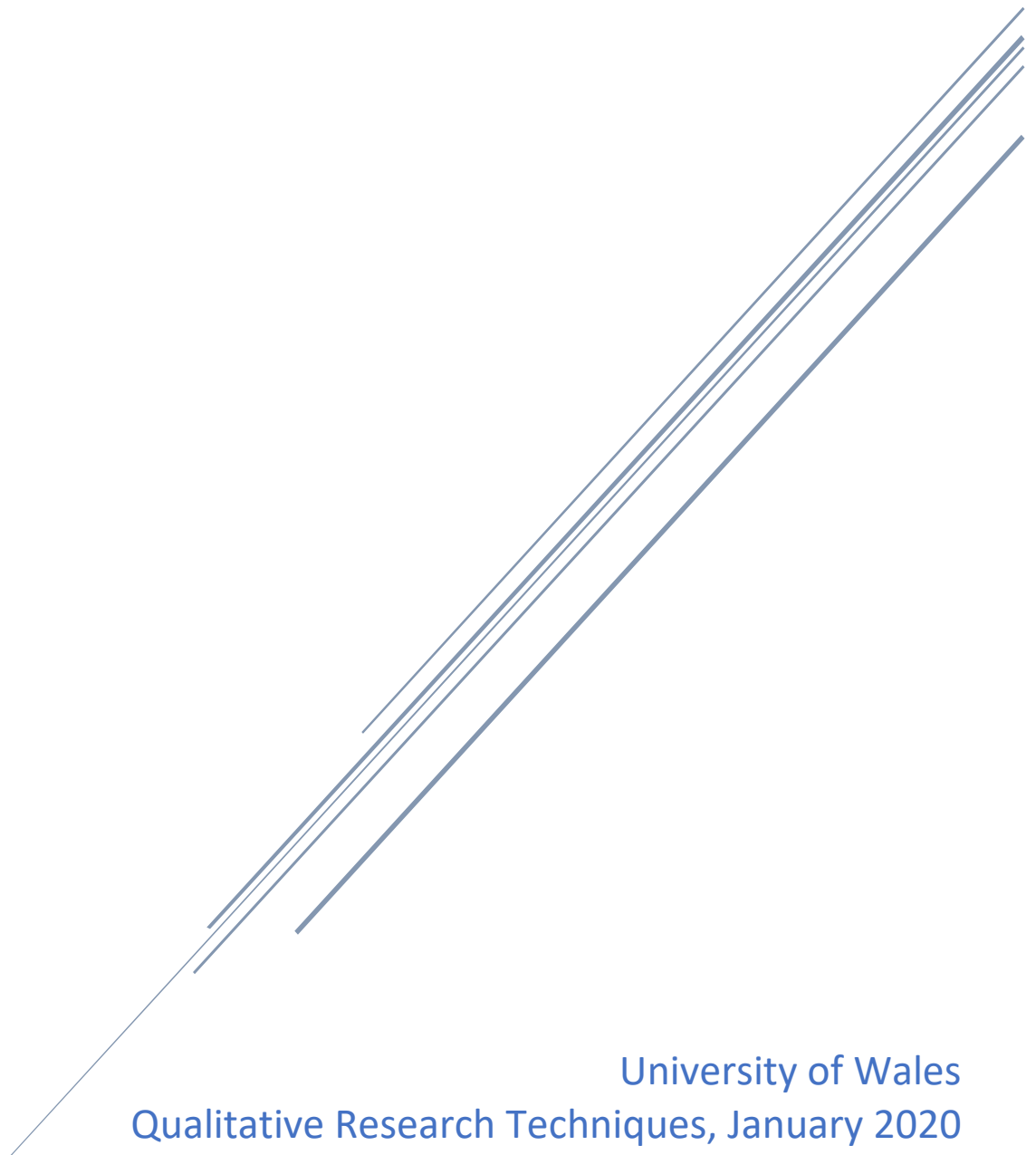


Critical Evaluation of Existing Security Solutions in the Retail Sector and Proposed Strategic Improvements

Case Study of Retail Supermarkets in the UK



University of Wales
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1811291

Abstract

There is evidence which suggests that security is paramount to contemporary society and organisations. It is what each one of us encounters in everyday life knowingly or unknowingly as it is one of the most important parts of our daily activities. This evidence-based research is therefore intended to investigate the role and extent of existing security service provision in the retail sector with a view of proposing strategic improvements that can facilitate better services. This topic will therefore seek to investigate how the different aspects of security relate to each other and how they work hand in hand. The process will be hypothesised leading to the triangular security system. Their weaknesses and strengths will be looked into with a view to drawing recommendations that will enhance better provision of the three security aspects. Each of the security aspects will be analysed, synthesised and linked to one another for effective use in the retail sector in the UK.

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Chapter One

1.1 Introduction

Security is the precaution individuals, government, cooperate bodies and many different organizations or entity take to avoid being under threat or danger. Security can be what makes us feel secure from any aspect of life, the anxiety, danger or our safety including during uncertainties. With security you have tranquility, certainty, protection, defense from attack and from unwanted espionage (yourdictionary.com 2019).

This research therefore plans to comprehend the provision of security services using the retail sector as an example. The main security solutions that will be explored can be grouped into three categories. These are System, Physical and Cyber Securities. The three have to work together for effective security in the retail sector. Systems include the CCTV, the till scanner, the products alarms for expensive items and the security alarms for sensitive areas. The interconnectivity between the three security solutions will be explored with the aim of assessing their effectiveness in providing solutions to security needs in the retail sector. It is a well-known fact that shoplifting has gone beyond a mere theft from an individual to being an organized retail crime (ORC) in which those involved work solely in situations where individuals will be having a specific role to play (BBC news report). Stealing is always the same whether it is by fraud or taking the goods away from retail shops or departmental store (Greggo at el 2011).

This research therefore borders on the following premises

- That the crime rate keeps going up in retail sector as criminals becomes bolder in their nefarious activities
- That existing security solutions may not be meeting the increasing needs of the retailers to combat crime
- Companies in the retail sector are therefore looking for ways to enhance the existing securities services they have
- This enhancement means they need new systems in order to be ahead of thefts by criminals
- These thefts have a very significant financial impact for the retail sector because over the last decades, millions of pounds worth of goods has been lost on theft through various means

1.2 Research Problems

There are different dimensions of security which determine the type of solutions they provide. Retail supermarket which is the case study of this research has seen an upward surge in crime as criminals become bolder in their nefarious activities (BBC News). Companies in the retail sector are looking for ways to enhance the existing securities services they have. They need new systems in order to be ahead of the criminals. This is applicable to all the security aspects starting with the security guarding which is expected to combat shoplifting and the cyber security system which is expected to reduce most of the internet attack that have been happening recently. These thefts have a very significant financial impact for these retail supermarkets irrespective of the security measures that have been introduced which include close circuit television (CCTV) and electronic article surveillance (EAS). Over the last decades, millions of pounds worth of goods have been lost on theft through various means. In a year millions of shoplifters are apprehended in the UK. In view of these problems, it is important that the existing security solutions employed by retailers be reviewed commencing with the comprehension of what security services do and what improvements can be applied to them so that retailers can minimize the risks posed by criminals.

1.3 Research questions

The following research questions shall be answered with this research

1. How important is the provision of security services to the retail sector?
2. What is the interconnectivity between existing security solutions?
3. Do the existing security solutions meet the needs of the proposed users in the retail sector?
4. Can there be improvements on the existing provision of security solutions in the retail sector

1.4 The focus of the research

This research will be based on the retail sector in the UK with special focus on the retail supermarkets. Most retail companies cannot survive without putting security measures in place. For instance, 98 percent of retail companies have their check out tills at the entrance of their

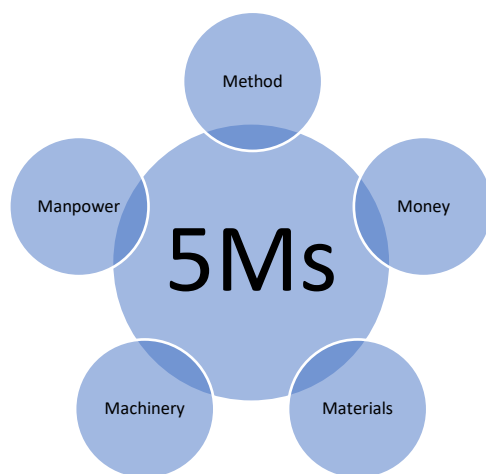
stores which is part of the security measures. In 1995, the retail stores were losing the equivalent of 0.3 per cent of their gross revenues which have taken up to 20 to 30 percent of their profit (Tonglet et al 1997).

In view of the above, the retail sector spent 449.7 million pounds on security and crime prevention between 1995 and 1996 (Wells and Dryers, 1997). Most retail shops open seven days a week, therefore, their daily, weekly and annual activities should have a framework that could focus on developing problem-solving tools or technique for operation managers in the three different security aspects as stated by Slack et al (2001).

Ishikawa developed a cause-effect diagram that is also known as fishbone which is a tool used to search for problems or the root of an issue (Slack et al 2001, p.624). This comes with the usual question of what is going wrong, when, how, why and going through how the root of the problem can be resolved. This diagram revolves around the “five Ms”.

- (1) Machinery;
- (2) Manpower;
- (3) Materials;
- (4) Methods;
- (5) Money

Figure 1: The 5Ms



These research questions will lead to the formulation of the hypothesis

1.5 Hypothesis

The existing provision of security solutions in the retail sector are not effective enough to combat the present retail crime rate

The existing provision of security solutions in the retail sector are effective enough to combat the present retail crime rate

1.6 Research Aims

To propose improvement strategies that can be applied to existing provision of security solutions within the retail sector

1.7 Objectives

- To explore and understand the concepts of the three aspects of security solutions: personal, system and cyber securities
- To draw the attention of retailers and consumers to the importance of security solutions
- To explore the interconnectivity between existing security solutions
- To explore strategies for improving the existing provision of security solutions within the retail sector.
- To evaluate proposed improvements of the provision of security solutions within the retail sector

Chapter Two

Literature Review

This section deals with the review of existing literatures on security solutions and assessing their effectiveness using models like SCONE and theoretical basis like gap analysis.

2.1 Security solutions

There are different types of security solutions available in the retail sector but these three will be the focus of this research.

- 1 Personal Security
- 2 System Security
- 3 Cyber security.

2.1.1 Personal Security

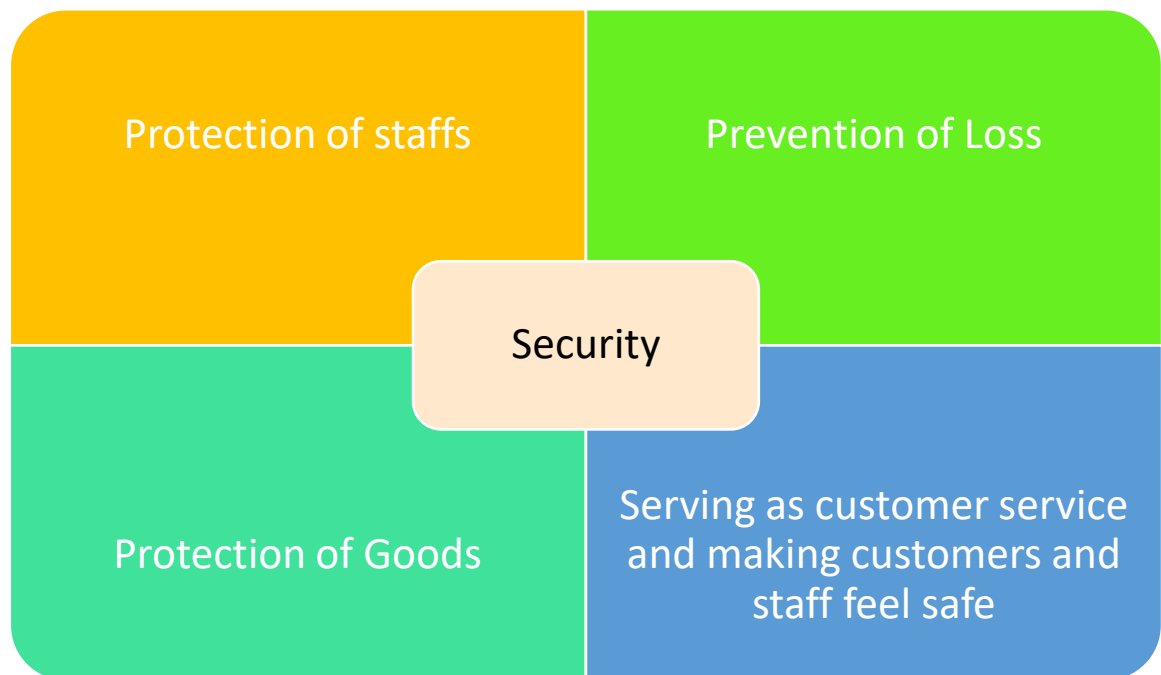
Personal Security can be known as Physical security, every business has security problems and businesses take security solutions to protect their asserts from the risk of the unknown peril. To eliminate the problems in retail environment by security personal, the requirement of a particular area or store needs must be known, to assess the security needs, the conditions, threats, vulnerabilities of the retail outlet and this can begin with the risk analysis of basic security management.

The fundamental of all security is Personal Security, this also can be used to control the protection of premises, site, building and other asserts that might belong to retail outlet. (G. Kovacich at al 1995).

The use of Personal Security in retail sector can have many layers in include

- Protection of Staff
- Protection of Goods
- Prevention of Loss
- Making staff and customers safe.

Figure 2: Security Needs



Protection of staffs: Every employee needs to feel safe at work environment and it is the work of physical security to protect the staff.

Prevention of loss: It is the work of security guard to put factors in place so that goods are not lost through different means.

Protection of the Goods: In retail sector, goods are displayed in public, the security guards are responsible in ensuring that the goods are paid for.

Making staff and customer feel Safe: The first point of contact when any customer comes into a business premises is likely security guard, the presence makes them feel safe.

Physical Security is used to protect people and information for it is the baseline foundation that the System and Cyber security can be built and measured.

In the retail sector, every environment is different from the other, therefore, the level of security that is needed can be determined after the assessment of the environment concerned. This helps provide a thorough understanding of the threats, vulnerabilities and any risk associated with the premises.

SCONE Model (Selection, Concealment, Observation, Non-payment and Exit) for evaluating the effectiveness of security solutions

The security personnel in the retail sector are expected to use their human element in every situation. These human elements are referred to as SCONE (Selection, Concealment, Observation, Non-payment and Exit) principles for effective security. It is the responsibility of personal security to know when additional security is needed like when alarm goes off in the case of intrusion, goods being taken without payment or even in the case of a false alarm. Using the SCONE model, the guards patrol the stores, observing and taking note of any irregularities which might lead to further investigations if needed be. This constant patrol and observation can serve as a warning and thus deter would-be criminals.

The guard knows the security code that is embedded on expensive item and can tell when it is tampered with.

For the security personnel to perform their duty in a standard expected of them according to Gabbidon (2003), the guard must have a formal education which encompasses operations, physical intervention, health and safety and customer service. These skills enable them to be able to deliver a structural security solution to their clients. This training emphasises the responsibilities of security personnel in relation to any change that might come in their line of duty as security can be dynamic according to Woodward (1989) and Drucker (1989).

The SCONE model is therefore applied by security service providers on their security personnel so that a wholesome service is provided to retailers and their customers

2.1.2 Security System:

The security systems, according to PACOM (2020), who develops and manufactures the leading security system in the industry, are part of the variables that are under the control of the retailer. When it is put into best use, it can be very effective in its delivering results to the bottom line. The security systems help a retailer to run their businesses with ease, cost effectiveness and preventing any form of danger.

Security systems equally protect retailers' assets, provide safety for not only the staff but also the customers. It allows a retailer, whether in small or large-scale businesses, to safely control

and run their business with better efficiency and make them identify some risks to the bottom line that could result from any of the following:

- inventory shrinkage
- staff turnover
- false alarms
- environmental losses

2.1.3 Cyber Security

Cyber security is a way of protecting from harmful programs our computer systems, which include the servers, our mobile devices, the electronic system networks we use, as well as the data input stored on the systems (<https://www.kaspersky.com>). Cyber security is equally referred to as information technology security or what is called electronic information security. The concept is adopted in various contexts, which range from mobile system to business, while it can be broken down into some common categories, which include:

A. Network security: this is a way of protecting a computer system network from unwanted access, which can come either from targeted attackers or some opportunistic malwares.

B. Application security: this concentrates on preserving and protecting system software from harmful threats. If an application is compromised, it could provide the threats access to the data which it is built to protect. Hence, to ensure success, application security starts from when it is designed, that is, prior to the time a program is deployed.

C. Information security: this secures the integrity and privacy of data, either in storage or in transit.

D. Operational security: this is a way of providing adequate protection for our data assets. It provides a user the permissions when trying to access a network, while it equally determines the location and process through which the data is kept secured or is shared

E. Disaster recovery and business continuity: Disaster recovery explains the way through which a business reacts to a cyber-security events or any other that results in the loss of data or system running. It dictates how a business repairs and rebuilds its lost data and system running to restore back its normal capacity or its operations prior to the loss. Business continuity, on

the other hand, refers to the alternative program a business falls back on in its attempt to run the business in the absence of the lost resources.

F. End-user education: This focuses on the people with the most volatile cyber-security factor. A user has the tendency to by accident initiate a harmful malware to a system that is ordinarily secure when she fails to observe proper security process. An organisation, as a matter of necessity, needs to educate all users to trash any email attachment they suspect, and that they do must not insert any unidentified USB drives to ensure the security of the organisation system.

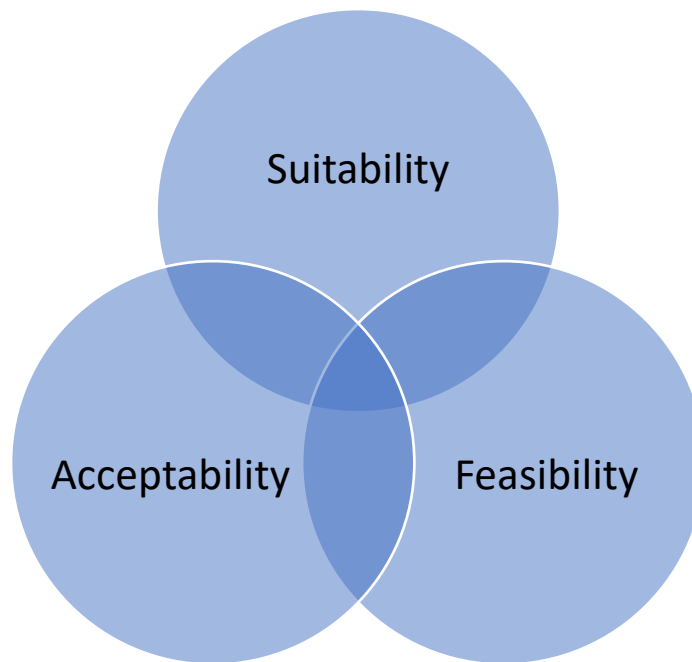
2.2 Strategic Gap Analysis

According to Johnson, et al (2014), gap analysis is conducted by organisations in order to compare achieved or projected performance with desired performance. When this analysis is conducted, organisations can identify performance shortfall and when projecting, future problems can be identified (Cohen, K., and Cyert, R. 1973). The size of the gap provides the extent to which adopted strategy has to be changed.

In evaluating the performance of existing security solutions in retail sector, it is imperative to apply gap analysis so that the actual performance can be separated from the potential.

Since security solutions are seen as strategies for deterring and combating retail crimes, it is imperative to assess their present suitability, acceptability and feasibility so that areas of improvement can be identified.

Figure 3: Evaluating existing strategies



According to Johnson et al (2014) Suitability of strategy deals is concerned with assessing whether the strategy adopted or proposed can reduce threats to organisational existence or provide key opportunities.

In assessing the acceptability of a strategy, the likelihood of acceptable return is considered.

While feasibility of a strategy deals with assessing whether the proposed strategy works in practical terms.

Each of these evaluation criteria will be applied to existing security solutions in the retail supermarkets so that further adjustments or improvements can be made where necessary

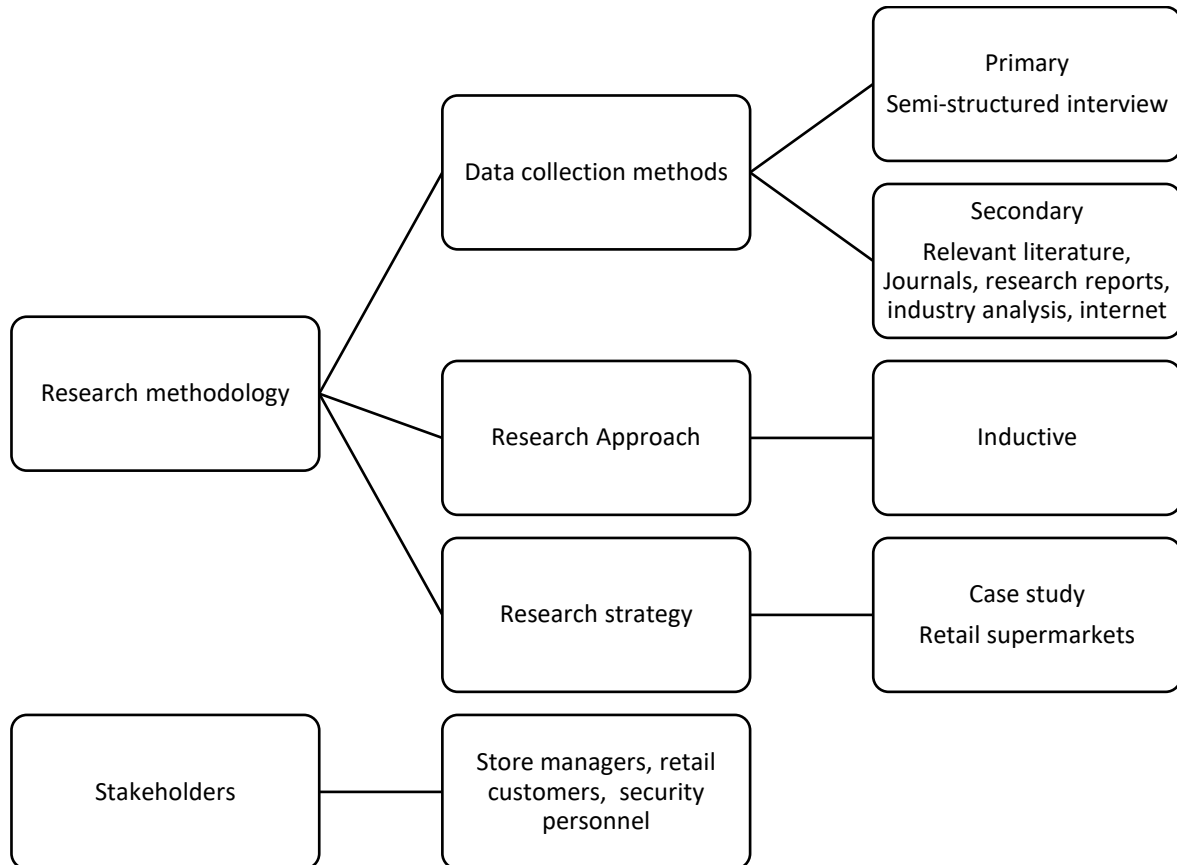
2.3 Life-cycle analysis

Life-cycle analysis deals with the assessment of a strategy in line with the stage its adopters are in the industry life-cycle (Johnson et al, 2014). The retail sector is at a point where crime rate is on the increase according to reports from the centre for retail research (2019). It is therefore imperative to analysis the life-cycle of security solutions provided to combat crime in order to see if they are out of date or outsmarted by criminals.

Chapter Three

Research Methodology

Figure 3: Research Methodology



3.1 Research methodology

Research methodology is the set of systematic technique that will be adopted in this research. It serves a guide which determines the direction of how the research will be conducted. It equally tells what methods of analysis will be adopted in the research. It will shed more light on the presuppositions and consequences of the research; it will relate to the two's potentialities and where they need to be advanced the more in the body of knowledge.

As a concept, taking a closer look into “research methodology”, one would notice that it consists of two independent terms, “research” and “methodology”. A clearer understanding of each term will give a better understanding of the concepts as a whole and a better appreciation of its importance to the development of this research.

Methodology: This is an attempt to put into logical and academic perspective the methods adopted in carrying out this research as it applies to business security in the retail sector. It is carrying out the analysis of the subject-matter of the research from the standpoint of theoretical framework that is associated with a security in the retail sector which is the focus of this research. As Irny and Rose (as cited in Igwenagu, 2016) notes, methodology generally covers ideas which include phases, theoretical model, paradigm and quantitative or qualitative techniques.

It is not in the scope of a methodology to generate solutions to academic problems or challenges; this differentiates it from a method. Unlike method which is the means through which the problem is resolved, methodology provides the theoretical basis through which we understand what system, set of methods or best process an academic problem or challenge can take to get it solved. (Valsiner J. (2017)

Research: This is a systematic investigation into the reality around us, so as to understand, reflect upon and see how it can be improved upon. For example, this research comes up as a result of the urge to understand the realities, dynamics and way to improve the security issues in the retail sector. In order to achieve its aim, the research adopts the means available to it in data and efforts of thought. The research makes use of collated evidence and authoritative sources within and outside its immediate field. Evidence from data collected together with the right authority provides the research with rich sources for its hypothesis, which is founded experimental knowledge with the help of haphazard events. In other words, the research depends largely on events with the help of reflective evaluation to draw its conclusions. As a result of this, the research develops its hypothesis through the combination of evidence and authority that are well reflected upon.

3.2 Research approach

The research approach to this study is largely inductive with a little bit of deductive reasoning. That is, the research will combine both the skills of data collection and reflective efforts of thought to expose the realities about security issues in the retail sector, and to find how this can be improved upon. Inductive approach will help the research in its fact's findings and predictions, while the deductive approach would help the research in reflecting over the data collected and giving out accurate, productive and progressive predictions and recommendations.

3.3 Research strategies

Research strategies refer to the way this research proposes to approach the set of research questions and the way in which it plans to carry out its proposed methodology.

The four major types of research strategies which can be adopted include: (Walliman, N., 2006)

- 1 case study,
- 2 qualitative interviews,
- 3 quantitative survey, and
- 4 action-oriented research.

Two of these will be discussed in this section

- **Case Study:** This a kind of research strategy which its main focus is on a comprehensive study of a particular incident like one security issue or entity like one retailer or a little amount of cases. Generally, when talking about case study research, we seek data from various sources by making use of diverse sets of data, which include primary source of data like direct interview, field survey, experimental observations, and secondary source like literature analysis. The data collected can be in form of qualitative, can also be quantitative or a combination of the two. In case study research strategy, we are allowed to conduct a combined and multifaceted study of the subject-matter.
- **Qualitative interviews:** This kind of research strategy comes in various forms. It is majorly based on interview which can be structured, semi-structured, unstructured. It is a very popular and rich way of collecting information about an issue to be studied. This research strategy requires on the part of the researcher various skills to carry out this strategy. Such skills include a proper human interaction, listening ears, and communication skills (Braun, V., and Clarke, V., (2013). Part of the shortcomings of this strategy that a researcher needs to take note is the fact that to conduct interviews can also be time-consuming, and the interviews can be inaccurate or biased, hence, the researcher needs to reduce this tendency while designing plans for the interviews.

This research will rely heavily on case study strategy which is applicable to the research, because the focus of the research may not be on a particular case or a particular organization, but on set of organization in form of supermarkets in the retail sector. Also, the research will employ qualitative interviews. It will help in providing firsthand information from the concerned people in the retail sector.

3.4 Data collection

Primary and secondary research methods will be adopted in this research in its data collection. These methods are preferred because (i) primary method will provide the research with unadulterated first-hand information which will present the issue at hand in the clearest picture and give the research a better understanding of the realities at hand. (ii) The secondary method, on the other hand, will allow the research to further pursue information in order to achieve a broader perspective to the issue.

Primary research

The primary method of research to be employed is qualitative interviews.

Secondary method

The secondary method will include a careful review of extant literature on the subject-matter. And this will be with helps from books, journal articles and the internet.

3.5 Targeted audience or sample population

Targeted audience will be drawn from supermarkets and this will include managers, other relevant workers and some customers

200 managers will be interviewed from as many retail businesses.

3.6 Ethical consideration

This deals with the way I will approach participants in the research. First and foremost, I will ensure that the full consent of participants will be obtained prior to conducting the interview. The dignity, privacy or decision of the respondents will be respected and they will not be coerced or cajoled into giving responses. Only relevant components of the research will be accessed or followed and the personal data of the respondents will be protected according to the GDPR provisions.

Chapter Four

Data Analysis

4.1 Tools for Analysing Data

The tools to be used in this research is Thematic analysis which is an appropriate method of analysing qualitative data that the research will make use of. This method of analysis, as commonly used, will be applied to a set of literature which are from secondary sources and interview transcripts to be gathered from primary source (Saldana, J., (2009). Through this method the research shall carefully examine the data collected to identify common themes, that is, ideas and patterns of meaning which is common to the data collectively (Braun and Clarke, 2006).

The advantage of thematic analysis is that it richly described data set and provides an informed and theoretical interpretation of meanings. (Guest et al, 2012)

There are many approaches to the use of thematic analysis, but the research shall adopt the most common approach which follows a six-step process: (Fugard and Potts 2015).

- Familiarization
- Coding
- Generating themes
- Reviewing themes
- Defining and naming themes
- Writing up

Thematic analysis, in its nature, is a flexible method so can be easily adapted to the purposes of this research (Willig, C., 2013)

It can be used to for mixed method which means it can be used to analyse secondary data as well which is suitable for this research. (Gale, N., and Heath, G.,2013).

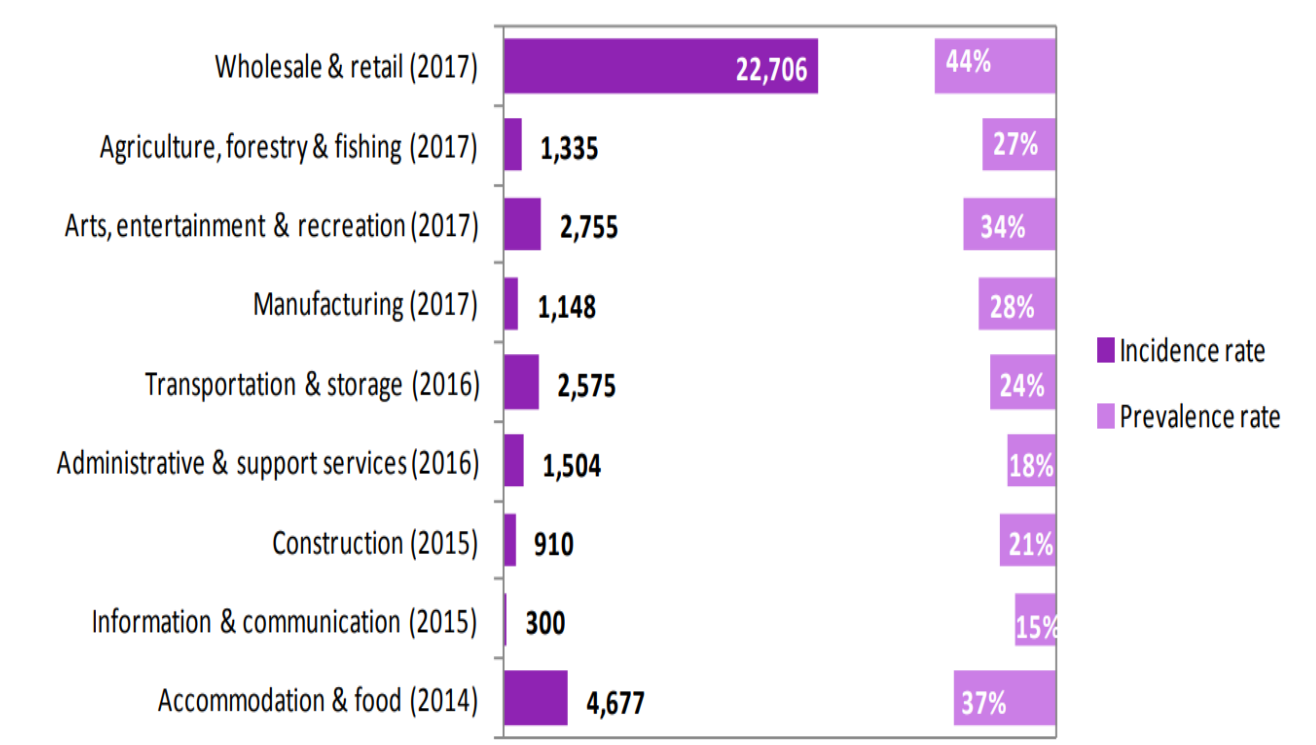
4.2 Secondary data analysis

In dealing with secondary data, some existing information and research will be analysed for the purpose of this study and inferences will be made.

According to the findings of the Commercial Victimization Survey (CVS) from the 2017 released by Sarah Osborne (2018) from the Home Office, among all sectors investigated, retail supermarkets happen to have persistently witnessed the largest rate of business crime (this survey is well explained in the Figure 5). There was no significant improvement especially in

the investigated period between 2014 and 2017 on the security challenge facing the sector. However, earlier before this period, there was a significant reduction in number of businesses witnessing a crime in this sector, especially in terms of theft and vandalism.

Figure 5: Security challenges from the survey carried out by the CVS (except online security challenge) per 1,000 businesses and proportion of businesses that were victims, by sector, 2012 to 2017 CVS



The rate of theft especially in the wholesale and retail sectors is not only the highest but has not also displayed, in terms of statistics, any significant improvement in comparison with the 2012 CVS. There is increase in the losses businesses record as a result of these thefts especially when they are compared with the 2012 CVS, and these affect the most goods worth over £50.

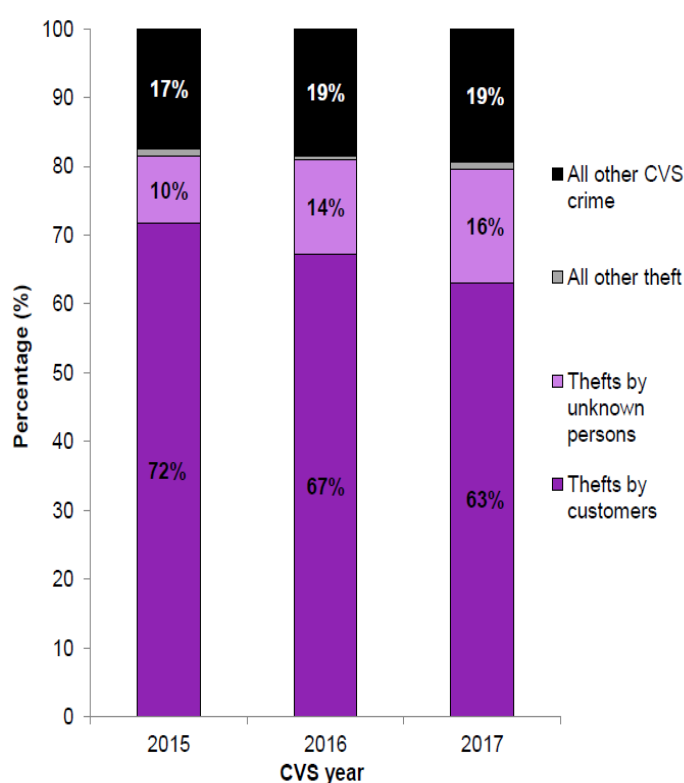
In 2016 and 2017 it is reported that the goods that suffered theft the most are food and grocery. For instance, about 30% of the cases of theft involved food and grocery in 2017. Meanwhile low value goods like milk and bread are affected most, about 53% of the reported cases happens to be these items.

With retail sector suffering the most, the trend of crime in the both the wholesale and retail businesses seems to be the larger the business the larger the rate of crime. In 2017, for instance,

businesses that have over 50 workers witnessed more than 280,000 occurrences of crime per 1,000 scenes. On average, such rate is equivalent to each store with over 50 workers witnessing more than 5 crimes every week. Meanwhile, businesses that have between 10 and 49 workers witnessed a much less crime rate, only about 66,000 occurrences for each 1,000 scenes. The crime rate in small businesses with less than 10 workers got even lower with only about 5,000 for every 1,000 scenes.

In 2017 the survey carried out by CVS reveals that both wholesale and retail businesses witnessed about 8.1 million crime incidents (this is explained in Figure 6). Out of the incidents, 81% are thefts and, particularly, nearly 63% being theft by customers—this means they recorded 5.1 million shoplifting incidents. The rate of crime in shoplifting by customers revealed no significant improvement from 2016 survey. Meanwhile, we cannot undermine a significant reduction recorded in comparison with the year 2015, a period that the rate was 72%. However, between 2012 and 2014, the rate was just about 50% before the considerable increase was recorded in 2015.

Figure 6: The rate of shoplifting out the crime rate recorded by CVS in both the wholesale and retail sector from 2015 to 2017



Source: Home office publication on ‘Crime against Businesses’ 2018

Table 1
Retail Shrinkage and Crime 2019 UK

Source of loss	£millions	As percentage of shrinkage
External theft (shoplifting)	£1,993	34.6%
Internal theft (staff theft)	£1,305	22.1%
Losses caused by suppliers & warehouse crime	£915	18.0%
Crime subtotal	£4,214	74.7%
Error	£1,202	25.3%
Total shrinkage	£5,416	100.0%

Source: Centre for Retail Research UK

The table above also shows the amount of loss to retailers attributed to shoplifting which is the highest on the table. This is the retail crime for 2019 .

On the other hand, the table below shows the projected increase or decrease in retail crime. Customer theft and organised retail crime is expected to increase by more than 30% combined.

Table 2
Retail Crime Estimates 2019 UK

Source of loss	£millions	Increase/decrease
Customer theft	£1,471	+8.7%
Organised retail crime/gangs	£562	+21.4%
Staff theft	£1,305	+1.2%
Supplier & warehouse crime	£915	+4.6%
Robbery/burglary	£118	-2.1%
Criminal damage	£36	+3.1%
Cybercrime	£414	+18.6
Total Retail Crime	£4,821	+8.7%

Source: Centre for Retail Research UK

Focusing on retail sectors, we can present data of cases of shoplifting and many attempts to curb it. Just as the stage this research is in, Zakirov (2017), with the aid of Loss Prevention District Manager (LPDM), present a “secondary analysis of administrative data study” on

shrinkage in retail businesses and how it is minimised. For the fiscal year 2014 a uniformed Loss Prevention Agent (LPA) was presented, while for 2015 an undercover LPA, all in three shifts daily. For two fiscal years, the rate at which goods were recovered in term of its cost was presented. This gives an insight into the total amount of goods in pounds the shoplifting could have cost. Also the total amount of incidents for each year was presented to show the helpfulness and performance of LPAs for each year. The combined total of the rate was presented to help identify the overall cost of goods that could have been lost to the shoplifting for each fiscal year and to see the pattern evident the two years.

The shifts to be considered are: 1st Shift: (8am – 4pm), 2nd Shift 2 (4pm – 12am), 3rd Shift (12am – 8am). All are in the fiscal years 2014 and 2015, while the three LPAs who cover for the shifts in 2014 are the same undercover, they only changed their uniform to undercover in 2015. One of the LPAs was a 35-year-old woman, while the other two were men of the ages of 43 and 25 years respectively.

Table 3

Percentage of Stolen Merchandise for 2014 and 2015

Range of Amount in \$	Frequency	Percent	Valid Percent
Valid 1-20	60	42,0	42,0
21-40	28	19,6	19,6
41-60	8	5,6	5,6
61-80	15	10,5	0,5
81-more	32	22,4	22,4
Total	143	100,0	100,0

As Zakirov (2017) explains in his research on US retail stores, Table 1 reveals the rate and percentage of goods recovered in 2014 and 2015. The rate of the goods recovered in these years that are shown within the prices of \$1-\$20 is 60 in number and that makes it 42% of the overall goods, those within the prices of \$21-\$40 are 28 which makes them 19.6%, those within the prices of \$41-\$60 are 8 which makes 5.6%, and so on. All these figures lead to one conclusion that the cases of shoplifting in the investigated period happens with the less expensive goods.

This could be due to the fact that such goods could easily fit into a customer's small purse or pocket, and that they do not always attract serious penalty even if the shoplifter is caught; the goods are always merely recovered without serious action taken against the perpetrator.

Table 4

The Rate of Incidents in 2014 and 2015

	Frequency	Percent	Valid Percent
Valid 2014 (Uniformed LPA)	54	37,8	37,8
2015 (Undercover LPA)	89	62,2	62,2
Total	143	100,0	100,0

He figures in Table 2 lead to one conclusion that the fact that the undercover LPA are not identifiable for the prospective shoplifters, the LPA is less capability of a guardian in the shop and this encourages the perpetrators to want to further carryout their thefts.

Table 5

The Rate of Incidents by Prices in 2014 and 2015

	Stolen in \$					
Year	1-20	21-40	41-60	61-80	81-more	Total
2014	24	13	1	4	12	54
2015	36	15	7	11	20	89
Total	60	28	8	15	2	143

The figures in Table 3 also lead us to the conclusion that the cases of shopliftings are prevalent among less expensive good regardless of the presence of either undercover or uniformed LPA.

Table 6**The Rate of Incidents by LPA Character in 2014 and 2015**

Valid	Frequency	Percent	Valid Percent
Female 35yrs old	48	33,6	33,6
Male 43yrs old	64	44,8	44,8
Male 25yrs old	31	21,7	21,7
Total	143	100,0	100,0

The figures in Table 4 reveal that the number of incidents carried out by each LPA does not have any significant difference, and this allows us to conclude that there is no security whose presence is more effective than the other

Table 7**The Number of Goods Recovered by the Presence of Individual LPA**

	Stolen in \$					
LPA's Presence	1-20	21-40	41-60	61-80	81-more	Total
Female 35yrs old	41	4	2	1	0	48
Male 43yrs old	8	16	5	7	28	64
Male 25yrs old	11	8	1	7	4	31
Total	60	28	8	15	32	143

The figures on Table 5 lead us to the conclusion that in the retail supermarket, the female and the 25-year-old male LPAs were more effective in incidents that have to do with the with the less expensive goods priced between \$1-20. On the other hand, the 43-year-old male is

effective incidents that have to do with goods valued at \$81 and above. However, they do not have any significant difference in their performances on goods of other prices.

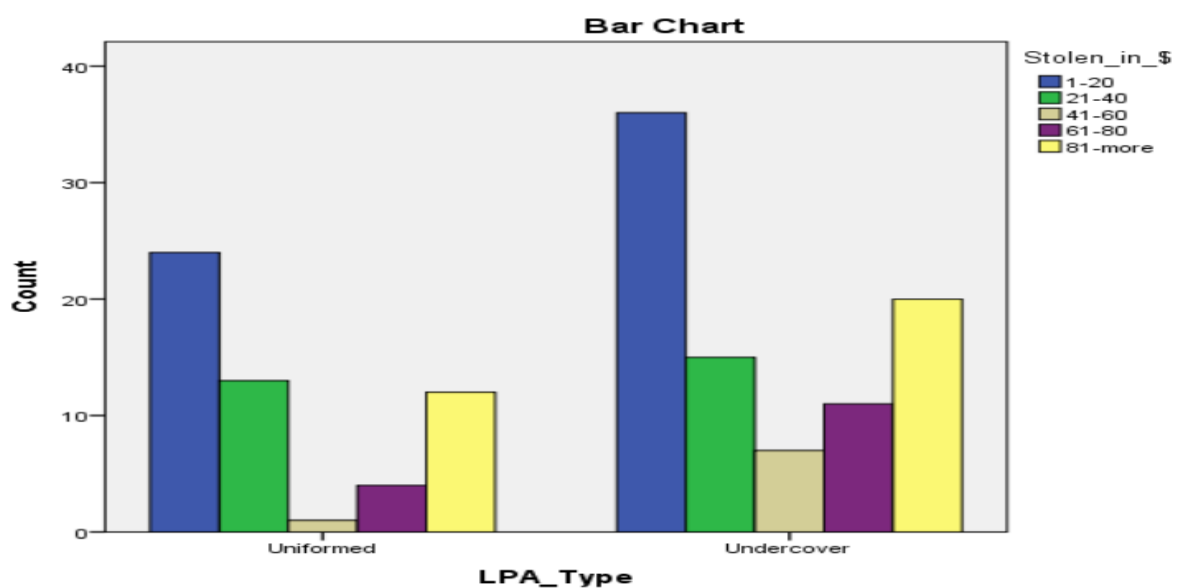
Table 8

The Number of Goods Recovered by Different Sets of LPAs

	Stolen in \$					
LPA Type	1-20	21-40	41-60	61-80	81-more	Total
Uniformed (2014)	24	13	1	4	12	54
Undercover (2015)	36	15	7	11	20	89
Total	60	28	8	15	32	143.

The figures on the table 6 lead us into the conclusion that an Undercover LPA has been more effective in the recoveries of goods much more than Uniformed LPA. Also if we compare the two fiscal years, 2014 and 2015, it found that a common pattern is maintained in the good recoveries, which is prevalent among those valued between \$1 and \$20.

Figure 7



The chart in Figure 7 shows that either there is no significant difference in the type of the LPAs present and that goods that suffered heft most either from the uniformed or undercover LPA is least expensive goods price between \$1-20.

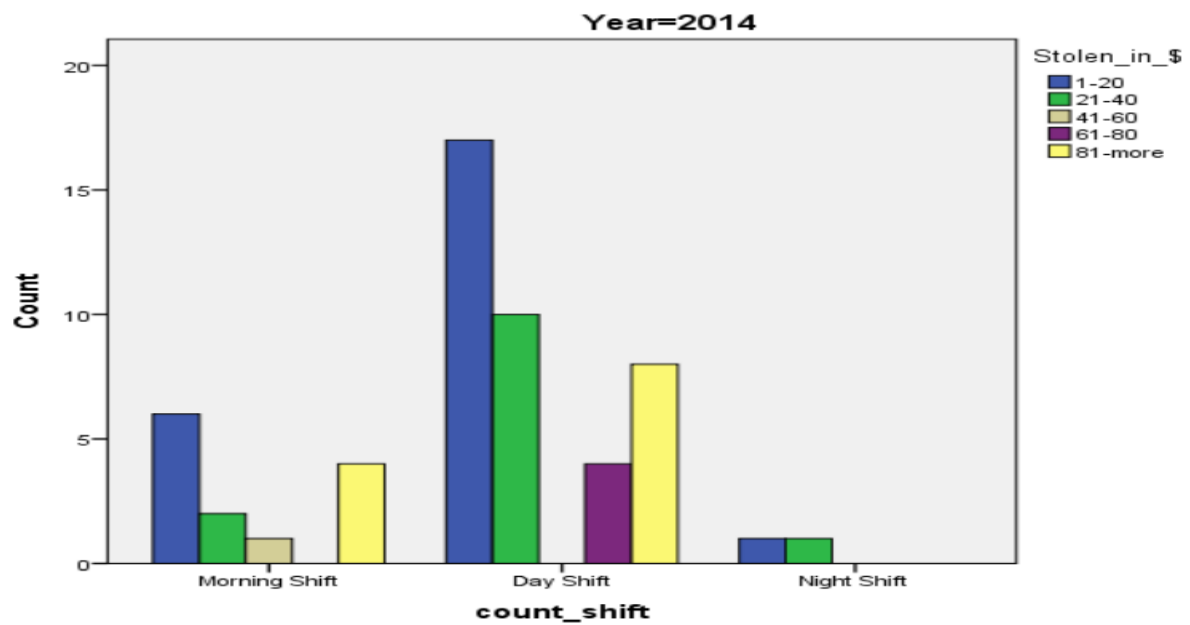
Table 9

The Rate of Goods Recovered by Price Range and Shift per Year

Year			Stolen in \$					Total
			1-20	21-40	41-60	61-80	81-more	
2014	count_shift	Morning Shift	6	2	1	0	4	13
		Day Shift	17	10	0	4	8	39
		Night Shift	1	1	0	0	0	2
		Total	24	13	1	4	12	54
2015	count_shift	Morning Shift	17	7	3	7	9	43
		Day Shift	18	8	4	3	7	40
		Night Shift	1	0	0	1	4	6
		Total	36	15	7	11	20	89
Total	count_shift	Morning Shift	23	9	4	7	13	56
		Day Shift	35	18	4	7	15	79
		Night Shift	2	1	0	1	4	8
		Total	60	28	8	15	32	143

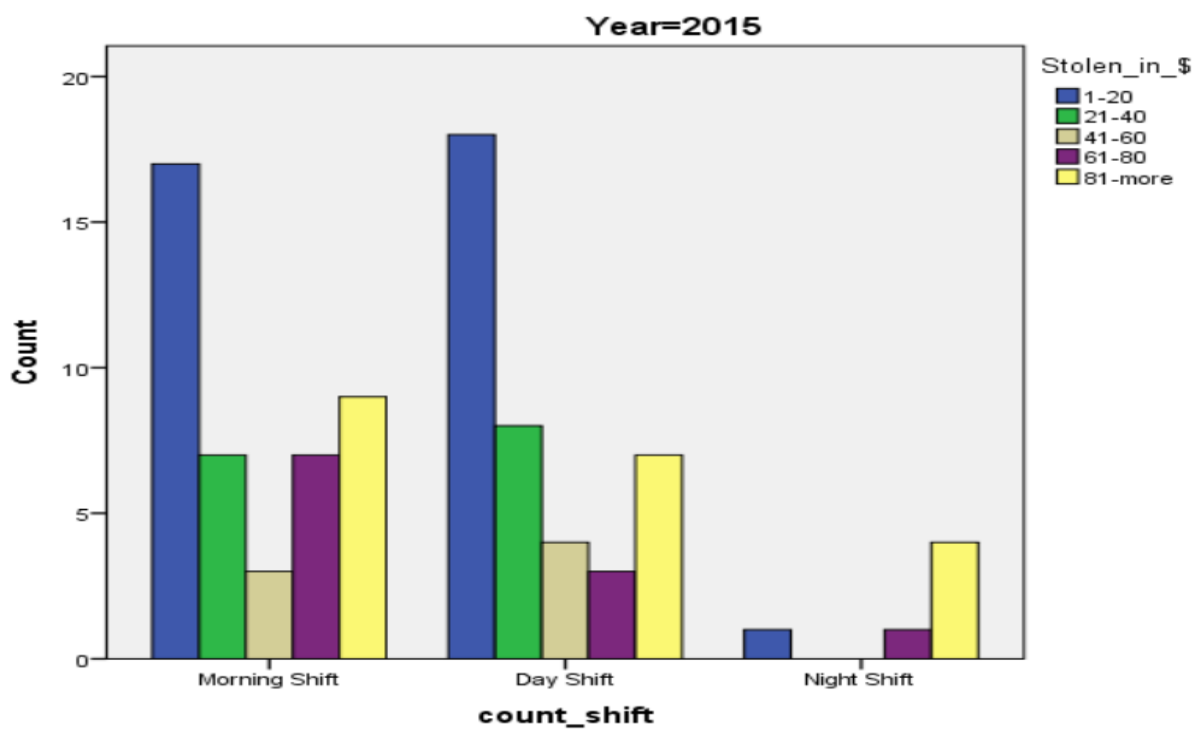
The figures in Table 7 lead us into the conclusion that the goods most commonly recovered is the same as the one stolen that appeared in the Figure 7, \$1-20, and this true with whether it is the day shift in 2014 or 2015. Also, it is found that the goods with price range from \$21-40 are next in line as the one which witnessed the most common cases of shoplifting and that recovered most during the day shift.

Figure 8



The chart in Figure 8 makes us conclude that the goods that suffered the most common case of theft in year 2014 are the ones priced between \$1-20 and that happens most during the day shift.

Figure 9



Unlike 2014, the chart in Figure 9 makes us conclude that in 2015 both morning and day shift witnessed the most cases of theft, and this, as always, is on the goods priced between \$1-20.

Table 10

The Total Number of shrinkage for fiscal years 2014 and 2015

Uniformed	Undercover
Shrink \$	
2014	2015
\$174000	\$184000

The figures in the Table 7 lead us into the conclusion that the fiscal year 2014 witnessed lesser shrinkage than 2015, and this was achieved by the uniformed LPA.

Conclusion/summary

The study has been able to show the alarming rate of security in both in the wholesale and retail businesses with more focus on the retail stores and how this need urgent attention is spite of the security measures adopted by these businesses. Facts and evidence were presented to support these claims, although with the support of secondary analysis of administrative data study that present charts, graphs, and analyses that are appropriate for the proposed study. Therefore it is concluded that the existing provision of security solutions in the retail sector needs serious improvements.

Chapter Five

Conclusion

The proposed research has been able to show that some of the issues that need our urgent attention include the increasing rate of crimes witnessed in the retail sector; the inadequacy of the extant security solutions provided so far by the retailers to combat the crime; the constant search of retail business for ways to improve the extant securities programmes they have; the need for the business to adopt new systems to allow them outsmart the shoplifters; the losses recorded through this criminal activities by the retail business; and the fact that smaller business suffer this crime the most. These stated facts lead the proposed research to one conclusion that the extant security solutions in the retail businesses call for urgent attention and improvements.

Recommendations

Coming from the conclusion of the proposed research, the recommendations of the research include: suggesting to the retail business LPA as one of their basic security strategies and most especially uniformed, because, as this research found, the uniformed is more effective than the undercover LPA in reducing theft in the store. The research equally recommends that there is a careful study to see if the blend of undercover and uniformed LPAs can produce a more effective security strategy for the store. Also it is recommended that the retailer can give precise and unambiguous instructions for the LPAs to guide their operations. Such instructions can enable a more reliable and promising job for the LPAs that many retail stores can adopt. All these can give room for more effective jobs with improved quality.

More importantly, the retailers need to seek more information concerning the efficiency of security strategies they want to implement. Such information will ensure better understanding of the types of security strategies that are appropriate for each store. They equally need a security record which they can always refer back to. This will help to identify which area of their security needs more attention and which needs to be abandoned.

Lastly, in addition to the human power recommended in LPAs, the retailers need to access improved electronic devices to cub any malfunction and further enhance the effectiveness of the LPAs

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