

THE THREAT OF HIGH VALUE CARGO FACED BY LOGISTICS COMPANIES

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ABSTRACT

The purpose of this research is the threat of high value cargo faced by Logistics Companies. Global high value cargo hijacking risks vary greatly from country to country. Cargo hijacking is defined as the in-transit theft of goods through the use of violence or threat of violence (Burgess 2012). It refers to a large-scale theft such as trailers or containers and facility burglaries and robberies. Hijacking in today's modern world has increased at an extraordinary rate. The law enforcement is busy with other global issues that they do not consider cargo hijacking as a big level threat. Due to that, the supply chain professional from logistics companies throughout the world are facing a tough task to prevent high value cargo hijacking. Supply chain professionals require a comprehensive and flexible supply chain security program in order to secure and prevent hijacking. Hijackings which have been occurring for many years throughout the world has simply taken on a different form compared to the years past. It continues to have a negative impact on supply chain efficiencies, costs and product delivery. Hijackings take place most commonly in places where gangs, including some small- time cargo theft gangs, tend to be more aggressive.

Keywords

Hijack, logistics, supply chain, cargo, and security measures

1.0 INTRODUCTION

One of the biggest challenges affecting logistics and transport companies today is cargo theft, and the resulting potential is the disruption of supply chain (Anderson, 2007). The scale of the hijacking problem is difficult to quantify because cargo theft is not always categorized in the same manner and often goes unreported. The value of the cargo is what any cargo thief is out to acquire and cargo thieves are aware that law enforcement and prosecutors are less likely to give cargo theft a high priority when the cargo's owners, transporters and thieves are from another jurisdiction. Because of the relative ease of hijacking and the lenient punishments by prosecutions, cargo theft continues to grow year after year.

2.0 LITERATURE REVIEW

This literature review explores the three dominant themes of the research questions: measures to avoid high value cargo from being hijacked, steps in improving security system when transporting high value cargo and whether the security measure taken to prevent cargo hijacking will lead to extra cost and slow down transport. While Malaysia is the geographical subject area of this particular research project, the scope of this literature review is expanded to include research that examines the dominant themes of the research question regardless of the specific geographical subject area.

Issues of high value cargo hijack and supply chain safety is addressed by several researchers including Anderson and Liu. A global supply chain drives today's economy. Goods are moved around the world 24/7 – packed and transported by air, rail, sea, or truck. As the supply chain grows more complex, so does the ability to secure it. One of the biggest challenges affecting business today is cargo theft, and the resulting potential disruption of the supply chain. (Anderson 2007). In recent years, robbery and truck hijacking have been commonplace. Some criminals

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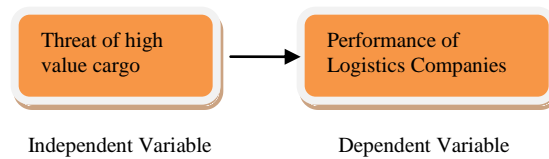
rob drivers when they are sleeping on the side of the road—almost half of the drivers sleep in their trucks (The Blue Book of China Truck Driver Living Status 2007). When drivers are injured during robberies, they bear the consequences by themselves, because they don't have medical insurance or accident insurance, (The Blue Book of China Truck Driver Living Status 2007, Liu 2007).

Anderson is cited to report that the criminal element responsible for cargo theft is more sophisticated than ever (Anderson, 2007). In addition to preventing theft, making investments in security to address these issues from hard cost association with technology and system to investment in training and resources, will ultimately improve supply chain efficiency, customer satisfaction and bottom line results. (Anderson 2007). Hence this correlates positively to the research question whether the security measure taken to prevent cargo hijacking will lead to extra cost and slow down transport. Current work by Burges (2011) reported that Malaysia and the Philippines both report frequent incidents of in-transit cargo hijackings, with violence or the threat of violence being used in the commission of the crime.

Cargo hijacking is affecting every level of the supply chain, be it the driver or the customer. In fact, Conley (2000) reported that, cargo theft affects every corporate risk manager, not just those representing manufacturers, retailers, transportation companies or ports of call – the usual victims. “Everybody has a stake in it, but not everybody realizes it” says Lou Tyska, chairman of the Annapolis, Maryland-based National Cargo Security Council. (Conley 2000)

The study of supply chain security arises due to the threats that exist and risk of losing cargo. Early works by Williams and McShane (1994) reveals, hijackings of trucks with freight are a cause of great concern as well as a burden on the South African Economy and the transport industry. No country can sustain such a negative impact on its economy. Besides, suggestions in improving security had been proposed by Conley as early as the 2000, where he outlines 11 measures on cutting down on cargo theft (Conley, 2000). On the other hand, Conley (2000) also suggested that the current laws on cargo theft are outdated and old-fashioned where horse-drawn wagons and steam-powered boats are covered. “People target this enterprise for a simple reason: It’s easy,” says Tyska (Conley, 2000). Sampson is noted to suggest that the most effective solutions tend to be those that combine physical and procedural controls. A layered approach to cargo loss control is also highly recommended (Sampson, 2012). Hence, no single steps taken can

overcome this issues which have been around for generation



The independent variable is the treat of high value cargo whereas the dependant variable is the performance of the logistics company. Current problems in the field of logistics involving issues of hijacking is noted by Sampson (2012) where he mentioned that thieves target goods that not only have real intrinsic value but ones that can be easily sold on the grey or black market. Hence it is clear that hijacking is an issue that affects Logistics Company. In recent years, robbery and truck hijacking have been commonplace. Some criminals rob drivers when they are sleeping on the side of the road—almost half of the drivers sleep in their trucks (The Blue Book of China Truck Driver Living Status 2007). This is another clear example that hijacking is rampant and having an impact on almost everyone involved in the supply chain.

The purpose of this paper is to analyse and present the antagonistic threats which is hijacking, against supply chain activities is a wicked problem. The research is based on a system-theoretical approach, which emphasizes a holistic view instead of the characteristics of the different parts. The research method used in this paper is analytical and qualitative research. This research is mainly theoretical, and the findings are contributions to the development of theoretical models and understanding in order to further move the understanding about antagonistic threat: hijacking against supply chain activities. The main reason behind this is the relationship between threats and countermeasures that are complex and contextual depended.

3.0 METHODOLOGY

This study is based on six months of field research. The purpose of the field research was to observe at first hand the effects of hijacking and performance of Logistics Company. For the purpose of this research, the researcher used both primary and secondary data. The principal method of collecting the primary data has been through in-depth interviews, the administration of questionnaires and participant observation. These different methods were meant to complement and corroborate each other.

The method best suited for this research into the Bawku Chieftaincy conflict is the qualitative approach. Unlike its quantitative opposite, the qualitative method “avoid(s) or downplay(s) statistical techniques and mechanics of the kinds of quantitative methods used in, say survey research or epidemiology” (Silverman, 2005). Consequently, Martyn Hammersley has identified a common set of preferences shared by qualitative researchers. These include analysis of words and images rather than numbers, observation rather than experiment, meaning rather than behaviour and hypothesis-generating research rather than hypothesis testing (Silverman, 2006). Strauss and Corbin, (1990) describe qualitative research methodology as any kind of research that produces findings not arrived at by means of statistical procedure or other means of quantification. They further clarified that some of the data could be quantifiable but the analysis is qualitative (cited in Hoepfl, 1997). My choice of qualitative methods rather than quantitative data was informed by my decision to examine the effects of chieftaincy conflict on the development of the Bawku Municipality through households rather than through analysis of official figures of growth patterns, which, in any case, will either be difficult to come by or unreliable. The fieldwork involved the administration of questionnaires to members of households and focus group discussion. Also, I held open-ended interviews with officials of the Municipal Assembly and opinion leaders to sample their views on the effects of the chieftaincy conflict on the livelihoods of the people of the Municipality. Efforts to get some quantitative data to bolster my qualitative findings from the Municipal Assembly and the Police Department have proved futile. Qualitative research is increasingly being used by many social scientists because of the growing recognition that „it is insufficient to rely on quantitative survey and statistics to understand human affairs. It has become important to attempt to delve deep into the subjective qualities that govern human behaviour (Holiday 2002). More so, in the social sciences, statistical quantitative statements are subject to different interpretations and may sometimes be used for political spin. Qualitative research however suffers from one serious defect; it has been argued that the researcher might select only those fragments of data which support his argument. Silverman (2006) has suggested that some quantitative data could be incorporated into the qualitative research to ease all such concerns.

Questionnaires were administered through a simple random sampling technique in selected neighbourhoods in the BEM. These neighbourhoods were also selected through simple random sampling to

make the research as scientific as possible. Questionnaires were given out to literate respondents to answer by themselves with minimal guidance. An interpreter (A Research Assistant) was employed to translate the questionnaires to non-literate respondents. In all 40 people were interviewed. The respondents were selected on the basis of location, ethnicity, and gender. Thus, the breakdown of respondents was as follows: 10 Kusasi, 10 Mamprusi, 10 people from other minority ethnic groups and 10 women. The latter two groups were selected to afford me the opportunity to access the effects of the chieftaincy conflict on the livelihoods of minority groups in the BEM who are not directly involved in the conflict and also on women. The questionnaire was divided into five sections. Sections A & B were intended to gain insights into the personal and household background of the respondents. Section C aimed at gathering information on the economic background of respondents and the effects of the conflict on their economic lives. Section D was meant to sample views on the effects of the conflict on migration, and section E was aimed at sampling views from respondents on how the conflict can be resolved. I tried to make the questions very simple and straight to the point so that they would not need a lot time to be spent on them. The questions were also made simple for easy comprehension.

To suppose that any researcher’s presence in the field would not exert an influence on the data is unrealistic (Strong 1974 cited in Silverman, 2005; 29). I therefore decided to use my observation on the field as part of my data. I took particular note of the performance of Logistics Company in Malaysia. Participant Observation provided the possibility to observe what people do as compared to what they said. I was able to observe their usual workload and interactions to problems. The information obtained through this process, in the form of informal conversations, personal reflection and analysis were formulated and recorded in field notes. Participant observation provided me the opportunity to collect additional data beyond what I could get from questionnaires.

Analysis of secondary sources was used to complement the primary data. The secondary data involved an intensive research from books, journals, magazines, newspaper reports, radio interviews, articles, Internet materials and unpublished works related to the study. The essence was to review literature on the relationships between hijacking and security measures taken will assist the researcher in analyzing the effects of hijacking on every level of the supply chain. The review of conceptual works served as both theoretical and empirical base for the analysis of data collected. The secondary sources are a rich

source on the history of the development in the field of logistics in term of hijacking related cases.

Data analysis in this work was a continuous process as the study was qualitatively oriented. The data obtained was organized by creating categories. The process of coding, as part of the analysis, involves, generating concepts from and with our data (Coffey & Atkinson 1996). Such issues as thinking creatively and conceptualizing the data, raising questions and providing provisional answers to the relationship among and within the data are vital in this process of coding (ibid). The coding was done with reference to my conceptual framework. In transforming the coded data into meaningful data, patterns, themes and regularities as well as paradoxes and irregularities were considered (ibid). The data analysis aimed to answer the aims and objectives of this research. The analysis began with data reduction; this involved selecting, focusing, simplifying, abstracting and transforming the raw data (Miles and Huberman, 1984, cited in Silverman, 2000). The process also involved making decision about the particular data that provided the initial focus of the study. The next stage was to draw conclusions from the coded data. Conclusion drawing means „beginning to decide what things mean, noting regularities, patterns, explanations, possible configuration, causal flows and propositions (Miles and Huberman, 1984, cited in Silverman, 2000). The conclusions were then verified; verification involved testing the provisional conclusion for „their plausibility, their sturdiness, and their “conformability” –that is, their validity (ibid).

4.0 FINDINGS

This research answers the following objective research which is to measure the significance of correlation between the treat of hijacking result and the performance of Logistics Companies and to measure the frequency of lost sales, missed deliveries, production downtime, financial loses and others.

According to table 2, the relationship between Logistics Companies and mean of threat high value cargo measure was investigated using Pearson product-moment correlation coefficients. Preliminary analyses were performed to ensure no violation of the assumptions of normality and linearity. As depicted in the above table, the moderate negative linear relationship was found to exist between Logistics Companies and threat high value cargo($r = -0.081$). The negative correlation coefficient of -0.081 indicates that as the score for Logistics Companies decrease so do the rating for threat high value cargo measure.

The second moderate linear relationship was found between threat high value cargo and Logistics Companies ($r =1$) and the correlation coefficient indicates that there was moderate positive linear relationship between threat high value cargo and Logistics Companies measure.

THE SIGNIFICANCE OF CORRELATION BETWEEN THE THREAT OF HIGH VALUE CARGO AND THE PERFORMANCE OF LOGISTICS COMPANIES

TABLE 1

		Mean of Logistics Companies	Mean of threat high value cargo
Mean of Logistics Companies	Pearson Correlation	1	-.081
	Sig. (2-tailed)		.475
	N	80	80
Mean of threat high value cargo	Pearson Correlation	-.081	1
	Sig. (2-tailed)	.475	
	N	80	80

THE FREQUENCY OF LOST SALES, MISSED DELIVERIES, PRODUCTION DOWNTIME, FINANCIAL LOSSES AND OTHERS.

TABLE 2

	Neither agree nor don't agree	Somewhat agree	Strongly agree
Lost sales	0	40	40
Missed deliveries	0	49	31
Production downtime	0	48	32
Financial losses	2	47	31
Other	22	49	9

According to table 2, there are 0 respondents neither agree or not agree, 40 respondents, and 40 respondents strongly agree for lost sales is one of threat high values cargo. 49 respondents is somewhat agree and 31 respondents strongly agree for missed deliveries. Furthermore, production downtime there are 48 respondents said somewhat agree and 32 respondents strongly agree. There are 2 respondents neither agree nor not agree, 47 respondents, and 31 respondents strongly agree for financial losses. Finally, there are 22 respondents neither agree nor not agree, 49 respondents, and 9 respondents strongly agree for other impact. As a conclusion, most of the respondent said somewhat agree in all five threat of high value cargo.

5.0 DISCUSSION & CONCLUSION

Some areas of the world are more prone to hijacking of trucks and their cargo. Therefore, we present the following list of recommendations for drivers:

1. Know where you are going. Get directions prior to leaving your terminal or the shipment pick-up point. (Using a driver conversant with the native language and familiar with the transit route and the destination is beneficial).
2. Leave the origin point with a full or near full tank of fuel.
3. Try to avoid routes that have numerous stops and starts.
4. Have a ready means of communication with your dispatcher; a mobile phone and two-way radio are examples of viable devices.
5. Establish a communication schedule with your dispatcher or other assigned person within your company. Maintain the pre-determined contact routine. Make certain you have a 24-hour phone number you can call in case of emergency. You should also give your mobile phone number to the shipper and get one from them as well.
6. Follow the scheduled routing. Advise your dispatcher of any required detours or diversions during transit.
7. Be especially alert upon leaving a terminal or the shipment pick-up point. Pay attention to following vehicles as well as your surroundings since a majority of in-transit cargo incidents occur a short distance from the shipment origin. (A good rule-of-thumb is to have the driver go at least 300 kilometres or four hours prior to stopping). You should also know that these also occur close to your final destination, as thieves can target Lorries going to known warehouses, distribution centres or customers of high value goods.
8. Learn and use surveillance detection methods/techniques. While not always advisable, making a U-turn along your transport path or slowing down and allow vehicles following you to pass can alert you to someone tailing your lorry.
9. Do not discuss details of the cargo, your destination or routing at any petrol stations, truck stops, lorry parks or transport cafes.
10. Keep all your doors locked when underway. Roll the windows up when you are stopped or in slow-moving traffic.

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