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FACULTY OF COMMERCE

DEPARTMENT OF ACCOUNTING

PLASTIC MONEY TRANSACTION PROCESSING PROBLEMS AND THEIR IMPACT ON INVENTORY TURNOVER: CASE OF OK-HWANGE (2016-2017).

BY

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This dissertation is submitted in partial fulfilment of the requirements of the Bachelor of Commerce (Honours) Degree in Accounting in the Department of Accounting at Midlands State University.

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DECLARATION

I, Chaliyanika Mulumbe. M, do hereby declare that this dissertation is entirely my own composition. All references made to works of other persons have been duly acknowledged. I have made it independently with the close advice and guidance of my supervisor.

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DEDICATION

I dedicate this research to my beloved family; my father and mother –Mr and Mrs Chaliyanika, my brothers Future, Bwami and Lezanguzi who supported me throughout my academic studies and in accomplishing this research. I greatly appreciate your commitment, sacrifice and devotion for helping me fulfil this dissertation and may the God Almighty continue to bless you.

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ABSTRACT

Inventory turnover ratio is a very important performance measure regards the efficiency and speed at which organisations turn inventories held into cash and/or sales. This research examined the impact of the continued decline of inventory turnover ratio on the profitability and survival of OK Hwange during the dominance of plastic money. This is because big supermarkets such as OK Hwange charge low mark ups over and above their costs with the aim of maximising sales volumes to remain profitable and competitive. To generate the information needed in fulfilment of this study, the researcher used both primary and secondary data collection methods. Information obtained through questionnaires and/or likert scales were presented on graphs, charts, tables and also analysed in percentage terms. Study findings have showed that OK Zimbabwe was failing to maintain and/or increase inventory turnover ratio during the time period when the use of plastic money as a retail payment system was dominant. The study also revealed that the decline in inventory turnover was due to problems affecting the transaction processing speed of plastic money. The following factors have been identified as have been hindering the efforts of big supermarkets dominantly using plastic money retail payment systems to increase and/or maintain inventory turnover ratio: poor network connectivity of plastic money retail payment systems, high dependency on smooth electricity supply of plastic money systems and the significant decline in cash supply in the economy. In conclusion, the researcher recommended strategies/measures to improve the efficiency of plastic money transaction processing speed which in turn will result in increased sales volumes, increased cost of goods sold and decreased closing inventories thereby resulting in high inventory turnover ratio.

TABLLE OF CONTENTS

TITLE	PAGE
Approval form	ii
Declaration	iii
Dedication	iv
Acknowledgements	v
Abstract	vi
CHAPTER 1-INTRODUCTION	
1.1 Introduction	1
1.2 Background of study	1
1.3 Statement of the problem	3
1.4 Research questions	3
1.5 Research objectives	4
1.6 Significance of the study	4
1.7 Limitations of the study	4
1.8 Delimitations of the study	5
1.9 Research assumptions	5
1.10 Definition of terms	5
1.11 Acronyms	5
1.12 Summary	5
CHAPTER 2-LITERATURE VIEW	
2.0 Introduction	7
2.1 Causes of inventory turnover decline in supermarkets	7
2.1.1 Inflation	7
2.1.2 Product life	8
2.1.3 Demand uncertainty	8
2.1.4 Overstocking	9
2.1.5 Poor marketing and sales	10
2.1.6 The banking model in Zimbabwe	11
2.1.7 Challenges of changing the payment systems	12
2.2 Efficiency of payment system in Zimbabwe supermarkets	13
2.2.1 Security	13
2.2.3 Customer service and processing speed.	14
2.2.4 Network connectivity and power supply dependency	15
2.3 Effects of plastic money payment speed on inventory turnover.	16
2.3.1 Impact of plastic money Inventory turnover	16
2.4 Possible solutions to improve inventory turnover in a cashless economy	18
2.4.1 The determinants of merchant card acceptance	18
2.4.2 How to have super-fast POS guaranteed	19
2.5 Summary	21
CHAPTER 3-RESEARCH METHODOLOGY	
3.0 Introduction	22
3.1 Research Design	22
3.1.1 Descriptive research design	22

3.2 Population and Sample	23
3.2.1 Target Population	23
3.2.2 Sample Size and Sampling Techniques	23
3.3 Data Sources	25
3.3.1 Primary data	25
3.3.2 Secondary data	25
3.4 Research instruments	25
3.4.1 Questionnaire	26
3.4.2 Likert Scale	26
3.4.3 Interviews	27
3.5 Data Collection Procedure	27
3.7 Data Reliability	28
3.8 Data analysis	28
3.9 Data presentation	29
3.10 Ethical considerations	29
3.11 Summary	29
CHAPTER 4-DATA PRESENTATION AND ANALYSIS	
4.0 Introduction	30
4.1 Quantitative and qualitative presentation and analysis of data	30
4.2 Inventory turnover decline at ok Hwange	31
4.3 Major factors that cause inventory turnover decline in supermarkets	32
4.4 The challenges on the efficiency of plastic payment system	35
4.4.1 Major challenges of plastic money that result in slow processing	35
4.4.2 The factors the affect the efficiency of plastic money processing speed	35
4.5 Impact of the challenges of plastic money transaction processing speed on inventory turnover.	38
4.6 Strategies to improve inventory turnover in plastic money dominated era	40
4.7 Interview questions	42
4.8 Summary	45
CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS	
5.0 Introduction	46
5.1 Summary	46
5.2 Main findings	47
5.3 Recommendations	48
5.3.1 Adopt a new Faster Payment Service	48
5.3.2 Enhancement of cashless retail payment systems used by supermarket	48
5.3.3Revamp and refurbish existing infrastructure that support cashless systems	49
5.3.4 Supplement plastic money system with effective cash system	49
5.3 Conclusions	49
5.5 Suggested areas of future study	50
5.4 Summary	50
REFERENCE LIST	51

LIST OF TABLES	
TITLE	**PAGE**
Table 1.1 OK Zimbabwe inventory turnover/days statistics 2010-2017	2
Table 3.1 population and sample size	24
Table 3.2 The Likert Scale	27
Table 4.1 Questionnaire/ Likert scale and Interview success rate	30

LIST OF FIGURES	
TITLE	**PAGE**
Fig 4.1 Employees' response on whether OK Hwange is facing inventory turnover decline or not	31
Fig 4.2 Factors that cause inventory turnover decline in supermarkets	32
Fig 4.3 Challenges of plastic in Zimbabwean supermarkets	35
Fig 4.4 Major challenges of plastic money as a payment system at OK Hwange	36
Fig 4.5 The impact of the challenges plastic money transaction processing speed on inventory turnover.	39
Fig 4.6 Strategies to improve inventory turnover in supermarkets using plastic money.	41

LIST OF APPENDICES	
TITLE	**PAGE**
Appendix A-Cover Letter	55
Appendix B- Questionnaires	56-61
Appendix C-Interview guide	62

CHAPTER 1

1.1 Introduction

The purpose of this study is to identify the problems of plastic money transaction processing speed in Zimbabwe and how they impact inventory turnover in supermarkets. The chapter sets out the parameters of the study and will focus on the background of the study, research objectives and research questions derived from the objectives. It will also include the statement of the problem, significance of the study which spells out why it is important for the researcher to carry out this study, limitations and delimitations of the study which show the boundaries of the study.

1.2 Background of study

Inventory turnover is a ratio that indicates the frequency inventory is sold in a given period of time (Hiiemaa 2016). Hiiemaa further highlights that a high inventory turnover ratio is usually preferred although this may vary from industry to industry. One of the most common cause of declining inventory turnover in supermarkets is the fall in sales (Taylor 2018). Results of a study by Dube & Gumbo (2016), revealed that the payment system in use at any one supermarket has a significant bearing on the sales generated. The results indicated that the majority of Zimbabweans use their money for transactional motive in cash at the expense of other forms. Any change in this norm was perceived to have an impact on sales and turnover.

Mangudya (2016), in his press statement remarks noted with concern the prolonged cash outcry in Zimbabwe. In response to the crisis, on 4 May 2016, he announced the promotion of plastic money for settling all domestic transactions. Since the adoption of plastic money, Ok Zimbabwe has recorded the least inventory turnover post multicurrency era. Chingono (2017) in his article, "POS glitches frustrate customers", argues that some of the problems associated with using plastic money in Zimbabwe such as network offline, card switching failures, card reading failures and transactions failures; resulted in very slow transaction processing speeds to serve a large clientele hence undermining the fast uptake of stock to increase profitability in supermarkets.

Table 1.1 below provides statistical information of inventory turnover trend for OK Zimbabwe post multicurrency adoption era. The trend shows that since the adoption of

multicurrency as the medium of exchange and as a dominant cash payment system, stock turn performance ratios were favourably high for OK Zimbabwe. Also exhibited is the fact that the chain store' stock turn performance started on a high note at 11.04 (33 days) in 2010.

Table 1.1 OK Zimbabwe inventory turnover/days statistics for the years 2010-2017

YEAR	INVENTORY TURN	DAYS IN STOCK	INTERNAL STOCK RATE	VARIANCE
2010	11.04	33	30	3
2011	10	35	30	5
2012	9.6	38	30	8
2013	8.7	41	30	11
2014	9.2	39	30	9
2015	8.7	41	30	11
2016	7.7	47	30	17
2017	7.3	48	30	18

Source: OK Zimbabwe, "Annual Reports', viewed 8 January 2018

Although the years after 2010 recorded turnover ratios lower than 11.04 (33 days), OK managed to maintain 8.7 (41 days) as its minimum ratio. The year 2011 recorded a ratio of 10 (35 days), followed by a ratio of 9.6 (38 days) in 2012, 8.7 (41 days) in the year 2013, 9.2 (39 days) in 2014 and 8.7 (41 days) in 2015. However, the years 2016 and 2017, when plastic money dominated, OK, for the first time, recorded a ratio below 8.7 (41 days). In 2016 it recorded a ratio of 7.7 (47 days) and in 2017 it recorded the least ratio of 7.3 (48 days).

The Chief Executive Officer OK Zimbabwe in his 2016 published financial statements report asserts that increases in inventory and slow stock turn resulted in difficulties to forecast sales. He also noted with concern the repetitive failure by various retail outlets to meet sales targets and the resulting negative impact of mark downs from this mismatch. His report is also supported by the results of OK Hwange, where sales targets were missed by $10 000 in both the years 2016 and 2017. The Branch Manager's financial statements reported actual sales of $500 000 in the year 2016 compared to a target of $510 000. The year 2017on the other hand, recorded $590 000 worth of sales versus a target of $600 000. He further noted that mark downs were on an increasing trend as they stood at $40 000 in the year 2017 and at $30 000 in the preceding year.

Generally, supermarkets are high volume uptake institutions and their success depends on high stock turn (Averkamp 2018). The rate of stock turn at any one given time, it is

perceived, is very much influenced by the efficiency of the payment system in use. As it stands, it is only until when the government of Zimbabwe and the financial service providers answer the call by improving the plastic money supporting infrastructure that supermarkets can provide an efficient POS payment system to boost sales. (Nyoni and Bonga 2017).

1.2 Statement of the problem

Supermarket chains like OK Zimbabwe operate in a very competitive environment and they must strive to maximise sales volume to remain buoyant. Usually they charge very insignificant mark ups over and above their cost to lure a large customer base with the aim of benefiting from the economics of high inventory turnover to earn and sustain profits. Since the peak of plastic money in Zimbabwe,2016 to 2017, statistics from the financial statements of OK Zimbabwe reveals the difficult by the supermarket chain to maintain or increase inventory turnover hence the suspected contributing factor to the declining profits. The declining inventory turnover performance has resulted in supermarkets making significant mark downs in an attempt to push obsolete stocks and lower holding costs. This study seeks to unravel the problems encountered by local supermarkets in their failure to increase inventory turnover in a plastic money transaction dominated era, their effects on profitability and find possible solutions to these problems.

1.4 Research questions

Main research question

- What measures can be put in place in organisations to increase inventory turnover so as to improve profitability and reduce mark downs?

Sub research questions

- What are the causes of inventory turnover decline in Zimbabwe supermarkets?
- Is plastic money transaction processing efficient in the operations of supermarkets in Zimbabwe?
- What are the effects of plastic money transaction processing speed on inventory turnover?
- What measures can be put in place to improve supermarkets inventory turnover in a plastic money embraced economy?

1.5 Research objectives

- To identify causes of inventory turnover decline in Zimbabwe supermarkets.
- To evaluate the efficiency of plastic money as a payment system in processing transactions.
- To examine the effects plastic money transaction processing speed on inventory turnover.
- To recommend possible solutions to improve inventory turnover in a plastic money embraced economy.

1.6 Significance of the study

The study is of august as it strives to identify ways to improve the efficiency of plastic money transactions processing systems embraced by local supermarkets with an aim of maximising stock turn, sales volumes, profits and customer satisfaction. The study will also come as an aid to various innovative economic technocrats in pooling ideas, plans and/or strategies on how entrepreneurs could overcome the challenges they face in maximising sales volume thereby maximizing opportunities to boost profits.

To OK Zimbabwe and other local supermarkets in Zimbabwe the study will bring to light new and independent ways of transacting sales in a plastic money dominated economy.

To the researcher the study will be more an academic leap than a step as it will mark the beginning of a new era in the academic research world. In essence, the study will boost the researcher's confidence to carry out more studies in the near future. It will boost the researcher's appetite in finding out more about the challenges and opportunities in Zimbabwe. The researcher also grants permission to fellow students, who will find the study useful, to use it as a reference point in their academic studies. To the university the study will be used for guidance purposes for other studies in this same field. Also the research is a requirement by the Midlands State University to be evidence for completion of an Honours Degree in Accounting.

CHAPTER TWO

1.7 Limitations of the study

- The supply of inaccurate information or estimates may have resulted in the researcher reaching biased conclusions and poor evaluations as information was not readily availed by junior personnel due to confidentiality policies stipulated by the organisation.
- Employees in bigger supermarkets work on very busy schedules and were very difficult to reach to help with answering questionnaires and interviews.

1.8 Delimitations of the study

- The study will restrict its focus to OK Hwange retail outlet in Hwange CBD and is only going to cover events during the period from the year 2016 through to 2017.
- The research will only cover the performance of inventory turnover at OK Hwange retail outlet.

1.9 Research assumptions

The following assumptions were encompassed during the research.

- OK Hwange is following the policies announced by the Reserve Bank of Zimbabwe to embrace plastic money in facilitating transactions.
- The efficiency of plastic money processing speed does not change during the period of study stipulated.

1.10 Definition of terms

- Plastic Money-Refers to the use of debit or credit card system as an alternative to cash in settling payments for goods or services
- Stock Turn-Hiiemaa (2016) is a ratio that indicates how many times inventory is sold during a given period.

1.11 Acronyms

- ATM- Automated Teller Machines
- ICT-Information and Communication Technology
- POS- Point of Sale
- RBZ- Reserve Bank of Zimbabwe
- CBD-Central Business District
- COGS- Cost of Goods Sold
- GSM- Global System for Mobile communication

1.12 Summary

The chapter focused on the identification of the problem and its setting. It also highlighted on the background of the study which stood out as the justification of carrying out this study. Also included were the objectives of the study, the research questions and the statement of the problem. In conclusion, the purpose of the study, the definition of terms, assumptions of this study, scope and anticipated limitations were also outlined by the researcher.

LITERATURE REVIEW

2.0 Introduction

Magwa & Magwa, (2015) define literature review as the description of the literature pertinent to a specific field or topic which attempts to describe, summarise, evaluate, clarify and integrate the context of the primary reports. In this chapter the researcher seeks to explore and discuss the conceptual and empirical literature on the challenges, effectiveness, impact and strategies of plastic money adoption as a payment system in quickly turning inventory in retail firms specifically chain supermarkets in Zimbabwe.

2.1 Causes of inventory turnover decline in supermarkets.

This section seeks to identify, explore and explain the causes linked to the decline of inventory turnover ratio in the business world, specifically big supermarkets. Various literature reviewed has pointed to a number of causes that result in the decline of inventory turnover ratio and amongst others these include; inflation, product life, demand uncertainty, overstocking and poor marketing.

2.1.1 Inflation

Mack, (2018) noted that when consumers anticipate having less buying power in the near future, they tend to hoard stocks while their money is still valuable. In the same vein if retailers anticipate inflation they tend to stock more inventory while prices are low. He further explains that when general prices eventually start to rise, consumers tend to buy very few goods and retailers will be found holding abnormal closing inventories and low cost of goods sold resulting in low turnover rates. Avenir, (2018) also opined that the choice of accounting method used in the valuation of closing and opening inventory may be influenced by inflation. He noted that the assumption based on First in, first out (FIFO) is that the first units purchased or manufactured will be the first units sold. The assumption of this valuation method during inflation results in a decrease in cost of goods sold and high closing inventory valuations, since COGS value will be based on prices during the time when such prices are least expensive and closing inventory values will be based on the latest prices high prices.

2.1.2 Product life

Momin, (2017) defines a life cycle of a product as a marketing tool that denotes the different phases through which products undergo during their life on the market. He further highlighted that when products are launched they usually undergo a number of stages of demand and technological standing. He asserts that products deemed to be more innovative last longer on the demand scale while those deemed to be less innovative usually last for short periods Johnson, (2012) opined that organisations must be focused on knowing what phase products they are dealing with currently occupies in the market, what their next phase will be and how they should outline inventory management plans to reduce inventory costs. He argues that a number of organisations ignore and/or lack the knowledge of accurately identifying what stage of life-cycle the products they are dealing with occupy until they are found holding excess inventory they cannot sell. This results in them holding high and obsolete closing inventories and low cost of goods sold hence low inventory turnover rates.

Lohrey, (2018) inventory turnover ratio is influenced by the phases undergone by products on a product lifecycle. Momin, (2017) highlighted that during the introduction and growth stage products usually experience high demand hence organisations tend to hold high safety stocks to meet this demand. He further noted that at maturity and decline stage, demand for products usually tend to fluctuate and/or decline. Robinson, (2014) opined that at introduction and growth stage, organisations usually hold low closing inventories as inventory uptake is usually high due to rapid growth and expanding distribution. On the other hand, at maturity and decline phase, he noted that retailers tend to hold large closing inventories due to weak demand and competition eventually resulting in obsolete products. Lohrey, (2018) echoes that during the introduction and growth phase turnover rates tend to increase due to product popularity and eventually decline at the peak and maturity phase due to factors such as market saturation, improvements to existing technologies and changing customer preferences. However; Momin, (2017) argues that this may not be the case during periods where increases in demand may be slow at introduction and growth stage resulting in organisations holding excessive closing safety stocks. He also noted that some products have long life span hence they may still sell even at maturity or decline stage.

2.1.3 Demand uncertainty

Lohrey, (2018) product demand fluctuations attributable to factors such as seasonality have a substantial influence on inventory turnover. He postulates that inventory turnover rates increase substantially just before a season begins as retailers will be holding low inventory at high costs, level off during mid-season due to low cost of goods sold and low inventory holding and then plummet when the season is over as retailers will be holding more safety stock at lower cost. Nordmeyer, (2018) further postulates that there is uncertainty in product demand shifts through time in the life of a product. She articulated that retailers face significant uncertainty during the introduction and growth stages of the product, relative stability during maturity, and increasing uncertainty at decline stage. She further opined that uncertainty at the introduction and decline level pushes the need for safety stocks which might eventually result in over-abundance of inventory held. Peltz et al, (2015) echoes that when consumers' needs for stocked inventory instantly declines with less warning time than the order lead-time horizon, retailers tend to find themselves with excess obsolete inventory. He further noted that when lead time lengthens, forecasting become susceptible to error because it works well when demand can be estimated from trends and it breaks down when unanticipated events occur that change the trend.

Luthra & Rosham, (2012) noted three questions that pose a big challenge in managing inventory holding and these are: Whether to keep any safety stock? How much safety stock to maintain to prevent lost sales and minimize inventory carrying costs? They argue that while literature point to the reorder point as the solution but use of such tool calls for retailers to have exact information about demand and lead time for procuring a product. They emphasised that demand is uncertain hence retailers will always find themselves holding high safety stocks. Nordmeyer, (2018) supports that business organisations rely on forecasting to project demand and to schedule inventory procurement. He noted that inventory levels rise if inventory procured exceeds sales and falls if sales exceed procured inventory.

2.1.4 Overstocking

Davis, (2017) opined that expanding retail chains tend to increase inventory holding to cater for new outlets/branches. He noted that, usually, the operating performance of new stores start on a very low note and supplying them with bulk inventories may result in the group store overstocking. He further explained that these large stocks, in new branches, tend to

distort the performance of inventory turnover patterns downwards until the new stores/branches gain a consistent operating performance. For instance, OK Zimbabwe group of chain stores has been on an expansion move since the year 2011. The chain store has established 12 new stores/ branches countrywide, closing the year 2017 with 63 outlets in total. (OK Zimbabwe, 2017). Gaur, (2014) proved that inventory turnover is positively correlated with firm size. Results of his study contributed that inventory turnover increases with size at a slower rate for large firms than for small firms hence as big firms continue to expand beyond certain levels they contribute more to overstocking than efficiency.

Robinson, (2014) asserts that the unpredictable nature of independent demand creates the need for organisations to hold extra units'/safety stocks to avoid shortfalls or stock outs. He noted that as more customer service is provided, a firm can expect sales to increase. He also articulated that the challenge faced by retailers is that logistical costs increase as firms strive to perfect customer service and in the same vein inventory turnover decline as they hold too much inventory. Lightspeed, (2014) opined that retailers have a tendency to purchase too many of a particular item to take advantage of discounts and save money. He further highlighted that such practice by retailers can only reduce cost if they are perfectly certain the inventory acquired will sell without which additional stocks may mean over-abundance of stale inventory hence low turnover rates

2.1.5 Poor marketing and sales

Davis, (2017) retail marketers are expected to lure as many consumers as possible and make every effort to convince them to buy so that retail inventories are turned into sales and also kept at manageable levels. He further highlighted that their focus must be centred on providing the right product to consumer, ease of product accessibility, communication that appeals the consumer and good pricing strategies. He asserts that poor sales result in increasing closing inventories which in turn bring about low inventory turnovers. Wyman, (2014) added that retailers should not only focus their effort in negotiating cheap restocking deals yet overlooking the need to push the purchased inventory to the market resulting in them holding bulk and/or obsolete inventories.

Kokemuller, (2018) marketing is necessary in promoting awareness of an organisation's products and to motivate the purchase behaviour. He noted that big organisations need assertive people who consult customers and make purchase recommendations. Without these communications and selling strategies, he asserts that, inventories may remain on the shelves

because customers are not aware of the benefits they get from them. Musadik & Azmi, (2017) argues that besides the attractive marketing strategies used by the retail marketing teams, other factors also contribute towards the consumers' buying decision. He points to other factors such rise in employment, wage increments and minimum wage increase, rise of household disposable income as the main drivers of sales and high inventory uptake.

2.1.6 The banking model in Zimbabwe

Chishamba, (2011) noted that the banking model in Zimbabwe sets stringent conditions to new and/or aspiring bank account applicants who seek to open bank accounts. For example, the majority of banks were demanding high initial deposits, payslips and proof of residence from applicants, a move deemed to be a stumbling block to the development of e-payment systems given the fact that about 70% of the Zimbabwean economy is informal. She argues that the conditions set have resulted in low levels of plastic money user adoption hence consumers continue to be more comfortable with cash transactions. However; Mlilo, (2017) noted that most of the banks in Zimbabwe were issuing a maximum cash withdrawal cap of $50 a day. They argued that this cap in cash withdrawals coupled with the stringent bank cards acquisition resulted in a formidable reduction in sales consequently leaving retailers holding large closing stocks.

On a different note; Ajah, (2014) opined that network failures in banks has also posed a big challenge in the fulfilment of cashless transactions resulting in users' dissatisfaction in using cashless payment infrastructure. Highleyman, (2014) opined that a single downtime event for big retailers, such as OK, has a significant impact to its sales and inventory levels especially when such an event happens during a holiday shopping season. He noted that such inefficiencies usually result in retailers losing customers to their competitors hence resulting in low sales, low cost of goods sold and high closing inventories.

Trend Micro Incorporated, (2013) asserts that a cashless payment system requires efficient network connection in order to contact external credit card processors. They further highlighted that this network connection can be provided either via a cellular data connection or by in-house internally controlled networks. Ajah, (2014) noted that in Nigeria and many other developing countries, POS are linked to the banks through the network of GSM service providers such as Econet, Netone and Telecel. He highlighted that connection via GSM

service lines are shared, there are also used for voice calls and short messages services, which might point to the poor network connection services in these countries. He argues that service providers are supposed to provide dedicated lines for PoS transactions.

ZimSwitch Technologies (2013) in Zimbabwe, POS are made convenient by the use of a public switching platform, ZimSwitch, which helps account holders of registered banks to access their accounts from retail checkout points. ACI Worldwide (2015) a case study of Hy-Vee inc, a chain store in the USA, proved that implementing an internally controlled in-house switching platform increases the speed of serving customers at checkout points. They highlighted that in-house switches gave the chain store control on card payments authorisation, processing and transaction checks hence eliminating the inefficiencies associated with public switches.

2.1.7 Challenges of changing the payment systems

Cruijsen, Hernandez & Jonker, (2015) changing payment patterns is a challenging task. They proved that consumer preferences for plastic money do not usually match their actual buying behaviour. Results of their study showed that while seven out of ten Dutch consumers reported to prefer using the plastic money, only seven out of twenty actually paid using plastic money. Bagnall et al, (2014) also proved that the use of cash decreases with the increase in transaction size. The results of their study showed that cash payments formed a larger share for the smallest 50 percent of transactions while for the largest 25 percent of transactions, plastic money dominated the transactions settled across countries. Trutsch, (2017) supports the idea that transaction characteristics such as transaction size and the type of good purchased are major factors in predicting payment choice at the POS.

Plooij, (2015) asserts that cash payments at point-of-sales (POS) is still higher than that of plastic payments in countries like Netherlands. DNB/DPA (2014) shows that in 2013 Dutch consumers used cash more frequently than plastic money at the POS. Cash was used 3.8 billion times, representing a value of EUR 47 billion while debit cards were used 2.7 billion times representing a value of EUR 85 billion. Mlilo, (2017) opined that Zimbabwe is mired by serious cash shortages and business players have heavily relied on plastic money in fulfilling transactions. Moneris (2016) suggests that embracing a wide range of payment methods may come as a solution in increasing sales and inventory turns in turn.

There is very limited literature that has been explored on the causes of high inventory days/or decline inventory turnover. The researcher has very much relied on the mathematical relationships of the components that form the inventory turnover formula and the methods of inventory valuation assumptions to identify some of the causes.

2.2 Efficiency of payment system in Zimbabwe supermarkets

The researcher has been probed in comparing cash and plastic money as retail payment systems for one major reason. Plastic money appears to be attractive since card transactions, just as cash, are pervasive and fast, making it a possible and suitable substitute for cash (Runnemark, Hedman and Xiao, 2015).

Adeoti, (2013) defines an electronic payment system an electronic means of making payments for goods and services procured online or in supermarkets and shopping malls. Arango & Taylor, (2012) summarises the factors that hinder the efficiency of using cash as follows: counting, sorting and reconciling requirements, robberies; use of counterfeit bank notes; frauds; inconveniences of carrying large quantities of currency notes; long period of waiting in bank halls, frequent trips to banks and risk of human error during the exchange. Adeoti, (2013) on the other hand summarises the challenges of efficient use of plastic money as network failures, poor connection, frequent power outage; limited numbers of POS terminals per merchant store and security loopholes of communication over the network. Kumari & Khanna, (2017) defined POS terminals as electronic devices that are deployed to retail outlets where shoppers swipe their electronic cards through them in order to fulfil their payments for goods or services without using hard cash. They highlighted that POS terminals are always online real-time allowing customers' bank accounts to be debited immediately for value of purchases made or services enjoyed.

2.2.1 Security

Trend Micro Incorporated, (2013) articulates that one of the most considerable POS risk to businesses and customers lies in accepting electronic payments. They highlighted that information about customers stored in plastic card mediums is at high risk of theft by cybercriminals who can use the information to commit fraud. Symantec, (2014) further

opined that while much have been done to ensure security in the use of plastic money, cybercriminals still find a gap to let the users exposed. He points the exposure to this risk as being attributable to general security weaknesses in corporate IT infrastructure and malware virus infection.

Trend Micro Incorporated, (2013) argues that business organisations have implemented very strict security measures that make it almost impossible for cybercriminals to gain physical access to POS devices to infect them with malware though access is still very possible. He asserts that one possibility to gain such access could be through disgruntled employees or a well-disguised attacker who may gain access to a system and manually install an information-stealing malware into it. Symantec, (2014) also argued that secure card readers which have the abilities to defeat RAM-scraping are now available. He asserts that such card readers encrypt the card data at the time of swiping resulting in the credit card number remaining encrypted throughout the process even within the memory and underneath network-level encryption.

2.2.3 Customer service and processing speed.

Adeoti, (2013) plastic money is a very fast and speedy means of completing financial transaction. He postulated that its efficiency cannot be compared with cash. Ajah, (2014) also added that plastic money has provided consumers with increased convenience, more service options, reduced risk of cash-related crimes, cheaper access to banking services and fast access to credit. Arango & Taylor, (2012) asserts that in a competitive sales environment the consumer taste for payment methods widens and this may compel the retails to fulfil the consumer preferences to increase/boost sales. He further noted that when merchants offer assortment in payment methods, consumers can choose the method that suits them, depending on their preferences and perceptions of the costs and incentives associated with each.

Retail computer solutions. (2016) asserts that higher checkout productivity can be achieved by using POS. They argue that customers would be served much more quickly compared to the case were traditional cash systems are used. Green et al, (2015) argues that if payment system speed is measured by the time it takes for money to change hands, then cash may be viewed a fast payment mechanism. On a different note he also highlighted that if payment

system speed was measured on the basis of the duration it took to transfer money from one account to another, cash could be deemed a slow payment instrument.

Arango & Taylor, (2012) deem cash payments as being labour-intensive as they involve a lot of time to when counting, sorting, performing cash payments reconciliations, and preparing deposits. Adeoti, (2013) noted that despite the dominant superiority of electronic payment options, most business transactions are still pre-dominantly consummated with the use of cash. Dalinghaus, (2017) also added that in a modern monetary system, legal tender in the form of cash, is still an important public good that guarantees ease of use, a certain level of privacy and accessibility. She challenged the proponents of electronic payments that in their quest to restrict or eliminate cash they must as well consider beneficial qualities of cash that supplement the cashless economy

Chingono, (2017) further argues that some of the problems associated with the use of plastic money in Zimbabwe such as network offline/failures, cards switching failures, cards reading and transactions failure have resulted in very slow transaction processing speeds to serve a large customer base hence undermining the fast uptake of stock to increase profitability in supermarkets. Dalinghaus, (2017) also articulated that most of the inconveniences caused by a cashless option, cash has remained an essential tool to people's financial practices and lives. She further reiterates that although cash as a payment system also involves costs; she argues that the costs associated with cash can be viewed to be far less than a complete dependence on digital payments as cash does not require digital access through a third party in order to be used or accepted

2.2.4 Network connectivity and power supply dependency

Trend Micro Incorporated, (2013) systems that support plastic money require network connection to contact external credit card processors. Ajah, (2014) identified some of the causes of network failure as being articulated to shared bandwidth, frequent power supply outage, system hardware and software failures, use of non-resilient products, inefficiency of banking software in handling changing business requirements and human error in the configuration of network. Retail computer solutions, (2016) bank network failure pose a big challenge in the connection and fulfilment cashless transactions and this may result in

consumer dissatisfaction in using cashless payment infrastructure. They opined that downtime attributable to network failure has resulted in obstruction of quick transmission of cash to recipients' accounts as well as not dispensing cash when requested by the users.

Dalinghaus, (2017) when power dirruptions occur the electronic system is usually shut down. She highlighted that frequent shut downs result in both the retailer and society losing trust in the reliability and safety of the electronic payment system. Nyoni & Bonga (2017) argue that the current power supply in Zimbabwe is very poor with major cities like Harare and Bulawayo still in short supply. They further noted that consistent and undisturbed electricity demands that come with internet payments, banking facilities, ATMs and ZimSwitch facilities require smooth power supply. Okoye and Ezejiofor (2013) opined that the fact that these optional means to cash calls for the need that the various media that support the system should be online, real-time and every time-power supply should be always be smooth and consistent.

A lot of studies have measured payment system speed as the duration it takes to transfer money from one account to another rather than the time it takes for money to change hands. In the same vein the empirical studies that are related to the use of plastic money as a payment instrument are mostly foreign researches conducted in advanced countries of the world. This suggests a gap that researchers should seek to fill.

2.3 Effects of plastic money payment speed on inventory turnover.

This section seeks to bring to light the impact of slow payment speed associated with plastic money payment system on inventory turnover ratio in big, high inventory uptake, chain stores. Emphasis is on economies that have recently adopted plastic money in developing countries like Zimbabwe.

2.3.1 Impact of plastic money Inventory turnover

Averkamp, (2018) defines cost of goods sold as the cost of inventory or products that have been sold to customers during a given timeframe. He highlighted that when a merchant sell product from inventory held, cost of goods sold increase by the cost the retailer paid for them. Machuca, (2017) on the other hand defines closing inventory for a retailer or distributor as that merchandise that was purchased but has not yet been sold to customers at the end of the

year. Peth (2015) asserts that every time a retailer sells goods, the inventory of the respective products decline and the speed at which inventory declines depends on checkout speed.
She further noted that the effect of the sales made would be compensated by a rise in costs of goods sold.

Wilkinson, (2013) the value of cost of goods sold and closing inventory are used to calculate inventory turnover ratio. He defines inventory turnover as a measure of the number of times the entire inventory of a retailer is sold during an accounting period. Bragg, (2017) to determine inventory turnover ratio the cost of goods sold during a period are divided by the ending inventory on hand. Averkamp; (2018) opined that decreasing sales will decrease cost of goods sold which decreases the numerator of the inventory turnover ratio. He further highlighted that a corresponding increase in inventory held increases the denominator of the inventory turnover ratio. Thus, both a decrease of sales (and cost of goods sold) and an increase in inventory will cause the inventory turnover to decrease.

FuturePay, (2018) asserts that payment options are an important element of increasing sales. Green et al (2015) opined that if payment system speed is measured by the time it takes for money to change hands, then cash is a fast payment mechanism. On a different note he also highlighted that if payment system speed is instead measured as the duration it takes to transfer money from one account to another, cash could be deemed a slow payment instrument. BIS, (2017) articulated that a fast payment system is one with the ability to complete a payment almost instantly and at any time. Chingono, (2017) argues that plastic money, in Zimbabwe, is associated with delays such as banks offline, cards switching failures, cards reading and transactions failures which undermines its ability to fulfil retail transactions immediately. He further highlighted that these delays have cost the retail sector a large share of sales and inventory uptake as would have been the question given a cash system resulting in high closing inventories and low inventories expensed as cost of goods sold.

Nyoni & Bonga, (2017) further emphasised that the high dependency of plastic money on constant and smooth power supply means that frequent absences of electricity would expose retailers to poor connections and slow check points. Dalinghaus, (2017) opined that it is worth remembering that something important as electricity cannot be undermined. For example, in India the average number of days (in a given year) lost to power outages from its

public grid was 67.15 days in the year 2006. The same catastrophe can be said with Greece which experienced an average of 2.65 days without power in 2005. Likewise, Albania lost more than 194 days in the same year of 2005. Pakistan is on record to have been ranked first on a list of countries most prone to financial losses due to power outages, with a staggering loss of 33.8% of sale value. The days lost due to power outages point to the number of days with slow and poor payment systems hence resulting in lost sales and inventories uptake and low turnover.

However, Kumari & Khanna, (2017) argue that the time spent counting and sorting cash every time a transaction is made, when using the cash system, compromises the speed of completing transactions hence also resulting low sales, high closing inventory holding and a small value of inventory expensed to cost of goods sold. Retail computer solutions, (2016) supports that higher checkout productivity can be achieved by using plastic money. They argue that customers will be served much more quickly compared to if they were being served using a traditional cash system. FuturePay (2018) asserts that retailers in the modern day world have realised the tremendous value of accepting a wider range of payment options. They argue that there is no industry standard nor best practice for adopting and implementing a perfect mix of payment options to maximise inventory turnover.

Most of the literature reviewed point to the fact that retailers in practice use more than a single payment method to boost sales, reduce cost of goods sold, minimise inventory holding, suit consumer preference, spread risk and fight competition hence comparing the impact of a single payment system is almost impossible.

2.4 Possible solutions to improve inventory turnover in a cashless economy

This section seeks to explore ways to improve the speed and efficiency of plastic money as a retail payment system with a view that fast and efficient retail checkout points contribute to fast inventory uptake. It is perceived that fast inventory uptake will result in low closing inventories and high cost of goods sold values attributable to high sales volume hence resulting to high inventory turnover rates. The study also seeks to identify the factors that hinder merchants to choose a payment method they believe will boost sales. It is also

important to bring to light the fact that changing a payment system is a process characterised with challenges exacerbated by factors such as consumers' strong habits and the need for payment choices both by the merchant and consumer to suit different preferences.

2.4.1 The determinants of merchant card acceptance

Bounie, Francois & Hove, (2015) contributed that when other factors such as cost, competition, and customer characteristics are held constant, the acceptability of a payment method by a merchant is very much dependent on the consumers' preferred method of tendering. In the same vein the results of a survey of Canadian merchants by Arango and Taylor (2011) also proved that the acceptance levels of payment methods adopted do not reflect the merchants' relative choice. For example, when merchants who accepted both methods of payment surveyed (cash and plastic money) were asked which method they preferred their consumers to use the most often, only 5 per cent favoured credit cards – whereas they did not accept plastic money at their stores. Arango and Taylor also find that as customers use an instrument more intensively, merchants increasingly value their choice.

Koulayev et al., (2015) opined that while there is some evidence that consumer card usage effectively drives merchant card acceptance, they view this evidence to be of an indirect nature in the case of payment cards. They stand to the view that the utility of a consumer for adopting a card system increases with the number of merchants who accept it and vice versa. Wright, (2011) added that merchants accept plastic money to lure away consumers who prefer to pay by card from rivals who do not accept cards. Rehncrona (2015) argues that it should be the responsibility of the retailer to offer the payment system to their customer in order to sell their goods, rather than that the consumer to offer different payment instruments to the retailer. Arango & Taylor (2012) noted that in a competitive sales environment, merchants may however be compelled to meet consumer demand for payment options.

2.4.2 How to have super-fast POS guaranteed

Green et al, (2015) many countries have implemented faster cashless systems that allow consumers and businesses to speed up the transfer of funds between bank accounts. They articulated that these cashless systems support faster authorization, clearing, and settlement, along with faster confirmation to the payer and payee of each money transfer. NACHA GPF (2013, p.14) define a fast cashless payment as "an interbank account-to-account payment that is posted and confirmed to the originating bank within one minute." The Board of Governors of the Federal Reserve System (BOG 2013, p.2) have on the other hand defined a fast cashless payment as a *"*real-time validation process assuring the payee that the payer's account exists and (that) it has enough funds or available credit to cover the payment; timely notification to the payer and payee that the payment has been made; and near-real-time posting/availability of funds to both the payer's and payee's account*".* Green et al (2015) attributed the reason for varying definitions to the fact that speed of electronic payment is measured with respect to four vary steps of the payment process: authorization, clearing, settlement and notification.

Beresford (2017) argues that the Clearing and Settlement Mechanism (CSM) in various money transfer systems, or Automated Clearing Houses (ACHs) in many countries, are not real-time. Green et al (2015) in 2008 the United Kingdom chose to implement a new Faster Payment Service (FPS) at the expense of improving the existing payment system. The adopted FPS separates the settlement stage of electronic payments from all other stages. They argue that implementing a faster payment system does not depend on instant settlements. Beresford, (2017) supports that gross settlements influences the speed of cashless payment system. He highlights that gross settlements execute transfers of funds by accomplishing a single complete transaction at a time, which may complicate or overload the network especially if the payment service results in a high volume of low-value transactions. Green et al, (2015) delaying settlements allow banks to aggregate several transactions into a single settlement, and this aggregation may facilitate netting, which reduces the amount transferred if banks transact in both directions.

Nyoni & Bonga, (2017) noted that the biggest question to many developing countries is, Whether the Information and Communication Technology systems and services on ground can effectively support successful realization of a smooth and fast cashless system? Ibrahim & Maiwada, (2014) noted the banking industry in many developing countries is going through tough times especially in fulfilling smooth and efficient e-payment solution platforms. They argue that performances of the financial infrastructures have been seriously

hampered and most of them are unable to perform efficiently as there are lot of complaints, queues, and frustrations in supermarkets and banks. Popoola, (2013) emphasised that provision of uninterrupted power supply, improvement of existing ICT infrastructure as well as the need to make internet facility available and affordable in all parts of the country remains the most important missing link on our way to economic transformation.

Sugar, (2015) asserts that with cashless systems, queues at checkout points tend to grow and this pose a challenge to retailers to keep wait times low and transaction numbers high. She argues that the time spent by customers waiting for receipts may be viewed long enough to contribute to delays at checkout points. Moneris, (2016) also argue that with the introduction of mobile payments there is no excuse for long queues in retail stores. He highlights that mobile payments has allowed retailers to offer mobile checkout from anywhere in their store using a smartphone or tablet to process purchases from wherever the customer is standing.

Sugar, (2015) suggests that issuing digital receipts can significantly contribute to decreasing customer checkout time and increasing sales volume in supermarkets. Green et al (2015) also supported that the move towards the elimination of thermal paper receipts has been achieved through the introduction of mobile payment systems. They highlighted that users who register their accounts can make payments using their mobile phone numbers without having to reveal their bank account details. For example, in Zimbabwe many mobile payment transactions in small retail shops are fulfilled without the issue of receipts.

There are several researches globally on the challenges of replacing cash with plastic money and on the inefficiencies of plastic money in countries that have recently adopted cashless systems but they neither analysed their impact on inventory turnover nor suggested solutions that will ensure improved or consistent inventory turnover in the retail industry.

2.5 Summary

This chapter highlighted the theoretical literature on the causes of inventory turnover decline in supermarkets, the inefficiencies of dominant payment systems used in supermarkets and the impact of payment systems speed on inventory. The researcher reviewed previous studies almost similar to the study in question. Study of literature enabled identification of knowledge gaps to be filled and the possible ways to improve plastic money payment system speed and efficiency in Zimbabwe.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter focuses on the practical procedures that were used by the researcher to answer the research questions. It provided a structure for the collection, measurement and analysis of relevant data. It also portrayed an explicit description of the research design, the survey procedure, sampling design, sampling procedure, sample size, data collection methods and/or instruments that were used by the researcher.

3.1 Research Design

Magwa & Magwa, (2015) defined a research design as the overall strategy that a researcher chooses to integrate the different components of the study in a coherent and logical way, thereby ensuring effective addressing of the research problem. It can be thought of as a general plan of how the research questions are to be answered.

3.1.1 Descriptive research design

A descriptive research design was used to collect data that describe what people see over and beyond the horizon. The design sought to reflect the beliefs, opinions as well as attitudes of the people. A descriptive research design method was chosen because of its ability to collect a large amount of original data, from a sizable population and in an unchanged environment for detailed analysis. It also lends itself as a flexible method of collecting data by allowing use of various collecting instruments such as questionnaires, interviews and likert scales

thereby bringing about ease of data collection. Besides, it allows the researcher to collect both quantitative and qualitative data which can be analysed quantitatively using descriptive and inferential statistics.

3.2 Population and Sample

3.2.1 Target Population

The target population consist of four hundred (400) OK Hwange consumers (average consumers served on two (2) tills per day) and sixty-four (64) OK Hwange employees. Saunders et al, (2012) described a research population as a collection of participants or objects known to have similar characteristics or large collection of individuals or objects that is the main focus of a scientific query.

3.2.2 Sample Size and Sampling Techniques

The researcher was guided by Krejcie and Morgan's 1970 model of estimating the sample size in determining the applicable sample size to be used in this study (Krejcie and Morgan 1970 in Solomon, 2017). Based on the results of their model, a sample size of 210 participants was needed to fulfil a fair representative of the targeted population size of four hundred and sixty-four (464) participants.

In selecting the participants of the applicable samples, the researcher used non-probability sampling means. The researcher opted for judgemental sampling. The samples selected were composed of fourteen (14) OK Hwange management team members, thirty-six (36) non-management employees (grouped into till operators/cashiers and other staff) and one hundred and sixty (160) Ok Hwange shoppers from only two (2) checkout points (serving an average of 200 shoppers/day) out of a total of twelve (12) checkout points currently in use.

Judgemental samples were used in an attempt to ensure fair representation of each sub-group in the population so as to produce improved estimates with less variation. All management staff were selected composed of; the Branch Manager, the Branch Accountant, the Branch

Buyer, the Branch Receivables and Dispatch Manager and ten (10) Till Operators Supervisors. These individuals were believed to have the most valuable information needed regards the performance of plastic money payment system and its impact on inventory turnover at the outlet in question. They manage the operations of OK Hwange. In addition, management were deemed to have ready and vast information about the past and present performance and even future plans and strategies for Ok Hwange Branch.

Non-management staff were grouped into till operators/cashiers and other general staff. The branch has twelve (12) till operators and all the twelve (12) were selected in order for the researcher to have a clear understanding of the efficiencies and challenges of the various payments systems used by the branch and how these affected inventory uptakes at checkout points hence affecting inventory turnover. Also included in this category were twenty-four (24) general staff members to supplement and add on to the views of management and till operators as they are the people who have day to day direct contact with both on shelf and backhouse inventory at OK Hwange.

The researcher has also found it worthwhile accommodating the feelings, opinions, beliefs and attitudes of OK Hwange shoppers as these are direct, frequent and/or everyday users of all payment systems adopted by the retail outlet. Shoppers can also be viewed as the being the people that influence and determine the retailer's choice of payment systems adopted. According to the results of a market survey conducted by OK Hwange, an average of 2000-3000 shoppers are served by the branch on 12 checkout points per day. Using one of the statistical central tendency measurement, the median, the researcher has estimated the average number of shoppers served per day to 2500 hence averaging to approximately 200 shoppers served per checkout point per day. Based on the above statistical analysis and using judgemental sampling, a sample of one hundred and sixty (160) shoppers was selected from two (2) checkout points out of a total of the twelve (12) in use, resulting in a one sixth (1/6) proportionate representation of all the checkout points.

Table 3.1 population and sample size

Title	Population Size	Sample Size	Percentage
Management	14	14	100%
Non-Management	50	36	72%
Average Consumers Served/Day/on 2 Tills	400	160	40%

Total	**464**	**210**	**45%**

The table above summarises the researcher's final sample size which is composed of a total of two hundred and ten (210) participants out of a targeted population size of four hundred and sixty-four (464) resulting in a 45% proportionate representation of the total population. The sample size also complies with the stipulated statistical minimum requirement of 33% proportionate representation of any given population size (Haralambos, 2012). Fourteen (14) out of the fourteen (14) management staff were selected constituting a one hundred percent (100%) representation, thirty-six (36) out of fifty (50) non-management staff were selected constituting a seventy-two percent (72%) representation and one hundred and sixty (160) out four hundred (400) shoppers were selected constituting a fourty percent (40%) representation.

The researcher collected data from a sample of two hundred and ten (210) respondents as follows: Six (6) management staff were interviewed, two hundred and four questionnaires/likerts were administered (8 to management staff, 36 to non-management staff and 160 to shoppers).

3.3 Data Sources

Both primary and secondary methods were used to collect data on assessing the impact of plastic money transactions processing speed on inventory turnover at OK Hwange Branch.

3.3.1 Primary data

Surbhi, (2016) defines primary data as that data which is originated for the first time by the researcher through direct efforts with the sole purpose of addressing a research problem. Primary data allows the researcher to effectively gather the required information thereby eliminating irrelevant data. In this regard, data was collected through the use self-administered questionnaires, interviews and Likert scales.

3.3.2 Secondary data

Wolf, (2016) defines secondary data as public information that other researchers and authors have gathered through primary research. The researcher collected data from financial reports, journals, internet, books and newspaper articles. Secondary data acted as a guide in identifying other factors that affects the efficiency of plastic and helped in suggesting

possible ways to overcome or improve those inefficiencies to boost inventory uptake. Secondary data was also found to be useful in supplementing biases that could emanate from using primary data sources.

3.4 Research instruments

The instruments employed by the researcher in collecting data included amongst others; semi-structured questionnaires, unstructured interviews and likert scales. The enlisted instruments were utilised to facilitate the data collection process as and when the use of any one of them became necessary. These instruments were employed to ensure a complete assessment and understanding of the phenomenon under investigation.

3.4.1 Questionnaire

McLeod, (2018) defines a questionnaire as a means of obtaining the feelings, beliefs, experiences, perceptions or attitudes of a given sample of individuals. In this study, questionnaires have appeared to be the most appropriate instrument for eliciting the sentiments of people regards the impact of plastic money processing speed on inventory turnover in supermarkets. This instrument has been given preference over other types of data collection instruments in that it is cheap, it does not require much effort from the researcher and it provides standardised answers making it simple to statistically/quantitatively summarise data. Using questionnaires also allows the researcher to collect data from respondents whom the researcher may never be able to contact physically.

Saunders, (2012) echoes that data obtained through self-completed questionnaires can be presented statistically. Data elicited by the researcher was statistically summarised and analysed in charts, graphs and tables. Despite the ease and benefits obtained from using questionnaires, data obtained by using this instrument was standardised making it difficult for the respondents to explain in detail some points embodied in the questions. Besides, some of the questions very much relied on past events to build up on present knowledge hence participants could be found having had forgotten some of the applicable important facts.

3.4.2 Likert Scale

Stephanie, (2015) defined likert scales as survey questions that offer a range of answer options from one extreme attitude to another. The researcher made use of the Likert-scale in rating opinion based data. The scale was composed of a mix of statements varying from positive to negative giving respondents the opportunity to just read and carefully chose the applicable rating by inserting ticks on the right boxes. The end points of the scale were typically strongly agreeing and strongly disagreeing to the phenomenon. Using the likert scale also obliged respondents to only express their opinions based on five alternative options as given on the scale. Among the five alternatives, the scale accommodated room for respondents to opt for a neutral rating allowing respondents to admit lack of knowledge were they felt they did not know anything about the phenomenon in question (Saunders, 2012). All in all, the likert scale also proved to be a quick and efficient method of collecting data in this study. Table 3.2 below illustrates the scale adopted by the researcher.

Table 3.2 The Likert Scale

Item	Strongly Agree	Agree	Uncertain	Disagree	Strongly disagree
Points	5	4	3	2	1

Source: Primary

3.4.3 Interviews

Stuckey, (2013) defines an interview as a direct attempt to elicit reliable and valid measures in the form of verbal responses from one or more respondents. Personal interviews were used by the researcher to obtain information from management staff. The researcher viewed interviews as being the best applicable method in gathering data from a small group of people. Interviews were also considered because they facilitated the recording of non-verbal communication, which comes in form of kinesics, proxemics, gestures and facial expressions. They also allowed the interviewer to make follow ups on ideas, to probe responses, to investigate and to motivate feelings; something which could have not been accomplished through the use of questionnaires.

However, interviews demanded more time compared to other instruments in facilitating, collecting and analysing the validity and usefulness of responses. More so interviews proved to lack anonymity hence respondents were hesitant in responding to questions they deemed sensitive.

3.5 Data Collection Procedure

The researcher sought audience with management staff who were selected to partake in interviews. Appointments with the interviewees were made possible through the use of emails and telephone calls. The interview sessions and questions were short and precise. A pilot study was performed before hand from a sample of five individuals to ensure that all questions were comprehended in a similar manner by all the research participants. Questionnaires and likert scale sheets were distributed by the researcher in person to the employees and shoppers that form part of the sample.

3.6 Data Validity

Saunders et al. (2014) defines data validity as the intensity to which research instruments used by the researcher can accurately measure the phenomenon it intends to measure. The researcher ensured that data validity was achieved in every step and process by ensuring that all questions administered were carefully and sufficiently designed. Professional advice, verification and checks were also sought to ensure subject agreement (face or content validity). Checking of correlation of the measure with other measured criterion and construct validity was done. The researcher also ensured that the right respondent answered the right questionnaire and/ likert scale. Discussion of answers by respondents was strongly discouraged.

3.7 Data Reliability

Hsiao, (2014) defines data reliability as the extent to which data collection instruments in question would avail similar results as would be the case given that the research was repeated allowing researchers to reach at the same conclusions and findings. Reliability of data was achieved by ensuring that interviews, questionnaires and/or likert scales were of recommendable length. Effort was also made not to include items deemed to be difficult, confusing and ambiguous on the part of participants. The researcher also ensured that questionnaires and likert scales were pilot tested and corrected beforehand (test-retest method and split-half method).

3.8 Data analysis

Orodho, (2016) data analysis is a structured organisation and grouping of data collected that allow appropriate conclusions to be made. Data collected using the research instruments in question was analysed using descriptive statistics viz a viz percentages and frequencies. The researcher also sorted, classified and coded data collected from research instruments according to the research questions to allow ease of identifying relationships and presenting data. The researcher made use of Microsoft Excel to analyse data collected. Microsoft Excel was used to sort, classify, sum and calculate percentages that related to various variables on which data was collected.

3.9 Data presentation

Stimpson & Smith (2015) suggests various ways that can utilised to present research data and these include amongst others tables, bar charts, pie charts, histograms and maps. Quantitative data collected was presented and summarised using descriptive statistical methods viz a viz tables, graphs and charts to enable easy understanding of the research findings Qualitative data was presented in the form of phrases. Effort was made to present data in a clear, concise and readable manner to allow the reader/user to easily comprehend the relationships within and across data collected. In some instances, actual results obtained were compared to theory as established under literature review.

3.10 Ethical considerations

Sudeshna & Shruti, (2016) articulated that ethical considerations are of paramount importance in research. Resnik, (2015) defines research ethics as the norms for conducting, planning and reporting a research that distinguishes acceptable and nonacceptable behaviour. The researcher ensured adherence to ethical considerations by committing to high levels planning research questions and the data collection process to ensure the research imparted authentic, true and accurate knowledge which is not misleading. Confidentiality of information gathered was strongly upheld by ensuring that data collected from OK Hwange was strictly used for nothing else but to achieve the academic purpose of accomplishing the aims of the research.

3.11 Summary

The methodology opted by the researcher was instrumental in guiding the study to investigating only relevant matters and maintaining coherence. Use of data collection instruments such questionnaires, likert scales and interviews were sufficient enough to ensure that the required data from the selected sample was obtained.

CHAPTER 4

4.0 Introduction

The crux of this chapter is on the presentation of data collected from the field through the use of questionnaires and interviews. The researcher made use of tables, charts and graphs to reveal the salient massage in the data hence facilitating interpretation and analytical interpretation of the raw data gathered.

4.1 Quantitative and qualitative presentation and analysis of data

Table 4.1 below shows an analysis of questionnaire and interview response rate.

Table 4.1 Questionnaire/ Likert scale and Interview success rate

Research Instrument	**Targeted Respondents**	**Successful**	**Success rate**
Questionnaires Shoppers	160	101	63%
Questionnaires Employees	44	36	82%
Interviews	6	4	67%

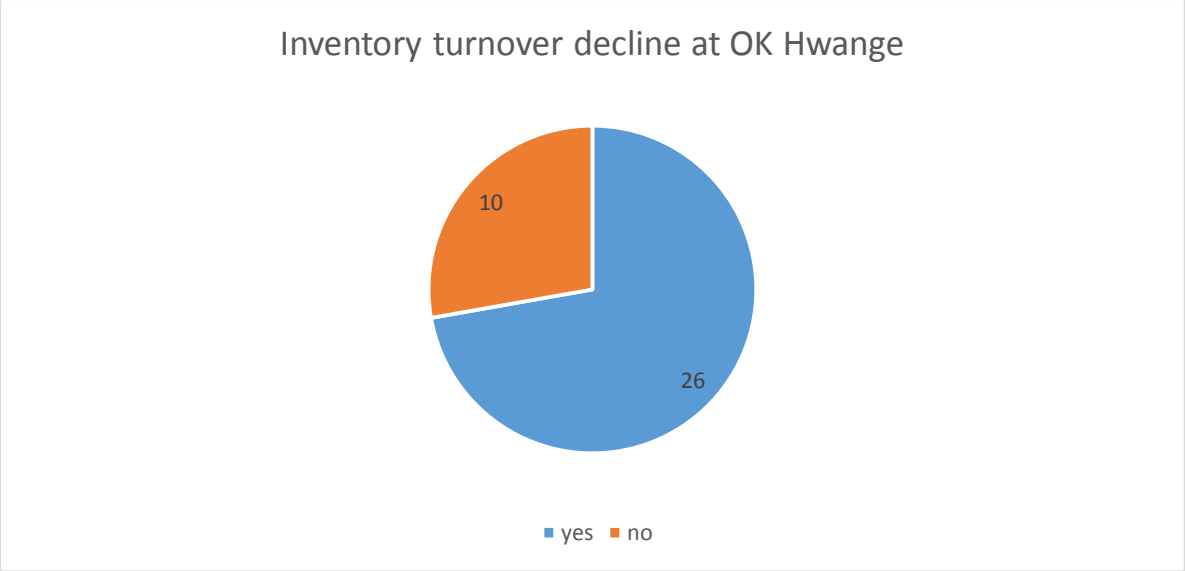
Total	**210**	**141**	**67%**

Table 4.1 above summarizes the results of the researcher's data collection process. One hundred and one (101) out of the targeted 160 consumer's/shoppers' questionnaires where responded representing a sixty-three percent (63%) response rate and thirty-six (36) out of the targeted fourty four (44) employees' questionnaires were responded representing eighty-two percent (82%) response rate. Dalene, (2014) postulates that questionnaire response rate should be more than fifty percent (50%). In view of this fact, the response rate can be deemed to be valid and reliable as it surpassed the articulated 50% minimum requirement. The targeted respondents were also perceived to be properly represented since till operators and shoppers who are deemed to be the everyday users of payment systems at OK Hwange also responded to the questionnaires.

The researcher also used interviews to collect data. Four (4) out of the six targeted interviewees where interviewed resulting in a sixty-seven percent (67%) response rate. Punch (2011) echoes that a fifty percent (50%) interview response rate is considered valid and reliable in collecting data, thus qualifying the interview response rate is this study reliable. The interviews were deemed to be august as they were meant to supplement and add value to the data collected from the shoppers and non-management staff. The results of these interviews were more or less in tandem with the answers in the questionnaires. The responses gathered from interviews with management were meant to cement the validity, reliability and accuracy of the phenomenon at the branch outlet. The interviews also availed an opportunity for the researcher to clarify and probe management so as to gather additional ideas and to give new dimensions of the study.

4.2 Inventory turnover decline at ok Hwange

Fig 4.1 Employees' response on whether OK Hwange is facing inventory turnover decline or not

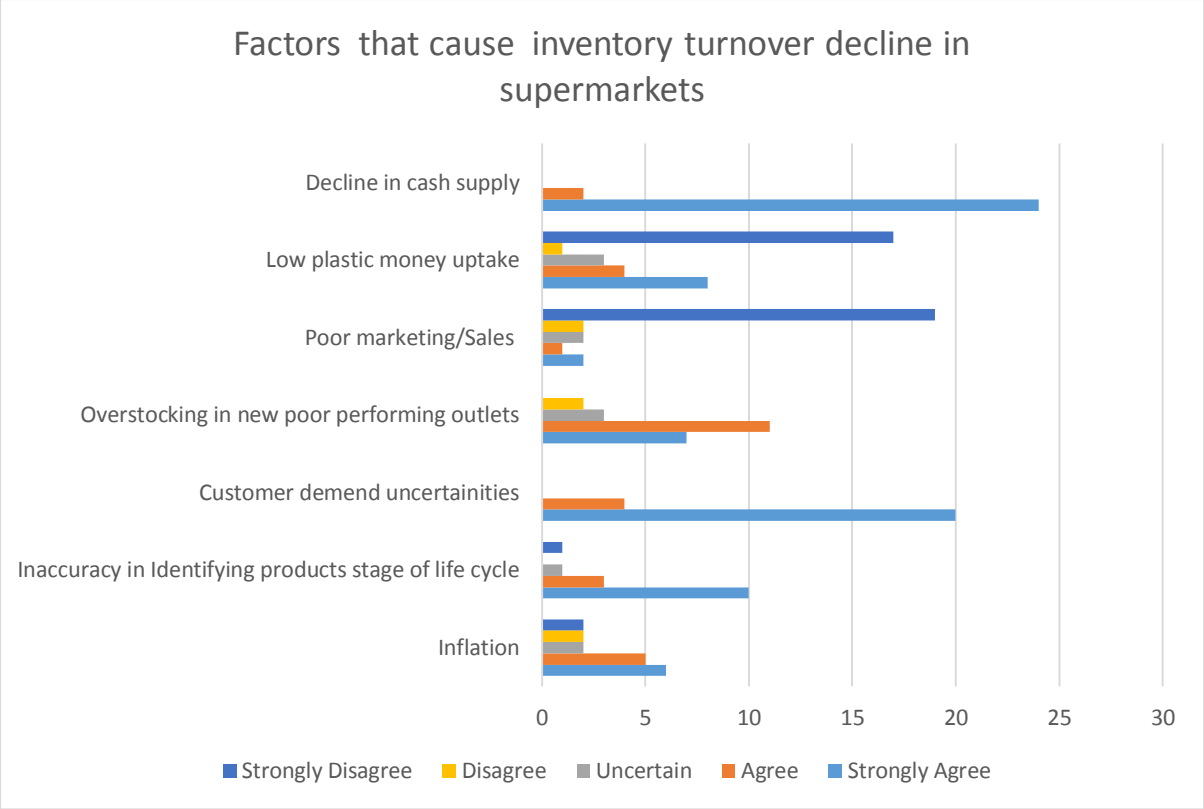


The pie chart above (Fig 4.1) shows the responses of OK Hwange employees regards the performance of inventory turnover at the outlet. When asked whether the outlet was experiencing drastic inventory turnover decline or not in the past two (2) years (2016-2017); twenty-six (26) out of thirty-six (36), (72%) of the questionnaires respondents agreed to the phenomenon. However, ten (10) out of thirty-six (36), 28% of the employees who responded to the questionnaires disagreed to the phenomenon.

4.3 Major factors that cause inventory turnover decline in supermarkets

The Figure (Fig 4.2) below shows OK Hwange employees' responses on the major causes of inventory turnover decline in supermarkets.

Fig 4.2 Factors that cause inventory turnover decline in supermarkets



When OK Hwange employees were asked on what were the major causes of inventory turnover decline in Zimbabwean supermarkets, (6/36) 17% strongly agreed, (5/36) 14% agreed that inflation was one of the major causes of inventory turnover decline. On the other hand, (2/36) 6% were uncertain, (2/36) 6% disagreed and (2/36) 6% strongly disagreed that inflation had an effect on inventory turnover. The findings of questionnaire responses show that the majority of the employees (11/36) 31% are in agreement to the fact that inflation is one of major causes of inventory turnover decline. From the foregoing analysis, inflation can be said to be one of the factors that cause inventory turnover decline.

Fig 4.2 also depicts that (10/36) 28% of the respondents strongly agreed, (3/36) 8% agreed, (1/36) 3% were uncertain and on the other hand 0% disagreed and (1/36) 3% strongly disagreed that inaccuracy in identifying the stage of life-cycle the products OK Hwange dealt with occupy caused a decline in inventory turnover The questionnaire responses show that a total of (13/36) 36% supported that OK Hwange dealt in a number of products they could not accurately determine the stage of life cycle they occupied. A mere total of (1/36) 3% disagreed to this fact. Hence this means that failure to accurately identify the stage of life of products has a contributory effect on the decline on inventory turnover in supermarkets. This is supported by Johnson, (2012) who articulated that a number of organisations lack the

knowledge to accurately identify what stage of life-cycle the products they are dealing with occupy until they are found holding excess inventory they cannot sell.

When asked whether consumer demand uncertainty was one of the cause of inventory turnover decline in supermarkets, (20/36) 56% of the employees strongly agreed, (4/36) 11% agreed, 0% were uncertain, while 0% disagreed and 0% strongly disagreed. Fig 4.2 show that a total of (24/36) 67% majority of the employees at OK Hwange agreed that this factor contributes to the drastic inventory turnover decline in Zimbabwean supermarkets. To this end one can conclude that consumer demand uncertainties also adds to the list of factors that cause that result in the decline of inventory turnover at OK.

Nordmeyer, (2018) in the same vein supports that there is uncertainty in product demand shifts through time in the life of a product. She further articulated that retailers face significant uncertainty during the introduction and growth stages of the product, relative stability during maturity, and increasing uncertainty at decline stage.

Results of employees' responses to the questionnaires as shown in Fig 4.2 above also show that (7/36) 19% of the respondents strongly agreed that overstocking in new poor performing outlets was another factor that cause inventory turnover decline. It is also shown that (11/36) 31% also agreed, (3//36) 8% were uncertain, and on the contrary (2/36) 6% disagreed and 0% strongly disagreed that overstocking in new outlets is one of the factor that contributes to inventory turnover decline. A total of (18/36) 50% were in support to the phenomenon while a total of (2/36) 6% disagreed to the phenomenon. It is clear that most of the employees support the view that supermarkets are overstocking in new outlets which kick start on a poor performance note. Statistical questionnaire response rate point to the fact that overstocking in new outlets contribute to inventory turnover decline.

Davis, (2017) in the same vein opined that expanding retail chains tend to increase inventory holding to cater for new outlets/branches. He noted that, usually, the operating performance of new outlets opened usually start on a very low note and supplying them with bulk inventories always result in group stores overstocking. He further explained that these large stocks, in new branches, tend to distort the performance of inventory turnover patterns downwards until the new stores/branches gain a consistent operating performance

Fig 4.2 shows employees' responses regards poor marketing and sales as a factor that cause inventory turnover decline in supermarkets. One can note that (2/36) 6% of the respondents strongly agreed, while (1/36) 3% agreed, (2/36) were uncertain and on the other hand (2/36)

6% disagreed and (19/36) 53% strongly disagreed that the poor marketing and sales was one cause of inventory turnover decline in supermarkets. A total of (3/36) 8% agreed to the phenomenon but on the contrary a total of (21/36) 58% disagreed that poor marketing and sales contributed to the decline of inventory turnover. From the foregoing statistics, poor marketing and sales cannot be considered to be one of the major causes of inventory turnover decline in supermarkets.

Low plastic money uptake is also another factor to which employees' responses were elicited. Fig 4.2 depicts that (8/36) 22% of the respondents strongly agreed, (4/36) 11% agreed, (3/36) 8% were neutral or uncertain while on the contrary (1/36) 3% disagreed and (17/36) 47% strongly disagreed that low plastic money uptake was one of the major causes of inventory turnover decline in supermarkets. In light of the foregoing statistics it is clear that a total of (12/36) 33% was in support of the phenomenon on the other hand a majority of (18/36) 50% respondents were not in agreement of the effect. Hence this suggests that low plastic money uptake does not form part of the major causes of inventory turnover decline in supermarkets.

Another factor that OK Hwange employees responded to was the effect of the decline in cash supply on inventory turnover. Fig 4.2 shows that (24/36) 67% of the respondents strongly agreed that and (2/36) 6 % agreed, 0% were uncertain and 0% neither disagreed nor strongly disagreed that the decline in cash supply is one of the major cause of inventory turnover decline. From the foregoing it is clear that a total of (26/36) 72% were in agreement that a decline in cash supply was one of the major causes of inventory turnover decline in supermarkets. This therefore points to the fact that the decline in cash supply is another cause of inventory turnover decline in supermarkets.

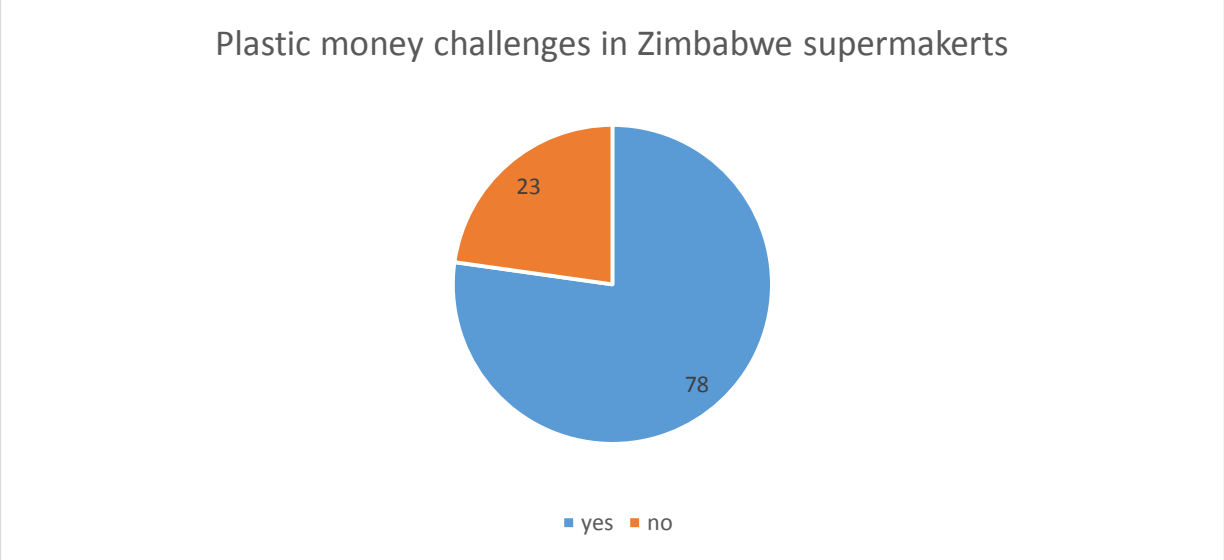
All in all, it is notable that one of the most significant cause of inventory turnover decline at OK Hwange was the general decline in cash supply (72%) in the economy. This was followed by the organization's failure to determine consumer demand with certainty (67%). On the contrary a (58%) majority of the employees disagreed that poor marketing was not one of the major causes of inventory turnover decline, this was also followed by another (50%) of the staff who also argued that low plastic money uptake was also not another major cause of inventory turnover decline in supermarkets.

4.4 The challenges on the efficiency of plastic payment system

4.4.1 Major challenges of plastic money that result in slow transaction processing speed.

Fig 4.3 shows shoppers' responses regards to whether plastic money payment system is characterized by challenges or not.

Fig 4.3 Challenges of plastic in Zimbabwean supermarkets



When asked whether plastic money was characterized with challenges (78/101) 77% noted that plastic money retail payment systems in supermarkets were characterized with challenges while (23/101) 23% were not in agreement of this fact. From the responses solicited, it is clear that plastic money retail payment systems in Zimbabwe are characterized with challenges to shoppers

4.4.2 The factors the affect the efficiency of plastic money processing speed.

The graph below (Fig 4.4) illustrates the responses of OK Hwange employees and shoppers on the major challenges of plastic money payment system that results in slow transaction processing speed and the consequential decline in inventory turnover in supermarkets.

Fig 4.4 Major challenges of plastic money as a payment system at OK Hwange.

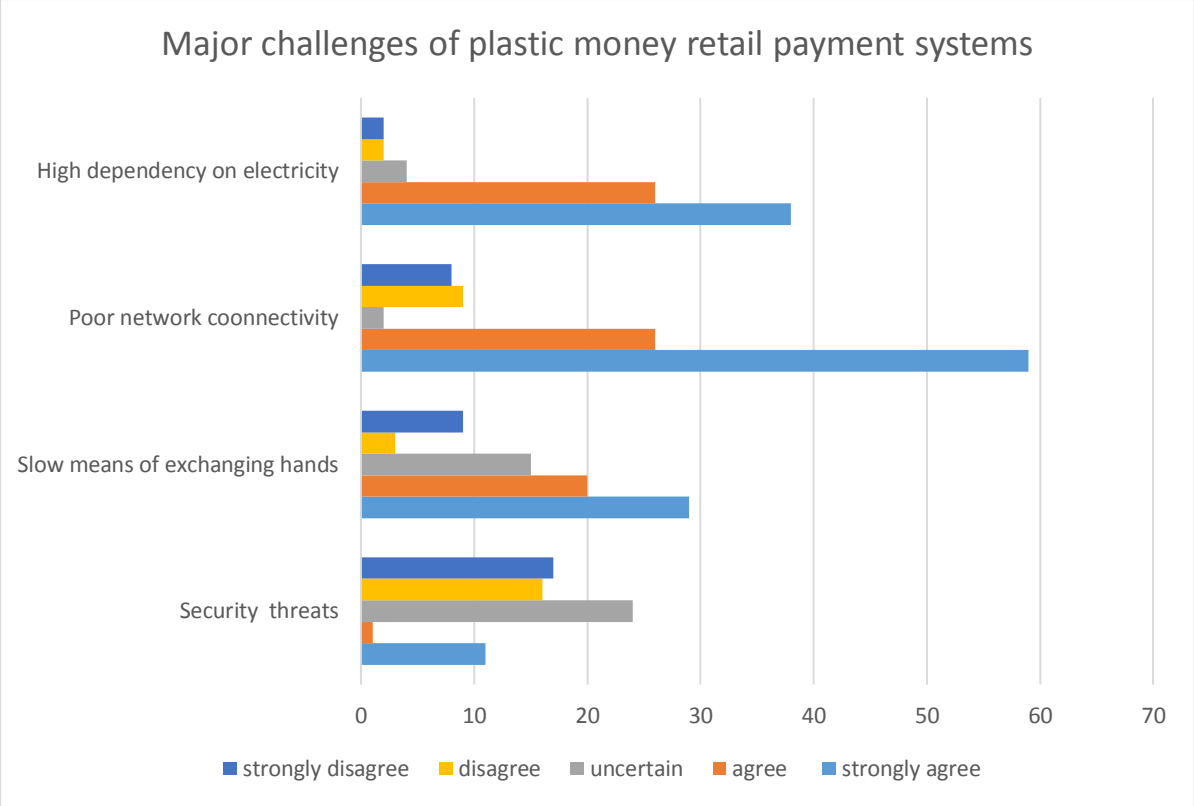


Fig 4.4 above shows that (11/137) 8% of the respondents strongly agreed, (1/137) 1% agreed while (24/137) 18% admitted their uncertainity and on the contrary (16/137) 12% disagreed and (37/137) 27% strongly disagreed that security threats have an impact on the transaction processing speed of plastic money payment systems in retail supermarkets.The statistics displayed shows that a total of (12/137) 9% agreed whle a total of (53/137) 39% disagreed. Thus the majority of respondents are not in agreement of the fact that security threats has an impact on the transaction processing speed of plastic money payment system. The foregoing questionnaires resutls clearly point out to the fact that secutity threats has no impact on plastic money transaction processing speed and inventory turnover in turn.

Another major challenge of plastic money shown in Fig 4.4 is that plastic money is viewed as a slow means of changing hands at check out points in supermarkets. In light of the results displayed on the graph (59/137) 43% strongly agreed, (20/137) 15% agreed that plastic money posed a slow means of changing hands at check out point in supermarkets. On the other hand (15/137) 11% were neutral or uncertain and (3/137) 2% of the respondents disagreed and (9/137) 7% strongly agreed to the effect. It can be noted that an overall (79/137) 58% were in support of the fact that plastic money is a slow means of changing hands, while a total of (12/137) 9% were not in support of the challenge in question. In light of the statistics at hand plastic money can be viewed as a slow means of changing hands.

Green et al, (2015) further augments that if payment system speed is measured by the time it takes for money to change hands, then cash may be viewed a fast payment mechanism. On a different note he also highlighted that if payment system speed was measured on the basis of the duration it took to transfer money from one account to another, cash could be deemed a slow payment instrument.

Fig 4.4 also illustrates the statisctics of the responses of OK Hwange employees and shoppers regards the effect of poor network connectivity on the speed of plastic money payment systems in supermarkets. Results on the graph show that (73/137) 53% of the respondents strongly agreed, (26/137) 19% agreed and (2/137) 1% were uncertain of the concept. On the contrary (9/137) 7% disagreed and (8/137) strongly disagreed that poor network connectity was one of the major causes of plastic money' slow transaction processing speed. Out of a total of 137 questionnaires solicited (99/137) 72% of the respondents supported the fact that poor network connectivity resulted in slow plastic money transaction processing speed at checkout points in supermarkets. On the contrary (17/137) 12% objected the fact. To this end poor network connectivity can be said to be one of major the challenges that results in slow transaction processing speed in supermarkets.

This is also supported by Retail computer solutions, (2016) who also echoed that bank network failure pose a big challenge in the connection and fulfilment cashless transactions. They highlighted that downtime attributable to network failure has resulted in the obstruction of quick transmission of cash to recipients' accounts as well as not dispensing cash when requested by the users.

Results shown in Fig 4.4 above also revealed that (38/137) 28% of both shoppers and employees strongly agreed and (46/137) 34% agreed that high dependency on electricity contributed to slow transaction processing speed at check out points in supermarkets. On the contrary (4/137) were uncertain of the concept while (2/137) 1% disagreed and (2/137) strongly disagreed. This therefore indicates that a total majority of (84/137) 61% were in agreement that plastic money' high depndency on electricity has an effect on plastic money transaction processing speed while on the other hand a total minority of (4/137) 3% were in disagreement. The foregoing responses suggests that plastic money's high dependency on electricity is one of the major challenges that results in slow transaction processing speed.

In tandem to these results, Nyoni & Bonga (2017) also opined that the current power supply in Zimbabwe is very poor with major cities like Harare and Bulawayo still in short supply.

They further noted that consistent and undisturbed electricity demands that come with internet payments, banking facilities, ATMs and ZimSwitch facilities require smooth power supply.

The overall findings in Fig 4.2 show that poor network connectivity (72%) was the major challenge of plastic money retail payment system. This was followed by plastic money' high dependence on electricity (61%). However, on a different note the findings on the graph revealed that plastic money security threats had little impact on plastic money transaction processing speed as a majority of (39%) disagreed to the fact.

4.5 Impact of the challenges of plastic money transaction processing speed on inventory turnover

Fig 4.5 below shows employees' questionnaire responses on the impact of the challenges of plastic money transaction processing speed on inventory turnover.

Questionnaires were distributed to solicit data on the variables that form part of or have an effect on inventory turnover ratio formulae. The impact of the challenges of plastic money transaction processing speed on inventory turnover were identified based on its impact on sales volume, cost of goods sold and closing inventories. The relationships of these variables regards the accumulation and calculation of inventory turnover were deemed to unveil the impact of the challenges of plastic money transaction processing speed on inventory turnover.

Fig 4.5 below summarises the responses of OK Hwange employees. The graph shows that (3/36) 8% of the staff responses indicated that sales volume increased during the plastic money era, while (16/36) 44% articulated that sales volumes decreased, (8/36) 22% were uncertain and (2/36) 6% pointed that sales volumes were unchanged. In view of the foregoing responses, the challenges of plastic money can be said to have resulted in a decline of sales volume at OK Hwange during the past two (2) years (2016 and 2017) .

The respondents also elicited their opinions regards the impact of the challenges of plastic money transaction processing speed on cost of goods sold.

Fig 4.5 The impact of the challenges plastic money transaction processing speed on inventory turnover.

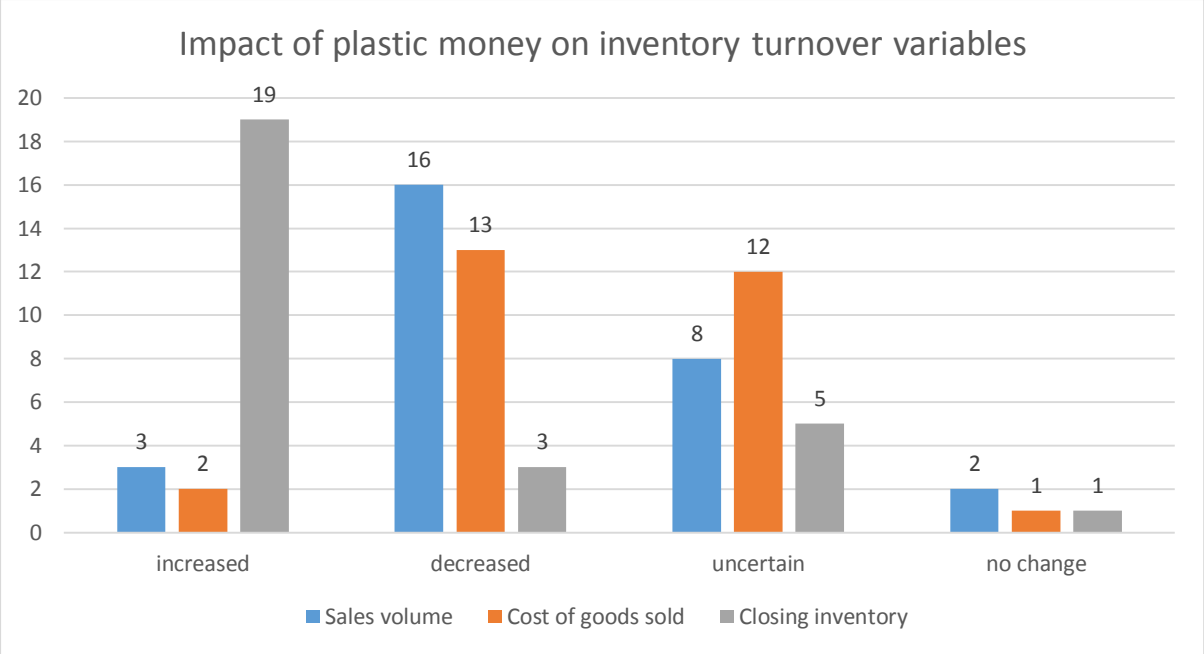


Fig 4.5 above shows that (2/36) 6% noted that cost of goods sold increased during the dominance of plastic era, (13/36) 36% articulated that cost of goods sold decreased , (12/36) 33% were not uncertain of the trends of cost of goods sold while (1/36) 3% argued that there was no change regards the trend of cost of goods sold in the past two years of plastic money dominance (2016/2017). It is clear that the majority of employees 36% supported the fact that cost of goods sold had decreased duing the period (201/2017) Hence the challenges of plastic money can be said to have resulted in a decrease in cost of goods sold.

The reseacher also sought responses regards the impact of the challenges of plastic money transaction processing speed on closing inventory. Fig 4.5 above shows that (19/36) 53% of the respondents were of the view that closing inventories had increased during the during the period under consideration (201/2017). The fig also unveiled that (3/36) 8% noted that closing inventories had decreased, (5/36) 14% were not certain of the fluctuations of closing inventory overtime, on the other had (1/36) 3% argued that tere was no change on the trends of inventory turnover associated with the challenges of plastic money transaction processing speed. In light of the statisics of employes' responses, 53% of the respondents supported the fact that the challenges of plastic resuted in a incresae in closing inventories hence plstic money challenges can be said to have resulted in an increase in closing inventories in the years 2016 and 2017.

Findings in Fig 4.5 show that the biggest impact of the challenges of plastic money transaction processing speed in supermarkets was that they resulted in increased in closing

inventories (53%), followed by decreased in sales volumes (44%) and a decreased in cost of goods sold (36%).

4.6 Strategies to improve inventory turnover in plastic money dominated era

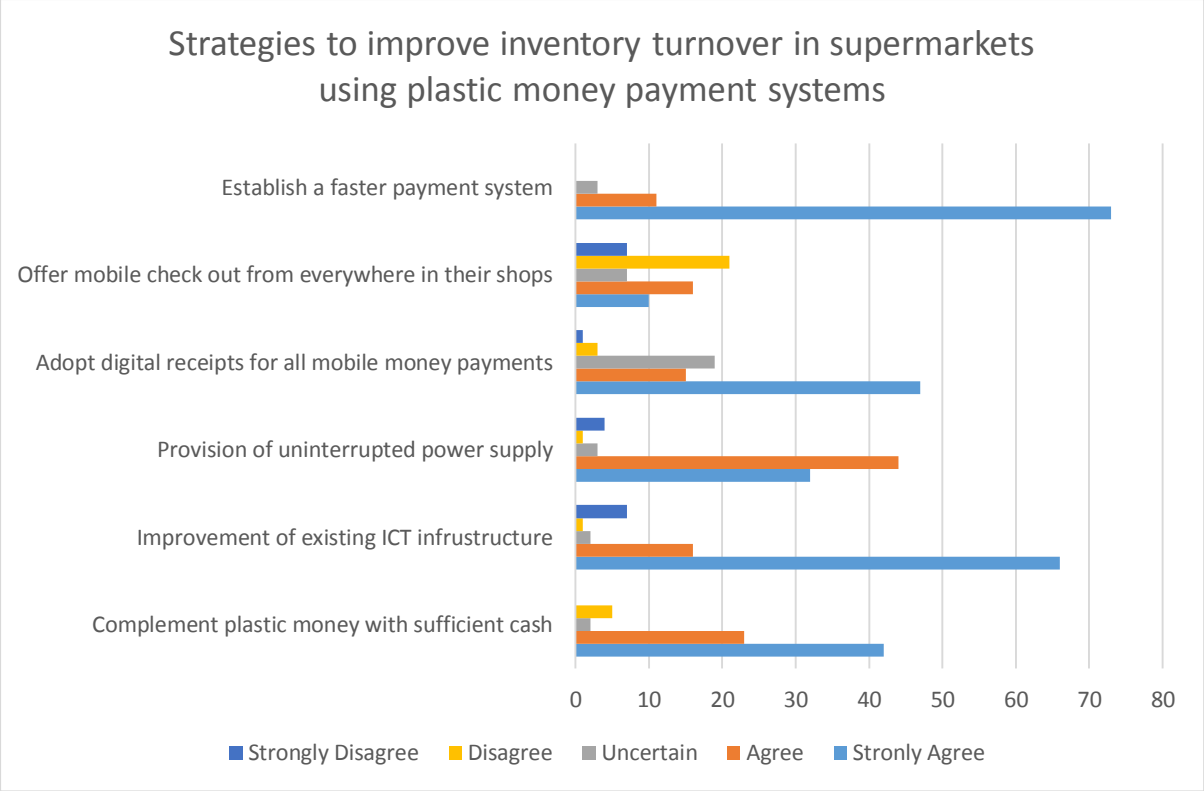
Figure 4.6 below summarizes questionnaire responses regards the measures and strategies that can be implemented to improve inventory turnover in supermarkets in a plastic money era.

Fig 4.6 show that the (42/137) 31 % of the respondents strongly agree to the strategy of supplementing plastic money with sufficient cash supply. In the same vein (23/137) 17% also agreed to the same fact. On the other hand, (2/137) 2% of the respondents were uncertain and (5/137) 4% disagreed and 0% strongly disagreed. It is quite evident that a total of (65/137) 47% agreed that plastic money should be supplemented with sufficient cash supply and a total of (5/137) 4% disagreed. Those respondents who were neutral/uncertain were deemed by the researcher to have lacked knowledge of the concept.

It is clear from the questionnaire findings that the majority of the respondents support the strategy of supplementing plastic money with sufficient cash supply. This therefore renders the need to supplement plastic money with sufficient cash supply as one of the ways to curb the decline of inventory turnover in supermarkets.

Results on Fig 4.6 below also show that (66/137) 48% of the respondents strongly agreed and also (16/137) 12% agreed that the strategy of improving existing ICT infrastructure would minimize challenges of plastic money transaction processing speed to improve inventory turnover in supermarkets. On the other hand, (2/137)2% of the respondents were uncertain, (1/137)1% disagreed and (7/137) 5% strongly disagreed to the strategy. The findings of the questionnaires responses show that (82/137) 60% agreed to the strategy hence forming the majority of the respondents. Thus improving existing ICT infrastructure that support plastic money payment systems can be viewed as another strategy to improve inventory turnover in supermarkets.

Fig 4.6 Strategies to improve inventory turnover in supermarkets using plastic money.



Reference to Fig 4.6 above also depict that (32/137) 23% of the respondents strongly agreed and (44/137) 32% agreed that the provision of uninterrupted power supply serves as one of the strategies that can be implemented to curb inventory turnover. However, (3/137) 2% of the respondents were uncertain, (1/137) 1% disagreed and (4/137) 3% strongly disagreed to the strategy at hand. An overall majority of (76/137) 55% of the respondents all agreed that providing uninterrupted power supply is another measure that can to improve the efficiency of plastic money and thus in in turn can result in an improvement in inventory turnover in supermarkets.

Fig 4.6 also shows statistics of the responses that were gathered regards the adoption of digital receipts for all mobile money payments. It can be noted that (47/137) 34% strongly agreed, (15/137) 11% of the respondents agreed, (19/137) 14% of the respondents were neutral/ uncertain, (3/137) 2% disagreed and (1/137) 1% strongly disagreed. It is clear from the findings of questionnaire responses that the majority of the respondents (62/137) 45% support the adoption of digital receipts for all payments settled used mobile money. Thus implementation of digitals receipts for all mobile payments in supermarkets can be viewed as another strategy to improve transaction processing speed at checkout points and can thus increase inventory turnover.

Offering mobile checkout points from everywhere in the supermarket also form one the strategies which was subjected to questionnaire survey. Results of the responses in Fig 4.6 shows that (10/137) 7% strongly agreed, (16/137) 12% of the respondents agreed, (7/137) 5% were uncertain, (21/137) 15% disagreed and (7/137) 5% of the respondents strongly disagreed. A majority total of (28/137) 20% of the respondents disagreed that this strategy may result in the improvement of inventory turnover decline. Thus offering mobile checkout points from anywhere in the supermarkets cannot viewed as one the strategies to improve inventory turnover.

Fig 4.6 also shows questionnaire responses regards the adoption of a faster payment system. The findings thereto show that (73/137) 53% of the respondents strongly agreed, (11/137) 8% agreed, (3/137) 2% were uncertain and 0% neither disagreed nor strongly disagreed. A total of (84/137) 61% of the respondents agreed to the strategy hence clearly showing that the majority of questionnaire respondents were very much in agreement with the view of implementing of a faster payment system as a way to improve inventory turnover a plastic money era.

All in all, results of the findings show that the best strategy/measure to reduce the challenges of plastic money transaction processing speed so as to increase inventory turnover in supermarkets is to adopt a faster payment system (61%), followed by the option of improving existing ICT infrastructure (60%). On the contrary a (20%) majority disagreed that adopting mobile check out points from everywhere in the shop would increase inventory turnover.

4.7 Interview questions

Question 1: What are the causes of inventory turnover decline in Zimbabwean supermarkets?

The question sought to inquire from the management team of OK Hwange regards the major causes of inventory turnover decline that were peculiar to the supermarket and the chain store at large. In response two (2/4) 50% of OK Hwange management highlighted that some of the major causes of inventory turnover decline at their branch was largely exacerbated by low disposal income due to delay/failure by the companies surrounding the town to settle employees' salaries and wages resulting in very low consumer demand on most of products that the supermarket deals in.

Two (2) out of four (4) 50% of management staff interviewed also pointed that the existence of stiff competition resulting from an influx of imports from foreign /neighboring countries (Zambia and Botswana) further contributed to the decline of inventory turnover at OK Hwange. The two (2) interviewees (50%) highlighted that the town that hosts their branch supermarket (Hwange) is situated at a close proximity to two of Zimbabwe's boarders. In light of this, they noted with concern that most of the targeted customers prefer importing from either Zambia and/or Botswana as products in those countries are generally cheaper than those selling in Zimbabwe supermarkets. The further noted that this has resulted in a significant decline in demand and the situation has also posed a difficult in accurately forecasting consumer demand.

One (1) out of four (4) 25% also revealed that most of the cash in circulation in Zimbabwe were small denomination bond coins. He noted that serving bulk buyers using these small denominations of bond coins as a medium of exchange proved to be very time consuming, labour intensive and erroneous hence resulting in very few customers severed at checkout points at any given point in time.

Question 2: What are the challenges of adopting plastic money/POS retail payment systems as a dominant payment system in Zimbabwe's chain stores/supermarkets?

The researcher sought to gain an understating of the challenges the supermarket was encountering post adoption and dominance of plastic money retail system. All the four (4) 100% interviewees pointed out that the dominance of plastic money at checkout points at OK Hwange compromised customer service. They noted that plastic money retail payment systems were characterized by very poor network connectivity. Poor network has been blamed for inducing long queues which discouraged sales to travelers who always do not have sufficient time to wait for long time periods to make purchases. This in turn resulted in a decline in demand for goods especially refreshments and perishable products. Three (3) out of four (4) interviewees highlighted that poor network connectivity has resulted in significant unwanted idle times on the part of till operations which has resulted in the branch failing to meet sales targets thereby resulting in large outlet holding large closing inventories.

The study further revealed that there was low uptake of plastic cards among school going pupils. They pointed out that students constituted a large share of their market demand. However, the introduction of plastic money at OK Hwange has more or less eliminated this group of customers. They argued that students mainly used hard cash to make purchases. The

decline in cash supply and dominance of plastic cards have restricted sales to this group thereby lowering sales volume and increasing closing inventories.

Question 3: What is the impact of the problems of plastic money transaction processing speed in retail payment systems on sales volume, closing inventories, cost of goods sold and inventory turnover?

Three (3) out four (4) 75% of management staff interviewed highlighted that plastic money transaction processing speed was characterized by low and slow customer count rates at checkout points. They noted that lower customer counts are attributable to poor network connectivity that results in bank off lines and transaction failures. When either bank off lines or transaction failures occur, a single customer's bank card can be swiped several times at the expense of serving other customers waiting to make their purchases. They further explained that low customer counts always result in lower sales volumes, lower cost of goods sold and high closing inventories. Lower cost of goods and high closing inventories results in a consequential lower closing inventory.

On the contrary, (1/4) 25% of the interviewed staff argued that although plastic money was associated with low customer counts at checkout points but customers using plastic money to buy goods usually buy in bulk. He further alluded that bulk buying normally results in large stocks being dispatched thus resulting in high sales volumes, low closing inventories, high cost of goods sold and high inventory turnover. On the contrary, he blamed bank charges associated with plastic money transaction as the key factor hindering the supermarket to increase customer counts.

Question 4: What are the possible strategies that can be put in place to improve plastic transaction processing speed in Zimbabwe so as to improve inventory turnover in supermarkets?

One (1) out of four (4) 25% of management staff interviewed suggested that the central government (RBZ), in issuing local bond notes and coins, should revisit their policies regards the denominations they issue to public as this economic factor has a significant impact on the sales volume and transaction processing speeds at checkout points of large supermarkets like OK Zimbabwe. He argued that as it stands the United States Dollar is very scarce and consumers are very much depending on bond notes and coins to supplement plastic money. He further highlighted that, although supermarkets were accepting local bond currency from customers but the trend of payments in supermarkets have revealed that there has been more

of bond coin transactions than that of bond notes hence the central government should issue higher denominations to bring ease in fulfilling transactions for bulk buyers and chain stores.

All the four (4) 100% management staff articulated the need to improve POS terminal –Bank network connectivity. They suggested that supermarkets should move away from GSM compatible POS terminals and adopt WIFI compatible POS terminal to improve the strength of network connectivity. They noted that at is stands OK Hwange is largely using Netone and Telecel GSM network to connect their POS terminals to the customers's banks. They further explained that GSM networks are either always down or are always congested as they are concurrently mandated to accomplish the general public cellphone calls and SMS messages services. They further suggested there need for GSM service providers to consider providing a different line specifically designed to accomplish plastic money transactions to curb for congestions and poor network connectivity.

4.8 Summary

This chapter was centered on the presentation and analysis of the data solicited through the use of questionnaires and interviews. The researcher sought to gain and understating of the information hidden in the data collected. All the findings were presented graphically on bar charts, pie charts and tables. Data findings were also analyzed using percentages. The crux of chapter five (5) will be focused on summarizing the major findings of the study and making recommendations and conclusions of the study.

CHAPTER 5: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter encompasses on the summary findings, conclusion and recommendations of the study as a whole. It sets out the summary findings, conclusions and recommendations regards the improvement of inventory turnover at OK Hwange during the time period of plastic money dominance.

5.1 Summary

The aim of this study was to investigate the impact of the problems of plastic money transaction processing speed on inventory turnover in Zimbabwean supermarkets.

Chapter one was focused on the background of the study and the statement of the problem. In this chapter the researcher highlighted that OK Zimbabwe was experiencing difficulties to maintain or increase inventory turnover and sales volumes during the time period when plastic money as a payment system gained dominance. The chain store' outlets were failing to forecast sales and to meet sales targets and they were thus holding large inventories which forced the chain store to make significant mark downs to reduce large and obsolete inventories held. OK Hwange in particular was noted to have been failing to meet sales targets for two consecutive years under consideration (2016/2017). Mark downs at the same outlet had also been on the rise from the year 2016 to the year 2016.

In chapter two the researcher unraveled the causes of inventory turnover decline in supermarkets. The causes of inventory turnover decline covered in the chapter included amongst others; inflation, inaccuracy in identifying the stage of life-cycle the products OK Zimbabwe dealt in occupied, consumer demand uncertainties, overstocking in new outlets which kick started on a low note, poor marketing, low plastic money uptake and decline in cash supply. The researcher also identified the problems of plastic money payment systems and further outlined the impact of these challenges on inventory turnover. The challenges of plastic money identified in the chapter included security threats, plastic money being viewed as a slow means of changing hands, poor network connectivity and high dependency on

electricity. These challenges proved to have a negative impact on the transaction processing speed of plastic money retail payment systems as consequentially resulting in low sales volumes, low cost of goods sold, high closing inventories and low inventory turnover. In conclusion, the chapter sought to identify some of the possible measures that were deemed to be relevant in improving inventory turnover in a cashless economy.

The crux of chapter three was on the research design, determination and selection of the population and sample size, identifying the source of relevant data, designing of research instruments and assessing the validity and reliability of the research instruments. The researcher opted the use of a descriptive research design methodology. This allowed the researcher to impose sample conclusion results on a population. Data was collected using questionnaires/ likert scales and personal interviews. Questionnaires where used to solicit data from management staff, non-management staff and shoppers. Interviews on the other hand were strictly used to gather information from top management staff who were deemed to be the decision makers regards the operations of OK Hwange. Both primary and secondary data was collected to ensure reliable and valid findings were reached.

The focus of chapter four was mainly on presentation and analysis of data collected through the use of questionnaire and interviews in chapter three. The findings of the study were presented and summarized on bar graphs, pie charts and tables to give a better and easy understanding of the phenomenon. The researcher also made use of percentages to better analyze the data. Research findings were gathered by administering one hundred and one (101) questionnaires to shoppers, thirty-six (36) questionnaires to OK Hwange employees and by conducting four (4) interviews with OK Hwange top management team. Major research findings showed the key factors that cause inventory decline in supermarkets, the major challenges of plastic money payment systems transaction processing speed and the impact of these challenges on sales volume, cost of goods sold, closing inventory and inventory turnover. The findings also highlighted some of the measures that can be used to improve inventory turnover in supermarkets during a plastic money dominated era.

5.2 Main findings

Research findings have indicated that the problems of plastic money transaction processing speed are the major causes of the decline of inventory turnover in big supermarkets during the dominance of plastic money as a retail payment system. It was observed that the efficiency of plastic money was stalled by factors such as poor network connectivity and

frequent interrupted smooth power supply which have resulted in slow transaction processing speed on retail payment systems. The research also ascertained that cash was still viewed as the preferred and fast means of settling payments in big supermarkets. Plastic money retail payment systems in Zimbabwe were found to be a slow means of exchanging hands which does not suit the operations of big supermarkets like OK Zimbabwe which seek to maximize sales volumes to remain profitable and competitive. The slow transaction processing speed of plastic money retail payment systems has resulted in a decrease in sales volumes, a decrease in cost of goods sold and an increase in closing inventory thereby resulting in a decline in inventory turnover.

5.3 Conclusions

This research emphasizes on the importance of maintaining and/or increasing inventory turnover ratio in big supermarkets to ensure their survival, sustainability of profits and effective performance management in their competitive industry. The very limited research on the causes of inventory turnover decline has pointed out to factors such as inflation, failure to accurately determine the stage of life cycle the products held occupied, demand uncertainties, overstocking in new outlets, poor marketing, low plastic money uptake and decline in cash supply as some of the main causes of inventory turnover decline in the retail sector. In light of these factors, management of chain stores like OK Zimbabwe are challenged to take a closer look on the trends of inventory turnover and on the factors that influence these trends in the prevailing and dominating plastic money era in Zimbabwe.

5.4 Recommendations

The researcher made the recommendations hereunder based on the conclusions drawn on the research findings:

5.3.1 Adopt a new Faster Payment Service

There is need to adopt a new and faster cashless system. The central bank and government should consider establishing a new Faster Payment Service which supports net settlement rather than gross settlement of transactions when clearing cashless transactions fulfilled by

electronic bank cards of various banks at the expense of relying on improving existing slow performing systems.

5.3.2 Enhancement of cashless retail payment systems used by supermarket

OK Hwange should move away from GSM mobile sim-card compatible POS terminals and adopt WIFI compatible POS terminals to improve network connectivity and transaction processing speed thereby increasing sales volumes and inventory turnover.

It is also recommended that OK Zimbabwe should consider adopting the use of digital receipts for all transactions that are paid using mobile money (ECOCASH, TELECASH & NETCASH). Printing of thermal /paper receipts has proved to be very time consuming especially for bulk purchases where consumers have to wait for quite a while, for a long list of the products purchased to be printed. When it comes to mobile money payments this is more or less double receipting. Digital receipts are anticipated to result in an increase in sales volumes and cost of goods sold while contributing to a decline in closing inventories thereby increasing inventory turnover.

5.3.3 Revamp and refurbish existing infrastructure that support cashless systems

Government, Banks, GSM service providers, ICT and financial players should upgrade the ICT infrastructure that support cashless transactions to improve network connectivity between and/or among terminals and the banks.

GSM service providers in Zimbabwe should consider providing a single line specifically meant for accomplishing plastic money transactions than relying on lines that are also used for facilitating mobile phone calls.

The researcher also recommends that government should revamp power supply utility companies to ensure uninterrupted and smooth power supply that supports the cashless payment systems.

5.3.4 Supplement plastic money system with effective cash system

The government through the central bank of Zimbabwe should supplement plastic money with sufficient, readily available and unrestricted cash supply so as to embrace various payment methods in the supermarkets that suits the taste of every shopper and retailer.

5.4 Suggested areas of future study

This section suggests areas of further reading by future researchers on the problems of plastic money transaction processing speed and its impact on inventory turnover in high volume uptake supermarkets. The researcher suggests that future researches should be undertaken to identify measures and strategies that can help high volume uptake supermarkets to increase inventory turnover in developing countries that have abruptly adopted cashless systems. (change their payment systems)

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Appendix A-Cover Letter

Midlands State University
Department of Accounting
P. Bag 9055, Gweru

13 April 2018

The Training Manager
Ok Zimbabwe Group Store
PO Box 3081, Harare

Mr. A Magunje

REQUEST FOR PERMISSION TO CARRY OUT A RESEARCH AT YOUR ORGANISATION

This serves to seek permission from your highly esteemed office to carry out an academic research with one of your branch outlets-OK Hwange.

I am currently enrolled as a final year student for a Bachelor of Commerce Accounting Honours Degree with Midlands State University-Zimbabwe. As part of my studies, I am required to conduct an industry-oriented research to fulfil my curriculum objectives. My topic under study reads as follows, "The problems of plastic money transaction processing speed in Zimbabwe and its impact on inventory turnover in supermarkets: the case of OK Hwange (2016-2017)"
I will be very grateful to be granted permission to gather relevant research data perceived to be instrumental in successfully completing my intended academic study regards the problem at hand.

I strongly declare that data collected by the researcher will be strictly for academic purpose and confidentiality of the organisation will not be compromised.

Your assistance in this regard will be greatly appreciated.

Yours faithfully

Mulumbe Chaliyanika (R154442Z)

Appendix B- Questionnaires

QUESTIONNAIRE 1

Questionnaires for employees

An investigation into the problems of plastic money transaction processing and its impact on inventory turnover ratio at OK Zimbabwe, Hwange Branch.

Instructions to respondents

Show your response by ticking the respective box

1. **(i) OK Zimbabwe, one of biggest chain stores in Zimbabwe have been experiencing drastic inventory turnover decline for the past two (2) years?**

YES	
NO	

(ii)The following are the key factors causing the decline of inventory turnover being experienced at OK Zimbabwe.

	MAJOR CAUSES	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
i.	**Inflation**					
ii.	**Inaccuracy in identifying the stage of life-cycle the products they are dealing with occupy**					

iii.	**Consumer demand uncertainties**					
iv.	**Overstocking in new outlets which kick start at low performance levels**					
v.	**Poor marketing and Sales**					
vi.	**Low plastic money adoption by consumers.**					
vii.	**Decline in cash supply in Zimbabwe**					

2. **The following are the major challenges of plastic money as a payment system affecting the transaction processing speed to increase inventory turnover at OK Zimbabwe.**

MAJOR CHALLENGES		**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
i.	**Security threats**					
ii.	**Slow means of changing hands**					
iii.	**Poor network connectivity**					
iv.	**High dependency on electricity**					

Others……

……

……

3. **What is the impact of the challenges of plastic money transaction processing speed at OK Zimbabwe to the following variables: Sales volume, Cost of goods sold and Closing inventory?**

IMPACT ON VARIABLES	**Increased**	**Decreased**	**Uncertain**	**No Change**
i. Sales Volume				
ii. Cost of goods sold				
iii. Closing Inventory				

4. **(i) The following are the strategies that can be used to improve inventory turnover in Zimbabwean supermarkets predominantly using plastic money payment system.**

STRATEGIES	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
i. Complement plastic money with sufficient cash supply .					
ii. Improvement of existing ICT infrastructure					
iii. Provision of uninterrupted power supply					
iv. Adopt digital receipts for all mobile money payments					

v.	**Offer mobile checkout from anywhere in their store**					
vi.	**Establish a faster payment system**					

(ii) What other additional strategies can OK Zimbabwe employ so as to increase plastic money transaction processing speed which may result in high inventory turnover ratios?

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*********THE END*********

QUESTIONNAIRE 2

Questionnaires for shoppers

An investigation into the problems of plastic money transaction processing and its impact on inventory turnover ratio at OK Zimbabwe, Hwange Branch.

Instructions to respondents

Show your response by ticking the respective box

1. Plastic money retail payment systems used at OK Hwange supermarkets are characterised by challenges that compromise the transaction processing speed at checkout points?

YES	
NO	

2.The following are the major challenges of plastic money as a payment system affecting the transaction processing speed to increase inventory turnover at OK Zimbabwe.

MAJOR CHALLENGE	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
v. Security threats					
vi. Slow means of changing hands					
vii. Poor network connectivity					
viii. High dependency on electricity					

Others……

……

……

3. The following are the strategies that can be used to improve inventory turnover in Zimbabwean supermarkets predominantly using plastic money payment system.

	STRATEGIES	**Strongly Agree**	**Agree**	**Uncertain**	**Disagree**	**Strongly Disagree**
vii.	**Complement plastic money with sufficient cash supply .**					
viii.	**Improvement of existing ICT infrastructure**					
ix.	**Provision of uninterrupted power supply**					
x.	**Adopt digital receipts for all mobile money payments**					
xi.	**Offer mobile checkout from anywhere in their store**					
xii.	**Establish a faster payment system**					

(ii) What other additional strategies can OK Zimbabwe employ so as to increase plastic money transaction processing speed which may result in high inventory turnover ratios?

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*********THE END*********

Appendix C-Interview guide

1. What are the causes of inventory turnover decline in Zimbabwean supermarkets?

2. What are the challenges of adopting plastic money/POS retail payments as a dominant payment system in Zimbabwe's chain stores/supermarkets?

3. What is the impact of the problems of plastic money transaction processing speed in retail payment systems on sales volume, closing inventories, cost of goods sold and inventory turnover?

4. What are the possible measures/strategies that can be put in place to improve plastic money transaction processing speed in Zimbabwe so as to improve inventory turnover in supermarkets?

Thank you for your most appreciated assistance.

Yours faithfully

Chaliyanika Mulumbe M.