front of all CEBs of direct benefit to the firm variables the introductory words "After graduation I will..." have been inserted, because the students are in their final year of their studies and have not graduated yet., an intention was measured. As regards Monetary Giving, to capture the amount of an average donation, in the first questionnaire version the scale was measuring the times the behaviour could occur per year. Yet, based on the pre-test this measurement scale was changed. In the final study, all Participation, WOM and Monetary Giving items were measured on a five-point likert scale ranging from "1-I disagree" to "5-I agree".

HCP was assessed through Job Performance and Actual Employability. While Job Performance measures the individual job performance of student within their placement organisation (, i.e. internal labour market), Actual Employability measures the student's ability to gain or retain fulfilling work in the external labour market. The measure on Job Performance of the student during the placement was based on six items from Becker et al. (1996). Becker et al. (1996) scale was composed of three items being measured on a seven point scale measuring satisfaction levels (i.e. "overall performance"; "quality of the work" and "quantity of work") and items being assessed on a five-point scale from never to always (, i.e. "completed work in a timely and effective manner"; "performed high quality work"; and "completed tasks in a unsatisfactory manner"). Becker et al. (1996) scale was used because it is an original scale which has been tested with exploratory and CFAs showing good psychometric properties. Furthermore, the research design was similar, as also direct supervisors evaluated the job performance of their employees. Furthermore, Becker et al. (1996) included a further construct in their study as in the present study, i.e. Commitment. The CFA of the present study revealed that the items measured on the seven-point scale and the items measured on the five-point scale from Becker et al. (1996) study resulted in a two-factor solution.

Consequently, only the three items on the original five-point scale formed the final Job Performance scale in the present study (, i.e. "The quality of the work of the placement student was satisfactory"; "The quantity of work of the placement student was satisfactory" and "The overall performance of the placement student was satisfactory") which were coded as EPERF\_6, EPERF\_7 and EPERF8.

According to Harvey (2001) Actual Employability can be operationalised as the ability to gain or retain fulfilling work (Hillage & Pollard, 1998) or as the propensity of a graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organisation (Harvey, 1999). The ability to gain and retain fulfilling work would need to be assessed by tracking recent graduate's employment activities. Harvey (2001) suggests to measure whether graduates are having an actual job according their qualification level within six months after graduation, the nature of employment, salary, and discipline according to qualification level (Harvey, 2001). Yet, this assessment is more reasonable when alumni form the sample rather than placement students. The time of graduation to employment and income, nature of job as well salary are measures that are not meaningful in a student placement context. For instance, students have not graduated yet and are within a placement scheme, and often the placements are unpaid. Consequently, the more reasonable operationalisation of actual employability is the assessment of the propensity of a graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organisation (Harvey, 1999). Harvey (1999) even outlines that this measure of actual employability can be regarded as more competence and future-oriented than pure employment metrics. Harvey (2001) suggests to employ a set of key attributes or competences, which may have a disciplinespecific element which are examined by a company representative collaborating with a graduate or student. Rothwell and Arnold's (2007) external employability scale informed the study items. The authors developed an employability scale that assesses "the extent to which people possess the skills and other attributes to find and stay in work of the kind they want" (Rothwell and Arnold, 2007, p. 23). The scale was tested among 200 human resource professionals in the UK. Above that, Rothwell and Arnold (2007) informed the selfperceived employability scale for business students developed by Rothwell et al. (2008) that is integrated in this study as well. The results of Rothwell and Arnold's (2007) measure development reveal that employability is a two-dimensional construct composed of internal and external employability. The authors suggest that, depending on the purpose of the study, both dimensions or only one dimension of the scale should be investigated. As this study intends to test the link between self-perceived internal employability (as perceived by the student) and actual employability on the labour market (evaluated by the employer being a member of the external labour market), the external dimension is of relevancy. The Principal component analysis results revealed that four items from the Rothwell & Arnold (2007) scale loaded on the external employability factor and were of relevance for the present study because they could be evaluated by the employer, i.e. "Anyone with my level of skills and knowledge, and a similar job and organisational experience, will be highly sought after by employers", "I could get any job, anywhere, so long as my skills and experience were reasonably relevant", "If I need to, I could easily get another job like mine in a similar organisation", "I could easily get a job to mine in almost any organisation" (Rothwell & Arnold, 2007, p. 40).

The first two items by Rothwell and Arnold (2007) have been adapted to assess students Actual Employability based on their education received at their university as follows: "The placement student has acquired competences through his/her studies that are sought after in the labour market" (coded as EEMP1) and "The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for" (coded as EEMP2). The final two items by Rothwell and Arnold (2007) have been assessed with one item: "I know of organisations/companies where the placement student could get a job based on his/her studies" (coded as EEMP3).

All items were measured on a five-point likert scale ranging from "1-I disagree" to "5-I agree".

# D.2 Pre-Testing of Questionnaires

#### **Protocol Interviews**

The questionnaire was pre-tested with 15 business students from FH JOANNEUM, University of Applied Sciences in Austria, in addition to a staff member from the placement office of Aston University, UK and the marketing manager of Aston University, UK. The questionnaire was handed to the students individually (one-by-one) by the researcher, and as they completed the questionnaire they commented on the questionnaire items. The main feedback from the participating students revealed that multi-item measurements of constructs (especially Student Satisfaction) appeared to be redundant. As a result, the initial set of questions was reduced to the items set out in the meta-analytic studies of Brady et al. (2005) and Cronin et al. (2001), ensuring that three evaluative and two emotive questions remained in the questionnaire.

One question from the internal employability scale caused confusion: "I regard my academic work as top priority". Respondents were unsure about the reference point of this question. For example, respondents mentioned that they held family values high, that health would be more important than academic performance, and that academic performance did not relate

to work performance. These comments revealed that the question was not assessing what it should have, namely an engagement in academic work. Consequently, this question was omitted from the final questionnaire.

A few questions arose about the CEB scales. The respondents asked how the intervals of the scale should be understood. Two respondents mentioned that they already 'gave back' to the university (by participating in this exercise or by other means) and were not clear if this could be accounted for in this scale. The confusion may have arisen due to a change to the wording of the scale poles (the intended frequency to give back was measured despite all other questions being asked on an agreement/disagreement scale) or that the scale categories were not chosen accurately. Consequently, in the final study, the CEB questions were assessed on a five-point Likert scale ranging from "1-I disagree" to "5-I agree".

The staff member from the placement office suggested two further items, on attendance and punctuality, to assess further components of Job Performance. Therefore, the following two items were added: "The attendance of the placement student was satisfactory" and "The punctuality of the placement student was satisfactory". Yet these items were introduced into the analysis with caution, as they had not been validated in previous studies, and it was not the intention of this research to create and test a new Job Performance scale. (In fact, in later stages of the analysis, both items were omitted).

#### **Pilot Study**

The questionnaire underwent additional pre-testing with a sample from Aston Business School, who undertook a placement in the academic year 2012/2013. The questionnaire was integrated into the general placement evaluation questionnaire, whichwas sent out by the placement office via an online link to its host site, SurveyMonkey. As the questionnaire was sent to students and their work placement supervisors after the placement year, the response rate was relatively high: with 105 direct supervisor and 119 placement student responses. However, it was only possible to match 26 placement students/employees with their direct supervisor/employer. Therefore, the data was analysed for each respondent group separately. The low number of matches indicated that new strategies need to be developed for the main study, in order to achieve a higher number of direct matches. The analysis of the pre-test data revealed a generally good response rate to all questionnaire items. As this questionnaire was not incentivised, the questionnaire length appeared adequate for the respondents.

When analysing the data, it became apparent that some items tended to reveal common response patterns. In particular, when conducting an exploratory factor analysis, Gratitude

and Love were loaded onto one factor. To reduce common response patterns, individual constructs were presented randomly, rather than always in chronological order. In this way, respondents had to remain more attentive when reading and responding to questions.

One participant contacted the placement office after the completing the Love items. They puzzled over why the questions were asked and what their underlying intention might be. As a consequence, introductory sections were written to make the meaning of each part of the questionnaire more explicit. For the Love section, it was outlined that the question assessed a student's relationship with the university. This should ensure that students understand that their relationship (thus their emotional bonds) are of interest to this study, and so might better comprehend why questions such as "I adore my university" were assessed.

Finally, the missing data and dispersion of answers for CEB items appear to indicate that they are problematic. The missing data could have occurred because of the late positioning of the CEBs questions within the survey, and therefore respondents' fatigue. Yet, it could also be due to misleading scale intervals (as highlighted in the protocol interviews). To account for the latter fact, the questions were re-formulated to fit within the agreement/disagreement format discussed above.

## **D.3** Final Questionnaires

#### **Work Placement Student Questionnaire**

Please note that the PhD questionnaire was integrated into the general placement questionnaire. Thus, not all questions are of relevance for the present PhD.



## Section 1 - About Your Placement

* 1. Name of your placement organisation (If you did a split placement and worked at 2 organisations please give details of your first role)
* 2. Your placement job title
* 3. What type of placement did you do?
Other (please specify)
* 4. What is the full name of your Placement Supervisor/Manager
* 5. Please provide an email address for your Placement Supervisor/Manager
* 6. Annual salary range of your role
Unpaid (includes: study placements, commission only, expenses and /or allowance)
Under £12,000
£12,000 - £14,999
£15,000 - £16,999
£17,000 - £20,000
Over £20,000

* 7. Did your placement provider offer on	y other benefits? (Please tick all that apply)
No additional benefits	Staff discounts
Healthcare	Bonus structure
Pension	Profit-related pay
Gym	Flexi-time
Subsidised food outlets	Other
Subsidised childcare	
Other (please specify)	
The second seconds	
* 8. Was your placement;	
in the UK	
Overseas	
a combination of both	
Yes No	n language on placement?
Yes	Tanguage on placement:



40. 4		
` 10. As an overall pe German or Spanish)?	rcentage: How much were you required to write in the target language (e.g. French,	
0%		
25%		
50%		
75%		
0 100%		
	rcentage, how much were you required to speak in the target language (e.g. French	١,
German or Spanish)?	·	
0%		
25%		
50%		
75%		
100%		
		2



#### Placement Support

The Placements Team aims to make sure you fully integrate on your placement as well as feel fully supported by us throughout your placement year. We really hope that your experience has been a positive one.

If you have any thoughts you would like to share on your experience/ideas for improving the service we provide, we would love to hear them.

		d from the 'Placements To	eam' during my place	ment year.
Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
0	0	0	0	0
* 14. I am happy with includes the level of	the support I received	perience, is there more v  d from my 'Placement Tu  upport with essays/assign	tor' during my placem	ent year, this
Disagree	Somewhat disagree	Neither agree or disagree	Somewhat agree	Agree
0	0	0	0	0
15. Please let us kno	ow more about your ex	perience, is there more t	hey could have done'	?
* 16. What is the full	name of your Placeme	ent Tutor		

	1 Disagree	2	3	4	5 Agree	Didn't
The Hub	0	0	0	0	0	0
DANU - Disability & Additional Needs Unit	0	0	0	0	0	0
Counselling Service	0	0	0	0	0	0
ARC - Advice & Representation Centre	0	0	0	0	0	0
LDC - Learning and Development Centre	0	0	0	0	0	0

Aston	

Student Placement	L Evaluation Sur	<del>Vey 2013 / 14</del>		
* 18. Did you do more	e than one work pla	cement?		
Yes No				



#### Your Placement Preparation

\* 19. The Placement Experience (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
I received sufficient support and advice from my institution about the organisation of my placement	0	0	0	0	0
My placement was valuable in helping my learning		$\bigcirc$		$\bigcirc$	$\bigcirc$
My placement has helped me develop skills in relation to my course	0	$\circ$	0	0	0
My placement has helped me develop my general life skills		$\bigcirc$		0	0
The taught part of my course was good preparation for my placement.	0	$\circ$	0	0	0
The Placements Team helped prepare me for my placement		$\bigcirc$	0	0	0
* 20. Is there anything else the Placements Team could do to support stud  Yes  No  Not sure  If you answered 'yes' or 'not sure' please give details	ents whils	t on pl	aceme	ent?	



otadoner labolitent Evaluation Survey 20107 14					
Your Placement Experience					
*21. Personal Development (Please answer the following questions according to your opinion: 1= Disa Neither agree nor disagree, 4= Somewhat agree, 5= Agree)	agree, 2= S	Somew	/hat dis	sagree	·, 3=
	1 Disagree	2	3	4	5 Agree
My placement has helped me to present myself with confidence	O	0	0	0	Agree
My communication skills have improved as a result of my placement year	0	0	0	0	0
I feel confident in tackling unfamiliar problems as a result of my placement	0	0	0	0	$\circ$
* 22. Has your placement experience helped you decide what career to charge Yes   No	noose on g		ion?		
* 23. As a result of your placement, has your placement provider:  Made you an offer of a job on graduation?  Yes  No					
If you have answered 'yes' do you intend to accept this offer?					
* 24. As a result of your placement, has your placement provider:  Offered to 'fast track' you through their graduate recruitment process?  Yes  No					
If you have answered 'yes' do you intend to accept this offer?					

year?				
Yes				
O No				
If you answered 'yes' what	is the value of the offer and	do you intend to accept this off	er?	
* 26. As a result of yo	ur placement have you	been: Offered any other	work?	
Yes	,	,		
O No				
If 'yes', please give details				
Manager to the second of the s				
not yet had a final decision		e year in case you are going thr	rough the graduate recruitmen	nt process but have
	nmend your placement	provider to future placen	nent students?	
Yes				
O No				



#### Placement Relevance

\* 28. I had a placement...

(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	Disagree				Agree
	1	2	3	4	5
linked to my University studies.	0	0	0	0	0
that involved skills acquired through my studies.				$\bigcirc$	
with scope to be grown/ the possibility to take on further responsibility.	0	0	0	0	0



#### Placement Performance

\* 29. How did you perceive your performance during your placement?

Please answer the following questions according to your opinion. We will be asking your employer as well to see on an aggregated and anonymous level how student and employer views match.

	Disagree 1		3	4	Agree 5
I completed work in a timely and effective manner.	0	0	0	0	0
I performed high-quality work.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I completed tasks in an unsatisfactory manner.	0	$\circ$	$\circ$	0	0
My quality of work was satisfactory.		$\bigcirc$	$\bigcirc$		$\bigcirc$
My quantity of work was satisfactory.	0	$\circ$	0	0	0
My overall performance was satisfactory.				0	$\bigcirc$



### Additional Placement Information

Additional Placement
Please complete this section if you took an additional work placement as part of your placement year
* 30. Name of your placement organisation
* 31. Your placement job title
* 32. What type of placement did you do?
Other (please specify)
* 33. What is the full name of your Placement Supervisor/Manager
* 34. Please provide an email address for your Placement Supervisor/Manager
* 35. Annual salary range of your role
Unpaid (includes: study placements, commission only, expenses and /or allowance)
Under £12,000
£12,000 - £14,999
£15,000 - £16,999
£17,000 - £20,000
Over £20,000

* 36. Did your placement provider offer a	any other benefits?
Healthcare	☐ Staff discounts
Pension	☐ Bonus structure
☐ <sub>Gym</sub>	☐ Profit-related pay
☐ Subsidised food outlets	Flexi-time
☐ Subsidised childcare	
Other (please specify)	
* 37. Was your placement;	
in the UK	
Overseas	
a combination of both	
○ Yes ○ No	



39. As an overall percentage: How much were you required to write in the target language (e.g. French, German or Spanish)?
○ 0%
O 25%
O 50%
75%
O 100%
40. As an overall percentage, how much were you required to speak in the target language (e.g. French, German or Spanish)?
40. As an overall percentage, how much were you required to speak in the target language (e.g. French, German or Spanish)?  0%
German or Spanish)?
German or Spanish)?  0%
German or Spanish)?  0% 25%
German or Spanish)?  0%  25%  50%



#### Your Placement Preparation

\* 41. The Placement Experience (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
I received sufficient support and advice from my institution about the organisation of my placements	0	0	0	0	0
My placements were valuable in helping my learning	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$
My placements have helped me develop skills in relation to my course	0	$\circ$	0	0	0
My placements have helped me develop my general life skills	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	
The taught part of my course was good preparation for my placements	0	0	0	0	0
The Placements Team helped prepare me for my placements	0	$\bigcirc$	0	0	0
* 42. Is there anything else the Placements Team could do to support stud  Yes  No  Not sure  If you answered 'yes' or 'not sure' please give details	lents whils	t on e	ither pl	acemo	ent?



### Your Placement Experience

* 43. Personal Development (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)							, 3=
			1 Disagree	2	3	4	5 Agree
My placements have helped me to p	resent myself with confidence	<del>)</del>	0	0	0	0	$\circ$
My communication skills have impro-	red as a result of my placemo	ent year		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I feel confident in tackling unfamiliar	problems as a result of my pl	acements	0	0	0	0	$\circ$
*44. Has your placement expe	O No	(	Not sure		ion?		
* 45. As a result of your placem Made you an offer of a job on g		ent provider:					
Yes							
O No							
If you have answered 'yes' please confirm which organisation and whether you intend to accept this offer?							
* 46. As a result of your placem Offered to 'fast track' you through	•	•					
Yes							
O No							
If you have answered 'yes' please con	irm which organisation and v	hether you intend to acc	ept this offe	er?			

year?	
No No	
If you answered 'yes' please of	onfirm which organisation, what is the value of the offer and whether you intend to accept this offer?
* 48. As a result of either	placement have you been offered any other work?
Yes	
O No	
If 'yes', please give details	
We will be asking you these quot yet had a final decision.	uestions again later in the year in case you are going through the graduate recruitment process but have
not yet had a final decision.	uestions again later in the year in case you are going through the graduate recruitment process but have end your first placement provider to future placement students?
* 49. Would you recomm  Yes  No	end your first placement provider to future placement students?
* 49. Would you recomm  Yes  No	
* 49. Would you recomm  Yes  No  * 50. Would you recomm	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?
* 49. Would you recomm Yes No  * 50. Would you recomm Yes	end your first placement provider to future placement students?



#### Placement Relevance & Perfomance

This next section is split across 2 pages, please answer the first page based on your 'FIRST' placement & the second page based on your 'SECOND' placement.



#### Placement Relevance

Please base your answers to the following questions on your 'FIRST' placement.

31. That a placement
(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3
Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	Disagree				Agree
	1	2	3	4	5
linked to my University studies.	0	$\circ$	0	0	$\circ$
that involved skills acquired through my studies.		$\bigcirc$		$\bigcirc$	$\bigcirc$
with scope to be grown/ the possibility to take on further responsibility.	0	0	0	0	

\* 52. How did you perceive your performance during your placement?

Please answer the following questions according to your opinion. We will be asking your employer as well to see on an aggregated and anonymous level how student and employer views match.

	Disagree 1	2	3	4	Agree 5
I completed work in a timely and effective manner.	0	$\circ$	0	0	0
I performed high-quality work.		$\bigcirc$		$\bigcirc$	$\bigcirc$
I completed tasks in an unsatisfactory manner.	0	$\circ$	$\circ$	0	$\circ$
My quality of work was satisfactory.	0	$\bigcirc$		$\bigcirc$	$\bigcirc$
My quantity of work was satisfactory.	0	$\circ$	0	0	$\circ$
My overall performance was satisfactory.	0	0	0	0	



Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

#### Placement Relevance

Please base your answers to the following questions on your 'SECOND' placement.

\* 53. I had a placement... (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3=

\* 54. Please answer the following questions according to your opinion.

We will be asking your employer as well to see on an aggregated and anonymous level how student and employer views match.

	Disagree 1		3	4	Agree 5
I completed work in a timely and effective manner.	$\circ$	$\circ$	$\circ$	0	$\circ$
I performed high-quality work.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I completed tasks in an unsatisfactory manner.	0	$\circ$	0	0	$\circ$
My quality of work was satisfactory.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
My quantity of work was satisfactory.	0	$\circ$	0	0	$\circ$
My overall performance was satisfactory.			0	0	



#### Section 2 - Your experience at Aston University

In this second section of the questionnaire we want to hear about your satisfaction and relationship with Aston University and how that relates to your placement performance and employment outcomes.

Your feedback will help us to improve the quality and relevance of our higher education offering for those who follow in your foot-steps and allow us to better understand your needs as students.



### University Satisfaction

\* 55. Overall...

(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
I am happy with the service I have received at my University		_	0	_	0
I am satisfied with my decision to enrol in my University	0	0	0	0	0
I am delighted with the service I have received at my University	0	$\circ$	0	0	0
I am satisfied with the service I have received at my University		$\bigcirc$	$\bigcirc$	0	0
I am satisfied with the student experience at my University	0	$\circ$	0	0	0



#### Your Feelings towards Aston University

\* 56. Please answer the following questions according to your opinion.
(1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
I feel grateful to my University.	0	$\circ$	0	0	0
I feel thankful to my University.	0	$\bigcirc$	0	0	0
I feel appreciative to my University.	0	$\circ$	0	0	0



### Your Feelings towards Aston University

\* 57. Your feelings towards the University...
(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1	_			5
	Disagree	2	3	4	Agree
I feel emotionally close to my University.	0	$\circ$	0	0	$\circ$
I enjoy the experience at my University.		$\bigcirc$		$\bigcirc$	$\bigcirc$
I have a warm and comfortable feeling when visiting my University.	0	$\circ$	0	0	$\circ$
I experience great happiness when I am at my University.	$\bigcirc$	$\bigcirc$		$\bigcirc$	$\bigcirc$
I am very enthusiastic about my University.	0	$\circ$	0	0	$\circ$
I do not get bored of going to my University.		$\bigcirc$		$\bigcirc$	$\bigcirc$
I find myself thinking about going to my University.	0	$\circ$	0	0	$\circ$
Every time I am looking forward to go to my University.		$\bigcirc$		$\bigcirc$	$\bigcirc$
I adore my University.	0	$\circ$	0	0	$\circ$



#### Your Perceived Employability

\* 58. Your degree in relation to your employability (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
The skills and abilities that I possess due to my studies are what employers are looking for	_	0	0	0	O
I feel I could get any job as my skills and competences acquired at my University are reasonably relevant.	0	0	0	0	0
My University makes me confident of success in job interviews and selection events.	0	0	0	0	0
People in the degree that I am aiming for are in high demand in the external labour market.	$\circ$	0	0	0	0
My degree is seen as leading to a specific career that is generally perceived as highly desirable.	0	0	0	0	0
I can easily find out about opportunities in my chosen field.	0	$\bigcirc$		0	$\bigcirc$
In my University I achieve high grades in relation to my studies.	0	$\circ$	0	0	0
Employers specifically target my University in order to recruit individuals from my subject area.	$\bigcirc$	0	0	0	$\bigcirc$
Employers are eager to employ graduates from my University.	0	$\circ$	0	0	$\circ$
The reputation of my University is a significant asset to me in job seeking.	0	0	0	0	
There is generally a strong demand for graduates at the present time.	0	0	0	0	0



#### University Satisfaction

\* 59. I am satisfied with...

(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
the overall programme of study.	0	$\circ$	0	0	0
the range of subjects.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
the range of modules.	0	$\circ$	$\circ$	0	$\circ$
the quality of my course.		$\bigcirc$	$\bigcirc$	$\bigcirc$	
real-world relevance of classes.	0	$\circ$	0	0	$\circ$
the availability of internships/placements/work-based learning.		$\bigcirc$	$\bigcirc$	$\bigcirc$	
study abroad possibilities.	0	0	0	0	0



\* 60. I am satisfied with...
(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1				5
	Disagree	2	3	4	Agree
the lecturers' professional knowledge and experience.	0	$\circ$	0	0	$\circ$
the lecturers' teaching competency.		$\bigcirc$	$\bigcirc$		
the lecturers' willingness to provide assistance in academic related areas.	0	$\circ$	$\circ$	0	$\circ$
support staffs' knowledge and competency.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
support staffs' efficient and prompt dealing with requests.	0	$\circ$	0	0	0
support staffs' willingness to provide assistance.	0	$\bigcirc$	0	0	0



\* 61. I am satisfied with...

(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1				5
	Disagree	2	3	4	Agree
the campus layout.	0	$\circ$	0	0	$\circ$
the academic facilities (class rooms and lecture halls)		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
the available IT and technical facilities.	0	$\circ$	0	0	0
the available student areas.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
the recreational facilities.	0	$\circ$	0	0	0



\* 62. I am satisfied with...
(Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
the service delivery procedures.	0	$\circ$	0	0	0
the grading process based on academic merit.	0	$\bigcirc$	$\bigcirc$	0	0
the process on how the degree programme prepares me for employment.	0	$\circ$	0	0	0
$\ldots$ the process on how the degree programme prepares me for further studies.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
$\ldots$ the process on how the degree programme prepares me for self-employed/freelance or for starting my own business.	$\circ$	0	0	0	$\circ$



#### Your Commitment

\* 63. Your commitment to the University... (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3= Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

	1 Disagree	2	3	4	5 Agree
I care about maintaining my relationship with my University.	0	$\circ$	0	0	0
I have decided that this is "my" University.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I could not let anything get in the way of my commitment to my University.	0	$\circ$	$\circ$	0	$\circ$
I really care about my University and its future.	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
I feel a strong sense of belonging to my University.	0	0	0	0	0
I would describe myself as a loyal supporter of my University.			0	0	0



Neither agree nor disagree, 4= Somewhat agree, 5= Agree)

#### Voluntary Intentions Following Graduation

\* 64. After graduating I would... (Please answer the following questions according to your opinion: 1= Disagree, 2= Somewhat disagree, 3=

	1 Disagree	2	3	4	5 Agree
make suggestions to my University as to how their service could be improved.	0	$\circ$	0	0	$\circ$
let my University know of ways that could better serve my needs.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
share my opinions with my University if I felt they might be of benefit to the University.	0	$\circ$	$\circ$	0	$\circ$
contribute ideas to my University that could improve their service.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
attend events being organised by my University.	0	$\circ$	0	$\circ$	$\circ$
attend alumni events of my University.		$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$
give guest lectures at my University.	0	0	0	0	0
mentor students at my University.		0		0	0



\* 65. After graduating I would...

	1 Disagree	2	3	4	5 Agree
organise projects with the organisation I am working for in collaboration with my University.	0	0	0	0	0
forward job offers from the company I am working for to my University.		$\bigcirc$		$\bigcirc$	$\bigcirc$
offer internship places from the company I am working for to my University.	0	$\circ$	0	0	0
encourage friends and relatives to go to my University.		$\bigcirc$	0	0	0
recommend my University to others.	0	0	0	0	0
say positive things about my University to other people.		$\circ$	0	0	0
recommend my course to others.	0	$\circ$	0	0	0



\* 66. After graduating I would...

	1				5
	Disagree	2	3	4	Agree
give monetary contributions to my University.	0	$\circ$	0	0	0
give donations to my University.		$\bigcirc$		$\bigcirc$	$\bigcirc$
sponsor events of my University.	0	$\circ$	0	0	0



\* 67. How likely are you to recommend this University to a friend/colleague/relative?

0 = Not likely at all 10 = Extremely likely

0 1 2 3 4 5 6 7 8 9 10 O O O O O O O O



#### Section 2 - Returning To Your Final Year

This last section will explore what you need to successfully complete your final year, to support your transition back to university and the support you will require from the Careers Team. Your feedback will help us to tailor the provision we provide you.

STICK WITH IT! You have nearly completed the survey and don't forget everyone that completes the survey will get a £5 Amazon voucher.

* 68. How prepared do you	feel about returning to your final	year after doing a placement?
Really Prepared	Prepared	O Not Prepared
If 'not prepared' is there anything y	rou feel the Placements Team can do t	o support you?
* 69. Is there anything you for easier?	eel the University should be doi	ng to make your transition back to final year
Yes		
O No		
O Not sure		
If you answered 'Yes' please give	details	

	Academic writing in general
	Dissertation writing
_	Research
_	Exams
_	Reading
	Referencing
	Presentations
	Group work
_	Statistics
	The volume of work
	(please specify)



#### Graduate Career Plans

* 72. In order to inform Careers & Placements support	
currently considering pursuing upon graduation (tick all	that apply)
Accountancy and financial management	Management and business
Construction and building services	☐ Management consulting
Consumer goods and FMCG (eg Unilever, Proctor &	Marketing, advertising and PR
Gamble)	Media, journalism and publishing
Engineering	Property
Financial services and insurance	Public service, charity and social work
Healthcare	Retail, buying and merchandising
Hospitality, leisure and travel	Sales
HR and recruitment	☐ Science and research
☐ Investment banking and investment	☐ Teaching and education
☐ IT and technology	☐ Self-employment
Law barristers	☐ No idea at the moment
Law solicitors	
Logistics, transport and supply chain	
Other area (please specify)	
* 73. Please give details of the type of employment you  Large private sector organisation- e.g. international or nationa  Small or medium sized enterprise (SME)  Public sector (eg NHS, central and local government, schools, Charity, not-for-profit or NGO  Self-employment  No idea at the moment  Other (please specify)	1
	37



$\ensuremath{^{\star}}$ 74. Where are you currently interested in working after graduation?
□ uk
Europe
☐ Country outside of Europe
If outside of UK please specify
* 75. Are you currently envisaging doing post-graduate study?
Yes
○ No
O Not sure
If yes, please provide details of the level (eg Masters, PhD) and possible course



(Please answer the following questions according to your opinion: 1= I Neither agree nor disagree, 4= Somewhat agree, 5= Agree)	Jisayi €€, 2- 3	onew	mat uis	agree	5, 3-
	Disagree	2	3	4	
Currently I am in a good mood.	0	0	0	0	0
As I answer these questions I feel cheerful.	0	0	0	0	0



* 77. Full Name  * 78. Email address (we will need this in order to distribute your Amazon voucher code)  * 79. What is your student ID number (SUN)  * 80. Student Status  International  UK  EU  * 81. School of Study  * 82. Degree Subject  * 83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  * 84. Have you ever had an voluntary work inside or outside the University during your studies?  Yes	Aston University  Firefugium
*77. Full Name  *78. Email address (we will need this in order to distribute your Amazon voucher code)  *79. What is your student ID number (SUN)  *80. Student Status International UK EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	Student Placement Evaluation Survey 2013 / 14
*78. Email address (we will need this in order to distribute your Amazon voucher code)  *79. What is your student ID number (SUN)  *80. Student Status International UK EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	About You
*78. Email address (we will need this in order to distribute your Amazon voucher code)  *79. What is your student ID number (SUN)  *80. Student Status International UK EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	* 77 Full Name
* 79. What is your student ID number (SUN)  * 80. Student Status  International  UK  EU  * 81. School of Study  * 82. Degree Subject  * 83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  * 84. Have you ever had an voluntary work inside or outside the University during your studies?	
*80. Student Status International UK EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies? Yes No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	* 78. Email address (we will need this in order to distribute your Amazon voucher code)
*80. Student Status International UK EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies? Yes No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	
International  UK  EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	* 79. What is your student ID number (SUN)
International  UK  EU  *81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	
<ul> <li>UK</li> <li>EU</li> <li>*81. School of Study</li> <li>*82. Degree Subject</li> <li>*83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?</li> <li>Yes</li> <li>No</li> <li>*84. Have you ever had an voluntary work inside or outside the University during your studies?</li> </ul>	* 80. Student Status
*81. School of Study  *82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	International
*82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	○ uk
*82. Degree Subject  *83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	O EU
* 82. Degree Subject  * 83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  * 84. Have you ever had an voluntary work inside or outside the University during your studies?	*81. School of Study
*83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	▼
*83. Have you ever had any kind of paid full-time or part-time work other than your placement throughout your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	*82. Degree Subject
your studies?  Yes  No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	•
No  *84. Have you ever had an voluntary work inside or outside the University during your studies?	
* 84. Have you ever had an voluntary work inside or outside the University during your studies?	Yes
	○ No
○ Yes	* 84. Have you ever had an voluntary work inside or outside the University during your studies?
	Yes
O No	○ No

* 85. Gender		
Male		
Female		
***		
* 86. Current age		
		4



### Follow-up

*87. You may be contacted as part of a follow-up survey planned for three years' time. I am willing to
participate in this follow-up study.
○ Yes
O No



The Placements Team would like to thank you for taking the time to complete our survey, your feedback is really valuable to us.

Your £5 Amazon voucher code will be sent to the email address you provided within 10 working days of receipt.

# **Work Placemement Supervisor Quesionnaire**

Please note that the PhD questionnaire was integrated into the general placement questionnaire. Thus, not all questions are of relevance for the present PhD.

Aston University	
lacement Provider Evaluation S	Survey 2013 /14 - LSS
assimoni Botano	
1. First name of your placement stud	lent
2. Last name of your placement stude	lent
3. Name of host organisation (Placer	ment Provider)
4. Department/section	
·· = - <b>F</b> ····································	
5. Placement Student Job Title	
3. Flacement Student 300 Title	
6. Annual salary range of placement  Unpaid (commission only, expenses and a	
Under £12,000	to anowarde)
£12,000 - £14,999	
£15,000 - £16,999	
£17,000 - £20,000	
Over £20,000	
7. Did you have more than one place	ement student?
O Yes	
O No	
DI FASE NOTE: If you have more than one pla	scement student at your organisation please could you complete a separate survey for
each student.	scement student at your organisation please could you complete a separate survey for

* 8. Was the place	ement hased:		
Within the UK	sment based.		
Outside of the U	JK		



## Placement Provider Evaluation Survey 2013 /14 - LSS

### Language Skills

If 'Yes' were they able to utilise newly developed language skills in the workplace?
○ No
O Yes
"9. Did the student have the opportunity to learn and develop language skills?



## Placement Provider Evaluation Survey 2013 /14 - LSS

#### Placement Performance

* 10. Having moved to a new country to complete their placement, how well did the student integrate with the
culture?
O Very well
○ Well
O Average
Poor
If poor, please comment
* 11. How well did the student integrate with the rest of the team?
○ Very well
○ Well
Average
Poor
If 'Poor', please comment

leither agree nor disagree 4 = Somewhat Agree 5 = Agree)	1 Disagree	2	3	4	5 Strongly agree
The placement student's punctuality was satisfactory	Disagree	0	0	0	agree
The placement student's attendance was satisfactory	0	0	0	0	0
The placement student completed work in a timely and effective manner	0	0	0	0	0
The placement student performed high-quality work	0	0	0	0	0
The placement student completed tasks in an unsatisfactory manner	0	0	0	0	0
The quality of the work of the placement student was satisfactory	0	0	0	0	0
The quantity of work of the placement student was satisfactory	0	$\circ$	$\circ$	0	0
The everall performance of the placement student was estinfectory	0	0	0	0	0
The overall performance of the placement student was satisfactory  13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disaleither agree nor disagree 4 = Somewhat Agree 5 = Agree)	agree, 2 = 1 Disagree		ewhat o	disagre 4	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa	igree, 2 =	: Some	ewhat o	disagre	ee, 3 =
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disaleither agree nor disagree 4 = Somewhat Agree 5 = Agree)	1 Disagree			Ü	,
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disaleither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for  I know of organisations/companies where the placement student could get a job based on	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for  I know of organisations/companies where the placement student could get a job based on his/her studies	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disaleither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for  I know of organisations/companies where the placement student could get a job based on his/her studies  The reputation of Aston is a significant asset for graduates in job seeking  Employers specifically target Aston in order to recruit individuals from the subject area of	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for  I know of organisations/companies where the placement student could get a job based on his/her studies  The reputation of Aston is a significant asset for graduates in job seeking  Employers specifically target Aston in order to recruit individuals from the subject area of the employee	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for  I know of organisations/companies where the placement student could get a job based on his/her studies  The reputation of Aston is a significant asset for graduates in job seeking  Employers specifically target Aston in order to recruit individuals from the subject area of the employee  Employers are eager to employ graduates from Aston	1 Disagree			Ü	5
13. Employability of Placement Student lease answer the following questions according to your opinion. (1 = Disa leither agree nor disagree 4 = Somewhat Agree 5 = Agree)  The placement student has acquired competences through his/her studies that are sought after in the labour market  The skills and abilities that the placement student possesses due to his/her studies are what employers are looking for  I know of organisations/companies where the placement student could get a job based on his/her studies  The reputation of Aston is a significant asset for graduates in job seeking  Employers specifically target Aston in order to recruit individuals from the subject area of the employee  Employers are eager to employ graduates from Aston  Students from Aston are in high demand in the labour market	1 Disagree			Ü	5



# Placement Provider Evaluation Survey 2013 /14 - LSS

	Unsatisfactory performance	Below average performance	Average performance	Above average performance	Excellent performance	Not required for the role
Verbal communications	0	0	0	0	0	0
Written communications					$\bigcirc$	
Leadership	0	0	0	$\circ$	0	0
Teamwork						
Influencing	0	0	0	0	0	0
Negotiating						
Handling figures	0	0	0	0	0	0
Planning	0					0
Organisational	0	0	0	0	0	0
Customer Service						
Critical thinking	0	0	0	0	0	0
Problem solving						
Time management	0	0	0	0	0	0
Networking	0					0
Overall Placement Performance	0	0	0	0	0	0
15. Overall did the st	udent's work n	neet your exped	ctations?			
Exceeded		Met		O Belo	ow	
'below', please comment						



## Placement Provider Evaluation Survey 2013 /14 - LSS

### Placement Support

\* 16. How satisfied were you with the following:

	Exceeded expectations	Met expectations	Fell below expecations	Not applicable
Support from the Placements Team	0	0	0	0
Placement Tutor Visit		$\bigcirc$		$\bigcirc$
The Placements Handbook	0	$\circ$	0	0
Pebblepad	0	0		0
any of the above 'Fell be	elow expectations', please con	nment		
7. Is there anything	else the Placements Tea	am could have done	to support your student	or organisation
uring the placemen			,	3
	,	1		
	. ,			
19. Would you room	•	our pobuorko (o a fra	onde/family/colleggyos	
	nmmend placements to yo	our networks (e.g.fri	ends/family/colleagues)?	?
18. Would you reco	•	our networks (e.g.fri	ends/family/colleagues)?	,
	•	our networks (e.g.fri	ends/family/colleagues)?	,
Yes	mmend placements to yo	our networks (e.g.fri	ends/family/colleagues)?	,
Yes No	mmend placements to yo	our networks (e.g.fri	ends/family/colleagues)?	,
Yes No	mmend placements to yo	our networks (e.g.fri	ends/family/colleagues)?	?

riacement Frovide	r Evaluation Surve	y 2013 /14 - LSS			
* 19. As a result of the graduation?	e placement has the st	udent been offered	a role within the org	anisation following	
Yes					
O No					
Planning to but not co	onfirmed				



# Placement Provider Evaluation Survey 2013 /14 - LSS

* 20. As a result of the placement has your organistion offered to fast track your student through the graduate
recruitment process?
O Yes
○ No
If 'Yes' please give details
* 21. As a result of the placement has your organisation offered to sponsor your student through their final year?
O Yes
○ No
If 'Yes', please provide details
* 22. As a result of the placement has your organisation offered your student any other work?
O Yes
○ No
If 'Yes', please provide details



Placement Provider Evalu	ation Survey 2013 /	14 - LSS	
* 23. Has the student accepte	ed this offer?		
Yes			
O No			
Not confirmed yet			



Placement Provider Ev	valuation Survey 2013 /	/14 - LSS		
* 24 If you are not offerin	g a role as there is no oppo	ortunity available, would	you make an offer if you	ı could?
Yes	g a role as there is no oppo	rturity available, would	you make an oner if you	codia:
O No				
O Not sure				
				1



employerteam@aston.ac.uk

# Placement Provider Evaluation Survey 2013 /14 - LSS

# \*25. Full Name \*26. Job Title \*27. Email Address \*28. You may be contacted as part of a follow-up survey planned for three years' time. I am willing to participate in this follow-up study. Yes No 29. From time to time we may wish to include your positive comments/feedback in press releases, placement handbooks, communication materials, website and presentations. Please tick the box if you do not wish us to use your positive comments for these purposes. I do not wish you to use my positive feedback/comments for press releases, placement handbooks, communication materials, website and presentations.

If there is anything else you would like to share with us, that we have not captured in this survey, please contact us at



# Placement Provider Evaluation Survey 2013 /14 - LSS

# Additional Services

<b>3</b> 0.	is your organisation interested in any other services that Aston University can provide?
	Sponsoring a student prize
	MBA consultancy projects
	Graduate recruitment
	MBA recruitment
	MSc graduate recruitment
	Centre for Executive Development
	Business Partnership Unit
	Giving a guest lecture to students
	Mentoring of students
	Knowledge Transfer Partnerships
	Conference Facilities
If you	have ticked any of the boxes, please provide your contact name, telephone number and email address



# Placement Provider Evaluation Survey 2013 /14 - LSS

# Thank you!

The Placements Team would like to thank you for taking the time to complete our survey, your feedback is really valuable to us.

# **D.4** Data Exploration

# **Data Exploration**

The following preliminary data preparation and examination steps were conducted:

- Whilst student data was being collected and separate reminders sent, all survey files with student data were merged into one master student data file;
- Whilst employer data was being collected separately via the school of study and separate reminders sent, all survey files with employer data were merged into one master employer data file. A new variable was inserted in SPSS, termed "School", to track the origin of the employer responses;
- Redundant cases (multiple responses by one student or work placement supervisor for one placement) have been deleted on a case-by-case basis;
- As the questionnaire was integrated into the placement student questionnaire, only questions relevant to the present PhD study were kept in the data set, while others were deleted;
- Student and employer data were matched by the student name;
- Matching cases in the student and employer data sets were retained while nonmatching cases were deleted;
- All variables from the employer data file were recoded with the abbreviation "E\_" before each variable to indicate that the responses of the variable were generated from the employer sample;
- The student and employer data files were merged using the matching case number, and a new data file was created, which included only the matched employer and student data;
- The data was examined for missing cases;
- The data was examined for outliers.

#### **Data Matching**

CS, Gratitude, Love and CEBs of direct benefit to the firm measurements were assessed by the placement student sample. Yet, HCP measurements were assessed via supervisor ratings, because work placement students were found to be likely to overrate their own performance (Netermeyer et al., 2005) and including two informants mitigates the same-source bias (Chan et al., 2010). The aim of data matching was to find direct matching cases of placement student and their respective supervisor from the company they worked for during their placement.

Each student name was searched for in the employer data set and all matches and non-matches were documented in an excel file. The matching names were cross-checked with the company name (as some students made internships in multiple companies).

Second, for the missing matches (thus, only the employer or student evaluation existed), the company representative (supervisor) names were searched for in the student data set, as some students did not insert their names. When matches were found, gender and placement job position were cross-checked.

Third, the placement office provided a list with all placement students and their placement company names. Companies which employed only one placement student in the placement year 2013/14 were searched for in both data files by company names to find further potential matches. When matches were found, gender and placement positions were cross-checked.

All matches were tracked in SPSS by first generating a new variable called "student\_match" in both the student and employer data sets and inserting the equivalent matching number on the respective case. For instance, if the student data case 100 would have matched with the employer data case 52, then both would have received the equivalent matching number, e.g. 2 in both data sets.

Finally, all matches in the student and employer data set were cross-checked, in order to ensure that the right matching numbers were allocated and that there were no redundant matches.

#### **Outliers**

The data was further examined to detect any outliers, i.e. observations with a unique combination of characteristics which are distinctly different from the other observations (Hair et al., 2006). Histograms and boxplots were inspected to detect data points falling away as extremes. The trimmed means provided an indication of the impact of these outing cases. By using IBM SPSS 24 the bottom and top five percent of the cases were removed and a new mean was calculated, i.e. the trimmed mean value. The mean value and the trimmed mean value were compared to evaluate the degree of influence of the extreme scores on the mean value. If the mean difference were distinctly different, individual outlying cases were identified and checked on a case by case basis.

#### **Missing Data**

To identify missing data and find appropriate remedies, Hair et al.'s (2006) four step process for missing data was applied.

First, the type of missing data was determined. A categorisation was made into ignorable missing data and non-ignorable missing data. As probability sampling has been applied, missing data of the non-sampled observations were ignorable, i.e. observations besides the Aston University placement student and employer population 2013/2014 that were not included when taking the sample; missing observations due to non-response within the Aston University placement student and employer population 2013/2014. Additionally, missing data due to the research design of the research instrument (e.g. skip patterns) were ignored. Non-ignorable missing data was further examined in the subsequent step.

Second, the extent of missing data was examined. A distinction was made between a substantial extent of missing data that warrant action and low levels of missing data. Missing data above 10% of an individual case or observation and missing data below 10% of an individual case or observation which occurs in a specific non-random fashion (e.g. concentration in a specific set of questions, attrition at the end of a questionnaire) were deleted case-wise as suggested by Hair et al. (2006). Furthermore, missing data in dependent key variables were deleted case-wise to avoid any artificial increase in relationships with independent variables. Low levels of missing data, i.e. missing data under 10% for an individual case that occurred in a random fashion were further examined in step three.

Third, the randomness of missing data was diagnosed. Descriptive statistics outlined that there were few missing values in the matched data set, which generally increases the efficiency and decreases the bias for users of the data (Olinsky, Chen & Harlow, 2003). The number of missing values among the variables reflecting the latent constructs was very low, that randomness was to be expected and no diagnostic test (such as the MCAR) deemed necessary to further ascertain high levels of randomness.

Fourth, appropriate imputation methods were selected for treating random missing-values. Case substitution was used for demographic and job-related information. If possible it was substituted through the placement office data list or with the equivalent data from the matched employer case. For missing data within multi-item measurements of constructs mean values of provided data of construct variables have been calculated and used as replacement values. Mean substitution provides all cases with complete information and is best used with relatively low levels of missing data (as apparent in the present data set) and

relatively strong relationships among variables (which is expected). (Hair et al., 2006). An example of the case-wise substitution and case-by-case mean substitution is provided in table D.1.

Table D1. Missing data

Student case	variable	Imputation Method	Rationale
198	SAT_happy	Case-wise mean substitution	There are further items of the same construct that have been assessed and show the observed value of 2. The mean value of the observed values for Satisfaction is 2. Thus, the missing value on SAT_happy is substituted with 2. Also further constructs such as GRAT, INT;PAS are evaluated with low values, thus it appears realistic, that a low value is an appropriate substation value.
110	E_A_Annual Salary	Imputation of value from the matched supervisor	The students annual salary as mentioned by the direct supervisor in the employer data set was used to substitute the missing value in the student data set.

# **D.5** Assumption Testing

# **Normality**

To assess normality, (a.) graphical techniques were used to gain a picture of the distribution of data, (b.) the Kolmogorov-Smirnov test (KS) was applied as statistical test of the normality of a distribution, and (c.) the kurtosis and skewness values of each variable was examined for a numerical understanding of the distribution (Hair et al., 2006; West, Finch & Curran, 1995). First, for the graphical techniques histogram were viewed to examine the distribution itself and to detect major departures from normality such as bimodal characteristics. Second, the KS test was conducted to examine the hypothesis that the observed distribution differs from a normal distribution. A non-significant KS test result indicates that the observed distribution approximates normality (Hair et al., 2006). As it has been argued that the KS test (as well as similar statistical tests) is extremely sensitive to minor departures from normality (Sharma, 1996) and normal distributed data within the social sciences exists rarely (Bentler & Chou, 1987; Barnes, Cote, Cudeck & Malthouse, 2001), the skewness and kurtosis of a variable was analyzed in a third step (West, Finch & Curran, 1995). Severely non-normal variables have been described in the relevant research

field as having skewness and kurtosis in the range of 3 and 21 respectively (West, Finch and Curran, 1995).

The graphical examination of the histograms revealed a positively skewed and right edged distribution for all variables and a negatively skewed distribution for the variables salary. However, the graphical examination of all distributions reveal no major departures from normality (such as bimodal characteristics). The KS test returned significant KS results, suggesting that further examination was required. Yet, the non-normal variables were having skewness and kurtosis below the suggested threshold levels (see West, Finch & Curran, 1995) Consequently, the variables were retained without transformation for future analysis in covariance based structural equation modeling (CBSEM). This decision is further supported through the following arguments: (i) The Maximum-Likelihood (ML) estimator of CBSEM is considered relatively robust to violations of normality assumptions (Bollen, 1989; Diamantopoulos, Siguaw & Siguaw, 2000), (ii) Monte-Carlo experiments found no major differences in terms of SEM analysis results using ML estimator on samples with different Skewness and Kurtosis levels (Reinartz, Haenlein & Henseler, 2009), and (iii) Normality can have a serious impact when the sample size is small (less than 50 cases), but the effect diminishes and may become negligible when the sample size reaches 200 cases or more (Hair et al., 2006). As the present data set includes 209 cases it reduces the detrimental effects of non-normality.

#### Linearity

Linear models possess the properties of homogeneity and additivity (Hair et al, 2006). To test for linearity in the data, scatterplots of all variables were examined to see whether any non-linear patterns appear in the data. Examination of these plots did not reveal any apparent non-linear relationships. Based on Hair et al. (2006) it was presumed that the data satisfied the assumption of normality.

#### **Multicollinearity**

Multicollinearity assesses the extent to which a construct can be explained by other constructs in an analysis (Hair et al., 2006). To test for multicollinearity in the data, the variance inflation factor (VIF) test was conducted. The VIF test indicates if there are intercorrelations between the predictor of interest and other predictor variables. It indicates the magnitude of the inflation of the standard errors associated with a particular beta weight that is due to multicollinearity. Various recommendations for acceptable levels of VIF have been found in literature. Most commonly, a threshold value of 10 has been the recommended maximum VIF value (Hair et al, 2006; Neter, Wasserman & Kutner, 1989).

Linear regression analyses were conducted with all variables of Group 1 and exchanging the dependent variable with individual items until every item of Group 1 has been assessed as dependent variable. Within the collinearity diagnosis the VIF test was assessed. 30 items showed a VIF between 10.0 and 10.8 with WOM2 as independent variable. 24 items showed a VIF between 10.0 and 10.1 with GRAT2 as independent variable. When dropping WOM2 from the analysis and conducting the VIF test again for all items revealed that all VIF values were below the acceptable threshold value of 10 (, i.e. also VIF tests with GRAT2 as independent variable did not exceed the value of 10). Within CFA the item WOM2 was included as the VIF values were only slightly above 10. Still, the item was treated with caution. (In fact, in CFA the item WOM2 appeared to be problematic and was dropped. GRAT2 did not appear as a problematic item in the CFA and was retained.) For Group 2, all VIF values were below the acceptable threshold value of 10. , the assumption of normality was sufficiently met.

#### Homoscedasticity

The assumption of homoscedasticity – i.e., when the variance of the error terms (e) appears constant over a range of predictor variables - is critical for many multivariate analysis techniques such as structural equation modelling. In contrast, when the variance of the error terms (e) appears increasing or modulating, the data are said to be heteroscedastic (Hair et al., 2006). To assess homoscedasticity, residual plots were analysed (Hair et al., 2006). No consistent pattern could be found in the data, thus the assumption of homoscedasticity was presumed to be sufficiently met.

## D.6 EFA Results for All Latent Constructs

## **Exploratory Factor and Reliability Analysis: Perceived Employability**

The four items measuring Perceived Employability were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The Bartletts test was significant and verified the sample adequacy for the analysis and the KMO value of 0.765 indicated rather homogenous variables, (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 63.6% of the variance. Table D.2 shows the factor loadings after rotation. Within the one-factor solution, the loadings of the items on the Employability factor were 0.446 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha of 0.804 is above the threshold level of 0.7 suggesting probable internal reliability. The Cronbach's alpha of the item is deleted output revealed that removing EMP\_04 would improve the Cronbach's alpha leading to an internal reliability of  $\alpha$ = 0.845.

Table D2. EFA - Perceived Employability

EFA and Cronbach's Alpha									
Factors	KMO and Bartletts test	Factor Loadings		Cronbach's Alpha	Eigenvalue	% of Variance			
	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1				
		EMP_1	0.766	0.804	2.543	63.6			
Perceived	KMO: .765 Bartletts test: x <sup>2</sup> : 302.843	EMP_2	0.872						
Employability	df: 6	EMP_3	0.774			00.0			
	sig.: .000	EMP_4	0.446						

# **Exploratory Factor and Reliability Analysis: Feelings of Gratitude**

The three items measuring Gratitude were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The significant Bartletts test measure (x2 = 775; p= 0.000) verified the sample adequacy for the analysis and a KMO of 0.782 indicating rather homogenous variables (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 90.8% of the variance. Table D.3 shows the factor loadings after rotation. The items all cluster on one factor. The loadings of the items on their respective factor were 0.941 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha is 0.967, which is above the threshold level of 0.7 suggested probable internal reliability.

Table D3: EFA- Gratitude

EFA and Cronbach's Alpha								
Factors	KMO and Bartletts test Factor Loadings		adings	Cronbach's Alpha	Eigenvalue	% of Variance		
Factors	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1			
	KMO: .782	GRAT_1	0.96					
Gratitude	Bartletts test: x2: 775 df: 3	GRAT_2	0.958	0.967	2.8	90.8		
	sig.: 0.000	GRAT_3	0.941					

## **Exploratory Factor and Reliability Analysis: Passion**

Principal axis factor analysis was conducted on five items with oblique rotation (direct oblimin), which conceptually should represent the construct Passion. The KMO measure verified the sample adequacy for the analysis with a value for KMO = 0.851 indicating homogenous variables, (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 69% of the variance. Table D.4 shows the factor loadings after rotation. All items clustered on the same factor. The loadings of the items on their respective factor were .794 or higher, thus well above the cut-off level of 0.4 (Hair et al. 2006). The Cronbach's alpha was 0.917, which is above the threshold level of 0.7 suggesting probable internal reliability. The Cronbach's alpha of the item is deleted output revealed that removing an item would not further improve the Cronbach's alpha, deleting the lowest loading item PAS\_01 would lead to an internal reliability of  $\alpha$ = 0.905.

**Table D4: EFA-Passion** 

EFA and Cronbach's Alpha									
Factors	KMO and Bartletts test	Factor Loadings		Cronbach'sCronbach's Alpha	Eigenvalue	% of Variance			
	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1				
	KMO: .851	LOVE_PA1	,794						
		LOVE_PA2	,836		3.8				
Passion	Bartletts test: x2: 750.397 df: 10	LOVE_PA3	,810	0.917		69.0			
	sig.: .000	LOVE_PA4	,853						
		LOVE_PA5	,859						

# **Exploratory Factor and Reliability Analysis: Intimacy**

The four items measuring Intimacy were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The KMO measure verified the sample adequacy for the analysis with a value for KMO = 0.825 indicating homogenous variables, (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 72.4% of the variance. Table D.5shows the factor loadings after rotation. Within the one-factor solution, the loadings of the items on the Intimacy factor were 0.785 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006).

The Cronbach's alpha was 0.908, which is above the threshold level of 0.7 suggested probable internal reliability.

**Table D5: EFA- Intimacy** 

		EFA and Cro	nbach	's Alpha		
Factors	KMO and Bartletts test	Factor Loadings Alph		Cronbach's Alpha Eigenvalue		% of Variance
	KMO > 0.5; BT sig < 0.05			> 0.7	> 1	
Intimacy		LOVE_IN1	,785	0.908	2.9	
	KMO: .825 Bartletts test: x2: 584.634	LOVE_IN2	,819			72.4
	df: 6 sig.: .000	LOVE_IN3	,903	0.000		
	-19	LOVE_IN4	,891			

# **Exploratory Factor and Reliability Analysis: Commitment**

The six items measuring Commitment were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The KMO measure verified the sample adequacy for the analysis with a value for KMO = 0.896 indicating homogenous variables, (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 76.9% of the variance. Table D.6 shows the factor loadings after rotation. The items all cluster on one factor. The loadings of the items on their respective factor were 0.843 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha was 0.952, which is above the threshold level of 0.7 suggested probable internal reliability.

Table D6. EFA - Commitment

EFA and Cronbach's Alpha								
	KMO and Bartletts test	Factor Loadings		Cronbach's Alpha	Eigenvalue	% of Variance		
Factors	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1			
		LOVE_CO1	,863	0.952	4.8	76.9		
		LOVE_CO2	,854					
Commitment	KMO: .896 Bartletts test:	LOVE_CO3	,843					
	x2: 1253.016 df: 15	LOVE_CO4	,880					
	sig.: .000	LOVE_CO5	,913					
		LOVE_CO6	,907					

# **Exploratory Factor and Reliability Analysis: Participation**

The four items measuring Participation were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The KMO measure verified the sample adequacy for the analysis with a value for KMO = 0.811 indicating homogenous variables, (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 78.7% of the variance. Table D.7 shows the factor loadings after rotation. The items all clustered on one factor. The loadings of the items on their respective factor were 0.857 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha was 0.936, which is above the threshold level of 0.7 suggested probable internal reliability.

**Table D7. EFA-Participation** 

EFA and Cronbach's Alpha								
Factors	KMO and Bartletts test	Factor Loadings		Cronbach's Alpha	Eigenvalue	% of Variance		
	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1			
		CVP_PAR1	0.876		3.36	78.7		
Participation	KMO: .811 Bartletts test: x2: 740.992	CVP_PAR2	0.898	0.936				
rantopation	df:6 sig.: 0.000	CVP_PAR3	0.857	0.000				
		CVP_PAR4	0.917					

# **Exploratory Factor and Reliability Analysis: WOM**

Principal axis factor analysis was conducted on four items with oblique rotation (direct oblimin), which conceptually should represent the construct WOM. The KMO measure verified the sample adequacy for the analysis with a value for KMO = 0.850 indicating homogenous variables, (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 82.7% of the variance. Table D.8 shows the factor loadings after rotation. All items clustered on the same factor. The loadings of the items on their respective factor were .832 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha was 0.948, which is above the threshold level of 0.7 suggested probable internal reliability. The Cronbach's alpha of the item is deleted output revealed that removing an item would not further improve the Cronbach's alpha, deleting the lowest loading item WOM\_04 would lead to an internal reliability of  $\alpha$ = 0.953. Deleting WOM\_02 would lead to a Cronbach's alpha of 0.920.

Table D8: EFA - WOM

	EFA and Cronbach's Alpha										
Fastava	KMO and Bartletts test	Factor Loadings		Cronbach's Alpha	Eigenvalue	% of Variance					
Factors	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1						
		CVP_WOM1	0.919								
WOM	KMO: .850 Bartletts test: x2: 879.7 df: 6 sig.: 0.000	CVP_WOM2	0.954	0.948	3.48	82.7					
		CVP_WOM3	0.928	0.040	0.10	02.7					
	9.1 0.000	CVP_WOM4	0.832								

# **Exploratory Factor and Reliability Analysis: Monetary Giving**

The three items measuring Monetary Giving were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The Bartlett's test verified the sample adequacy for the analysis (X2= 569.4, p= 0.000) and the KMO value of 0.744 indicated rather homogenous variables (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 83.4% of the variance. Table D.9 shows the factor loadings after rotation. The items all clustered on one factor. The loadings of the items on their respective factor were 0.838 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha was 0.936, which is above the threshold level of 0.7 suggested probable internal reliability.

**Table D9: EFA - Monetary Giving** 

	EFA and Cronbach's Alpha											
Factors	KMO and Bartletts test	Factor Loadings		Cronbach's Alpha	Eigenvalue	% of Variance						
ractors	actors  KMO > 0.5; BT sig  < 0.05  > 0.6		> 0.7	> 1								
	KMO: .744 Bartletts test:	CVP_MON1	0.944									
MON	x2: 569.4 df: 3	CVP_MON2	0.953	0.936	2.66	83.4						
	sig.: .000	CVP_MON3	CVP_MON3 0.838									

#### **Exploratory Factor and Reliability Analysis: Job Performance**

The eight items measuring Job Performance were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The Bartlett's test measure verified the sample adequacy for the analysis (x2 = 1630.3, p= 0.000) and the KMO value of 0.744 indicated rather homogenous variables (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the Eigenvalues over Kaiser's criterion of 1 and in combination explained 65.15% of the variance. Table D.10 shows the factor loadings after rotation. The item EPERF\_5 did not load on the factor, all other items clustered on one factor. The loadings of the items on their respective factor were 0.739 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha was 0.917, which is above the threshold level of 0.7 suggesting probable internal reliability. The Cronbach's alpha could be improved to a value of 0.946 if the non-loading item EPERF\_5 would be deleted.

Table D10. EFA - Job Performance

	EFA and Cronbach's Alpha										
Factore	KMO and Bartletts test	Factor Loadings		Cronbach's Alpha	Eigenvalue	% of Variance					
Factors	KMO > 0.5; BT sig < 0.05	> 0.6	3	> 0.7	> 1						
		EPERF_1	,739								
		EPERF_2	,789	0.917	5.212						
		EPERF_3	,902								
Employer Rated Job	KMO: .890 Bartletts test:	EPERF_4	,883,			65.153					
Performance	x2: 1630.311 df: 28 sig.: .000	EPERF_5		0.917	J.Z1Z	03.133					
	oigii iooo	EPERF_6	,803								
		EPERF_7	,887								
		EPERF_8	,947								

#### **Exploratory Factor and Reliability Analysis: Actual Employability**

The three items measuring Actual Employability were analysed using principal axis factor analysis with oblique rotation (direct oblimin). The Batlett's test verified the sample adequacy for the analysis (x2= 212.1, p=0.000). The KMO value of 0.666 indicated mediocre fit (Hutchesson & Sofroniou, 1999). An initial analysis was run to assess the

Eigenvalues over Kaiser's criterion of 1 and in combination explained 59% of the variance. Table D.11 shows the factor loadings after rotation. All items clustered on one factor. The loadings of the items on their respective factor were 0.606 or higher, thus above the cut-off level of 0.4 (Hair et al., 2006). The Cronbach's alpha was 0.768, which is above the threshold level of 0.7 suggesting probable internal reliability. Deletion of item EEMP\_03 would lead to an improvement of the Cronbach's alpha value to 0.809.

Table D11. EFA - Actual Employability

	EFA and Cronbach's Alpha										
Factors	KMO and Bartletts test	Factor Loa	adings	Cronbach's Alpha	Eigenvalue	% of Variance					
Factors	KMO > 0.5; BT sig < 0.05	> 0.6		> 0.7	> 1						
	KMO: .666	EEMP_1	,760								
Actual Employability	Bartletts test: x <sup>2</sup> : 212.130 df: 3	EEMP_2	,909	0.768	1.8	59.0					
,	sig.: .000	EEMP_3	,606								

# D.7 EFA Group Analyses Results for Initial Solutions

The following table shows the initial solution of the EFA group analysis 1 results. (The final EFA group analysis 1 results are outlined in the main text.)

Table D12. EFA group analysis 1: initial solution

	Passion / Intimacy /			Satisfaction /	
Exploratory Factor Analysis Group Analysis 1 (Pattern Matrix)	Commitment	Participation	Monetary Giving	Gratitude	Word-of-Mouth
SAT_1I am happy with the service I have received at my University.			<u> </u>	0.878	
SAT_2I am satisfied with my decision to enrol in my University.					
SAT_3I am delighted with the service I have received at my University.				0.844	
SAT_4I am satisfied with the service I have received at my University.				0.920	
SAT_5I am satisfied with the student experience at my University.					
GRAT_1 I feel grateful to my University.				0.627	
GRAT_2 I feel thankful to my University.				0.662	
GRAT_3 I feel appreciative to my University.					
LOVE_IN1 I feel emotionally close to my University.	0.712				
LOVE_IN2 I enjoy the experience at my University.					
LOVE_IN3 I have a warm and comfortable feeling when visiting my University.	0.689				
LOVE_IN4 I experience great happiness when I am at my University.	0.718				
LOVE_PA1 I am very enthusiastic about my University.	0.646				
LOVE_PA2 I do not get bored of going to my University.	0.785				
LOVE_PA3 I find myself thinking about going to my University.	0.767				
LOVE_PA4 Every time I am looking forward to go to my University.	0.778				
LOVE_PA5 I adore my University.	0.853				
LOVE_CO1 I care about maintaining my relationship with my University.					
LOVE_CO2 I have decided that this is "my" University.	0.611				
LOVE_CO3 I could not let anything get in the way of my commitment to my	0.696				
LOVE_CO4 I really care about my University and its future.					
LOVE_CO5 I feel a strong sense of belonging to my University.	0.673				
LOVE_CO6 I would describe myself as a loyal supporter of my University.	0.675				
CVP_PAR1make suggestions to my University as to how their service could		0.87	0		
CVP_PAR2let my University know of ways that could better serve my		0.89	1		
CVP_PAR3share my opinions with my University if I felt they might be of		0.83	2		
CVP_PAR4contribute ideas to my University that could improve their		0.89	7		
CVP_WOM1encourage friends and relatives to go to my University.					-0.708
CVP_WOM2recommend my University to others.					-0.807
CVP_WOM3say positive things about my University to other people.					-0.727
CVP_WOM4recommend my course to others.					
CVP_MON1give monetary contributions to my University.			-0.930		
CVP_MON2give donations to my University.			-0.917		
CVP_MON3sponsor events of my University.			-0.801		
Extraction Method: Principal Axis Factoring.					
a. Rotation converged in 9 iterations.					
KMO = 0.946; Bartlett's Test of Sphericitiy Approx. X2 = 8216.13; df = 561; sig	. 0.000)				

The following table shows the initial solution of the EFA group analysis 2 results. (The final EFA group analysis 2 results are outlined in the main text.)

Table D13. EFA group analysis 2: Initial solution

Exploratory Factor Analysis Group Analysis 2 (Pattern Matrix)	Job Performance / Actual Employability	Perceived Employability
EMP_1 The skills and abilities that I possess due to my studies are what employers are looking for.		0.774
EMP_2 I feel I could get any job as my skills and competences acquired at my University are reasonably		0.866
EMP_3 My University makes me confident of success in job interviews and selection events.		0.795
EMP_4 In my University I achieve high grades in relation to my studies.		0.410
EEMP_1 The placement student has acquired competences through his/her studies that are sought after in	0.699	)
EEMP_2 The skills and abilities that the placement student possesses due to his/her studies are what	0.695	i
EEMP_3 I know of organisations/companies where the placement student could get a job based on his/her	0.563	1
EPERF_1 The placement student's punctuality was satisfactory	0.707	•
EPERF_2 The placement student's attendance was satisfactory	0.744	
EPERF_3 The placement student completed work in a timely and effective manner	0.895	i
EPERF4 The placement student performed high-quality work	0.898	}
EPERF_5 E_PERF_RECdissat		
EPERF_6 The quality of the work of the placement student was satisfactory	0.819	)
EPERF_7 The quantity of work of the placement student was satisfactory	0.903	1
EPERF_8 The overall performance of the placement student was satisfactory	0.939	1
Extraction Method: Principal Axis Factoring.		
a. Rotation converged in 3 iterations.		
KMO = 0.887; Bartlett's Test of Sphericitiy Approx. X2 = 2372.209; df = 105; sig. 0.000		

# D.8 Descriptive Analysis Results of Final Reflective Measures

## **Perceived Employability**

The latent construct Perceived Employability was composed of four observed measures, i.e. EMP 1, EMP 2, EMP 3 and EMP 4. The summated Perceived Employability scale had a mean value of 3.931. Its minimum value is 1.00 and its maximum value is 5.0. To assess the normality of distribution of the Perceived Employability scale, the histogram was used as graphical technique to gain a picture of the distribution, the Kogomorov-Smirnoff test (KS) was applied as statistical test of the normality of a distribution and the kurtosis and skewness values were examined for a numerical understanding of the distribution (Hair et al., 2006; West, Finch & Curran, 1995). Table D.14 shows the histogram and distribution of the Perceived Employability scale. The Perceived Employability scale showed a relatively normal distribution which is slightly positively skewed. The KS test statistic returned a significant KS result (0.130, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Perceived Employability scale variable had a skewness value of -0.861 and a kurtosis value of 1.055, i.e. being below the suggested threshold levels (West, Finch & Curran, 1995). The Perceived Employability scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

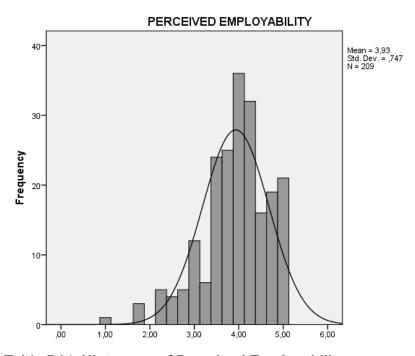


Table D14. Histogram of Perceived Employability

## **Feelings of Gratitude**

The latent construct Gratitude was composed of three observed measures, i.e. GRAT\_1, GRAT\_2 and GRAT\_3. The summated Gratitude scale had a mean value of 4.037. Its minimum value was 1.0 and its maximum value was 5.0. To assess the normality of distribution of the Gratitude scale, the histogram was used as graphical technique to gain a picture of the distribution, the Kogomorov-Smirnoff test (KS) was applied as statistical test of the normality of a distribution and the kurtosis and skewness values were examined for a numerical understanding of the distribution (Hair et al., 2006; West, Finch & Curran, 1995). Table D.15 shows the histogram and distribution of the Gratitude scale which is positively skewed with a peak at the highest response category of the Likert scale. The KS test statistic returned a significant KS result (0.184, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Gratitude scale variable had a skewness value of -1.150 and a kurtosis value of 0.864, i.e. being below the suggested threshold levels (West, Finch & Curran, 1995). The Gratitude scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

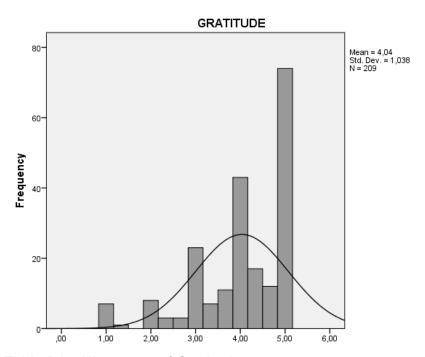
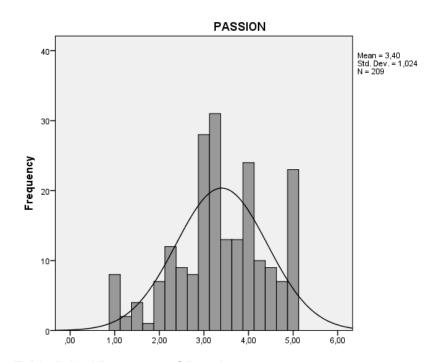


Table D15. Histogram of Gratitude

#### **Passion**

The latent construct Passion was composed of four observed measures, i.e. LOVE\_PA2 and LOVE\_PA3, LOVE\_PA4 and LOVE\_PA5. The summated Passion scale had a mean value of 3.3971. Its minimum value was 1.0 and its maximum value was 5.0. Table D.16 shows the histogram and distribution of the Passion scale which is appears relatively normally distributed. The KS test statistic returned a significant KS result (0.105, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Passion scale variable had a skewness value of -0.332 and a kurtosis value of -0.259, i.e. being below the suggested threshold levels and indicating a light-tailed distribution with little outliers (West, Finch & Curran, 1995). The Passion scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.



**Table D16. Histogram of Passion** 

# Intimacy

The latent construct Intimacy was composed of four observed measures, i.e. LOVE\_IN1, LOVE\_IN2 and LOVE\_IN3, and LOVE\_IN4. The summated Intimacy scale had a mean value of 3.746. Its minimum value was 1.0 and its maximum value was 5.0. Table D.17 shows the histogram and distribution of the Intimacy scale which appeared positively skewed with a peak at the highest response category of the Likert scale. The KS test statistic returned a significant KS result (0.123, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Intimacy scale variable had a skewness value of -0.867 and a kurtosis value of 0.405, i.e. being below the suggested threshold levels (West, Finch & Curran, 1995). The Intimacy scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

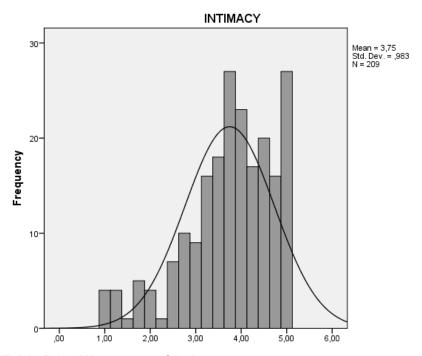
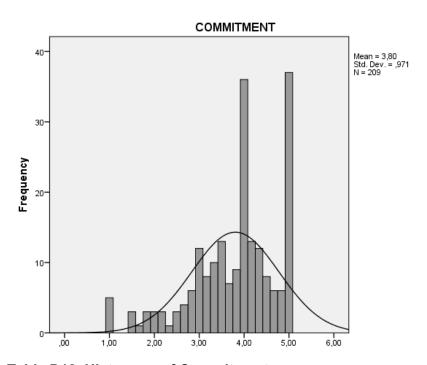


Table D17. Histogram of Intimacy

# Commitment

The latent construct Commitment was composed of six observed measures, i.e. LOVE\_CO1, LOVE\_ CO2 and LOVE\_ CO3, LOVE\_ CO4, LOVE\_ CO5 and LOVE\_ CO6. The summated Commitment scale had a mean value of 3.805. Its minimum value was 1.0 and its maximum value was 5.0. Table D.18 shows the histogram and distribution of the Commitment scale which appeared positively skewed with two peaks. The KS test statistic returned a significant KS result (0.144, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Commitment scale variable had a skewness value of -0.863 and a kurtosis value of 0.493, i.e. being below the suggested threshold levels (West, Finch & Curran, 1995). The Commitment scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.



**Table D18. Histogram of Commitment** 

#### Love

The higher-order latent factor Love was composed of the Passion, Intimacy and Commitment measures. The summated Love scale had a mean value of 3.650. Its minimum value is 1.0 and its maximum value was 5.0. Table D.19 shows the histogram and distribution of the Love scale which appeared relatively normally distributed. The KS test statistic returned a significant KS result (0.073, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Love scale variable had a skewness value of -0.678 and a kurtosis value of 0.241, i.e. being below the suggested threshold levels and indicating a light-tailed distribution with little outliers (West, Finch & Curran, 1995). The Love scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

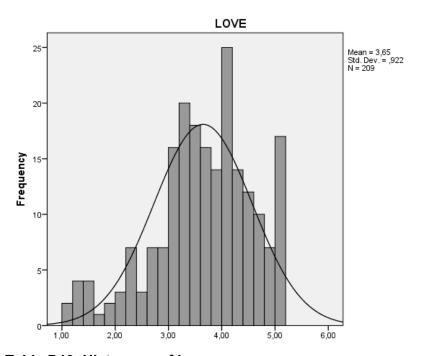


Table D19. Histogram of Love

## **Participation**

The latent construct Participation was composed of four observed measures, i.e. PART1, PART2 and PART3 and PART4. The summated Participation scale had a mean value of 3.942. Its minimum value was 1.0 and its maximum value was 5.0. Table D.20 shows the histogram and distribution of the Participation scale which is appears relatively normally distributed with a left skew. The KS test statistic returned a significant KS result (0.149, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Participation scale variable had a skewness value of -0.757 and a kurtosis value of 0.561, i.e. being below the suggested threshold levels (West, Finch & Curran, 1995). The Participation scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

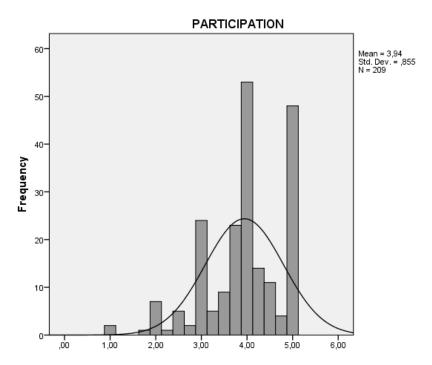
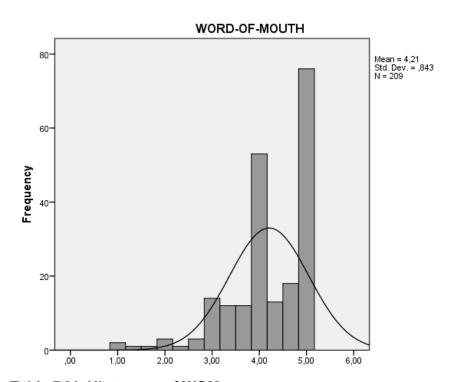


Table D20. Histogram of Participation

## **WOM**

The latent construct WOM was composed of three observed measures, i.e. WOM1, WOM3 and WOM4. The summated WOM scale had a mean value of 4.209. Its minimum value was 1.0 and its maximum value was 5.0. Table D.21 shows the histogram and distribution of the WOM scale which appeared relatively normally distributed with a left skew. The KS test statistic returned a significant KS result (0.190, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The WOM scale variable had a skewness value of -1.234 and a kurtosis value of 1.784, i.e. being below the suggested threshold levels (West, Finch & Curran, 1995). The WOM scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.



**Table D21. Histogram of WOM** 

## **Monetary Giving**

The latent construct Monetary Giving was composed of three observed measures, i.e. MON1, MON2 and MON3. The summated Monetary Giving scale had a mean value of 2.622. Its minimum value was 1.0 and its maximum value was 5.0. Table D.22shows the histogram and distribution of the Monetary Giving scale which appeared relatively normally distributed with a right skew. The KS test statistic returned a significant KS result (0.148, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Monetary Giving scale variable had a skewness value of 0.173 and a kurtosis value of -0.874, i.e. being below the suggested threshold levels and indicating a light-tailed distribution (West, Finch & Curran, 1995), the Monetary Giving scale was not severely nonnormal and could be retained without transformation for future analysis in covariance based SEM.

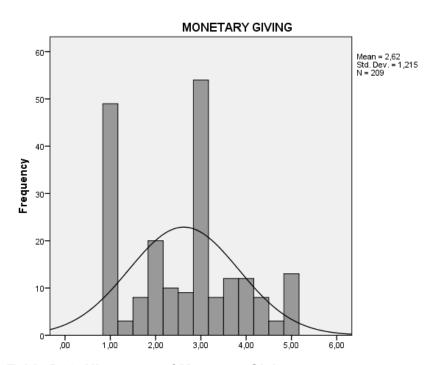


Table D22. Histogram of Monetary Giving

#### **Job Performance**

The latent construct Job Performance was composed of three observed measures, i.e. EPERF\_6, EPERF\_7 and EPERF\_8. The summated Job Performance scale had a mean value of 4.437. Its minimum value was 2.25 and its maximum value was 5.0. Table D.23 shows the histogram and distribution of the Job Performance scale which is appears relatively normally distributed with a left skew. The KS test statistic returned a significant KS result (0.304, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Job Performance scale variable had a skewness value of -1.070 and a kurtosis value of 0.152, i.e. being below the suggested threshold levels and indicating a light-tailed distribution (West, Finch & Curran, 1995). , the Job Performance scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

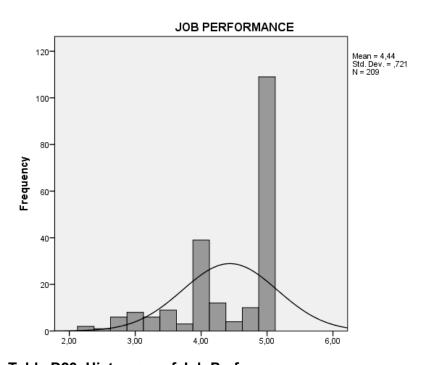


Table D23. Histogram of Job Performance

## **Actual Employability**

The latent construct Actual Employability was composed of three observed measures, i.e. EEMP\_1, EEMP\_2 and EEMP\_3. The summated Actual Employability scale had a mean value of 4.284. Its minimum value was 2.33 and its maximum value was 5.0. Table D.24 shows the histogram and distribution of the Actual Employability scale which appeared relatively normally distributed with a left skew. The KS test statistic returned a significant KS result (0.304, p=0.000), suggesting that further examination of the kurtosis and skewness values was required. The Actual Employability scale variable had a skewness value of -1.070 and a kurtosis value of 0.152, i.e. being below the suggested threshold levels and indicating a light-tailed distribution (West, Finch & Curran, 1995). , the Actual Employability scale was not severely non-normal and could be retained without transformation for future analysis in covariance based SEM.

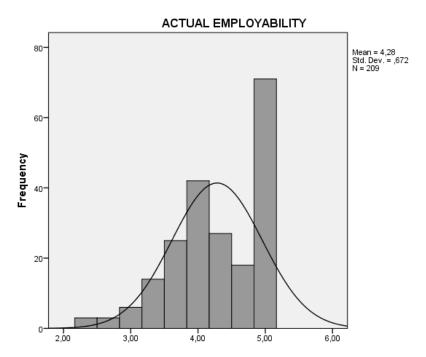


Table D24. Histogram of Actual Employability

# D.9 Mediation Analysis Techniques

#### **Causal Steps Strategy**

The most commonly used causal step strategy was introduced by Baron and Kenny (1986), in which individual path estimates from SEM or OLS are examined (Preacher & Hayes, 2008). Mediation occurs when the following three necessary (but not sufficient) conditions are met (Baron & Kenny, 1986) and the causal steps strategy ends if one step is rejected:

- i) an exogenous causal influence X is significantly related to a mediator M
- ii) **M** is significantly related to an endogenous variable **Y**
- iii) the relationship between  $\boldsymbol{X}$  and  $\boldsymbol{Y}$  diminishes when  $\boldsymbol{M}$  is in the model

The third condition claims that M causes variability in Y when controlling for X, and the effect of X on Y diminishes when M is entered simultaneously with X as a predictor of Y., the mediated effect should be substantially stronger than the direct effect (Baron & Kenny, 1986).

In terms of outcomes, four types of mediation can be distinguished: full mediation, partial mediation, inconsistent mediation, no mediation. Full mediation occurs when all three of the above mentioned conditions are met and the direct effect of X on Y is closer to zero than the indirect effect of X on Y through M and the direct effect of X on Y is not significant. Partial mediation occurs when the direct effect of X on Y is closer to zero than the indirect effect of X on Y through M, yet the direct effect of X on Y is significant. When the direct effect of X on Y is significant, but the sign changes, then it is inconsistent mediation. If one or more of the conditions do not hold, then there is no mediation (Little et al., 2007).

However, the distinction between full and partial mediation must be made with caution (Little, Card, Bovaird, et al., 2007). Later works (e.g. Kenny et al., 1998; MacKinnon, 1994, 2000) argue, that a significant total effect of **X** on **Y** is not necessary for mediation to occur. Furthermore, when claiming full mediation there might still be other mediators that have not been modelled, but do have a significant effect on the endogenous variable (Hayes, 2013).

#### **Sobel Test**

While the causal step strategy focuses on individual paths in a mediation equation, the Sobel test (also called product-of-coefficient test, the normal theory approach, or the delta method) examines the product term ab (a multiplied with b), whereby a represents the effect of X on M and b is the effect of M on Y. The product term is understood to be equal to the difference between the total and direct effect (Preacher & Hayes, 2008). The Sobel test was introduced by Sobel (1982, 2986) and calculates the ratio of the product term ab to its estimated standard error (SE). A p-value is computed for this ratio, being significant at the .05 level. A significant p-value supports the hypothesis of mediation (Preachers & Hayes, 2008). There are different formulas to calculate the SE (MacKinnon et al., 2002; Preachers & Hayes, 2004) which yield very similar test results (Preacher & Hayes, 2008). The p-value is calculated under the premise of standard normal distribution. This premise of standard normal distribution has been criticised by several authors (e.g. MacKinnon et al., 2002;

MacKinnon, Lockwood & Williams et al., 2004), because the normality assumption of the product term *ab* holds only in large sample (Preacher & Hayes, 2008).

#### **Distribution of Product Approach**

The distribution of product approach introduced by MacKinnon et al. (2002) and MacKinnon, Lockwood, Williams et al. (2004) is in essence similar to the Sobel test, yet it accounts for non-normal distribution of the product term **ab**. Confidence intervals can be generated in SPSS, SAS or R (Preachers & Hayes, 2008). One shortcoming of the distribution of product approach is that to date it can only be applied for testing single mediation effects. The distribution of sums of differences of products to test multiple mediation effects simultaneously has not been elaborated yet (Preachers & Hayes, 2008).

## **Bootstrapping**

Bootstrapping is a multivariate extension of the distribution of product approach (Preachers & Hayes, 2008). It is a nonparametric resampling procedure that involves repeatedly sampling from the data set and estimating the indirect effect in each resampled data set. By repeating this process multiple times an empirical approximation of the sampling distribution of the product term **ab** is built and used to construct confidence intervals for the indirect effect (Preachers & Hayes, 2008). Estimates from all the subsamples are then combined, and the mean of each estimated coefficient across all the subsample models is calculated as well their expected variability and thus their likelihood of differing from zero (Hair et al., 2006). Bootstrapping is used to generate an empirically derived representation of the sampling distribution of the mediating effect, which is used for the construction of a bootstrap confidence interval for  $\tau a \tau b$  (Hayes, 2013). Bootstrapping does not assume normal distribution and the assessment is based solely on the sample data (Preachers & Hayes, 2008).

Although bootstrapping offers advantages in contrast to other mediation analysis methods, there are some shortcomings which are worth acknowledging (Hayes, 2013). First, the quality of the original sample must be high in terms of its representation of the population with respect to the distribution of the measured variables. Second, the original sample should not be too small to avoid the distortion of the bootstrapping analysis based on individual unusual cases. Third, the bootstrapping confidence intervals are based on a random resampling of data, the endpoints of the confidence intervals are not fixed quantities which can result in different results in each bootstrap analysis with the same data set (Hayes, 2013).

The latter critique can be accounted for by setting the number of bootstrap to a large number. While the minimum of bootstrap samples should be 1,000, Hayes (2013) recommends 5,000 to 10,000 bootstrap samples.

Furthermore, to account for estimation inaccuracies caused by forced symmetry of ordinary confidence intervals (or also called percentile confidence intervals), problems with Type I errors and power, a bias-corrected (BC) and bias-corrected and accelerated (BCa) confidence interval are recommended to be used instead of percentile confidence intervals (Efron & Tibshirani, 1993). In bias corrected confidence intervals the endpoints are adjusted as a function of the proportion of k values of  $ab^*$  that are less than ab, being the point estimate of the mediation effect calculated in the original sample (Hayes, 2013). The endpoints will be adjusted downward or upward to varying degrees depending on that proportion (Hayes, 2013). Bias corrected and accelerated bootstrap confidence intervals adjusts additionally for the skew of the distribution of k bootstrap estimates (Hayes, 2013). According to Hayes (2013. p. 106f., 112) the following nine steps are involved in the construction of a bias-corrected confidence interval:

- 1. "Take a random sample of **n** cases from the original sample, sampling those cases with replacement, where **n** is the size of the original sample. This is called the bootstrap sample.
- 2. Estimate the indirect effect **ab**\* in the bootstrap sample
- 3. Repeat 1. And 2. Above a total of **k** times, where k is some large number, saving the value of ab' each time. Generally, k of at least a few thousands is preferred. More than 10,000 typically is not necessary. (...)
- 4. Sort the **k** indirect effects **ab**\* estimated from steps 1., 2. and 3. from low to high
- 5. Calculate  $Z(\tilde{p})$ , the Z-score that cuts off the lower  $100\tilde{p}\%$  of the standard normal distribution from the rest of the distribution, and  $\tilde{p}$  is the proportion of the k values of ab' that are less than ab calculated using the original data.
- 6. Calculate  $\mathbf{Z}_{low} = \mathbf{Z}_{ci} + 2\mathbf{Z}(\widetilde{\mathbf{p}})$  and  $\mathbf{Z}_{high} = -\mathbf{Z}_{ci} + 2\mathbf{Z}(\widetilde{\mathbf{p}})$ , where  $\mathbf{Z}_{ci}$  is the  $\mathbf{Z}$ -score that cuts off the lower (100-ci%)/2 percent of the standard normal distribution from the rest of the distribution. (...)
- 7. Calculate  $\underline{\boldsymbol{p}}_{low}$  and  $\boldsymbol{p}_{high}$ , the proportion of the standard normal distribution the left of  $\boldsymbol{Z}_{low}$  and  $\boldsymbol{Z}_{high}$ , respectively.
- 8. Find the value of  $\mathbf{ab}^*$  in the distribution of  $\mathbf{k}$  estimates that defines the 100  $\underline{\mathbf{p}}_{low}$  percentile of the distribution. This is the lower bound of a  $\mathbf{ci}$ %bias-corrected bootstrap confidence interval, and will be the value of  $\mathbf{ab}^*$  in ordinal position ( $\underline{\mathbf{p}}_{low}$ ) $\mathbf{k}$  of the sorted distribution. If ( $\underline{\mathbf{p}}_{low}$ ) $\mathbf{k}$  is not an integer, round it down to the lowest integer.

9. Find the value of **ab**\* in the distribution of **k** estimates that defined the 100 **p**<sub>high</sub> percentile of the distribution. This is the upper bound of a **ci**%bias-corrected bootstrap confidence interval, and will be the value of ab\* in ordinal position (**p**<sub>high</sub>)**k** of the sorted distribution. If (**p**<sub>high</sub>)**k** is not an integer, round it up to the next highest integer."

Preacher and Hayes (2008) Hayes (2013) introduced how the bootstrap method can be used for assessing mediating effects in multiple mediator models. Thereby, not only the total indirect effect of X on Y, but also specific indirect effects can be assessed simultaneously and in a pre-defined order. Hayes (2013) further introduced a computational tool called PROCESS for path analysis-based mediation (or moderation or conditional process analysis).

# **D.10 Mediation PROCESS Output Tables**

Simple Mediation Output for: CS → Perceived Employability → Job Performance

Table D25. PROCESS outcome for the mediating effect of Perceived Employability between CS and Job Performance (n=209; BI = 5000)

Outcome: M_1	EMP2					
Model Summan	CV.					
R	=	MSE	F	df1	df2	р
,5767			103,1618			
Model						
	coeff		t	p	LLCI	ULCI
constant	1,9351	,2011	9,6230	,0000	1,5386	2,3315
X_SAT	,4950	,0487	10,1569	,0000	,3990	,5911
Outcome: Y_	JOBPER					
Model Summan	сy					
R	R-sq	MSE	F	df1	df2	р
,2079	,0432	,5021	4,6523	2,0000	206,0000	,0106
Model						
	coeff	se	t	р	LLCI	ULCI
constant	3,7610	,2803	13,4160	,0000	3,2083	4,3137
M_EMP2	,2323	,0805	2,8845	,0043	,0735	,3911
X_SAT	-,0590	,0691	-,8531	,3946	-,1953	,0773
DIRECT AND	INDIRECT EFFE	CTS				
Direct effe	ct of X on Y					
Effect	SE	t	р	LLCI	ULCI	
-,0590	,0691	-,8531	, 3946	-,1953	,0773	
Indirect ef	fect of X on	Y				
]	Effect Boo	t SE Boo	otLLCI Boot	tULCI		
M_EMP2	,1150 ,	0417	,0418	,2054		

# Simple Mediation Output for: CS → Perceived Employability → Actual Employability

Table D26. PROCESS outcome for the mediating effect of Perceived Employability between CS and Actual Employability (n=209; BI = 5000)

Outcome: M_1	EMP2					
Model Summan	ry					
R	R-sq	MSE	F	df1	df2	р
,5767	,3326	,3739	103,1618	1,0000	207,0000	,0000
Model						
	coeff	se	t	р	LLCI	ULCI
constant	1,9351	,2011	9,6230	,0000	1,5386	2,3315
X_SAT	,4950	,0487	10,1569	,0000	,3990	,5911
Outcome: Y_	ACTEMP					
Model Summar	ry					
R	R-sq	MSE	F	df1	df2	р
,1983	,0393	,4375	4,2168	2,0000	206,0000	,0160
Model						
	coeff	se	t	р	LLCI	ULCI
constant	3,6177	,2617	13,8234			
M_EMP2	,1918	,0752	2,5512	,0115	,0436	,3401
X_SAT	-,0218	,0645	-,3380	,7357	-,1491	,1054
DIRECT AND	INDIRECT EFFE	ECTS				
Direct effec	ct of X on Y					
Effect	SE	t	q	LLCI	ULCI	
	,0645		_			
Indirect ef:	fect of X on	Y				
]	Effect Boo	ot SE Boo	otLLCI Boo	tULCI		
	M_EMP2		,0400		,1774	

Serial Mediation Output for: CS $\rightarrow$  Perceived Employability  $\rightarrow$  Gratitude  $\rightarrow$  Love  $\rightarrow$  Participation

Table D27. PROCESS outcome for the serial mediating effects of Perceived Employability, Gratitude and Love between CS and Participation (n=209; bias corrected BI = 5000)

Outcome: M_E	MP						
Model Summary	Y						
R	R-sq	MSE	F	df1	df2	p	
,5609	,3146	,4809	95,0297	1,0000	207,0000	,0000	
Model							
constant X_SAT	coeff	se	t	р	LLCI	ULCI	
constant	1,7708	,2281	7,7649	,0000	1,3212	2,2204	
A_DA1	,5500	,0333	3,7403	,0000	, 1233	,0170	
Outcome: M_G	RAT						
Model Summary	v						
R	R-sq	MSE					
,7646	,5846	,4518	144,9606	2,0000	206,0000	,0000	
Model							
	coeff	se ,2512	t	p	LLCI	ULCI	
	-,1027	,2512	-,4089	,6830	-,5979	,3925	
M_EMP X_SAT	,3719	,0674 ,0647	5,5200	,0000	,2391 ,5350	,5047	
A_SAI	,0020	,0047	10,2365	,0000	,5350	,7902	
Outcome: M_LC	OVE						
Model Summary							
MODEL SUMMARY	y R-sa	MSE	F	df1	df2	a	
,7875	,6202	,3276	111,5786	3,0000	205,0000	P ,0000	
Model	coeff	88	+	n	LLCI	ULCI	
constant M_EMP	,1390	,2140	,6496	,5167	-,2829	,5609	
M_EMP	,1970	,0615	3,2052	,0016	,0758	,3182	
M_GRAT	,3897	,0593 ,0677	6,5681	,0000	,2727	,5067	
X_SAT	,2876	,0677	4,2489	,0000	,1542	,4211	
Outcome: Y_PA	ART						
Model Summary	Y R-sa	MSE	F	df1	df2	р	
,4270	,1823	MSE ,6100	11,3698	4,0000	204,0000	,0000	
Model	coeff	se	t	q	LLCI	ULCI	
constant	2,3567	se ,2923 ,0859 ,0891 ,0953	8,0628	,0000	1,7804	2,9330	
M_EMP	,1736	,0859	2,0201	,0447	,0042	,3431	
M_GRAT	,0777	,0891	,8718	,3843	-,0980	, 2533	
M_LOVE X_SAT	,2792 -,1069	,0953	2,9294	,0038	,0913	,4671 ,0831	
11_0111	,1005	,0501	1,1000	,2003	,2505	,0031	
DIRECT AND I	NDIRECT EF	FECTS					
Direct effect	t of X on	Y					
			p	LLCI	ULCI		
-,1069	,0964	t -1,1095	,2685	-,2969	,0831		
Indirect effe	ect(g) of	X on Y					
	ffect B		otLLCI Boo	tULCI			
Total:	,3644	,0821	,2100	,5321			
	,0936		-,0069	,2092			
	,0156 , <b>0296</b>	,0203 , <b>0155</b>	,0201 ,0079	,0633 , <b>0731</b>			
	,0230	,0133	,0073	,0578			
	,0515		-,0738	,1896			
	,0721	,0303	,0270	,1493			
Ind7:	,0803	,0345	,0285	,1671			
Indirect effe	ect key						
	SAT ->	M_EMP	->	Y_PART			
Ind2 : X_5		M_EMP	->	_	_	PART	
Ind3 : X_8 Ind4 : X_8	SAT ->	M_EMP M_EMP	-> ->		_	ART LOVE ->	Y_PART
	SAT ->	M_GRAT		M_GRAI - Y_PART	- M_L	-/	I_PARI
	SAT ->	M_GRA		M_LOVE -	-> Y_F	PART	
Ind7 : X_8	SAT ->	M_LOVI	E ->	Y_PART			

Serial Mediation Output for: CS $\rightarrow$  Perceived Employability  $\rightarrow$  Gratitude  $\rightarrow$  Love  $\rightarrow$  WOM

Table D28. PROCESS outcome for the serial mediating effects of Perceived Employability, Gratitude and Love between CS and WOM (n=209; bias corrected BI = 5000)

Outcome: M	_EMP					
Model Summ	•					
,560	R R-sq 19 ,3146	MSE ,4809	F 95,0297	df1 1,0000	df2 207,0000	p ,0000,
Model						
	coeff	se	t	р	LLCI	ULCI
constant X SAT		,2281	7,7649 9,7483	,0000 ,0000	1,3212	2,2204 ,6478
X_SAT	,5388	,0553	9,7483	,0000	,4299	,04/8
Outcome: M	_GRAT					
Model Summ	-	. MOR		251	150	_
,764	R R-sq 6 ,5846	_	F 144,9606			_
Model						
-loue1	coeff	se	t	р	LLCI	ULCI
constant	-,1027	,2512	-,4089 5,5200	,6830	-,5979	,3925
M_EMP	,3719	,0674	5,5200	,0000	,2391	,5047
K_SAT	,6626	,0647	10,2385	,0000	,5350	,7902
Outcome: M	_LOVE					
Model Summ	nary					
	R R-sq	MSE	F	df1	df2	р
		, 3276				
Model						
	coeff	se	t	р	LLCI	ULCI
constant	,1390	,2140	,6496	,5167	-,2829	,5609
M_EMP	,1970	,0615	3,2052	,0016	,0758	,3182
I_GRAT	,3897	,0593	6,5681	,0000	,2727	,5067
K_SAT	,2876	,0677	4,2489	,0000	,1542	,4211
Outcome: Y	_WOM_					
Model Summ		a MSE	F	df1	df2	p
,800			90,7041			_
Model	coeff	se	t	р	LLCI	ULCI
constant	1,0088		5,2813	,0000	,6322	1,3854
M_EMP	,0701	,0562	1,2487	,2132	-,0406	,1809
- M GRAT	,1186	,0582	2,0384	,0428	,0039	,2334
 M_LOVE	,3698	,0623	5,9381	,0000	,2470	,4926
K_SAT	,2715				,1473	,3956
DIRECT AND	INDIRECT EF					
		FECTS				
Direct off	ect of V co					
Direct eff	ect of X on	Y	р	LLCI	ULCI	
Effec	t SE	Y	_			
Effec ,271	t SE	y t t 2 4,3115	_			
Effec ,271	st SE .5 ,0630 effect(s) of	Y t t 4,3115  X on Y Boot SE Boo	,0000			
Effec ,271 Indirect e	st SE .5 ,0630 effect(s) of Effect E ,4102	Y t t 4,3115 X on Y Boot SE Boo ,0545	,0000 otLLCI Boo ,3158	,1473 EULCI ,5310		
Effec ,271 Indirect e Total: Indl :	et SE .5 ,0630 effect(s) of Effect E ,4102 ,0378	Y t t 4,3115 X on Y 300t SE Boo ,0545 ,0388	,0000 btLLCI Boo ,3158 -,0376	,1473 tULCI ,5310 ,1172		
Effect, 271 Indirect e Fotal: Ind1: Ind2:	et SE .5 ,0630 effect(s) of Effect E ,4102 ,0378 ,0238	Y t t 4,3115  X on Y 300t SE Boo ,0545 ,0388 ,0149	,0000 DELLCI BOO ,3158 -,0376 ,0011	,1473 tULCI ,5310 ,1172 ,0617		
Effect, 271 Indirect e Fotal: Ind1: Ind2: Ind3:	et SE .5 ,0630 effect(s) of Effect E ,4102 ,0378 ,0238 ,0393	Y t t () 4,3115 X on Y () 300t SE () 60545 ,0388 () 149 () 193	,0000 DtLLCI Boo ,3158 -,0376 ,0011 ,0098	,1473 tULCI ,5310 ,1172 ,0617 ,0865		
Effec ,271 Indirect e Fotal: Indl: Indl: Indl: Indl: Indl: Indl:	et SE .5 ,0630 effect(s) of Effect E .4102 .0378 .0238 .0393 .0289	Y t t 4,3115 X on Y Boot SE Boo ,0545 ,0388 ,0149 ,0193 ,0112	,0000 DELLCI BOO ,3158 -,0376 ,0011 ,0098 ,0129	,1473 tULCI ,5310 ,1172 ,0617 ,0865 ,0587		
Effec ,271 Indirect e Fotal: Ind1 : Ind2 : Ind3 : Ind4 : Ind5 :	SET SE	Y t t t t t t t t t t t t t t t t t t t	,0000  DELLICI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053	,1473  EULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781		
Effec ,271 Indirect e Fotal: Ind1 : Ind2 : Ind3 : Ind4 : Ind5 : Ind6 :	st SE 5, 0630 effect(s) of Effect E ,4102 ,0378 ,0238 ,0393 ,0289 ,0786 ,0955	Y t t t 4,3115  X on Y 200t SE Boo ,0545	,0000  DELLICI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488	,1473  EULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781 ,1693		
Effective (271) Indirect e Total: Ind1: Ind2: Ind3: Ind4: Ind5: Ind6: Ind6: Ind7:	st SE .5 ,0630 effect(s) of Effect F ,4102 ,0378 ,0238 ,0393 ,0289 ,0786 ,0955 ,1064	Y t t t t t t t t t t t t t t t t t t t	,0000  DELLICI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053	,1473  EULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781		
Effect e rotal: Indirect e rotal: Ind1 : Ind2 : Ind3 : Ind4 : Ind5 : Ind6 : Ind7 :	st SE .5 ,0630 effect(s) of Effect E ,4102 ,0378 ,0238 ,0238 ,0393 ,0289 ,0786 ,0955 ,1064	Y t t t 1 4,3115  X on Y 300t SE Boo ,0545 ,0388 ,0149 ,0193 ,0112 ,0461 ,0296 ,0322	,0000  DELLCI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488 ,0527	,1473  EULCI ,5310 ,1172 ,0617 ,0865 ,0865 ,1781 ,1693 ,1828		
Effect 271 Indirect e Fotal: Indl: Indl: Ind2: Ind3: Ind4: Ind5: Ind6: Ind7: Indirect e Indl:	ffect(s) of Effect   F ,4102 ,0378 ,0238 ,0393 ,0289 ,0786 ,0955 ,1064  effect key X_SAT ->	Y t t t 4,3115  X on Y 800t SE BOO ,0545 ,0388 -,0149 ,0193 ,0112 ,0461 -,0296 ,0322	,0000  ottLLCI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488 ,0527	,1473  LULCI ,5310 ,1172 ,0617 ,0865 ,1781 ,1693 ,1828  Y_WOM	,3956	<b>TOM</b>
Effec, 271 Indirect e Total: Ind1: Ind2: Ind3: Ind4: Ind5: Ind6: Ind7: Indirect e Ind1: Ind2:	tt SE .5 ,0630 effect(s) of Effect E ,4102 ,0378 ,0238 ,0393 ,0289 ,0786 ,0955 ,1064 effect key X_SAT ->	Y t t t t t t t t t t t t t t t t t t t	,0000  DELLICI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488 ,0527	,1473  LULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781 ,1693 ,1828  Y_WOM M_GRAT -	,3956 > Y_V	
Effect / 271 Indirect e Total: Ind1 : Ind2 : Ind3 : Ind4 : Ind5 : Ind6 : Ind7 : Indirect e Ind1 : Ind1 : Ind2 : Ind3 :	st SE .5 ,0630 effect(s) of Effect F .4102 .0378 .0238 .0299 .0786 .0955 .1064	Y t t t	,0000  attlcci Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488 ,0527	,1473  EULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781 ,1693 ,1828  Y_WOM M_GRAT - M_LOVE -	,3956 > Y_V > Y_V	MOM
Effect 271 Indirect e Total: Ind1: Ind2: Ind3: Ind4: Ind5: Ind6: Ind7: Indirect e Ind1: Ind2: Ind2: Ind2: Ind2: Ind3: Ind4:	tt SE .5 ,0630 effect(s) of Effect E .4102 .0378 .0238 .0289 .0786 .0955 .1064 effect key X_SAT -> X_SAT -> X_SAT ->	Y t t t t t t t t t t t t t t t t t t t	,0000  DELLICI BOO ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488 ,0527	,1473  LULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781 ,1693 ,1828  Y_WOM M_GRAT - M_LOVE - M_GRAT -	,3956 > Y_V > Y_V	
Effect 271 Indirect e Fotal: Ind1: Ind2: Ind3: Ind5: Ind6: Ind7: Indirect e Ind1: Ind2: Ind3: Ind3: Ind3: Ind4: Ind5:	st SE .5 ,0630 effect(s) of Effect F .4102 .0378 .0238 .0299 .0786 .0955 .1064	Y t t t	,0000  obtLLCI Boo ,3158 -,0376 ,0011 ,0098 ,0129 -,0053 ,0488 ,0527	,1473  EULCI ,5310 ,1172 ,0617 ,0865 ,0587 ,1781 ,1693 ,1828  Y_WOM M_GRAT - M_LOVE -	,3956 > Y_V > Y_V > M_I	NOM LOVE -> Y_W

Serial Mediation Output for: CS→ Perceived Employability → Gratitude → Love → Monetary Giving

Table D29. PROCESS outcome for the serial mediating effects of Perceived Employability, Gratitude and Love between CS and Monetary Giving (n=209; bias corrected BI = 5000)

Outcome: M_E	MP					
Model Summar						
,5609	R-sq ,3146	MSE ,4809	95,0297	df1 1,0000	df2 207,0000	,0000
Model						
constant X_SAT	coeff	se	t 7 7640	p	LLCI	ULCI
X_SAT	,5388	,0553	9,7483	,0000	,4299	,6478
Outcome: M_G						
Model Summar	У					
,7646	R-sq ,5846	MSE ,4518	F 144,9606	df1 2,0000	df2 206,0000	q 0000,
Model						
constant M_EMP X_SAT	coeff	se	t	р	LLCI	ULCI
constant	-,1027	,2512	-,4089	,6830	-,5979	,3925
M_EMP	,3719	,0674	5,5200	,0000	,2391	,5047
X_SAT	,0020	,0647	10,2385	,0000	,5350	,7902
Outcome: M_L	OVE					
Model Summar	У		_	10-	100	
R 7875	R-sq 6202	MSE 3276	111 5786	df1 3,0000	205 nnnn	. nnnn
	,0202	,5270	111,5700	5,0000	200,0000	, 5500
Model	coeff	90	+	p,5167,0016,0000	LLCT	ULCI
constant	.1390	.2140	.6496	.5167	2829	,5609
M_EMP	,1970	,0615	3,2052	,0016	,0758	
M_GRAT	,3897	,0593	6,5681	,0000	,2727	,3182 ,5067
X_SAT	,2876	,0677	4,2489	,0000	,1542	,4211
Outcome: Y_M	ONGIV					
Model Summar						
R	R-sq	MSE	F	df1 4,0000	df2	р
,6115	,3739	,9420	30,4550	4,0000	204,0000	,0000
Model						
constant M_EMP	coeff	se	t	р	LLCI	ULCI
constant	-,5185	,3632	-1,4276	,1549	-1,2347	,1976 ,2698
M_EMP	,0592	,1068	,5540	,5802	-,1514	
M_GRAT M_LOVE	,0483 ,7099	,1107 ,1184	,4361 5,9946	0000	-,1700 ,4764	,2665 ,9434
M_LOVE X_SAT	,0301	,1104	,2517	,8016	-,2059	,2662
DIRECT AND I						
Direct effec	t of X on 3	Y				
Effect	SE	t	р	LLCI	ULCI	
,0301	,1197	,2517	,8016	-,2059	,2662	
Indirect eff						
		oot SE Boo ,0911				
	,0319		-,0757	,1332		
Ind2 :	,0097		-,0313	,0569		
	,0754		,0183	,1644		
	,0554	-	,0238	,1118 ,1645		
	,0320 ,1833		,1136 , <b>1067</b>	,1645		
	,2042	,0402	,0959	,3352		
Indirect eff	ect kev					
Ind1: X_	_	M_EMP	->	Y_MONGIV		
Ind2 : X_	SAT ->	M_EMP		M_GRAT -	> Y_N	MONGIV
Ind3 : X_		M_EMP		M_LOVE -		MONGIV
Ind4 : X_		M_EMP		M_GRAT -	·> M_I	LOVE ->Y_MONGIV
Ind5 : X_		M_GRAT	r ->	Y_MONGIV		
	SAT ->	M_GRAT		M_LOVE - Y_MONGIV	·> Y_N	MONGIV