FACTORS INFLUENCING THE ADOPTION OF TECHNOLOGY AND INNOVATION AS A STRATEGIC COMPETITIVE TOOL IN A KENYAN SHOE RETAIL FIRM

BY

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UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

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A Project Report Submitted to the Chandaria School of Business in Partial Fulfilment of the Requirements for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY – AFRICA

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STUDENTS’ DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University – Africa for academic credit.

Signed: ___________________________ Date: ___________________________
Nickson Njogu (ID No: 607027)

This project report has been presented for examination with my approval as the appointed supervisor.

Signed: ___________________________ Date: ___________________________
Fred Newa

Signed: ___________________________ Date: ___________________________
Dean, Chandaria School of Business
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DEDICATION

I dedicate this project to my family who have stood by me through it all and for their support, patience and guidance. They have been a true inspiration and light in my undertakings.
ABSTRACT

The purpose of this study was to determine the impact of the adoption of technology and innovation as a strategic competitive tool in a Kenyan shoe retail firm. The study focused on Bata Shoe Company (Kenya) Limited and sought to answer the following questions: What drives shoe retail firms to adopt technology and innovation? Does the adoption of technology and innovation enhance the strategic competitiveness of a shoe retail firm? What are the challenges faced by shoe retail firms in the adoption of technology and innovation?

The study used descriptive research design and relied on primary sources of data. The population comprised of the permanent employees of Bata Shoe Company (Kenya) Limited. The sampling technique used was stratified and random sampling, stratifying the members of the population into three groups: managers, supervisors and general workers which arrived at a sample size of 33 employees. Structured questionnaires were used to collect the data required for the study which was then analyzed using the Statistical Package for the Social Sciences (SPSS) and Microsoft Excel. Frequencies and percentages as well as median and mode as measures of central tendency were used for analysis. Also linear regression was included as a measure of dispersion. Figures and tables were used to present the analysed data for ease of understanding.

The findings of the study were that technology adoption does have a positive relationship with competitiveness and adoption of technology enhances the organizations competitiveness. It was also established that innovation has a positive relationship with strategic competitiveness and implies that the organization can benefit in remaining competitive as it progresses to innovate.

The study revealed that the business need was the driving factor for technology and innovation adoption as well as cost of adoption. It was clear that the technology in the company had changed to keep up with new developments over the last five years. The study also established that the organization adopted relevant technologies to support its operations from procurement and logistics to retail and customer service so as to stay ahead of the competition. The company carried out innovation of its products quickly enough to match the market needs and it was agreed that there should be more innovation in the company’s products to meet the customers’ tastes and preferences.
It was concluded that the organization could use its online presence and social media accounts to grow its brand and gather information from the customers on their tastes and preferences. It was also agreed that innovation and understanding of the Kenyan market could be used to counter the impact of second hand shoes and cheap imports. The organization would know whether they were ahead or reacting to the competitions ideas because there was access to information on what the competition was doing in relation to technology and innovation.

The study further concludes that staff in the organization were consulted before and during deployment of new technology and financing for deploying required technology was availed to most of the departments to ensure successful implementation. Staff members were willing and able to propose innovative ways of changing the products to increase their market share.

The study recommends that Bata Kenya should include its customers and suppliers in determining which technologies to adopt so as to ensure they capture all the requirements when pursuing a particular technology. The study also recommends that Bata Kenya develops strategies to counter the new forms of competition which may be unlike those which they have been used to before. As the retail industry is very competitive and with the growing internationalization of many businesses, Bata Kenya may be faced with new competition that may operate differently from its previous competitors. The study finally recommends for the company to include a test zone where they could test some of their technologies before they released them to the live environment as well as review the communication channels used to pass on the information to the staff to ensure they all understood what was intended to be achieved when the new technology and innovation ideas were deployed.

The researcher recommends a further study on the impact of online market places to traditional physical stores as they are gaining traction with consumers and businesses are having to place their products on these market places so that they can remain relevant. There is also need to study whether the increase in cheap products from Asia has affected the innovation plans that organizations had as they try to match the low prices charged for these products.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

Strategic management is defined as the set of actions and decisions that result in formulation and implementation of a set of strategies or plans which are conceived to help the organization achieve its objectives (Giannoulis, Svee, and Zdravkovic, 2013). Organizations set their goals and the management formulate strategies and plans that are meant to meet the set goals. In many instances, organizations will align their strategies based on their core competencies, opportunities that arise, resources available as well as the changing demands of their environments.

The turbulent environments that many organizations find themselves will require them to use strategic management to determine their objectives as well as the weaknesses and strengths which are inherent within the organization. They use scenarios to define the opportunities and threats in the business environment based on external environmental research. They then suggest alternative strategies which allow them to combine their weaknesses and strengths together with the planning of how to utilize their opportunities and threats for the long term benefit of the organization (Grant, 2012). A strategic plan acts as a guide to tell the organization where they are, where they want to go and how to get there which is the use of strategy for organizations to identify their present position and predict what they need to do in future to beat the competition.

Strategic competitiveness is one of the methods used by organizations to stay ahead of their rivals and gain tactical advantage over them. This can be achieved by companies understanding the power of the resources and tools they have at their disposal and exploiting them in order to achieve a favorable market position (Warren, 2002). Organizations should be able to leverage the dynamics of the business environment to gain the most out of their operations while maintaining costs at reasonable positions. Factors such as collection and analysis of market and customer’s needs to ensure the firm’s suitability and relevance to them ensures they have a niche to fill. The strategy should entail not just looking at the firm’s present position but also the future expectations (Baloch and Inam, 2009).

Innovation and technology have played a key role in many organizations in the current demanding and dynamic business environment by enabling companies to use business analytics systems to create value and gain competitive advantage through improvements in organizational processes and enhanced decision making. These systems help them to respond quickly to environmental
changes and varying customer demands as well as market differentiation by enhancing their customer service and providing superior products and services. Decision makers can use the advanced statistical and quantitative analysis techniques inherent in these systems as well as explanatory and predictive modelling to support their decisions (Shanks, Bekmamedova, and Willcocks, 2013).

Some of the significant causes of environmental volatility in many industries today include changing consumer demand, rapid product obsolescence and uncertainty in international financial markets. These sometimes unanticipated changes have driven companies to consider their agility to respond to opportunities and threats with ease, dexterity and speed. When a company is able to expand its repertoire of competitive actions and feasible responses to the various environmental changes, it does gain a strategic competitive advantage over its rivals the result of which is higher market growth, revenues and profitability (Tallon and Pinsonneault, 2011).

For many firms, unexpected environmental changes are major contributors to uncertainty and risk in decision making which can sometimes require them to revise their business strategies. This often happens when there is incomplete information which may suggest the extent and type of environmental change may not be definite (Coughlan, Lycett, and Macredie, 2005). The firm’s reaction or inaction when faced with these threats and opportunities will determine its performance relative to its rivals and the response time of each of the players in the industry. This may not necessarily be the case in stable environments where there is less gain to be had by being quicker to react as the changes may not be significant enough to have a major effect on the firms performance.

In implementing different types of technology, the two specific factors which are crucial to ensure success are scalability and adaptability. Scalability is the extent to which the technology can expand or contract which specifically refers to the ease with which companies can add or remove functions from the technology they want to implement. The technology can be acquired by either buying or leasing depending on its sensitivity and availability. Adaptability on the other hand refers to the extent to which technology can be used to support different needs. It is the ability to port the same technology to different applications without having to make major changes in its functionality (Tallon and Pinsonneault, 2011).

The company selected in analyzing the factors influencing the adoption of technology and innovation as a strategic competitive tool is Bata Shoe Company (Kenya) Limited which is a retailer and manufacturer of shoes for men, ladies and children as well as accessories such as
handbags, socks, school and travelling bags. Bata Kenya is wholly owned by the Bata Shoe Organization (Bata Shoe Kenya Limited, 2015).

The Bata Shoe Organization was founded in 1894 in the town of Zlin, Czechoslovakia by three siblings Tomas, his sister Anna and his brother Antonin Bata. During the First World War, the company grew quickly due to military orders and set up footwear factories across Europe which saw it become a leading footwear exporter by the early 1930’s. After World War II, the Eastern European communist governments nationalized and confiscated the Bata factories in their countries which led to the Bata headquarters being moved to Canada and setting up of production plants in North America, Asia, Latin America and Africa. These helped to expand the organizations operations and establishment of many foreign sales organizations from the 1950’s to the 1990’s across the multiple countries where it ventured. The 1990’s were marked by significant global economic changes which saw Bata close a number of its production plants and focus on expanding its retail business. The Bata headquarters were moved to Lausanne, Switzerland in 2004 and today Bata has operations in over 60 countries and more than 5,000 retail stores (Bata Shoe Organization, 2015).

Bata Shoe Company (Kenya) Limited started operations in Kenya in 1939 by setting up a manufacturing plant in Limuru and opening retail stores in major towns across the country. The company operates its own tannery and factories manufacturing canvas, plastic and leather shoes. The main brands sold by Bata Kenya include: Safari, Toughees, Marie Claire, Ngoma, Sandak, PataPata, Bubblegummers and Power (Bata Shoe Kenya Limited, 2015).

The company has a retail footprint of over 120 stores including both company managed and franchise outlets. Bata Kenya has remained one of the key operating subsidiaries in Africa for the Bata Shoe Organization with the other countries having similar operations being South Africa, Zimbabwe and Zambia. The countries with retail operations only include: Uganda, Tanzania, Rwanda, Ethiopia, Malawi, Mozambique, Democratic Republic of Congo, Botswana, Namibia, Angola and Ghana. Bata has an international manufacturing structure which means countries with production plants can respond to unique needs of local customers while at the same time exporting to other countries which specialize in retail operations only (Bata Shoe Organization, 2015).

According to Imo and Maiyo (2012), market liberalization in the 1990’s allowed importation of second hand clothes and shoes into Kenya which were relatively cheaper when compared to locally manufactured products and this led to stiff competition in these industries as the local players tried to stay afloat. Bata Kenya’s main competition still remains the informal sector which is dominated by the second hand shoe dealers as well as more established boutiques and exhibition
stalls. On the part of shoe retail firms, some of the more recognizable names include City Walk which has 14 stores (City Walk Limited, 2015), Angelo with 8 stores (Deacons Kenya Limited, 2015), Brands having 10 stores and Kwanza which has 8 stores (Kwanza Shoes, 2015). Major international brands such as Clarks, Skechers and Nike have also had their products sold in branded stores inside Nakumatt supermarkets as part of their entry strategy into the Kenya market (Nakumatt Holdings Limited, 2015).

1.2 Statement of the Problem

The Kenyan shoe retail industry is one of many small players with none having dominance over the rest to the extent of controlling the market. The proliferation of cheap imports has negatively affected the major firms operating in this market as the quality standards they try to maintain may not be sufficiently compensated if they try to match the prices of the cheap imports by lowering their costs. The importance of technology to drive customer relationship-oriented strategies has been shown to improve company’s performance by providing relationships which help the companies to understand their customers (Cooper, Watson, Wixom, and Goodhue, 2000). This study addressed itself to the knowledge gap of the factors that influence adoption of technology and innovation by a Kenyan shoe retail firm to gain an upper hand over the competition.

There was need to investigate the forces that compel shoe retail firms to adopt technology and innovation which could be external influences as well as internal strategic objectives. Much of the study which has taken place in related topics has been done in developed countries which have had more extensive experience with innovation and technology adoption due to the nature of competition among the industry players. According to McGovern (2013), there has been a lot of coverage in developed countries on the use of technology to understand what customers want hence the need to investigate what drives shoe retail firms in Kenya to adopt technology and innovation and in the process fill in the knowledge gap that exists in the industry.

Warren (2002) examined the studies done previously on the use of technology and concluded that most of the studies carried out in this field have been done in developed countries where there are more formalized procedures and processes of obtaining information on technology use for strategic competitive advantage. There was need to investigate the strategic role of adopting technology and innovation in building the competitive advantage of a Kenyan shoe retail firm over its rivals and in the process fill in the knowledge gap present in the industry.
There was also need to investigate if shoe retail firms are faced by specific challenges during the technology adoption process and if this is similar to what is encountered in other retail fields which this study would probe.

1.3 Purpose of the Study

The purpose of this study was to determine the factors that influence adoption of technology and innovation as a strategic tool by a shoe retail firm in Kenya to enhance its competitiveness.

1.4 Research Questions

The researcher set out to answer the following research questions:

1.4.1 What drives shoe retail firms to adopt technology and innovation?
1.4.2 Does the adoption of technology and innovation enhance the strategic competitiveness of a shoe retail firm?
1.4.3 What are the challenges faced by shoe retail firms in the adoption of technology and innovation?

1.5 Importance of the Study

The shoe retail sector is one of intense competition between the industry players and the organizations are always looking for opportunities which they can utilize to gain competitive advantage over their rivals. The study will therefore benefit the various parties involved in the shoe industry as detailed below:

1.5.1 Bata Kenya Employees

The information acquired from this study will help the Bata Shoe Kenya management team and employees gain insight on how innovation and technology adoption are carried out in the organization and how they help in gaining competitive advantage.

1.5.2 Shoe Retail Sector Players

The study will inform the various players in the Kenyan shoe retail sector which factors could potentially influence their technology and innovation adoption. This will be geared towards enhancing their competitiveness and helping them achieve profitability and growth in their organizations.
1.5.3 Government

The study can be used by government departments and agencies in their quest to encourage local technology entrepreneurs with techno-cities coming up. This can be used as a guide to what organizations look for when settling on the type of technology to adopt and the factors they consider.

1.5.4 Customers

Customers today are exposed to a vast array of products and services through the internet and they seek the same types and qualities of products available in other countries. The use of innovation and technology is one of the surest ways through which companies can benefit by understanding what their customers want, when they want it and thus be in a position to deliver it.

1.5.5 Researchers

The study will be valuable to future scholars and researchers for the contribution it will add to the existing body of knowledge and may form the basis for further research in use of technology for Kenyan retail firms.

1.6 Scope of the Study

The study covered the Bata Shoe Company Limuru office and focused on the managers, supervisors as well as the general workforce in the organization over a period of 3 months. This allowed a wide range of viewpoints to be obtained from all the sections involved in the day to day operations of the company.

The researcher anticipated limitations in the data collection process where respondents may not have given honest information as well as they may not have provided the information on time. The researcher dealt with these limitations by guaranteeing the respondents of the confidentiality of the information provided and also assuring the organization that the results of the analyzed data would be provided to them so that they could allow the respondents’ time to complete the questionnaire.
1.7 Definition of Terms

1.7.1 Competitive Advantage

Competitive advantage is the ability of a company to provide greater value to its customers than it costs to create it. The superior value will be determined by offering equivalent products as competitors but at a lower price or providing unique benefits to consumers that can offset the higher price charged (Porter, 2004).

1.7.2 Strategy

Strategy is forming plans that allow the organization to perform differently from its competitors or carrying out the same activities in a different manner from the competitors (Porter, 1998).

1.7.3 Technology Adoption

Technology adoption is the willingness of users to accept and make use of available systems which is determined primarily by the perceived usefulness, defined as degree to which the user believes their performance will be enhanced through use of the system; and perceived ease of use, which is defined as the degree to which the user believes their use of the system will be free of effort (Davis, 1989).

1.7.4 Shoe Retail Firm

A shoe retail firm is a business that engages in the selling of men’s, women’s and children’s footwear items and also frequently keeps stock of accessories such as belts, socks and bags. The firm will operate a variety of retail stores including family stores, specialty shoe stores, department and discount stores which will either be individually owned or chain stores (American Apparel and Footwear Association, 2014).

1.7.5 Innovation

Innovation is the creation of new knowledge and ideas which enable new business outcomes which are geared to improve internal business structures and processes as well as create market driven products and services. It is the implementation of interventions and discoveries to achieve new outcomes (Plessis, 2007).
1.7.6 Technology Adaptability

Extent to which technology can be used to support different needs, port the same technology to different applications without having to make major changes in its functionality (Elzen, Geels, and Green, 2004).

1.8 Chapter Summary

This chapter has introduced the research study and discussed the significance of technology as a strategic tool for enhancing competitiveness in a Kenyan shoe retail firm. The impact of the changing environmental changes in business today has also been underscored. The problem statement has been brought out thus making the case for the current study. In this chapter, the researcher has stated the purpose of the study which will be addressed by responding to specific research questions that have also been outlined. Contextual definitions have been given to elaborate technical terms and commonly referred to jargons. Finally, the scope of the study, anticipated limitations and possible remedies have been presented in this chapter before closing with the perceived significance of the study.

The next chapter will review the academic studies which have been conducted and literature relating to technology adoption and its importance to strategic competitive advantage. This will be aimed at pointing out knowledge gaps that may exist in the empirical studies that have been carried out thereby justifying the current study. The assessment of the academic studies and literature will be based on the research questions. Chapter three will highlight the research methodology and procedures to be used when conducting the study so as to answer the research questions. This will include the population and sample sizes, sampling design, data collection methods and analysis. Chapter four will focus on how the data collected will be analyzed and presented as well as the findings and results of the responses. Chapter five will discuss the findings of the study as well as provide the conclusion and recommendations of the study.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature and theoretical discussions on factors influencing the adoption of technology as a strategic competitive tool. The chapter is structured around the following research questions: What drives shoe retail firms to adopt technology and innovation? Does the adoption of technology and innovation enhance the strategic competitiveness of a shoe retail firm? What are the challenges faced by shoe retail firms in the adoption of technology and innovation?

A discussion of the above research questions will form the basis on why shoe retail firms adopt technology and innovation for strategic competitiveness.

2.2 Drivers of Adoption of Technology and Innovation

The global retail sector has been hit hard by multiple challenges over the last few years which has affected companies’ sales and earnings. Some of the major reasons for the dwindling profits have been saturated markets, changing customer needs and preferences and the recent global recession which saw some shoe retail firms sell or close some of their outlets as a way of controlling costs. In order to excel in today’s highly saturated retail markets, there has been need for companies to move away from the geographical expansionism that propelled their success previously towards adopting customer targeting and profit-driven product selection strategies (Werner, McDermott, and Rotz, 2004).

2.2.1 Retail Technologies

The fundamental customer – seller relationship has not changed much for many years, customers want something which is being offered by the seller and what determines whether the transaction is completed or not is whether the two parties can agree on the price and payment terms. What has changed however is the increasing utilization of technologies, with operations like instant transmission of sales data being the standard practice today for many firms (Fiorito, Gable, and Conseur, 2010).

The responsibilities and roles of retail company staff have also evolved over time with buyers / merchandisers having more power over what will be sold in the stores and this has been largely due to the amount of information availed to them through various technologies. The automation
of routine tasks has also seen their performance improve as they do not have to handle each task independently as they will obtain assistance from these technologies (Fiorito et al, 2010). A typical set of tasks expected to be completed by one person are as outlined in Table 2.1 below. The variety of these tasks may change between companies but the amount and nature of the work done may not differ significantly from one firm to the other. Based on research conducted by Knee (2002), these tasks are many and varied in terms of skills required to perform them and output expected which has necessitated the use of different technologies to ensure the person can summarize a lot of the input data and also make decisions quickly.

Shoe retail firms are faced with customers who have varied tastes and preferences and this is reflected in what the customers expect when they walk into retail stores. Clients are increasingly attracted to stores which have a personality and unite their diverse offers. This includes telling a consistent story visually as one traverses across the store including style, pricing and service (Knee, 2002). Technology has helped retailers innovate ever faster in terms of the internal operation of the business as well as meet customer needs and desires. Businesses have many ways of learning what their customers feel and want them to provide from many of the communication channels available over the internet.

Shoe retail firms have also learnt how to continuously interact with their customers in order to accumulate knowledge on what is required in the market, identify new innovation and value creation opportunities. According to a study carried out by Ramaswamy (2008), Nike has been engaging directly with their customers through social media and online networking tools so as to share experiences and interactions which allows Nike to learn how they can improve or customize products as well as listen to their customers feelings when they use the various products. The customers can participate and influence the design process which reduces the risk of dissatisfaction and enhances the market acceptance through the positive word of mouth from the community involved in the creative process.
Table 2.1: Buyers / Merchandisers Responsibilities

| Analysis of past sales and promotions | Prepare daily reports to identify best-sellers and slow sellers  
Analysis of past sales and promotions | Review and analyze sales reports  
Analysis of past sales and promotions | Analyze customer buying patterns and predict future trends  
Analysis of past sales and promotions | Review inventory records  
Analysis of past sales and promotions | Analyze store performance and stock levels |
| Planning financial budgets | Develop sales plans and purchase plans  
Planning financial budgets | Analyze and plan gross margin  
Planning financial budgets | Balance stock unit ratios  
Planning financial budgets | Complete markdown records and reports  
Planning financial budgets | Create strategic financial/budget plans |
| Development, selection and pricing of merchandise | Plan and select merchandise assortments  
Development, selection and pricing of merchandise | Visit markets and trade fairs  
Development, selection and pricing of merchandise | Control planned purchases and stock levels  
Development, selection and pricing of merchandise | Maintain well-balanced stocks and assortments  
Development, selection and pricing of merchandise | Balance stock unit ratios  
Development, selection and pricing of merchandise | Complete markdown records and reports  
Development, selection and pricing of merchandise | Supervise price marking  
Development, selection and pricing of merchandise | Develop sales goals, stock levels, markups  
Development, selection and pricing of merchandise | Purchase merchandise  
Development, selection and pricing of merchandise | Write orders/follow-up on orders |
| Vendor planning and negotiations | Maintain strong businesslike relationships with vendors and manufacturers  
Vendor planning and negotiations | Replenish basic stock  
Vendor planning and negotiations | Supervise returns to vendors |
| Initiating marketing plans | Develop merchandising strategies  
Initiating marketing plans | Handle online activities  
Initiating marketing plans | Prepare advertising and promotion plans  
Initiating marketing plans | Understand and identify needs and wants of customers  
Initiating marketing plans | Develop distribution plans for specific merchandise categories |
| Training and development | Supervise the sales force  
Training and development | Handle customer service issues  
Training and development | Schedule employee work hours  
Training and development | Supervise inventory counts of merchandise  
Training and development | Conduct informative meetings with store personnel |

**Source:** Fiorito, Gable, and Conseur, (2010)
2.2.2 Retailing Trends

The growth of many towns and urbanization has changed the dynamics for retailers who set up shop many years ago with new players coming into the marketplace to compete for the growing and relatively more affluent consumer. Smaller players, mergers and consolidations of old competitors as well as reinvention and redefinition of traditional competitors has changed the retail sector (Swinyard, 1997). Some of the responses that retailers have taken include monitoring and responding to their competition as well as continuously evaluating customer demand. Market needs can shift suddenly and companies need to introduce programs or store concepts to meet the new needs. The introduction of technology to ease the execution of many of these changes has helped track what is happening at each stage of the change cycle.

Customers increasingly want high quality merchandise at a low price or on sale and they will scan all the media channels and enquire from others when looking for bargains. They want the latest fashion and will not consider if the offers are out of their convenient location as they can travel reasonable distances to get what they want (Swinyard, 1997). This means retail stores have to scan their environment to ensure they understand what the market has to offer and anticipate customer demand while ensuring they do not stock excess inventory as they could lose out on margins when they start marking down the prices.

2.2.3 Competitive Strategies

The structure of the retail space has changed over time from small outlets to supermarkets, hypermarkets, departmental stores and online shopping. Some of the newer sales channels have proven to be serious competition for the traditional store format where the sales staff got to know their customers well and could interact with them to understand their requirements. The new entrants are able to easily introduce technologies and systems to help them compete effectively as they can minimize their costs and find new ways to understand their customers’ needs without having to interact with them directly (Flavián and Polo, 1998).

The growing internationalization of retail activities has seen the smaller local companies faced with new challenges they may not have anticipated as it is not easy for them to compete with the power and resources available to the bigger players. This has necessitated players to adopt different strategies in order to compete with the changing markets and with entry of new players. These strategies include in-depth analysis of their sectors in order to gain a certain level of knowledge and experience to understand the determinants of success such as; the financial size of purchases, the frequency of customer visits to the stores and number of items purchased by each customer (Flavián and Polo, 1998). This type of information is important as it can be easily
adapted by the local players to change their strategy which may be different from the international brands which may resist changing their operations from what they are used to on account of smaller markets.

2.3 Adoption of Technology and Innovation for Strategic Competitiveness

The retail industry is subject to many challenges, both internal and external, which affect its competitiveness such as management style, rapidly changing patterns in consumer choices, intense competition and infrastructure. Whilst some of the challenges have easily identifiable solutions such as training of staff to ensure they are competent enough and market research to understand the customer’s needs, others do not have easy solutions (Coca-Stefaniak, Parker, and Rees, 2010). This means the strategy adopted by the organization should match the competitive business environment it may face. One of the means to achieve synergy in operations and expectations is using technology.

Some of the technologies used in retail to achieve efficiency and retain effectiveness include quick response which is a management strategy meant to optimize the flow of information and merchandise between the channel members in order to maximize customer satisfaction (Ko and Kincade, 1997). Implementations of the quick response strategy are electronic data interchange (EDI), point of sale capture using scanners and barcoding which have led to decreased stock-out rates, better inventory management and quicker generation of reports to be used by management. Other benefits include automatic replenishment of stock, automatic purchase reorder, product planning with the customer and small lot orders which enables the organizations plan for resupply.

2.3.1 Innovation by Mass Customization

The rapid expansion of China’s manufacturing sector over the last few years affected many firms and industries due to the increased supply in the market at low prices. Europe understood the threat to the local footwear industry and initiated the ERGOSHOE project which was funded by the European Commission and used emergent technologies to reduce production costs and lead-times for made to measure shoes. A laser foot scanner would create a 3D computer model of a person’s feet and allow for customized shoes to be produced for individual clients at only 10 to 20 percent more than mass produced shoes. The technology could also be used in niche markets such as healthcare and industrial workers (Emerald Group Publishing Limited, 2006). The technology attracted customers to the stores and increased customer loyalty as the shoes were made to fit them and in the designs they chose. This demonstrates that consumers know what they want and if the retailers should identify ways and means to understand the needs and fulfill them.
2.3.2 Big Data as a Competitive Advantage

According to McGuire, Manyika and Chui (2012), big data is considered to be large pools of data which is brought together and analyzed to discern patterns and help in making better decisions. It is nowadays considered as important as human capital and hard assets in that to effectively compete and grow the firm, companies need to enhance their productivity and create value by understanding the environment they operate in.

The means through which big data can be leveraged for success in the organizations strategies include: making information transparent which increases efficiency, collection and storage of accurate and detailed information and performance metrics (McGuire et al, 2012).

Big data can provide innovative interaction opportunities for the shoe retail industry as illustrated in figure 2.1 below. This helps the organization create synergy in its operations to ensure it remains relevant in the industry and compete effectively with its competitors.

Figure 2. 1: Opportunities for Interactive Innovative Services in Retailing

Source: Berry, Bolton, Bridges, and Meyer, (2010)
2.3.3 Technology’s Impact on Customer Service

Endo, Yang and Park (2012), conducted a study on the key determinants of customers satisfaction of purchasing experience attribute dominated products online with their focus being the shoe industry. The key findings of the study were that product selection is important in the pre-purchase stage and customer service is important in the post-purchase stage. It was noted that companies with poor service recovery strategies in the post-purchase period received more negative reviews from their customers.

Many organizations are attempting to achieve strategic superiority by harnessing technology to cultivate customer service. Operational efficiency, clerical automation and information consolidation are some of the benefits of utilizing technology in the management of customer data. Products can also be differentiated across various domains including: transaction, strategic, relationship and distribution (Domegan, 1996). The amount of information coming to the decision makers from internal and external sources and requiring constant monitoring so as to adjust the organizations offering to match the customer needs has led to further adoption of technology in order to process this information.

Constantly changing consumer needs and preferences, increasing power of technology and competition are converging to make the retailers reconsider how they deliver their goods and services to their customers. Micromarketing which is getting the right product in the right stores at the right time has become achievable and profitable (Swinyard, 1997). The major focus in retail was distribution and operations efficiencies which meant large retail chains operating in different areas of a country tried to get their products in all their outlets regardless of their demand in particular regions. With technology, customer-specific marketing and sophisticated measures such as regional price sensitivity, demographics and trade-area lifestyles determine the merchandizing at each store.

Linking manufacturers to retailers and using the information gathered from the various technologies has provided platforms to prepare products which respond to consumers demands, manage inventory to avoid stock outs and replenish merchandise in shorter reorder times which improves customer service and increases sales (Ko and Kincade, 1997). An important target for shoe retailer firms is to have the products in stock when the customers want them and in the locations that they desire. One can understand customer behavior and achieve desired placement of items in the stores by using the tools available to them thus anticipating the changes in customer behavior.
2.3.4 Technology Adoption within the Industry

Organizations are continuously looking for ways to differentiate themselves from the other players in the industry which sees them looking for competitive strategies that will defend their position in the market. According to Porter (1998), the attractiveness of the industry will have an impact on the firm’s profitability and competitive strategy. The five basic competitive forces that he identified were: buyers, potential entrants, suppliers, substitutes and industry rivalry as shown in figure 2.2 below. The strength of these forces depends on the specific industry and the strategy firms adopt include product development, price competition and advertising.

![Competitive Forces which Influence Industry Competition](image)

**Figure 2.2: Competitive Forces which Influence Industry Competition**

**Source:** Porter, (1998).

In a study carried out by Park and DeLong (2009), in a leading US footwear company which examined the role of the user in any technological innovation adoption and their acceptance of the process, it was found that there are external variables that establish relative user groups within the organization and these groups lead to forming of different levels of perception of the technology. Different groups evaluate the adoption and implementation of technology from their perspective but all start with an initial high expectation and the perceived usefulness of the new technology improves making the implementation appear more robust.
Research by Fratto, Jones, and Cassill (2006), established that technology is one of the main tools retailers and manufacturers use to compete as they can use it lower costs, achieve economies of scale and enhance their product development activities. With the information garnered from all their operations, frequent new product introductions, rapid competitive reactions to rival firms’ actions, frequent price cutting and intense advertising campaigns are all ways in which firms attempt to surpass their competitors using the knowledge acquired on day to day basis.

2.4 Challenges in Adoption of Technology and Innovation

The desire by many organizations to use technology and innovation to gain competitive advantage does not come without several challenges key among them ensuring the technology aligns to the overall corporate strategy. The strategic retail planning model as shown in figure 2.3 below illustrates the format adopted by many retail firms in attaining their strategic goals which involves the use of technology in many cases (Ko and Kincade, 1997).

The factors to consider are technology scalability which is the extent to which companies are able to add or remove functions at suitable moments from the technology they want to implement. The other important factor is technology adaptability which is the extent to which technology may be used to support different functions in the company, adopt the same technology to different applications without having to make major amendments in the functionality (Ko and Kincade, 1997).

![Figure 2.3: Strategic Retail Planning Model](image)

Source: Ko and Kincade, (1997)
Singal, Garg and Singla (2011) conducted a study on the challenges, opportunities and trends in retailing in India and examined the footwear industry as part of their study. Some of the challenges they found which could affect the innovation process for retailers were; lack of trained work force, absence of integrated IT management and the intrinsic complexity of retailing which led to rapid price changes and constant stiff competition which made it difficult for companies to set and follow long term strategies.

2.4.1 Linking Technology across Multiple Retailing Channels

According to research by Barlow, Siddiqui and Mannion (2004), consumers want their products and services at the right quality, place, quantity and price. This means the integration of multiple complementary retailing channels allows the consumers to exploit the different facilities available across the different channels. The offline retail channels include direct selling, in-store, telephone and mail order while online channels include internet portals accessed through desktops, laptops and smart phones. Shoppers are increasing utilizing more than one channel to research and purchase their goods which means retailers have to develop multi-channel strategies which can integrate both their online and offline operations and allow them to obtain meaningful information from both channels. The multiple channels can pose a challenge in terms of interfacing them to ensure information collected in one media does not overwhelm the others. For instance, it may be difficult to separate actual customers’ comments made online from other chatter made by non-customers. There may also be substantially more information coming from the online channels than offline channels which can skew attention to one channel over the other.

2.4.2 Technological Advances and Cost Reduction

Technology is constantly changing which means by the time an organization has fully implemented the chosen technology and trained their staff to use it, there will be a newer, faster and better one released into the market. This could mean by the time the firm has selected and deployed their technology, the competition could be looking at a better tool and application for transacting with their clients. According to Egan (2000), the information gained from the various technologies deployed helps the organizations to understand the needs and preferences of their customers which makes it easier for them to acquire new customers once they adapt their operations to match what the market wants. The reduction in cost of many of the technologies means the traditional concept of which are the firms competition has changed as big and small industry players have access to the same technology. The benefits that can be attained by adopting technology such as more streamlined inventory, improved capacity forecasting and minimized mark-downs will be available to all the organizations.
From their study on the leather industry competitiveness in Iran, Shafaei, Shahriari and Moradi (2009), established that availability of capital and specialized factors such as research and development were key success determinants. Capital enabled the businesses acquire the necessary tools and technologies to effectively influence the highly competitive leather industry and many companies believed that the finance options available to them were restricted. The presence of private and public research development activities would enable the companies in the innovation process as they would obtain support to come up with innovative ideas.

2.4.3 Uncertain Technology Future

Research conducted by Barlow et al (2004), established that there is expected to be an evolution in the use of technology as new discoveries are made and customers demand more rewarding shopping experiences. An example of the possible evolution in the retail sector is illustrated in figure 2.4 below.

![Figure 2.4: Evolution of Technology in Retail Sector](image)


Even though the diagram does seem to draw a definite picture in what the future of technology may be, the retail firm that may rush into adopting any technology may find the others are not as
enthusiastic and it may not catch on in the market. This could lead to apprehension in accepting more suitable and industry changing technology in future.

2.4.4 Correct Deployment of Technology to Identify Strategic Products

From their study on retail strategies, Aertsens, Mondelaers, and Huylenbroeck (2009), found that there are strategic product categories in the retailer’s stock that are more important in customers’ choice decisions than others. The effect of one category on the profits of other categories in the store is particularly important when making marketing decisions. Retailers have to pay extra attention to these strategic product categories and their determination becomes paramount. Technology has been used to help identify some of the strategic products by focusing on the main three main steps: segmentation, targeting and positioning.

Segmentation of customers based on their preferences helps the retailers to develop product offers that will be regarded as most desirable by the customers in the targeted market segment. As retailers target different customer segments, their optimal product mix should be different either through their functional value or the underlining image of the retailer. The main competitive strategies used are cost leadership strategies and differentiation strategies (Aertsens et al., 2009). If technology is deployed correctly it assists many organizations in the segmentation process by evaluating the previous purchases and also analysing the store by store purchases so as to determine the regional preferences.

Targeting customers is the process of choosing the most interesting customer segments while positioning is developing the marketing mix that will be used to reach the selected target customers. There may be need for innovation to ensure the competencies required to deliver the new requirements are available within the organization. These could include new technological competencies and new customer competencies as the retailer could be venturing into emerging and innovative markets which needs them to adopt the correct technology standards (Aertsens et al., 2009). For these important benefits to be gained, the technology has to be deployed in the proper manner and without errors so as to ensure the information gathered is correct and serves the firm well.
2.5 Chapter Summary

The chapter took an in-depth study of related studies carried out previously assessing the adoption of technology in the shoe retail sector. The review of literature has been led by the outlined research questions and study objective. First, the chapter has reviewed literature examining factors that have influenced the adoption of technology and innovation by shoe retail firms. Secondly, the chapter has reviewed the impact of adopting technology and innovation for strategic competitiveness. Finally, the chapter examined the challenges faced in the adoption of technology and innovation by shoe retail firms. The main aim of the chapter has been to identify knowledge gaps and develop a conceptual framework which will act as a model for the study while carrying out the research study and answering the research questions. The next chapter will address the methodology that will be used in the research to answer the research questions.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

This chapter examines the methodology that was used to carry out the study and the choice of the research design that was used throughout the study. It also shows the population of the study and the sampling design, which is the description of the sample size and sampling technique. The chapter then moves on to data collection methods, data analysis and data presentation methods used in the study.

3.2 Research Design

According to Cooper and Schindler (2011), research design is the plan and structure used to analyze the subject matter under study and whose purpose is to answer the research questions. Research design is also defined as the blue print used to conduct a study under review and ensures maximum control over the factors which may influence and affect the validity of the findings (Adèr, Mellenbergh, and Hand, 2008). Descriptive research design was used in this study.

Descriptive research design has an advantage over causal research design in that it seeks to answer the ‘what’ question rather than the ‘how, when and why’ (Shields and Rangarajan, 2013). As the data to be used in the study is generally readily available, descriptive research design tends to be relatively cheaper than causal research design. The disadvantage of descriptive research design over causal research design is that the association between cause and effect may not be as clear which could lead to wrong inferences being drawn by the researcher.

For descriptive research design, a survey was carried out in the population with the dependent variable being adoption of technology which is undertaken in order to maintain the competitive niche while the independent variables was the demand conditions, organizations strategy, external environment and factor conditions.

3.3 Population and Sampling Design

3.3.1 Population

The population in a study is the collection of people or elements onto which a measure is subjected in order to make inferences (Cooper and Schindler, 2011). The total staff count of Bata Shoe
Company (Kenya) Limited was 2,696 which comprised of permanent and contracted staff. For this study, only the permanent staff were considered as they were involved directly with setting the strategy of the company. There was also a focus on those who had worked in the organization for more than one year as they were considered to have had sufficient knowledge of how the operations were run. Senior management, supervisors and general staff of Bata Shoe Company (Kenya) Limited formed the population and their distribution is as shown on Table 3.1 below.

**Table 3.1: Number of Employees**

<table>
<thead>
<tr>
<th>Staff Level</th>
<th>Number of Staff</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>29</td>
<td>5%</td>
</tr>
<tr>
<td>Supervisors</td>
<td>43</td>
<td>7%</td>
</tr>
<tr>
<td>General Workers</td>
<td>507</td>
<td>88%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>579</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Source:** Bata Shoe Company (Kenya) Limited (2015).

### 3.3.2 Sampling Design

The sample design is the method by which the selection of primary elements of study and analysis are determined in order to respond to the research questions (Shields and Rangarajan, 2013).

#### 3.3.2.1 Sampling Frame

The sampling frame is the list of elements representing the population from which the sample is drawn (Cooper and Schindler, 2011). Often times, a researcher may not get direct access to the entire population of interest thus they rely on the sampling frame to represent the entire population. For this study, the sampling frame constituted the permanent staff of Bata Shoe Company (Kenya) as found in the Human Resources Department records and who were divided into managers, supervisors and general staff.

#### 3.3.2.2 Sampling Technique

According to Cramer and Howitt (2004), the sampling technique is the process of selecting the specific methodology to use in deciding the entities in the study. The study used stratified and random sampling techniques. Stratification is the process of segmenting the members of the population into homogenous subgroups before the sampling starts. The different strata arrived at
should be mutually exclusive where each of the members of the population is assigned to only one stratum (Cooper and Schindler, 2011). As a result of the nature of responsibilities and duties of the population of the study, the Bata Shoe Kenya staff were divided into three groups: managers, supervisors and general workers. After stratification, random sampling was used to pick samples from each of the strata which was meant to ensure fair and objective representation of the population.

3.3.2.3 Sample Size

The sample size is the number of elements or people in the sample to be studied and as provided by Mugenda and Mugenda (2003), 5% of the entire population is sufficient in order to obtain a fair representation of the population. In this study, 5% of the population of 579 employees gave a sample size of 29 and in order to ensure the minimum recommended sample size of 32 was maintained, the researcher settled on a sample size of 33 employees. Based on the responsibilities, nature of duties performed by each of the staff levels and their contribution to strategy formulation and use of technology, the researcher assigned equal number of seats per level to ensure relevant information was gathered across the company and to obtain more responses from the senior positions when compared to the population. Table 3.2 below shows the respective sample sizes. This study assumed a confidence interval of 95% which meant the allowed error was 5%.

Table 3.2: Sample Size

<table>
<thead>
<tr>
<th>Staff Level</th>
<th>Number of Staff</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td>Supervisors</td>
<td>43</td>
<td>11</td>
</tr>
<tr>
<td>General Workers</td>
<td>507</td>
<td>11</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>579</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

According to Cooper and Schindler (2011), the major methods for collecting data from the respondents should be clearly described. The information required for the study was collected through interrogation using a structured questionnaire which had the study research questions as the basis on which the questionnaire was formed. Respondents were requested to provide specific
information through the questionnaire which had both open ended and close ended questions. The questionnaire used the five likert scale (from strongly agree to strongly disagree).

There were four parts in the questionnaire: the first part was for the respondents background information, the second part was based on the first research question, drivers of adoption of technology and innovation in shoe retail firms; the third part was based on the second research question, adoption of technology and innovation for strategic competitiveness and the fourth part was based on the third research question, challenges in adoption of technology and innovation.

The questionnaires had a letter introducing the researcher to the respondents and explaining the purpose of the research. In order to enhance the response rate, respondents were assured of strict confidentiality of the information they shared with the researcher and that the information would be used solely for research purposes.

3.5 Research Procedures

The questionnaire was initially pilot tested on 3 respondents to ensure the questions were adequate when data collection was carried out. The feedback from the pre-test was used to analyze the quality of the questionnaire, the clarity and relevance of the questions to the respondents, the length of the questionnaire and the time taken to fill in the questionnaire. The questionnaires were then delivered in person to 30 selected respondents who were given time to go through them and requested to complete. The researcher did in addition have to sit and discuss with each of the respondents the purpose of the study and took them through the questionnaire in order to obtain a 100% response rate.

3.6 Data Analysis Methods

Data analysis is carried out in order to inspect, clean, transform and model data with the aim of identifying and highlighting useful information that can be used to support the decision making process (Adèr et al, 2008). Once the questionnaires were collected and assessed to ensure completeness, they were coded then entered into Statistical Package for the Social Sciences (SPSS) and Microsoft Excel for analysis. Frequencies and percentages as well as median and mode as measures of central tendency were used for analysis. Also linear regression was included as a measure of dispersion. Figures and tables were used to present the analysed data for ease of understanding.
3.7 Chapter Summary

The chapter described the research methodology that will be used in carrying out the study. The research design will be descriptive and will focus on Bata Shoe Company (Kenya) Limited. The population, sample size, sampling technique and the questionnaire which will be used as the primary data collection tool have been described. The chapter has also described the process used to analyze the data collected using SPSS and Microsoft Excel and the results will be presented in the form of figures, graphs, charts and tables.

Chapter four will present the actual findings and results of the study and will use the primary data collected from the respondents who will participate in the study.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter comprises the results and major findings of the study based on the data collected from the respondents. The results are presented in narrative, tables and graphs and the chapter begins with an overview of the respondents then presents the results of the responses on the factors that influence adoption of technology and innovation as a strategic tool by a shoe retail firm in Kenya to enhance its competitiveness. The first section of the questionnaire examined what drives shoe retail firms to adopt technology and innovation; the second section analyzed whether the adoption of technology and innovation enhanced the strategic competitiveness of shoe retail firms and the third section surveyed the challenges faced by shoe retail firms in adoption of technology and innovation.

A total of 33 questionnaires were issued and to ensure the research yielded 100% response rate, the researcher met and discussed with each of the respondents the purpose of the study and took them through completing the questionnaire.

4.2 Overview of the Survey Respondents

4.2.1 Gender of the Respondents

The gender ratio of the respondents was fifty eight percent (58%) male and forty two percent (42%) female as shown in Table 4.1:

Table 4.1: Gender Representation of the Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>19</td>
<td>57.6%</td>
</tr>
<tr>
<td>Female</td>
<td>14</td>
<td>42.4%</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

4.2.2 Number of Years Worked in the Organization

The distribution of the number of years the respondents had worked in the company showed that twenty one percent (21%) had worked between one (1) and four (4) years, thirty six percent (36%) had worked between five (5) and eight (8) years, twenty four percent (24%) had worked between
nine (9) and twelve (12) years and eighteen percent (18%) above twelve (12) years. The median number of years worked by the respondents was 5 – 8 years. The distribution is as presented in Table 4.2:

**Table 4.2: Number of Years Worked in the Organization**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 4 years</td>
<td>7</td>
</tr>
<tr>
<td>5 - 8 years</td>
<td>12</td>
</tr>
<tr>
<td>9 - 12 years</td>
<td>8</td>
</tr>
<tr>
<td>More than 12 years</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

**4.2.3 Current Position in the Organization**

As shown in Table 4.3 below, the researcher allocated an equal number of seats per level of the staff positions to ensure relevant information was gathered across the company and to obtain more responses from the senior positions of the organization who may have a better understanding of the organizations strategy.

**Table 4.3: Position Held by Respondents in the Organization**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>11</td>
</tr>
<tr>
<td>Supervisor</td>
<td>11</td>
</tr>
<tr>
<td>Other</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

**4.2.4 Computing Tool Used for Official Duties**

Sixty one percent (61%) of the respondents indicated they used desktops and thirty nine percent (39%) used laptops for their day to day operational duties. The results are shown in Table 4.4 below:
Table 4.4: Computing Tool Used by Respondents

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop</td>
<td>20</td>
<td>60.6%</td>
</tr>
<tr>
<td>Laptop</td>
<td>13</td>
<td>39.4%</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

4.3 Drivers of Adoption of Technology and Innovation

The study sought to establish the factors that led Bata Shoe Company (Kenya) Limited to adopt technology and innovation.

4.3.1 Dominant Factors Determining Technology / Innovation Adoption

As seen in figure 4.1 below, the mode of the factors determining technology and innovation adoption was the business need which was attributed twenty seven percent (27%) of the time by the respondents and the cost of adoption was considered twenty five percent (25%) of the time. The project leader was important at twenty percent (20%) while ease of implementation of the proposed technology / innovation factored fifteen percent (15%) of the time and finally thirteen percent (13%) was given as the influence if the technology had already been adopted by the competition. This implies there are a variety of reasons that could be propelling the organization as it prepares to and finally implements the various technologies and innovation ideas and these should be made clear in advance to ensure success.
4.3.2 Technology has Changed in Last 5 Years

The study considered whether the technology in the company had changed to keep up with new developments over the last five (5) years. The respondents who disagreed and those who were not sure accounted for three percent each (3%), while those who strongly agreed were forty five percent (45%). The majority, forty nine percent (49%) agreed as shown in Table 4.5. This suggests that the organization does keep its technology up to date to ensure efficiency of operations.

Table 4.5: Technology has changed over the Last Five Years

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>16</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

4.3.3 Adoption of Relevant Technology

The research also set out to establish if the organization adopts relevant technologies to support its operations from procurement and logistics to retail and customer service so as to stay ahead of
the competition. The respondents agreed and strongly agreed with the statement at ninety seven percent (97%) shared equally between the two responses, with three percent (3%) indicating they were not sure. The confidence shown by the respondents on the relevance of technology deployed indicates adequate research is carried out before adopting the technology to ensure it matches the requirement. The results were as shown in Table 4.6:

**Table 4.6: Adoption of Relevant Technology**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>16</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

In order to test the relationship between technology adoption and strategic competitiveness of the company, the following regression equation was used: \( Y = B_0 + B_1X \) where

\( Y \) = Technology Adoption

\( X \) = Strategic Competitiveness

As shown in Table 4.7 below, the \( R^2 \) of the regression was 0.567 which indicated that the included explanatory variables explained only 56.7% of how technology adoption enhanced strategic competitiveness while the remaining 43.3% was explained by other variables not in the model.

**Table 4.7: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.753</td>
<td>.567</td>
<td>.340</td>
<td>.458</td>
</tr>
</tbody>
</table>

Predictors: (Constant)

According to Table 4.8 below, the multiple regression model equation would be expressed as \( Y = 1.882 + 0.574 \text{Tech} \)
Table 4.8: Regression Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficientsa</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
<td>1.882</td>
<td>.772</td>
<td>2.440</td>
<td>.021</td>
</tr>
<tr>
<td>Utilization of Technology</td>
<td>.574</td>
<td>.171</td>
<td>.516</td>
<td>3.354</td>
<td>.002</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: Adoption of Relevant Technology*

This is an indication that technology adoption does indeed have a positive relationship with competitiveness and adoption of technology enhances the organizations competitiveness.

4.3.4 Support from Sister Companies on Technology Implementation

As shown in Table 4.9 below, fifty five percent (55%) of the respondents agreed that Bata being a multinational company gives Bata Kenya access and support from sister companies to ensure technologies are introduced early and implemented successfully. Thirty three percent (33%) strongly agreed while twelve percent (12%) were not sure.

Table 4.9: Support from Sister Companies on Technology

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>4</td>
<td>12.1%</td>
</tr>
<tr>
<td>Agree</td>
<td>18</td>
<td>54.5%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>11</td>
<td>33.3%</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

4.3.5 Gap in Technology Tools Provided

Majority of the respondents did not feel that there was a gap between the technology tools that had been given to them for their work with fifty five percent (55%) disagreeing and thirty six percent (36%) strongly disagreeing. Nine percent (9%) agreed with the statement and the results are shown in Table 4.10 below. Effectiveness and efficiency of the staff is maintained by providing them with adequate tools to perform their duties.
Table 4.10: Gap in Technology Tools Provided

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>12</td>
<td>36.4%</td>
</tr>
<tr>
<td>Disagree</td>
<td>18</td>
<td>54.5%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Agree</td>
<td>3</td>
<td>9.1%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

4.3.6 Innovation Meets Market Needs

Majority of the respondents seventy percent (70%) agreed that the company carried out innovation of its products quickly enough to match the market needs. This is compared to twenty one percent (21%) who strongly agreed and nine percent (9%) who disagreed. The results are as illustrated in figure 4.2 below. When the organization innovates quickly, they are not left to react to their competitors’ strategies.

![Figure 4.2: Innovation is Carried Out to Meet the Market Needs](image)

4.3.7 Innovation may not Bring Returns

As illustrated in figure 4.3 below, fifty eight percent (58%) of the respondents disagreed with the statement that innovations on some of the products may not bring sufficient returns as fashion trends change quickly. There were eighteen percent (18%) who agreed and twelve percent each (12%) who strongly disagreed and were not sure.
4.3.8 More Innovation Required in the Company

Sixty seven percent (67%) of the respondents agreed there should be more innovation in the company’s products to meet the customers’ tastes and preferences. This is compared to thirty percent (30%) who strongly agreed and three percent (3%) who were not sure as illustrated in figure 4.4:
4.4 Adoption of Technology and Innovation for Strategic Competitiveness

The research study set out to establish whether the adoption of technology and innovation enhances the strategic competitiveness of shoe retail firms.

4.4.1 Use of Online Tools to Interact with Customers and Grow the Brand

The study sought to establish whether the organization has an online presence and uses social media to grow its brand and gather information from the customers on their tastes and preferences. Table 4.11 below shows over sixty percent (60%) of the respondents strongly agree with the two statements and about thirty percent (30%) agree. Three percent (3%) are not sure of the use of online tools as well as an equal number disagree that the organization uses online tools to grow the brand. There was also six percent (6%) who did not agree that the company uses its website and social media platforms to gather information from customers.

Table 4.11: Use of Online Tools and Social Media

<table>
<thead>
<tr>
<th>Use of Online Tools to Grow the Brand</th>
<th>Use of Social Media to Understand Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freq.</td>
<td>%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>11</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
</tr>
</tbody>
</table>

4.4.2 Innovation to Counter Second Hand Imports

Seventy three percent (73%) strongly agreed and twenty seven percent (27%) agreed that innovation and understanding of the Kenyan market can be used to counter the impact of second hand shoes and cheap imports. As most of the cheap imports are not of superior quality, the products that would be produced at better quality even though at higher prices would appeal to the market that was not considering price solely. This is represented in figure 4.5 below:
Figure 4. 5: Innovation is required to Counter Second Hand Imports

4.4.3 Access to Information on Competition

Majority of the respondents, fifty one percent (51%), agreed there was access to information on what the competition was doing in relation to technology and innovation while twenty four percent (24%) disagreed. Twelve percent (12%) were not sure as shown on figure 4.6 below. Information on what the competition was doing in terms of innovation would help the organization to know whether they were ahead or reacting to the competitions ideas.
In order to test the relationship between innovation and strategic competitiveness of the company, the following regression equation was used: \( Y = B_0 + B_1X \) where 

\( Y \) = Innovation  
\( X \) = Strategic Competitiveness  

As shown in Table 4.12 below, the \( R^2 \) of the regression was 0.64 which indicated that the included explanatory variables explained only 64% of how innovation enhanced strategic competitiveness while the remaining 36% was explained by other variables not in the model.

**Table 4.12: Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.800</td>
<td>.640</td>
<td>.452</td>
<td>.570</td>
</tr>
</tbody>
</table>

Predictors: (Constant)

According to Table 4.13 below, the multiple regression model equation would be expressed as 

\( Y = 3.089 + 0.68 \text{Innov} \)

**Table 4.13: Regression Results**

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.089</td>
<td>1.518</td>
</tr>
<tr>
<td>Urbanization Requires Company to Innovate</td>
<td>.068</td>
<td>.336</td>
</tr>
</tbody>
</table>

This shows that innovation has a positive relationship with strategic competitiveness and implies that the organization can benefit in remaining competitive as it progresses to innovate.

**4.4.4 Innovation from Competition that Bata can Adopt**

The study considered whether there were innovation ideas that had been adopted by the competitors which Bata Shoe Company would adopt and implement themselves or learn from them. The responses were sixty one percent (61%) agreed, twenty seven percent (27%) strongly agreed and twelve percent (12%) were not sure as per figure 4.7 below:
The entry of international footwear brands will necessitate new innovation strategies that are more focused on the international market according to the majority of respondents at eighty five percent (85%) who strongly agreed and fifteen percent (15%) who agreed as per figure 4.8 below:

Figure 4. 8: Innovation Strategies to counter International Brands
4.5 Challenges in Adoption of Technology and Innovation

The research study examined the challenges faced by shoe retail firms in the adoption of technology and innovation.

4.5.1 Users Consulted Before and During Deployment of New Technology

The majority of respondents strongly agreed they were consulted before and during deployment of new technology. Fifty two percent (52%) strongly agreed while forty two percent (42%) agreed and six percent (6%) disagreed as shown in Table 4.14:

Table 4.14: Users Consulted on Deployment of Technology

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Not Sure</td>
<td>0</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

4.5.2 Financing of Technology to Ensure Successful Implementation

Forty six percent (46%) of the respondents agreed they received financing for technology which was to be deployed in their department, twenty four percent (24%) strongly agreed while those who disagreed or were not sure accounted for fifteen percent each (15%). The results are shown in Table 4.15 below. Availability of resources to ensure success in deployment of technology was as key as having the technology itself.

Table 4.15: Financing of Technology

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>5</td>
</tr>
<tr>
<td>Not Sure</td>
<td>5</td>
</tr>
<tr>
<td>Agree</td>
<td>15</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>
4.5.3 Training of Staff on Technology and Innovation Ideas to Ensure Success

The study examined whether adequate training was provided to staff who roll out technology and innovation ideas to ensure success. Majority of the respondents strongly agreed, sixty four percent (64%), while thirty percent (30%) agree to the same as shown in Table 4.16 below:

Table 4. 16: Training of Staff on Technology and Innovation

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Disagree</td>
<td>1</td>
<td>3.0%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1</td>
<td>3.0%</td>
</tr>
<tr>
<td>Agree</td>
<td>10</td>
<td>30.3%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>21</td>
<td>63.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

4.5.4 Deployed Technology to Assist in Operations not Achieved the Desired Results

There was equal response on whether technology deployed to assist in operations has not achieved the desired results with forty two percent (42%) stating they disagreed and agreed. Nine percent (9%) stated they were not sure and six percent (6%) strongly disagreed as shown on Table 4.17 which could imply either the users were not convinced the technology had achieved what it was intended to do or the technology did not deliver what was expected.

Table 4. 17: Deployed Technology not Achieved Desired Results

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>2</td>
<td>6.1%</td>
</tr>
<tr>
<td>Disagree</td>
<td>14</td>
<td>42.4%</td>
</tr>
<tr>
<td>Not Sure</td>
<td>3</td>
<td>9.1%</td>
</tr>
<tr>
<td>Agree</td>
<td>14</td>
<td>42.4%</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

4.5.5 Technology and Innovation Ideas Align to the Organizations Strategy

There was a seventy percent (70%) majority who agreed technology and innovation ideas align to the organizations strategy. Twenty one percent (21%) strongly agreed while six percent (6%) disagreed and three percent (3%) were not sure as illustrated in Table 4.18 below:
Table 4.18: Technology Aligned to Organizational Strategy

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Disagree</td>
<td>0</td>
</tr>
<tr>
<td>Disagree</td>
<td>2</td>
</tr>
<tr>
<td>Not Sure</td>
<td>1</td>
</tr>
<tr>
<td>Agree</td>
<td>23</td>
</tr>
<tr>
<td>Strongly Agree</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>33</strong></td>
</tr>
</tbody>
</table>

4.5.6 Willingness and Ability of Staff to Propose New Innovations

Seventy six percent (76%) of the respondents strongly agreed that staff members are willing and able to propose innovative ways of changing the products to increase the market share while twenty four percent (24%) agreed as illustrated in figure 4.9. The inclusion of staff in determining what innovations should be implemented allows them to own the products that are produced and ensure they are successful in the market.

![Figure 4.9: Staff Proposing Innovations](image)

4.5.7 Innovation Ideas that have not Worked in the Market

The study assessed whether there were innovation ideas that had been tested in market and not worked at all with results showing forty percent (40%) of the respondents agreed, thirty three percent (33%) were not sure and twenty seven percent (27%) disagreed. The innovation ideas that had not worked would require those who were in charge of their implementation to review the processes to ensure they did not happen often. This is shown in figure 4.10 below:
Majority of the respondents at fifty five (55%) disagreed with the suggestion that low prices of second hand shoes in the market could limit the kind of merchandise and products Bata Kenya can offer and another twenty seven percent (27%) strongly disagreed. Nine percent (9%) agreed with six percent (6%) not being sure and three percent (3%) strongly agreeing. These results are shown in figure 4.11 below:
4.5.9 Protection of Innovations from the Competitors

Majority of the respondents agreed there was sufficient protection of ideas and innovations of products that Bata Kenya came up with to ensure the competition did not exploit the intellectual property. Sixty one percent (61%) agreed, eighteen percent (18%) strongly agreed and fifteen percent (15%) strongly disagreed with the remaining six percent (6%) stating they were not sure as shown in figure 4.12 below:

![Bar chart showing responses to protection of innovations from competitors.]

**Figure 4. 12: Protection of Ideas and Innovations from the Competition**

4.6 Chapter Summary

This chapter provides the results and findings of the study with respect to the data collected from the respondents. The findings based on the background of the respondents is given in the first section followed by the findings on the factors that influence adoption of technology and innovation. The third section presents the results on the adoption of technology and innovation to enhance strategic competitiveness and the final section provides the findings on the challenges faced by Bata Shoe Kenya in adoption of technology and innovation. The next chapter will focus on the discussion of the findings, conclusion and recommendation of the study.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter comprises the summary, discussion, conclusion and recommendations of the study. The first section contains the summary which includes the study objectives, methodology and findings. The second section presents the discussion on the major findings and the third section covers conclusions based on the research questions as per the results obtained in chapter four. The fourth section offers recommendations for improvement based on the research questions as well as recommendations for further studies.

5.2 Summary

The purpose of the study was to determine the factors that influence adoption of technology and innovation as a strategic tool by a shoe retail firm in Kenya to enhance its competitiveness. The study was guided by the following research questions: What drives shoe retail firms to adopt technology and innovation? Does the adoption of technology and innovation enhance the strategic competitiveness of a shoe retail firm? What are the challenges faced by shoe retail firms in the adoption of technology and innovation?

To achieve the above purpose, descriptive research design was used as opposed to causal research design because the data used in the study was generally readily available. The total population of Bata Shoe Company (Kenya) Limited was 2,696 permanent and contracted staff and for this study, a survey was carried out in the population and considered only the 579 permanent staff as they were involved directly with setting the strategy of the company. There was also a focus on those who had worked in the organization for more than one year as they were considered to have had sufficient knowledge of how the operations were run. The study used stratified and random sampling techniques, stratifying the members of the population into three groups: managers, supervisors and general workers and arriving at a sample size of 33 employees.

The information required for the study was collected using a structured questionnaire which was pilot tested to ensure the questions were adequate when data collection was carried out. The questionnaires were then assessed to ensure completeness then coded and entered into Statistical Package for the Social Sciences (SPSS) and Microsoft Excel for analysis using median and mode as measures of central tendency, frequencies and percentages. Linear regression as a measure of dispersion. Figures and tables were used to present the analysed data for ease of understanding.
From the study it was evident that majority of the respondents attributed the business need as the dominant factor determining technology and innovation adoption followed by cost of adoption and the influence of the project leader as the third factor. Ease of implementation of the proposed technology / innovation came in fourth and finally if the technology had already been adopted by the competition. A vast majority also believed that the technology in the company had changed to keep up with new developments over the last five years. The study also established that the organization adopted relevant technologies to support its operations from procurement and logistics to retail and customer service so as to stay ahead of the competition. Most of the respondents agreed that the company carried out innovation of its products quickly enough to match the market needs as well as the majority of respondents agreeing that there should be more innovation in the company’s products to meet the customers’ tastes and preferences.

The study further revealed that the organization has an online presence and uses social media to grow its brand and gather information from the customers on their tastes and preferences. The respondents agreed that innovation and understanding of the Kenyan market can be used to counter the impact of second hand shoes and cheap imports. Majority of the respondents agreed there was access to information on what the competition was doing in relation to technology and innovation which would help the organization to know whether they were ahead or reacting to the competitions ideas. The entry of international footwear brands will also necessitate new innovation strategies that are more focused on the international market according to the majority of respondents.

The study also revealed that majority of the respondents were consulted before and during deployment of new technology and financing for deploying required technology was received by most of the departments to ensure successful implementation. Majority of the respondents also agreed that adequate training was provided to staff who would roll out technology and innovation ideas. There was mixed response on whether technology deployed to assist in operations had not achieved the desired results with some respondents not convinced that the technology had delivered what was expected. There was consensus in the study that staff members were willing and able to propose innovative ways of changing the products to increase the market share.

5.3 Discussion

5.3.1 Drivers of Adoption of Technology and Innovation

The study revealed that the business need was the primary factor determining technology and innovation adoption in the organization followed by cost of adopting the technology and
innovation, the influence of the project leader, ease of implementation of the proposed technology / innovation and finally if the technology had already been adopted by the competition. These findings demonstrate an appreciation within the organization on the changing dynamics within the business environment as competition intensifies. Some of the major reasons for the dwindling profits within the retail sector have been saturated markets, changing customer needs and preferences and the recent global recession which saw some shoe retail firms sell or close some of their outlets as a way of controlling costs (Werner et al, 2004). There is a requirement for companies not just to engage in geographical expansion which will ensure they are physically present within each of the market areas where their customers may be but also engaging in customer targeting and profit-driven product selection strategies.

The organizations staff are required to handle a lot of information coming from all the outlets which can overwhelm them if they are not provided with the correct technologies to analyze the incoming information and make relevant conclusions. Based on research conducted by Knee (2002), there are many and varied tasks which are to be carried out and the skills required to perform them as well as the output expected has necessitated the use of different technologies to ensure the person can summarize a lot of the input data and also make decisions quickly. The study did reveal that relevant technology is adopted to support the organizations operations from procurement and logistics to retail and customer service so as to stay ahead of the competition. There was also acceptance that the tools provided to the staff did meet their requirements which ensured effectiveness and efficiency of the staff was maintained when they were able to perform their duties.

The study also established that the organization carried out innovation of its products quickly enough to match the market needs which is key when shoe retail firms are faced with customers who have varied tastes and preferences and is reflected in what the customers expect when they walk into retail stores. Technology has helped retailers innovate ever faster in terms of the internal operation of the business as well as meet customer needs and desires. When the organization innovates quickly, they are not left to react to their competitors’ strategies. The organization agreed that the innovations carried out on its products would bring sufficient returns to the organization even though fashion trends change quickly. According to Swinyard (1997), market needs can shift suddenly and companies need to introduce programs to meet the new needs. The introduction of technology to ease the execution of many of these changes has helped track what is happening at each stage of the change cycle.

The study revealed the organization has the advantage of being a multinational firm which allows it to access information and support from its sister companies to ensure technologies and
innovations are introduced early and implemented successfully. This is because Bata Kenya does not have to test all the available and proposed innovations and technologies by itself as it can use the already deployed and successful projects in the other countries to guide what it takes up for implementation. It is also easy to get teams trained in similar environments to ensure when they deploy new programs their chances of success will be higher. As innovation is an expensive exercise in the amounts of money required and the expertise necessary to continuously come up with new ideas, Bata Kenya can use the pool of research and development teams available across all the countries to come up with innovations that match the markets’ needs. According to Flavián and Polo (1998), new sales channels are proving to be serious competition to the traditional store format as they are able to easily introduce technologies and systems to help them compete effectively as they can minimize their costs and find new ways to understand their customers’ needs without having to interact with them directly. Bata Kenya can therefore use its presence in multiple countries to share the costs of implementing some of the technologies and also learn from other sister companies based on their experiences.

5.3.2 Adoption of Technology and Innovation for Strategic Competitiveness

The study established that the organization has an online presence and uses social media to grow its brand and gather information from the customers on their tastes and preferences. According to a study conducted by Endo et al (2012), on the key determinants of customers’ satisfaction of purchasing experience, they found that product selection was important in the pre-purchase stage and customer service was important in the post-purchase stage. They noted that companies with poor service recovery strategies in the post-purchase period received more negative reviews from their customers. Many organizations are attempting to achieve strategic superiority by harnessing technology to cultivate customer service and for Bata Kenya to use social media sites to gather information from their customers ensures they not only provide the required products when the customers want them but are also able to engage them as part of their customer service strategy.

The study found that there was access to information on what the competition was doing in relation to technology and innovation which would help the organization to know whether they were ahead or reacting to the competitions ideas. Research by Fratto et al (2006), established that technology was one of the main tools retailers and manufacturers used to compete as they could use it lower costs, achieve economies of scale and enhance their product development activities. With the information garnered from all their operations, frequent new product introductions, rapid competitive reactions to rival firms’ actions, frequent price cutting and intense advertising campaigns are all ways in which firms attempt to surpass their competitors using the knowledge acquired on day to day basis. Bata Kenya could adopt some of the ideas that the competitors were
coming up with or even use them to learn how they could improve their operations. The information could be product related, customers’ choices, store layout and even pricing as competing strategy.

The Kenyan second hand imports market has been a significant competitor to the mainstream organizations and the fact that there are no dominant players in the second hand imports arena makes it much harder to identify and pinpoint a particular competitor. The study found that despite the intense competition from the cheaper second hand imports, Bata Kenya has the advantage of being able to manage its innovation and understanding of the Kenyan market to counter them. As most of the cheap imports are not of superior quality, the products that would be produced at better quality even though at higher prices would appeal to the market that was not considering price solely. McGuire et al (2012), stated that big data could be leveraged for success in the organizations strategies because they would make information transparent which increased efficiency, collection and storage of accurate and detailed information and performance metrics. Bata Kenya would be able to collect information from its wide network of outlets across the country to understand the consumers’ choices and help predict what other areas would need. In comparison to their competition which may not have such a large footprint across the country, it would be possible for them to innovate faster than the smaller players as they had access to a large pool of data.

The study found that the entry of international footwear brands would necessitate new innovation strategies that were focused on the international market so as to compete with the brands that were coming in either on price, quality, packaging or customer service. Some of the proposed strategies include in-depth analysis of the sector in order to gain a certain level of knowledge and experience to understand the determinants of success and adapt it as it was easier for local player to change their strategies as competition changed when compared with international brands. Coca-Stefaniak et al (2010), stated that technology could be used as a strategy to achieve synergy in operations and expectations and provide solutions to the many challenges facing the retail industry, both internal and external and which affect competitiveness such as management style, rapidly changing patterns in consumer choices and intense competition. Bata Kenya had managed to use both technology and innovation to challenge the competition and meet their customers’ needs.

5.3.3 Challenges in Adoption of Technology and Innovation

The study revealed that the staff were consulted before and during deployment of new technology and adequate training was provided to staff who would roll out technology and innovation ideas. This helped in allowing all the users who would be touched by the developments to become part
owners of the technology / innovation when they know their input was considered before deployment. Based on a study conducted by Singal et al (2011), on the challenges, opportunities and trends in retailing in India which examined the footwear industry, they found some of the challenges which could affect the innovation process for retailers were; lack of trained work force, absence of integrated IT management and the intrinsic complexity of retailing which led to rapid price changes and constant stiff competition which made it difficult for companies to set and follow long term strategies.  

The study also found that financing for deploying required technology was received by most of the departments to ensure successful implementation. From their study on the leather industry competitiveness in Iran, Shafaei et al (2009), established that availability of capital and specialized factors such as research and development were key success determinants. Capital enabled the businesses acquire the necessary tools and technologies to effectively influence the highly competitive leather industry and many companies believed that the finance options available to them were restricted. To Bata Kenya, availability of resources to ensure success in deployment of technology was as key as having the technology itself which meant they provided that which was required for implementation.  

There was mixed response in the study on whether technology deployed to assist in operations had not achieved the desired results as some were not convinced that the technology had delivered what was expected. Part of the reason was that technology constantly changed which meant that by the time the chosen technology was fully implemented and all the staff trained to use it, there was a newer, faster and better one released into the market. There was also the chance that the company may have rushed into adopting a particular technology only to find that others were not as enthusiastic and this could lead to apprehension in accepting more suitable and industry changing technology in future.  

The study also revealed that there was consensus that staff members were willing and able to propose innovative ways of changing the products to increase the market share. From their study on retail strategies, Aertsens et al (2009), found that there were strategic product categories in the retailers’ stock that were more important in customers’ choice decisions than others. As retailers targeted different customer segments, their optimal product mix would need to be different either through their functional value or the underlining image of the retailer. Bata Kenya had different teams handling different products which meant they would survey the market and come up with ways to enhance their products to ensure their success for the various market segments.
5.4 Conclusions

5.4.1 Drivers of Adoption of Technology and Innovation

The study concludes that the business need was the dominant factor determining technology and innovation adoption followed by cost of adoption and the influence of the project leader. Ease of implementation of the proposed technology / innovation came in fourth and finally if the technology had already been adopted by the competition. Majority of the respondents also believed that the technology in the company had changed to keep up with new developments over the last five years. It was also revealed that the organization adopted relevant technologies to support its operations from procurement and logistics to retail and customer service so as to stay ahead of the competition. Finally it was agreed that the company carried out innovation of its products quickly enough to match the market needs as well as the majority of respondents agreeing that there should be more innovation in the company’s products to meet the customers’ tastes and preferences.

5.4.2 Adoption of Technology and Innovation for Strategic Competitiveness

The study further concludes that the organization has an online presence and uses social media to grow its brand and gather information from the customers on their tastes and preferences. It was agreed that innovation and understanding of the Kenyan market can be used to counter the impact of second hand shoes and cheap imports. There is access to information on what the competition is doing in relation to technology and innovation which would help the organization to know whether they were ahead or reacting to the competitions ideas. Finally the entry of international footwear brands will necessitate new innovation strategies that are more focused on the international market.

5.4.3 Challenges in Adoption of Technology and Innovation

The study concludes that staff in the organization are consulted before and during deployment of new technology and financing for deploying required technology is availed to most of the departments to ensure successful implementation. Additionally, adequate training is provided to staff who will roll out technology and innovation ideas. The respondents were not definite as to whether technology deployed to assist in operations had achieved the desired results or not with some respondents not convinced that the technology had delivered what was expected. Finally, staff members are willing and able to propose innovative ways of changing the products to increase the market share.
5.5 Recommendations

The following are the recommendations for improvement and further studies; the recommendations are drawn from the study findings.

5.5.1 Recommendations for Improvement

5.5.1.1 Drivers of Adoption of Technology and Innovation

Bata Kenya should include its customers and suppliers in determining which technologies to adopt so as to ensure they capture all the requirements when pursuing a particular technology. As the developed countries moved into online shopping more than traditional bricks and mortar stores, it could be an opportunity to capture in Kenya where mobile technology is more prevalent and this could be a bigger driver for the business.

5.5.1.2 Adoption of Technology and Innovation for Strategic Competitiveness

The retail industry is very competitive and with the growing internationalization of many businesses, Bata Kenya may be faced with new competition that may operate differently from its previous competitors. This may be established companies from China that could bring higher quality merchandise at low prices and this would be contrary to the current scenario where the imports from China are known as not being of very high quality. The growing middle class in Kenya is also looking for well-known brands which has seen the entry of Clarks and Sketchers into the local market in the last few months. It will therefore be prudent for Bata Kenya to develop strategies to counter the new forms of competition which may be unlike those which they have been used to before.

5.5.1.3 Challenges in Adoption of Technology and Innovation

The study acknowledges that staff are consulted during deployment of new technology and training is carried out to ensure success. It is possible that some of the technologies deployed have not achieved their intended results and this could be as a result of communication on what was expected to be achieved as well as the type of technology chosen. The company can include a test zone where they can be testing some of their technologies before they are released to the live environment as well as review the communication channels used to pass on the information to the staff to ensure they all understand what is intended to be achieved before actual deployment.
5.5.2 Recommendations for Further Studies

There is need for a further study on the impact of online market places to traditional physical stores as they have started gaining traction with consumers and businesses are almost being forced to place their products on these market places by their consumers so as to remain relevant. These types of new technologies are challenging the old ideas of how retail was run with store fronts and they could see some of the old businesses pick up the technology altogether.

There is also need to study whether the increase in cheap products from Asia has affected the innovation plans that organizations had as they try to match the low prices charged for these products.
REFERENCES


Nickson Njogu,
United States International University,
P.O. Box 14634 – 00800,
Nairobi, Kenya.

Dear Respondent,

RE: RESEARCH STUDY.

I am a graduate student at the United States International University (USIU) – Africa pursuing a Masters degree in Business Administration (MBA). As part of my program, I am currently undertaking a research study on the adoption of technology and innovation as a strategic competitive tool in a Kenyan shoe retail firm with the aim of identifying the factors that influence the adoption as well as challenges faced in the process.

Your participation in this study is essential and will be highly appreciated. Kindly spare a few minutes to fill in the attached questionnaire which will take you approximately 15 minutes to answer.

I assure you the information provided will be treated with the utmost confidentiality and will only be used for academic purposes. Thank you for your time.

Yours faithfully,

Nickson Njogu.
APPENDIX II: QUESTIONNAIRE

SECTION A: BACKGROUND INFORMATION

Kindly answer all the questions by writing in the spaces provided or ticking in the boxes.

1. Gender? Male □ Female □

2. How long have you worked for the organization?
   □ Below 1 year □ 1 – 4 years □ 5 – 8 years
   □ 9 – 12 years □ More than 12 years

3. What is your present position within the organization?
   □ Manager □ Supervisor □ Other - Please Specify ____________

4. What type of computing tool do you use for your daily official duties?
   □ Desktop □ Laptop □ Tablet Computer
   □ Smart Phone □ None

SECTION B: WHAT DRIVES SHOE RETAIL FIRMS TO ADOPT TECHNOLOGY AND INNOVATION

5. What is / are the dominant factor(s) which determines the type of technology or innovation the company adopts?
   □ Business Need □ Ease of Implementation □ Project Leader
   □ Cost of Adopting the Technology / Innovation □ Already Adopted by Competition
   □ Other – Please Specify ____________________________________________

6. Kindly state your level of agreement or disagreement with the following statements by putting a tick against that which best describes your position.

   The scale ranges from Strongly Disagree (1), Disagree (2), Not Sure (3), Agree (4) and Strongly Agree (5).

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<th>No.</th>
<th>Statement</th>
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<td>1</td>
<td>The technology in the company has changed to keep up with new developments over the last five years</td>
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<td>2</td>
<td>The company adopts relevant technologies to support its operations from procurement and logistics to eventual retailing and customer service</td>
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<td>3</td>
<td>As a multinational company, there is support from the sister companies to ensure technologies are introduced early and implemented successfully</td>
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<td>4</td>
<td>There is a gap between the technology tools that have been provided to you and what you require for your work</td>
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<td>5</td>
<td>The rapid urbanization and growing middle class in the country requires the company to innovate and stratify its products for the different market segments</td>
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<td>6</td>
<td>The company carries out innovation of its products quickly enough to match the markets needs</td>
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<td>7</td>
<td>The innovations on some of the products may not bring sufficient returns as fashion trends change quickly</td>
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<td>8</td>
<td>There should be more innovation in the company’s products to meet the customers’ tastes and preferences</td>
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**SECTION C: DOES ADOPTION OF TECHNOLOGY AND INNOVATION ENHANCE THE STRATEGIC COMPETITIVENESS OF SHOE RETAIL FIRMS**

7. Kindly state your level of agreement or disagreement with the following statements by putting a tick against that which best describes your position.

The scale ranges from Strongly Disagree (1), Disagree (2), Not Sure (3), Agree (4) and Strongly Agree (5).

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<tbody>
<tr>
<td>1</td>
<td>The use of online tools and social media has helped the company grow its brand locally and regionally to new customers</td>
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<td>2</td>
<td>The company adequately uses its website and social media platforms to gather information from customers on their tastes and preferences</td>
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<td>3</td>
<td>The company utilizes its deployed technology and operational efficiencies to ensure products are in the stores when customers require them</td>
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<td>4</td>
<td>Faster product innovation and understanding of the Kenyan market can be used to counter the impact of second hand shoes and cheap imports</td>
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There is sufficient access to information on what the competition is doing in relation to technology and innovation

There are innovation ideas implemented by the competition that you think Bata Kenya can adopt

The entry of more international footwear brands in Kenya will necessitate new innovation strategies that are more focused on the international market

SECTION D: CHALLENGES FACED BY SHOE RETAIL FIRMS IN ADOPTION OF TECHNOLOGY AND INNOVATION

8. Kindly state your level of agreement or disagreement with the following statements by putting a tick against that which best describes your position.

The scale ranges from Strongly Disagree (1), Disagree (2), Not Sure (3), Agree (4) and Strongly Agree (5).

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<tbody>
<tr>
<td>1</td>
<td>The users are adequately consulted before and during deployment of new technology</td>
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<tr>
<td>2</td>
<td>The financing of technology required by your department is availed to ensure successful implementation</td>
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<tr>
<td>3</td>
<td>There is adequate training to staff who will roll out technology and innovation ideas to ensure success</td>
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<td>4</td>
<td>There has been technology deployed to assist in operations which has not achieved the desired results</td>
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<td>5</td>
<td>The technology and innovation ideas adopted always align to the organizations strategy</td>
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<td>6</td>
<td>Staff members are willing and able to propose innovative ways of changing the products to increase the market share</td>
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<td>7</td>
<td>There are innovation ideas that have been tested in market and not worked at all</td>
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<td>8</td>
<td>The low prices of second hand shoes in the market limit the kind of merchandise and products Bata Kenya can offer</td>
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<td>9</td>
<td>There is sufficient protection of ideas and innovations of products that Bata Kenya comes up with to ensure the competition does not exploit the intellectual property</td>
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