AN ASSESSMENT OF THE EFFECT OF CUSTOMER PORTFOLIO MANAGEMENT ON NEW PRODUCT DESIGN IN THE FIXED TELECOMMUNICATIONS SECTOR IN ZIMBABWE. A CASE OF TELONE PVT LTD

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DEDICATION

I dedicate this project to my family members and all marketers.

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ABSTRACT

This research was carried out to investigate the extent customer portfolio management affects new product design in the fixed telecommunications sector. The objectives of this research were to determine if customer portfolio size affects new product quality, to establish the effect of corporate customer relationships on new product features and to determine if customer portfolio revenue contribution affects new product cost. These objectives were used by the researcher to review literature put forward by numerous authors and researchers identifying their agreements and disagreements on the topic understudy. The researcher used both descriptive research design and exploratory research design. Descriptive research design was used to acquire data through questionnaires while the exploratory research design was used to acquire more detailed information through in-depth interviews. Corporate customers, employees and management for TelOne Harare and Gweru were targeted by the researcher. Questionnaires and in-depth interviews were used as research instruments and data gathered through these instruments was presented using pie-charts and tables. The conclusions of the research were that customer portfolio size positively affects new product quality, corporate customer relationships have a positive impact on new product features and customer portfolio revenue contribution affects new product cost. However the researcher recommended that TelOne may consider investing in customer portfolio management for them to satisfy the needs and wants of the ever demanding customer.

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ACROYMS

ADSL – Asymmetrical Digital Subscriber Line.

B2B – Business to Business.

B2C – Business to Customer.

SHDSL - Symmetrical High-speed Digital Subscriber Line.

POTRAZ – Postal and Telecommunications Regulatory Authority of Zimbabwe.

MNOs – Mobile Network Operators.

CPM – Customer Portfolio Management.

NPD – New Product Design

BT – British Telecoms

CRM- Customer Relationship Management

CLV- Customer Lifetime Value

KAM – Key Account Management

GENERAL INTRODUCTION

1.0 Introduction

The chapter introduces the research topic. This was made possible through unbundling the background of the study, statement of the problem and the research objectives, hypothesis, assumptions, scope, limitations and definition of the key terms used by the researcher.

1.1 Background of the study

A customer portfolio is a differentiated group of customers that make up a company's customer base. There has been no proper definition for customer portfolio, but Terho and Halinen; (2007) define customer portfolio management as a practice by which a company analyses the role of different customers in providing current and future value in its customer base. The authors argue that the purpose of customer portfolio management (CPM) is to develop a balanced structure through effective resource allocation to different customers. Moreover customer portfolio management is noted to result in customer involvement which leads to effective new product design (NPD) (Griffin and Hauser; 1996). Caldecote (1979) cited in Walsh et al (1992:18) define design as, "The process of converting an idea into information from which a new product can be made." Walsh et al (1992:18) defines product design as, "the activity in which ideas and needs are given physical form, initially as solution concepts and then as a specific configuration or arrangement of elements, materials and components."

There is only limited knowledge about how customer portfolio of an organisation affects new product design in the business to business marketing. The area of research in how customer portfolio management affects new product design remains unexplored. Some academics argue that customer portfolio management involves managing customer relationships and a lot of research has been done in this area mainly focusing on business to customer relationships but not considering business to business marketing (Yli-Renko and Janakiraman; 2008). The concept of customer portfolio management has been designed to close the gap that has been left by customer relationship management.

The fixed telecommunications sector has been affected by the introduction of mobile phone operators with most of the Zimbabwean consumers shunning fixed lines. Most of the customers

that are being served by this industry are business customers. Telkom Southern Africa's leading fixed telecommunications, by number of subscribers, has 80% corporate customers with much of its revenue coming from business to business transactions. British Telecom (BT) realised an increase in the number of its customers after the introduction of superfast broadband. The company had been underperforming for the past five years. The firm has increased its customer base in both business and consumer markets. However, the growth rate in the business market customer base seems to be slower for the company according to an online source (www.bt.co.uk)

In Zimbabwe, the state owned sole provider of fixed telecommunications, TelOne, has been underperforming leading to a decrease in market share from 500 000 subscribers to 300 000 in 5 years from 2009 to 2014 (POTRAZ 1st Quarter Report; 2014). Of the company's 300 000 subscribers more than 60% are business customers on which the organisation heavily relies on. TelOne's customer portfolio consists of government institutions, education institutions, private corporates, mobile phone operators /internet service providers and households. The business market has been noted as a market that is sensitive to product design as most of its products are made to customer specifications. TelOne has been losing most of its business customers to competition due to producing products not designed for the market. Customer involvement in new product design in B2B market has been viewed as one of the most effective tools on product acceptance on the market (Payne and Frow; 2005)

At the beginning of the year 2013, British Telecom's undertook customer involvement in new product design and came up with super-fast broadband package which saw the company improving market share to 51% of all British domestic connections. TelOne introduced, Fibre broadband, ADSL, SHDSL, Ka band broadband services on the market from 2009 to 2014. However, the acceptance of the new products on the market has not been to company expectations. For example the company targeted that 85% of the corporate customers would subscribe to the products but only 55% had subscribed by January 2014. Can customer portfolio management improve new product design and acceptance of new products at TelOne?

1.2 Statement of the problem

TelOne is operating in a competitive environment dominated by Mobile Network Operators (MNOs), and the environment is also characterised by constantly changing consumer preferences. The poor performance of new products designed by TelOne without capturing the voice of the corporate customer resulted in only 55% instead of the targeted 85% corporate

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customers subscribing to TelOne new products. Would knowing who makes up the corporate clients at TelOne improve product design and product performance on the market?

1.3 Research Objectives

- To determine if firm's customer portfolio size affects new product quality.
- To establish the effect of corporate customer relationships on new product features.
- To determine if customer portfolio revenue contribution affects new product cost.

1.4 Hypothesis

H_1: size of customer portfolio has a positive influence on product quality.

H_0: size of customer portfolio has a negative influence on product quality.

H_2: corporate customer relationships have a positive impact on product features.

H_0: corporate customer relationships have a negative impact on product features.

H_3: customer portfolio revenue has a positive impact on product cost.

H_0: customer portfolio revenue has a negative impact on product cost.

1.5 Significance of the study
To the researcher

- The researcher increased knowledge in the field of customer portfolio management and new product development.
- The researcher hopes to use the knowledge in the future for consultancy purposes to other customers.

To the University

- University students may use the research as a study material.

To the organisation

- The research is likely to provide the management with an understanding of the importance of customer involvement in new product development and product performance.
- The researcher hopes that the results from the study will assist management as TelOne to effectively use their customers in designing winning products on the markets.

- The management may have knowledge on the broader perspective of Relationship Marketing and its impact on product design and mould the independent actions and decisions of management and employees into a coordinated, companywide game plan.

- The management may empower their workforce on the importance of keeping corporate customers that contribute more revenue to capture their voice hence improve the quality of their products.

1.6 Assumptions

- The research assumed that customer portfolio size at TelOne is likely to have a positive effect on product quality.

- The research assumed that corporate customer relationships at TelOne are likely to have a positive impact on new product features.

- The research assumed that customer portfolio revenue at TelOne is likely to haves a positive influence on new product cost.

1.7 Delimitations

- The research encompassed participants from Harare and Gweru who at the time of the research were using TelOne products. Since the customers are spread all over the country those in Harare represented the other major corporate customers since it is the dominant city in terms of economic activity and Gweru represented the other small corporate customers.

- The investigation focused on customer portfolio management concepts which are portfolio size, portfolio revenue and portfolio relationships and its effects on new product design concepts which are product cost, product features and product quality.

- The period under which the research was drawn was 2009 to May 2014 because this is when TelOne introduced many new products, prior to this period there were few products introduced on the market targeted to corporate customers.

1.8 Limitations

- The research was limited to Harare and Gweru customers and yet TelOne has presence throughout the country. The results may not be a true representation of the actual findings of the fixed telecommunications sector. A future research may need to be undertaken so as to include customers in all major cities of the country and also those from the rural areas in the country.

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- Limited time to reach the intended respondents of the research as some of the respondents were tied up to work schedules, but the researcher managed to use the available scarce time to reach some of the respondents.

- The researcher could not gather all the secondary data wanted to be used in the research as he was restricted to some company confidential information, but the researcher utilized the data that was made available to him by the management of the company.

1.9 Definition of terms

Customer Portfolio Management- is the management of a group of clients who recurrently acquire goods and services of an organization.

New Product Design – is the process of converting product ideas into physical form.

1.10 Chapter Summary

This chapter focused on what the dissertation strives to achieve. It underlined the background of the study, statement of the problem, hypothesis, research objectives, significance of the study, limitations of the study, delimitations of the study and definition of terms and abbreviations. The next chapter will cover theoretical perceptions and context of customer portfolio management and new product design.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter reviews the literature of correlated issues of customer portfolio revenue contributions, new product features, new product quality, customer portfolio size, customer relationship management, relationship marketing and the success factors of customer lifetime value and key account management. It also reviews the literature that has been postulated by different scholars and researchers relating to new product design and customer portfolio management, recognizing their argument of agreement and disagreement on related issues.

2.1.0 Customer portfolio size

Dewar and Dutton (1986) state that the larger the customer portfolio size of a company the more exposure the company has to external knowledge base. The authors further argue that the external knowledge gained by the company leads to scale effects in new product design and enables the organisation to understand better to extract importance from its inter-firm arrangements. Accordingly customers give training to employees of an organisation, as they talk to one another. They are able to achieve this when they spread the information on the organization's image thus encouraging the development of employee competence with their demands (Sveiby, 1997). Furthermore, management of customer base of an organisation is a vital strategic significance as the customer portfolio determines both the quality and quantity of information passed to the organisation, therefore the larger the customer base the larger the volume of information flow to the organisation (ibid).

Recent research has suggested that the answer could lie in external relationships. Scholars have examined how various kinds of inter-organizational relationships enable firms to gain access to other organizations' knowledge bases and resources (Jarillo, 1987; Varadarajan and Cunningham, 1995) and have argued that such access can enable novel connections (Kogut and Zander, 1992), stimulate broader perspectives and synthesis and spread out the risks and costs associated with innovation (Sivadas and Dwyer, 2000).

Previous studies by Powell, Koput, and Smith-Doerr (1996) recognised the progressive effect of customer portfolio size on product innovation. Large portfolios lead to balance effects in new product design (Ahuja, 2000) and enable organisations to gain more coverage to

knowledge from external sources such as customers. Nevertheless, customers' portfolio size's influence on information given the organisation by external sources is not thoroughly research on. As for new product success, organisations' superior experience with customer portfolio management has been related with progressive results (Powell, Koput, and Smith-Doerr, 1996). The large the portfolio size provides the firm with a broad selection of knowledge that comes from previous consumer trials and problems (Anand and Khanna, 2000).

Robson and Bennet, (2000) states that small entrepreneurial companies have limited knowledge so they are often forced to use external knowledge sources because of lacking human capital. Furthermore Wilhelm, Gueldenberg and Guttel (2013) posit that it is likely that customers could fill these knowledge gaps in the form of a value adding complementary resource, and they went on to define these types of customers as strategic customers. Zack, Mckeen and Singh (2009) discovered that there is a lot of research on the literature of intergrating customer knowledge on a much more operational level, for example as an idea generator or as a knowledge source for unique products improvements. The customer is therefore included in the innovation process and is no-longer seen as a passive product recipient but as a fixed component of the value creation process.

In a study carried out by Wilhelm et al (2013) it can be determined that the organisation that recognizes and appreciate its strategic customers has a wide knowledge base as the strategic customers openly share their knowledge with the organisation. They went on to edge management of entrepreneurial oriented firms which are supplied with limited knowledge to use the elementary strategic customers to increase their knowledge base. These customers can represent important external sources as they possess knowledge and skills which they have acquired through their past experiences. They have also knowledge which they gather from their day to day activities and therefore embody the best sources for further value addition activities (Handlbaner and Renzi, 2009; Gibbert et al, 2002).

Ahuja and Lampert (2001) posit that having a large customer portfolio can have an effect to the organisation of having information overload and misunderstanding as management extend its devotion and labor through a comprehensive set of client information sources. Thus the firm has limited capacity to choose the best ideas from customer ideas and devote required effort in implementing the ideas. On the other hand Barringer (1997) states that if an organisation focuses its efforts on a limited number of existing customers, the firm will reduce its search and acquisition costs for new customers.

It seems extant research does not agree on the effect of customer portfolio size on the amount on information received by a company and the diverse number of ideas received. In a typical study of this type carried out by Yli-Renko and Janakiraman (2008) in technological based entrepreneurship firms shows that as the number of customer relationships increases, firms are likely to face difficulties in effectively using those relationships for new product development. They went on to use two mechanisms underlying these difficulties which are transaction costs and limited available managerial attention.

2.1.1 New product quality
Research highlights that the significant element of a new product's market adoptability and effectiveness is its quality. Quality of a product has been noted as the dominance of the product in proportions such as appearance, performance, and durability (Aaker and Jacobson; 1994). Product quality has been viewed as the chief factor in determining new products' success because of its influence on organisation goodwill and customer retention, the virtual desirability of products to customers, and eventually product market share and profitability (Cooper and Kleinschmidt, 1995). Hackman and Wageman (1995) state for companies to achieve total product quality of new products they should use cross functional product development teams. Engaging everyone within the organisation in new product development enhances product quality management. However regarding organizational competency, the quality of new products is partially derived of the people who staff product development teams thus their education, experience and tenure as well as the manner in which these teams are structured for example autonomy, integration and organization (Kessler and Chakrabarti; 1998).

Conversely, quality of new products is measured by the consumer. The strategic quality management theory altered quality to become a competitive weapon, not just a potential problem area, thus shifting the relationship between customers and firms. Garvin, (1988) and Porter, (1985), cited in Lengnick-Hall (1996) state that customers determine the dimensions of quality which are important and helping as key suppliers of product design information and as ultimate judges of new product quality. Regarding the issue of customer as the ultimate judge of new product quality, Lengnick-Hall (1996) posit that customers have an overriding voice in setting quality standards of new products. Hence, customer satisfaction is frequently a dominant gauge of effective quality management. Customers as users of products expect clear

benefits for their costs. Thus, customer based definition of quality begins with the indication that quality is in the eyes of the user which is the customer.

Likewise, the modern telecommunications industry increasingly dominated by ever demanding customers, crowded markets, and stiff competition, product quality is even more important to competitive advantage (Wheelwright and Clark, 1992). On the other hand Dobyns and Mason (1991) dispute that product quality initiate the overall competitiveness of firms as well as the standard of living of societies in general. Evidenced in their recent study where eight out of ten buyers ranked quality as more important than price when purchasing a product. Hauser and Clausing, (1988) states that product quality is to some extent the result of consciously planned, accepted, and implemented policies designed with the express purpose of improving features and attributes desired by consumers.

Quality management is categorised in a simple three stage process model by Benson, Saraph and Schroeder (1991). In the model the authors went on to argue that management recognises organizational quality context comprising customer quality demands, previous quality performance, corporate direction and support of quality, resources available for quality improvement, and the competitive forces that have a bearing on quality.

2.1.2 Customers' view of incorporating product quality through Quality Function Deployment

Product quality is one of the most significant subjects in accomplishing comparative advantage and profitability in a competitive sector. A renowned technique, that is effective in designing high quality products resulting in customer satisfaction, is Quality Function Deployment (QFD) (Mazur; 1997). Quality Function Deployment is a systematic approach to design built on close consciousness of consumer requirements, attached with the incorporation of corporate functional groups. It consists in interpreting customer requirements into design characteristics for all the stages of new product development (Rosenthal, 1992). Akao and Mazur (2003) describe QFD as a system that helps in reducing new product design costs, development time, enhanced communication and interconnection inside the product development team, and setting product design decisions early in the development process. The success of any NPD depends on the identification and anticipation of customers' desires and their transformation into manufacturing design requirements (Mehrjerdi; 2010).

In a research carried out by Ahmed and Amagoh (2010) to establish how QFD could be useful in refining the quality of tinted glass produced by a glass manufacturing company in Kazakhstan using data collected by a combination of Delphi method, unstructured, and semi-structured survey. Principal component and Pareto analysis were carried to develop HOQ, which describes the customer wants and product attributes needed to improve the acceptability of the glass product in the market. The outcome was positive and showed that QFD can be used to improve quality of the tinted glasses as well as improving customer satisfaction, as QFD incorporate the voice of the customer.

QFD attention is on delivering "significance" by looking for both spoken and unspoken customer desires, transforming them into actionable service features and communicating them throughout an organization (Pun et al., 2000). A well designed QFD course is capable of linking client desires, service provisions, target values and competitive performance into a visual planning matrix. However QFD includes understanding customer requirements, regular thinking about product quality, adding value through product quality expansion and customer satisfaction, designing a widespread quality system for consumer satisfaction; and mounting strategies that can create competitive advantage.

QFD help organisations create key exchanges between what the consumer requires and what the organisation can afford to build, by focusing the organisation efforts on what will please consumers and the organisation most. QFD helps organisations to move from an inspection centred method to scheming quality into products and as such plays a key role in any total quality management (TQM) (Bouchereau and Rowlands, 2000).

2.1.3 Customer portfolio size effects on New Product Quality
Consumers often play a key part in the formation of innovation networks, because they stand to profit from new products by attaining an answer to their desires, consumers are keen to contribute enthusiastically in the new product development process, bringing in the essential resources, industry contacts, or complementary technologies (Lettl, Herstatt, and Gemuenden 2006). Customer involvement may improve the efficiency of the process by decreasing the development time and costs and improving the decision quality in the process ibid. The authors went on to states tha consumers of present and future products contribute to the first three phases of the NPD process: thus idea generation, development, and testing. The underlying rational is that the larger the customer portfolio size the low the product quality. It is hard for

organisations to come up with new quality products when they have a large customer base as they will be unable to reach the expected product quality.

The logic to customer portfolio size suggest that the more customers a firm has, the broader is the external information base available to the firm about new product quality, the more new ideas for products quality it is likely to get (Dewar and Dutton, 1986). The increase in demand of quality products by a larger portfolio size will make a customer oriented firm to conform to the requirements of the company ibid. However the larger the portfolio size will have an effect on quality delivery as the organisation will not be able to meet the all the portfolio expectations because it will have to meet the delivery of the product to the portfolio thereby compromising the quality.

Competitive quality is viewed as designing, implementing, and continuously adapting systemic alterations to provide effective, unexpected, worth outcomes that are significant to a wide variety of organizational stakeholders (Barney; 1991). Relatively Dean and Bowen, (1994) states that competitive quality is grounded on systems perspective, continuous improvement, high productivity, teamwork, and customer alignment.

2.2 Customer Relationship Management (CRM)

From the strategic point of view, CRM aligns business processes with customer strategies to build customer loyalty and increase profits over time (Rigby et al., 2002). The changes that are occurring in the business environment have made innovation and CRM a greater weapon for organisations to become competitive and successful (Lee et al; 2012). Furthermore research done by Faems et al (2005) suggests that collaboration between an organisation and its external sources have become a way of differentiating an organisation and become successful with new product design. CRM have been regarded as attaining, sustaining and refining competitive strength through anticipating consumer's future needs as well as satisfying their current requirements. Vasilim (2012) describes CRM as a strategy within a company that aims to satisfy and develop long-term relationships with the customer. The author went on to elaborate that the human factor both internal and external is of essential in a CRM strategy.

Detta and Christopher (2011) in their research on the impact of information sharing on CRM, concluded that CRM is a useful strategy for building long lasting customer relationships. However Lin et al (2009) define information sharing as the valuable information between the

organisation and its clients. The information comprises of customer demands, preferences and sales promotion. Information sharing is important in new product design as the customer gives the manufacturer his or her on point of view about the products for which the information can be used in new product design process. NPD process decision making differs with the degree of information sharing between a firm and its stakeholders. Wu et al (2011) in their research states that for an organisation to reduce uncertainties in the NPD process as well as between the organisation and its clients, the preferred strategy is that of information sharing.

Empirical research by Menteer et al (2000) shows that firms with high degree of information sharing in new product design with stakeholders have and advantage of gaining a competitive edge since they will be making products which have a ready market. The authors went on to found out that firms that involve the consumers when designing new products are more successful in building and maintaining relationships with customers. Involving customers during the product design results in increased contacts between the organisation and its customers and such contacts normally lead to fruitful relationship (Menteer et al; 2000). Customers through involvement in product design feel important and will continue to patronise organisations, hence the two stakeholders become partners. It is of great importance for organisations to note that constant regular contacts and interactions amongst the members or teams working on a common project will result in the formation and development of relationships Ibid.

Research done by Sjoberg and Wallgren (2013) on the study of impact of CRM on product innovation in Scandinavian on which the survey generated 61 responses. The authors came out with the conclusion that customer involvement, information sharing and long-term partnerships with customers have appositive impact on product innovation. However Ahearne et al (2007) argue that up to 70% of organisations implementing customer relationship management activities lose or make no improvements. This shows out that the impact of CRM on product features has not been thoroughly investigated. For there is no obvious indication of what the characteristics of successful CRM solution are (Reimartz; 2004).

2.2.1 The 4 perspectives of CRM
Operational CRM

This consist in automating all the front office areas to which customers have contact with the service provider (Payne and Frow, 2005). In other words all those places in an organisation to which the organisation has contact with the customers must be automated in order to facilitate

capturing of customer information which will assist the organisation in meeting the needs of the diverse customer groups ibid.

Analytical CRM

This consist of storage, processing, analysis and retrieval of data which was captured from the operational side of the firm. This is very expensive for organisation for it requires a lot of investment in the hardware and software for the processing and analysis of the data. This perspective takes place where there is no human contact with the customers (Payne and Frow, 2005).

Collaborative CRM

This is made up of all the technologies and non-technological activities that a firm undertakes to facilitate interaction with the customer. This include customer visits, customer invitations, regular customer calls, electronic data interchange facility, just in time system, establishment of extranet, interactive websites, joint consultative forum with suppliers, distributers and manufacturers of complementary products. It also includes resource sharing of new product ideas that include new technology and product design (Payne and Frow, 2005).

Strategic CRM

This is the wholesome organisation culture of creating and fostering relationships with customers based on long-term former arrangements. Top management is expected to create a holistic CRM culture which guides every employee regardless of the department, branch or subsidiary to focus on fostering relationships with customers (Payne and Frow, 2005). Top management is expected to avail resources for CRM implementation for example technological facilities such as the call centre hardware. The business culture of CRM should be supported by the vision, mission, objectives and the core values so that every employee is driven and guided by an atmosphere of developing relationships with customers (Payne and Frow, 2005). The CRM culture helps the employees to acquire information through established relationships with the customer, this helps in new product design as customer voice on new product features is captured and involved in new product design.

2.2.2 Why firm invest in Customer Relationship Marketing

The integral involvement of the customer in new product design suggests that there is need for organisations to develop and nature relationships with customers to enhance customer

perceived value (Payne and Frow, 2005). Customer relationship management (CRM) is increasingly important to firms as they seek to improve their profits through longer-term relationships with customers and this increases also the rate of customer. In recent years, many have invested heavily in information technology (IT) assets to better manage their interactions with customers before, during and after purchase (Bohling et al. 2006). Yet, measurable returns from IT investment programs rarely arise from a narrow concentration on IT alone, with the most successful programs combining technology with the effective organization of people and their skills (Bharadwaj 2000; Piccoli and Ives 2005). Vargo and Lusch (2004) states that organisations that invest in CRM principles and systems focus on the dual creation of value, thus the value for shareholders through long-term organisation profitability and customer value creation through satisfying the needs and wants of the customers.

The objectives of CRM are corresponding as relationships between the organisation and its customers represent market based assets that the organisation will continuously invest in, in order for the organisation to be a growing concern in the market place. Ives (2005) the main objective of CRM is to involve the voice of the customer in organisation product design process through customer contribution on new product features, cost and product quality. The importance of CRM is that the voice of the customer is captured through customer complaints and enquiries on product features. Genuine relationships between the organisation and its customers are more likely to yield customer loyalty and satisfaction and high switching costs which create barriers to competition. Rust et al (2004) warned marketers owning customers that it's very dangerous as customers relationships must not be owned but managed and definitely customer loyalty will be earned.

Srivastava, Shervani and Ferayi (1998) discuss how market based assets, such as customer or partner relationships, can increase shareholder value by accelerating and enhancing cash flows lowering the volatility and vulnerability of cash flows and increasing the residual value of cash flows. Extent research shows most popular measures of CRM investments are outcome measures thus the acquired number of customers as a percentage of customer base, customer retention rate, cross-selling value, increase in customer migration and changes in customer lifetime value. Boulding et al (2005) posit that any single outcome measure provides an incomplete and short-run assessment of the firm's success at creating value for both customers and shareholders. A study by Ryals (2005) shows that a business unit was able to achieve a 270 percent increase in business unit profits above target by implementing some straightforward

CRM procedures. Organisations invest in CRM mainly for the organisation to be able to meet customer expectations in NPD through involving the voice of the customer in the development on the new products.

Gulati and Oldroyd (2005) observe that the investment of CRM systems must serve the purpose of getting closer to customers, and that in order to succeed the organisation has to embark on a journey to learn about the customers they serve and how CRMis going to improve the business performance. Furthermore the authors went on to state that if CRM becomes a business unit or departmental responsibility it will definitely fail. The authors came up with four stages in which CRM implementation can be successful; communal coordination (information sharing), serial coordination (gaining insight from customer's past experiences or behaviour), symbolic coordination (learning to predict future customer behaviour) and integral coordination (real-time response to customer needs).

The evolution and transformation process takes resources, patience and time, but the implementation of each of the stages provides positive results. Payne and Fraw (2005) in their research stated that successful organisations invest in/require a cross-functional process oriented approach that positions CRM at a strategic level. The findings are in consistent with empirical evidence showing that firms' prior strategic commitments have impressive effects on the performance of their CRM investments in a retailing context (Srinivasan and Moorman; 2005).

2.3 Customer relationship development:

Danciu, (2009) posit that in relationship marketing, organisations recognises customer delight throughout new product development and up to the delivering of the product to the final consumer. An organisation that is customer oriented believes that strategic goals could be best achieved by recognising and satisfying the needs and wants of the customers' throughout the entire life cycle of the relationship.

It has been noted that the organisations that invest in customer relationship management enjoy high rate of customer loyalty. O'Malley and Patterson (2004) suggest that customer relationship development might be combined in a six-stage model. These stages included are, Attraction, Interaction, Progression, Deterioration, Cessation, Reclamation.

Attraction stage

Evens, O'Malley and Patterson, (2004) posit that this is the stage where possibly relational partners recognise past, present and future or possible partners as attractive in terms of their ability to provide larger economies of scale, access to significant sources and social compatibility. It therefore suggests that at this stage that the supplier and the potential customer are able to recognise the prospects of doing business together. It is born out of confidence and attraction in the way that the supplier presents itself to the prospective customer in the form of marketing.

The social dimension of it also throws to light the policy and image of the supplier in its social environment. How the supplier is perceived by the prospective customer and other stakeholders is a very important factor to consider. Here the supplier with already established positive brand image tend to attract customers who turn out to be partners more that emerging suppliers. The element of trust and commitment on the part of both the supplier and the customer also sets up a good stage for relationship development.

Interaction

Interaction is the foundation of a genuine relationship (Evens, O'Malley, Patterson; 2004). It is said that if a supplier and a customer have respectable relationship the influence will be teamwork and partnership that will provide vast benefits to both parties. It will therefore establish the development of the relationship.

Progression

Conversely, with time the relationship may face a possible deterioration and that will affect loyalty of the customer to the supplier. It must be taken into consideration yet that at such a stage that the likely consequences may either be total breakdown of the relationship or that the relationship will be preserved with proper actions put in place to guard and familiarise fresh measurements of business ideas that will promote the relationship. It is there important that the supplier recognises the elements that influence against the good relationship building in order to take the applicable steps that will alleviate the situation (Evens, O'Malley, Patterson; 2004). All these stages may be seen in life cycle of the relationship between the supplier and the customer throughout the highest advantages both partners could obtain. In experiences these processes the supplier's objective goes from one of selection to attraction and maintaining.

2.4 Integration between CRM and product features

Currie and Finuegar (2010) states that organisations fail in implementing CRM hence they found it difficult to yield the benefits associated with using a CRM strategy. CRM is a successful strategy on information sharing between the consumers and the organisation and it also helps in gathering information on customer, sales, new product design and technology. Competitive organisations are able to target resources and design new product features in specific areas. Researchers such as Lin et al (2009) have started to link the success of new products with CRM strategy. The continuous interaction with customers contributes to information pertaining to new product features which will lead to an organisation becoming competitive. Furthermore Lin et al (2009) went on to state that when customers and organisations continue to interact with each other, it provides valuable information for product development and innovation. This means that organisations that use CRM as a strategy increase their innovation.

Chiah et al (2009) in their study found out that from among innovation features, dimensions of relative advantage and complexity are of importance in measuring the intention of acceptance and use of new products in industrial markets. However, in a study carried out by Lee and Allaway (2002), the researchers concluded that the perceived value of innovation has positive influence on the acceptance of that innovation. The authors went on to elaborate that the perceived value of an innovation has a severe effect on the innovation than the perceived risk of that innovation. Crespo and Rodriguez (2008) in their research concluded that product features which is the perceived usefulness and ease of use of a product has an impact on the attitudes of the buyers of the product. These researchers had a goal of ease of new products and they concluded that product features have an influence on new innovation adoptability. The research done by Eskandarian and Kaboodjameh (2014) investigated the impact RM and new product features on customers' perceptions and the intention of their acceptance in life and investment insurance. The research results concluded that RM has a positive influence on product features from the customers' point of view.

2.5 Customer Revenue Contribution
2.5.1 Customer lifetime value

Chokera and Duve (2011) posit that traditional marketing was based on the pillar that having a single transaction with the consumer was enough, but research has shown that acquiring of new customers is five times more costly than keeping the existing ones and that generated

revenues increases over time. The theory shows that the focus of marketing has shifted from being product centric to customer centric as the main aim is to maintain and develop existing customers who are profitable to the organisation (Chaffey et al; 2003). In this respect customer lifetime value (CLV) has been regarded as an important strategy in identifying customers in relation to their loyalty and their revenue contribution (value) to the organisation within a certain period of time. The key to generating high customer loyalty is to deliver high customer value (Kotler; 2003). The author went on to define a profitable consumer as the one that yields a stream of revenue that surpasses the amount used by the organisation in attracting, selling and developing that consumer lifetime period.

The dependency of a firm's customer portfolio is the dependent on the portfolio which contributes more revenue to the organisation. The resource based theory discusses on the dependency stemming from highly concentrated revenues in a firms' customer set on new product design. Concentrating on a customer portfolio's needs constrain the firm's development efforts as the portfolio's demands may restrain opportunities to develop new and diverse products for other customers or new markets. Furthermore Fischer and Reuber (2004) posits that organisation product development activities are aimed at customisation of products and personalisation of services to the portfolio that contributes more to the organisation. Concentrating on the portfolio that contributes more to the organisation ties up managerial and technical attention which limits resources available for new product development.

Extent studies by Gupta and Lehman (2005) and Rust, Lemon and Zeithaml (2004) shows that not all customer portfolios are equally profitable, moreover they suggested that it is possible to fire some customers or allocate resources to profitable customers that have a high customer lifetime value. Kumar and Reinartz (2006) are in agreement with that CLV is a disaggregated metric that can be used to identify profitable customers and allocate resources accordingly. Reichheld (1996) posit that customer retention is regarded as the important component of CLV however Reinartz and Kumar (2000) found out that customers with longer duration are not necessarily the most profitable in contributing revenue to the organisation as there are those customers that are profitable whilst they have a smaller duration to the organisation as they have contributed more within that short period of their acquisition. Research in relation to customer retention has increased with many researchers want to study the value that customer retention brings to the organisation, study done by Reichheld and Sasser (1990) who concluded that 5% increase in customer retention would increase organisation profitability from 25% to 85% taking into account the measure of customer lifetime value.

On the other hand the research done by Reinartz and Kumar (2000) argued that the research done by Reichheld and Sasser (1990) was not justified as they stated that it is not duration of a customers' tenure that drives lifetime value of a customer, but it is the customer revenue. In a research on cellphones Bolton (1998) suggested that customers' satisfaction with the supplier has a positive effect on the CLV. However a study done by Yoo and Hansens (2005) on luxury car market in Japan came out with the findings that discounting of prices increases customer acquisition rate of Japanese cars but increased retention rate for the Americans cars/brands. Also Verkates and Kumar (2004) found that customer duration was positively influenced by customer's spending level, cross-buying and number of contracts signed by the organisation. Kumar (2006) posited that CLV metric can be used in customer selection, campaign management, customer segmentation and customer targeting. Of the researches done on CLV the researcher found out that there was little knowledge on the notion, how products cost affects the CLV.

2.6 Key Account Management

Key accounts have been viewed as the integral part of industrial organisations with many researchers such as Millman (1996) and Napolitano (1997) suggested that many organisations in these years have been engaged into key account management directly or indirectly. Napolitano (1997) carried out a research on key account management and came out with the findings that since 1992 there has been a drastic increase in the number of key account managers and he concluded that 80% of purchasing managers are already working with suppliers who have key account management programs. Researches were done and reviewed that long-term relationships between suppliers and customers will lead to better relationships and they increase the customer lifetime value for the supplier.

However Reichheld (1994) concludes with empirical evidence for the notion that loyal customers are of a profitable nature than transactional customers. Ganesan (1994) agreed with the notion and posit that long-term partnerships leads organisations to achieve competitive advantage through sharing of information and resources. Weiss and Kurland (1997) concluded that the length of a relationship was seen to negatively affect relational orientation, in cases of asymmetric investments in customers' channels. Homburg et al (2002) and Workmanet (2003) agreed on the notion that organisations that use key account management programme as a customer management programme demonstrate better performance key account management outcomes have been identified in many researches as a programme that value achieving

customer service satisfaction. The value of key account management has been found by Zeithmal, Rust and Lemon (2001) as to retain key customers who contributes more revenue to the organisation because these platinum customers are heavy users of the organisation products and tend to be least price sensitive when there is a price increase on the products they purchase.

McDonald and Cheverton (1997) came up with the stages that organisations that want to engage in key account management should follow in the process of managing the platinum customers of the organisation. The stages as given by the authors follow this sequence pre-KAM, early KAM, middle KAM, partnership KAM, synergistic KAM, and uncoupling KAM.

Pre-KAM

This is the first stage and at this stage the marketers are trying to convince the customer, to transform or to develop the customer to become a platinum customer (McDonald and Cheverton, 1997). This happens at the beginning of the relationship between the customer and the buyer. At this point there has taken place between the buyer and the seller. The seller has seen potential in the buyer that have key account potential and the seller is trying to make a general first contact. McDonald and Cheverton (1997) state that the stage is vital for the supplier as is the chance to make the potential customer believe in the offerings of the supplier.

Early KAM

This is the second stage of the relationship and now there has been a transaction between the buyer and the supplier. The transaction is for a small amount as the buyer is trying to gain trust and have confidence into the seller and the seller has to persuade the offerings of the seller. At this stage usually the buyer has more options and not to be locked up to only one supplier where there is no variety. The communications at this stage is between the key account manager from the seller and the purchasing manager from the buyers' side (McDonald and Cheverton, 1997).

Mid KAM

At this stage there is element of confidence and trust between the buyer and seller. This may be of the satisfaction that the buyer is getting from the products and services of the supplier. There is signing of contracts which leads to a huge amount of business and more co-operations within each organisation that is transacting (McDonald and Cheverton, 1997). The seller may be offering additional services to the services to the buyer at zero value as a sign of application

of the relations taking place. The focus now is on continuous interaction between the buyers personal and sellers' personal.

Partnership KAM

At this stage there is real sense of partnership between the two parties. Business between the two parties has grown to be at 100% and the buyer has only one supplier who the buyer view as an external strategic resource. McDonald and Cheverton (1997) state that, there is sharing of strategic information between the two parties and there is problem solving at each other's problems. They work together that both may help each other achieve their objective. The supplier has guaranteed the buyer that he is going to continue receiving good supplies always at the best quality.

Synergistic KAM

This is the stage where the buyer and seller work together to achieve market value. At this stage there is no secrecy of any sort from both parties and this makes it difficult to separate the two firms. In other terms there is board meetings, research and development. The buyer is satisfied with the economies of scale through discounts. The parties now believe and trust each other when coming up with business strategies for synergistic KAM to be successful. This usually takes time for both parties to reach this stage (McDonald and Cheverton, 1997).

Uncoupling KAM

This is when the buyer and seller part ways with each other and understanding what causes this breakdown may prevent it which leads to successful KAM. McDonald and Cheverton (1997) posit that, if the parties detect a potential because they have to find a solution within a short period of time to prevent loosing strategic relationships. In this theory external causes of uncoupling can be prevented by the supplier.

2.7 Chapter summary

This chapter gave an exploration and clarification of literature related to the research under study. The review of the literature includes literature for new product design with an attempt to respond to the research objectives. Main aids, opinions and gaps were reviewed. The next chapter will look at research methodology used by the researcher.

CHAPTER THREE

METHODOLOGY

3.0 Introduction
This chapter presents the instruments that the researcher is going to use in collection and presentation of data. This chapter highlights the reasons behind the choice of each instrument, the validity and reliability of the data collected. It is also highlight the research design, research approach and research purpose.

3.1.0 Research Design
The most suitable research designs that the researcher resolved for this study were exploratory and descriptive research designs.

3.1.1 Descriptive Research Design
As to get first-hand information accurately the researcher used descriptive research design. The researcher used the research design to acquire first-hand information on how TelOne nurture corporate customer relationships to the extent of involving them in new product design. Closed-ended and open-ended questionnaires were used to acquire quantitative information from TelOne on the relationship between corporate customer revenue contributions and reduced product designing costs at TelOne. The closed-ended and open-ended questionnaires the researcher in getting information on corporate customer perceptions on product quality and product features.

3.1.2 Exploratory Research Design
The researcher used the exploratory research design to find out the extent to which customer portfolio management affects new product design at TelOne. The researcher had informal group discussions about ADSL and ways in which the product has been used and its performance and the way the landline gives customers confidentiality about the position of the business. The researcher also visited the TelOne corporate customer database to explore the size of corporate customers that are using TelOne products and their effects on new product quality. The exploratory research design was complemented with interviews to TelOne management and employees to support explain how they nature corporate customer relationships and how they involve the customer in the new product design. In-depth interviews were used to enable the researcher to acquire first-hand information from the employees and

management team of TelOne regarding new product design features, costs and quality in relation to corporate customer relationships, size and revenue contributions.

3.2 Target Population

The population understudy for this research comprised of TelOne management, employees and corporate customers based in Harare and Gweru as the organisation has presence countrywide. The target population comprise of 276 corporate customers, 210 TelOne management team and 2200 employees adding to a target population of 2686 respondents. The business development employees helped the researcher with information on product features thus where do they gather their information of product features from, for example, international trends or from the voice of the customer. The sales and marketing team helped the researcher with information on customer relationship management and how they manage their key accounts which are corporate customers and also if they costs new product in relation to customer revenue contributions. The engineering employees provided the researcher with information regarding the processes that they go through in coming up with new products and the technology they use for this helped the researcher in calculating product design costs, quality and features. The corporate customers helped the researcher with information pertaining to the revenue that they contribute to the organisation, their perception about customer involvement in new product development, their perception of new product quality and do their relationship with TelOne make then contribute to new product features.

3.3 Sample Frame

The researcher gathered information pertaining the research understudy from employees, corporate customers and management. The research used management team from the sales and marketing department, business development and technical department, and there are 15 managers in the departments. These managers were used for they are involved in the NPD process of TelOne and they provided the researcher with relevant data on customer portfolio management and new product development. Employees from the same departments shall be used in the research and they total 63. The employees interact with the customers and they know customer preferences and will guide the researcher on the topic understudy of the extent to which customer portfolio management affects new product design. The corporate customers used by the researcher were from the following business sectors, health, finance, retail, telecommunications, public sector and education, and they total 136. These sectors were chosen for they are the dominant users of TelOne products.

3.4.0 Sample Size

The sample size for the corporate customers' population will be derived by the deVaus (2002) formula to achieve reliable results. The formula is as follows:

$$n = \frac{N}{1 + N(\propto^2)}$$

Where: n = sample size, N= population size for corporate customers and $\propto$ is the margin of error. The method assumed a 90% level of confidence and the margin of error is then 10% which is acceptable in social science research deVaus (2002). Therefore the research sample size will be calculated as follows:

N=136 and $\propto = 0.1$

$$n = \frac{136}{1 + 136(0.1^2)} = \frac{136}{1 + 136(0.01)} = \frac{136}{2.36} = 57.62 \approx 58 \quad \therefore n = 58$$

Therefore out of the 136 corporate subscribers 58 were used as the sample size for the research. In selecting management and employees sample size the researcher adopted the formula by (Lucy; 1997). The formula proposes that the researcher takes 10% of population size, when the population is above 200 and 40% of the population size when the population is below 200. Given that the population size for employees and management is 25 and 15 respectively, the researcher adopted the 40% by Lucy (1997) to calculate sample size. The results are as follows;

Table 3.4 Sample Size

Description	Sample Frame	Sample Size
Management	15	6
Employees	63	25

3.5.0 Sampling Methods

The researcher used both probability and non-probability sampling techniques as the chance of selection of a particular element of the population is both known and unknown and the results gathered in this research can be projected to the entire population. The researcher used stratified sampling, judgemental sampling, snowballing sampling and convenience sampling technique.

3.5.1 Employees

Judgement sampling technique was used to select research employee respondents from sales and marketing department, engineering department and business development department. Snowball sampling was also used to select employee respondents to the questionnaires through management referrals in selecting appropriate employee respondents who were thought to be knowledgeable on the research in question. These sampling techniques are appropriate because of the population which is characterised with different respondents of which some are more knowledgeable than others with respect to the notion of TelOne clients.

3.5.2 Corporate Customers

The researcher used convenience sampling technique on selecting corporate customers. The researcher used the technique to select corporate respondents in terms of time that the research would use to reach some locations of the respondents from the place of location of the researcher. This technique increased the corporate customers' response rate as the researcher reached all the targeted respondents within a short period of time. The respondents were also selected by the researcher on the basis of their time and willingness to participate in the research.

3.5.3 Management

The researcher used stratified random sampling technique on the management for they were divided into strata according to the departments they head. The strata consists sales and marketing director, the head technical, the head marketing and public relations, the national sales manager and the regional customer services manager midlands. This technique because of its high statistical precision helped the researcher as it requires a small sample size which saves a lot of time, money and effort of the researcher.

3.6.0 Sources of Data

The researcher used interviews and questionnaires as sources of primary data, to which the data was first-hand information collected from corporate customers, employees and management of TelOne. This gave the researcher confidence that the data used is more reliable and accurate.

3.6.1 Primary Data

The researcher used primary data for the reason that it will give the researcher recent and specific data for the situation understudy and the data was collected through interviews and questionnaires. The closed-ended and open-ended questionnaires and in-depth interviews were used help the researcher to gather information from the corporate customers, employees and management relating to the relationship between customer portfolio size and new product

quality, corporate customer relationships and new product features and the effects of customer portfolio revenue contribution on new product cost. The collection of primary data gave the researcher control over the data gathered as it was first-hand information. The data gathered through primary sources is more naturally reliable, valid and accurate.

3.6.2 Secondary Data

The researcher also gathered some of the relevant data through secondary data sources which include TelOne in-house magazines, website, corporate sales database, public relations monthly bulletins' and newspaper publications. This served the purpose of identifying the trends of new products that TelOne introduced, subscriber base trends and customer portfolio revenue contributions. These sources helped the researcher to save costs, time and effort as the data will be already available.

3.7.0 Research Instruments

The research instruments used in the research includes questionnaires and in-depth interviews. The instruments were designed to take into account the nature of the research in question and respondents' characteristics.

3.7.1 Questionnaires

The researcher distributed 83 self-administered questionnaires, 25 of the questionnaires were distributed to employees and the remaining 58 questionnaires to corporate customers. The researcher structured the questions in line with the research understudy objectives and both open-ended and closed-ended questions were used to solicit information appropriate for analysis. The researcher got information relating to customer base size, customer relationship management, customer revenue contributions, product cost, product features and product quality measure. The corporate customers provided the researcher with information pertaining to how they measure new products' quality, product features, product cost and the customer care service that they receive as to view how genuine is their relationship with their supplier. The corporate customer questionnaire was divided into 4 sections, with Section A being for demographics, Section B for new product quality, Section C for new product features and Section D for new product cost. The questionnaire for employees was also subdivided into 4 sections, with Section A being for employee demographics, Section B for customer portfolio size, Section C for corporate customer relationships and Section D being for customer portfolio revenue contributions. The researcher provided employees and consumers with a Likert- scale to assist them answer the questionnaire. A Likert-scale of 1-5 was us ed with 1 standing for

strongly disagree and 5 strongly agree. Open-ended questions were provided so as to not limit the respondents' scope of fully expressing themselves, while closed-ended questions helped the respondents' to make quick judgments by allowing them to choose among several marginal answers. The instrument proves to be more accurate as anonymity of respondents is assured and generally results in more honesty responds.

3.7.2 In-depth Interviews

The researcher scheduled interviews with the employees and management of TelOne so as get a clear understanding of the factors that affect new product quality, product features, and how they come up with new product costs. This will help the researcher to understand TelOne strategies used to nature corporate customer relationships and how they involve the voice of the customer into new product design and if the company tailors their prices according to customer revenue contribution. During the interviews data will be collected through note taking so as to help the researcher to code information appropriate for data analysis. The researcher will use structured questions in the interview guide as they sought to enhance validity of information given. Both open-ended questions and closed-ended questions will be asked to give the employees and management flexibility. The reason for the choice of this instrument of data collection is that it helps the researcher gather quality data and there is direct feedback.

3.8 Data Collection Procedure

The researcher collected data through crafted questionnaires and in-depth interviews. The questionnaires were tested on colleagues to see if there were no vague questions that were going to confuse the respondents and also the interview guide was corrected by colleagues. The questionnaires and interview guide were also corrected by the researcher supervisor. Of the 58 questionnaires that were given to the corporate customers, 13 were given to the Gweru targeted group and the remaining 40 were distributed in Harare. Of the 25 employee questionnaires 5 were distributed to the Gweru team and 20 were distributed to the Harare team. 1 interview of the 6 scheduled was held in Gweru and the other 5 interviews were scheduled with the Harare management team. A research letter accompanied by the interviewed guide was e-mailed to the 6 management team in advance. The selected sample which was given questionnaires was given a day within which to complete the questionnaires. Some of the respondents completed the questionnaires in the presence of the researcher to get clarification on some of the asked questions.

3.9 Validity and Reliability

The researcher expected that the research was valid and reliable because of the researcher used of two methods of data collection which instill confidence in the validity and reliability of the research results. The researcher's adequate knowledge on the context under study ensures validity and reliability of the research as the researcher worked for the organisation understudy for a period of 1 year 2 months. To ensure validity and reliability the researcher gave the customer and employee questioners and interview guide questions to colleagues who acted as a pilot study to verify the relevance of the questions in line with the research objectives the researcher then corrected the questions as per pilot study corrections and give them back for rechecking for this helped to reduce the ambiguity of the questions. Triangulation helped the researcher to get reliable information since the researcher used many data collection methods so that one method may cover the weaknesses of another method. In administering the questionnaire, respondents were guaranteed of privacy and confidentiality so that the respondents would express themselves and remove participant's biasness.

3.10 Data Presentation and Analysis

The researcher incorporated various techniques in presenting responses collected. The researcher used the SPSS software and Excel for data presentation and to analyse variables understudy. The Likert scale technique was used to code data gathered through questionnaires and interviews as it is a widely used technique to scaling responses in survey research. The researcher presented the gathered responses through the use of tables, bar and pie charts.

3.11 Chapter Summary

This chapter looked at the different selected research methodologies that the researcher will use to obtain information pertaining to the research topic understudy. It included the research designs, target population, sample size, sampling techniques, research instruments and data collection procedures. The next chapter will look at data presentation and analysis.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter focuses on analysis, presentation and interpretation of the findings of the research. Findings are presented in form of tables, and pie charts. SPSS was used to present the bar graphs and pie charts.

4.1 Response Rate

The researcher issued out 83 questionnaires to employees and corporate customers. Of the 83 questionnaires 25 were administered by the TelOne employees and the remainder 58 were issued to TelOne corporate customers. The Table below illustrates the response rate for the questionnaires.

Table 4.1: Questionnaire response rate

Respondents	Expected responses	Returned	Variance	Response Rate
Corporate customers	58	53	5	91.38%
Employees	25	25	0	100%
Total	83	78	5	93.98%

The researcher did not manage to reach out to all respondents on time as scheduled. 15 employee questionnaires were sent to through the internet as employees were not available to respond. Resultantly all the 15 online questionnaires were responded to without any challenge. The researcher further issued another 58 questionnaires to corporate customers and only 55

were returned as some of the respondents said they had busy schedules and could not respond to the questionnaires. The response rate was high enough for the researcher to make research conclusions on how customer portfolio management at TelOne affects new product design. The researcher also conducted interviews with management and employees and the response rate to the interviews are shown in table 4.2.

Table 4.2: Interview response rate

Respondents	Expected Responses	Carried Out	Variance	Response Rate
Management	6	3	3	50%
Employees	25	6	19	24%
Total	31	9	22	29.03%

The data from interviews complemented data obtained from questionnaires. Table 4.2 shows the interview response rate. The response rate for the management was 50% as some of the management was not available at the scheduled time of interview as they were attending to urgent company issues. The response rate for the employee interviews was low, (24%) as the much targeted respondents were busy preparing for the grand opening of the new Chitungwiza customer service centre which was scheduled at the same time with the interviews. However, according to an online source a response of 30-20% for interviews can be used to derive conclusions from findings. As such the researcher confidently established conclusions from the 29% interview response rate.

4.2 Demographics of Respondents

The researcher established the gender, TelOne products used by customers, type of business in

which customers are engaged in and whether the customer is an end-user or a reseller of the

TelOne products. Responses are shown below.
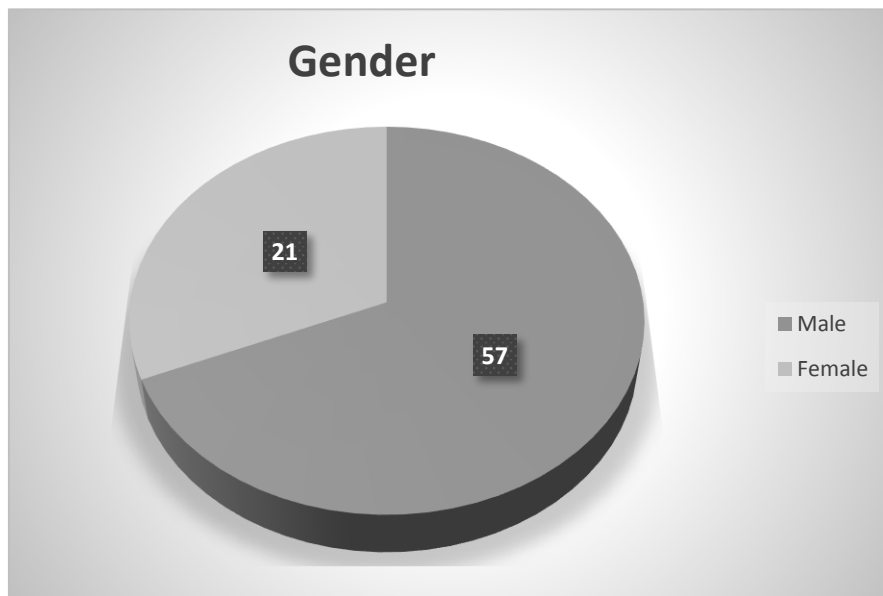
Figure 4.1: Gender Responses

Of the total respondents 57 were male and 21 were female. The results show that male
customers tend to have more knowledge of TelOne products more than the female customers.
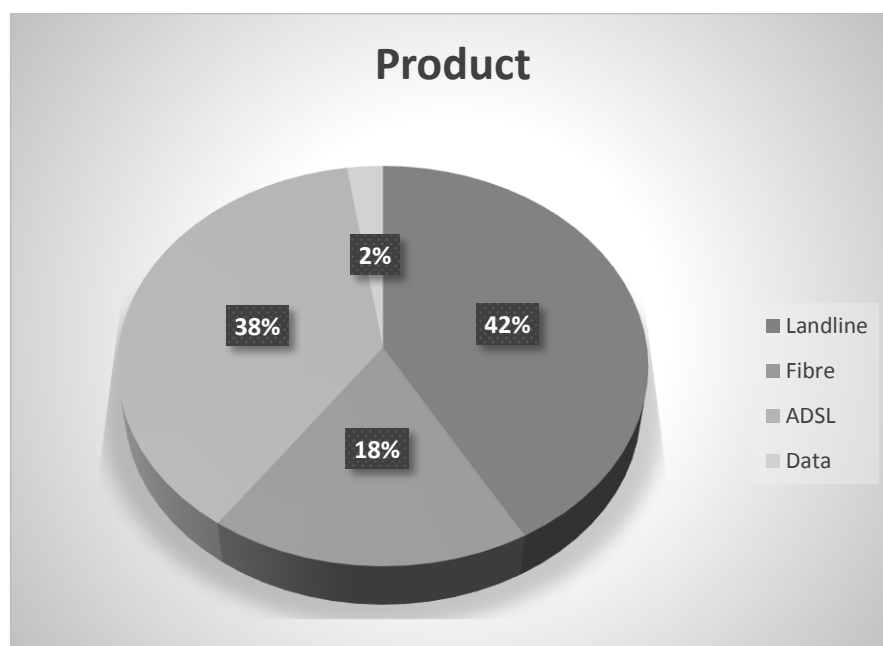
Figure 4.2: Product Usage Responses

Furthermore, the respondents, 42% use Landlines, 38% use TelOne ADSL, 14% use Fibre and 2% use TelOne data service. The results seem to imply that the Landline has more product usage than the other TelOne products. This could be due to the fact that landlines are the company's major product. Figure 4.2 summarises the results.
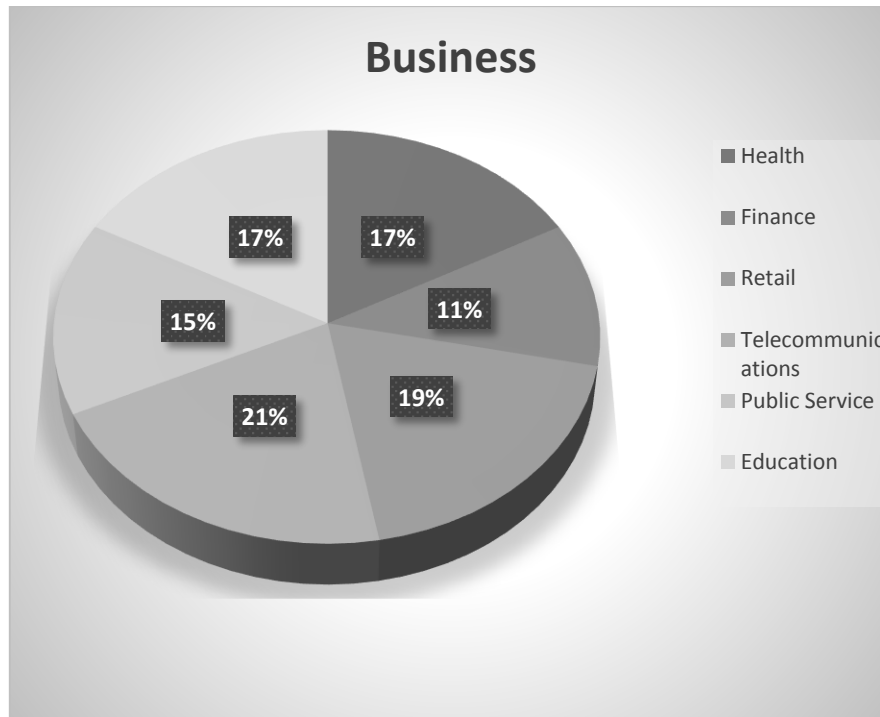
Figure 4.3: Customer Business Type Responses

The researcher further established the sector which constitutes the majority of TelOne's customers. The Telecommunications sector with 21% dominates the respondents, as it has the highest number of respondents. This shows that other ICT companiesare the major users of TelOne products with the retail sector (19%) following and the health (17%) and education (17%) with the same number of participants and lastly comes the public service (15%) and the finance (11%) sector respectively. Since the telecommunications and retail are the major customers for TelOne, the results suggest that TelOne may need to consult them more often when designing new products.
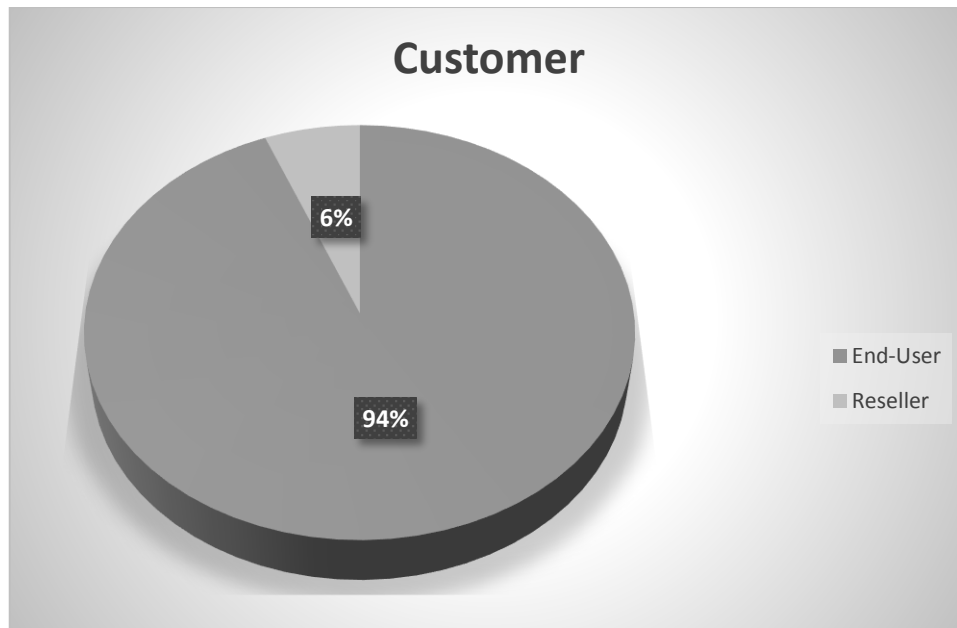
Figure 4.4: Type of customer

94% of the respondents that were interviewed were end-users with only 4% of the research respondents being resellers of TelOne products. Since the majority of TelOne's customers are end-users it may mean TelOne's products need to be designed after consultation with them since they have information on the performance of the products. Crawford and DiBenedatto (2008) propose that heavy users of a product are an asset to a new product project team since they provide them with information on how to improve the product.

4.3 Effect of customer portfolio size on product quality

The responses that were given by the corporate customer on their perception of new product quality are shown in the diagram below. The responses show that customers believe that TelOne products are of superior quality as most of them strongly agree (28.3) and agree (39.6) to the notion and only a few disagree that the products are of superior quality than those of completion. The majority of the respondents perceived that TelOne products quality were meeting their expectations as 66.1% of the respondents were on the agreeing side and 24.5% were disagreeing that TelOne quality meets their expectations. Of the respondents 79.3 agreed that they will recommend TelOne product quality to their colleagues with only 20.7% disagreeing that they won't recommend to their colleagues.
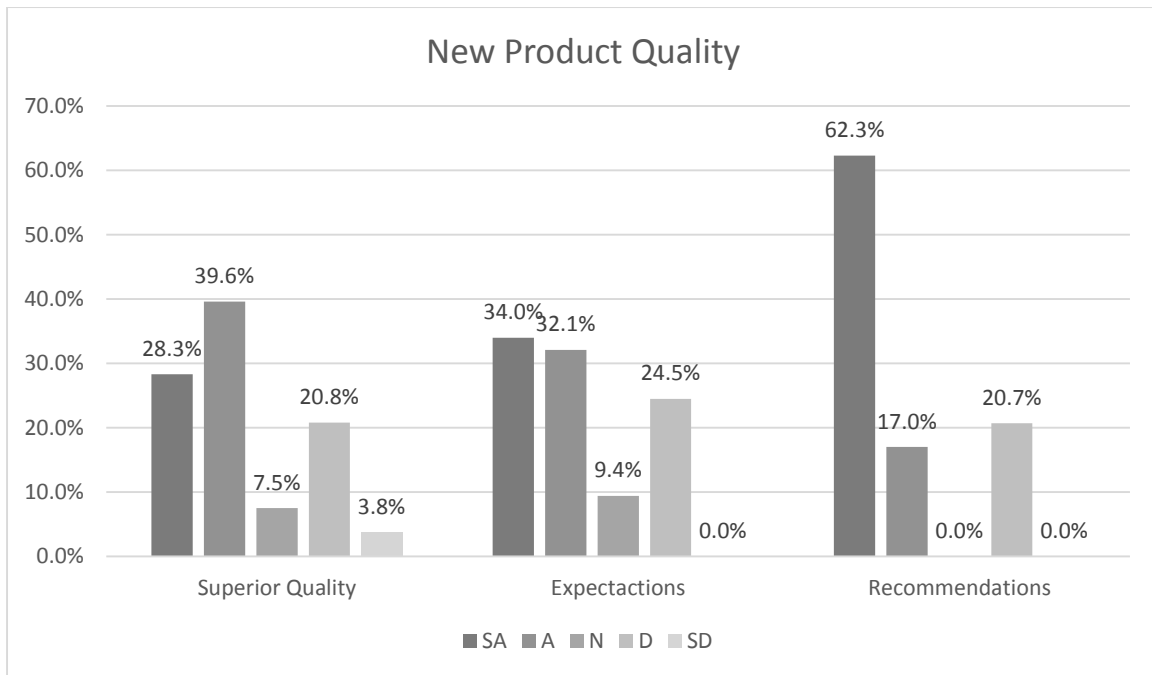
Figure 4.5: New product quality responses

Having established the customer base size of TelOne's customers the researcher proceeded to determine if customer portfolio size has an effect on the quality of products developed by TelOne. The researcher had hypothesised the following on the variables:

H_1: size of customer portfolio has a positive influence on product quality.

H_0: size of customer portfolio has a negative influence on product quality.

To test the null hypothesis the researcher used the chi-square (x^2) and the research was tested at 0.01 probability level at 4 degrees of freedom which gives the critical value of 13.28 (see appendices).

Degrees of Freedom = (Rows-1) (Columns-1)

DF= (5-1) (2-1) = 4×1 = 4

The responses on customer portfolio size and quality are shown in table 4.3.

Table 4.3: Customer portfolio size and product quality responses

Variable	Quality	Size	Total
Strongly Agree	5	7	12
Agree	22	3	25
Neutral	0	4	4
Disagree	7	11	18
Strongly Disagree	19	0	19
Total	53	25	78

Chi-square (x^2) formula:

$$x^2 = \sum_{i=1}^{n} \frac{(Oi - Ei)^2}{Ei}$$

Where: $Ei = Expected\ Frequency, Oi = Observed\ Frequency$

The Expected Frequencies were calculated using the following formula:

$$Ei = \frac{RT \times CT}{GT}$$ Where: RT is Row Total; CT is Column Total and GT is Grand Total

Table 4.4: Calculation of chi-square for portfolio size and product quality

Oi	Ei	$Oi - Ei$	$(Oi - Ei)^2$	$\dfrac{(Oi - Ei)^2}{Ei}$
5	8.154	-3.154	9.947	1.220
22	16.987	5.013	25.128	1.479
0	2.718	-2.718	7.387	2.718
7	12.231	-5.237	27.361	2.237
19	12.910	6.090	37.085	2.873
7	3.846	3.154	9.947	2.586
3	8.013	-5.013	25.128	3.136
4	1.282	2.718	7.387	5.7620
11	5.769	5.231	27.361	4.743
0	6.090	-6.090	37.090	6.090
x^2				30.144

We reject H_0 for the value of chi-square 30.1442 is greater than the critical chi-square value 13.28 for the 0.1 probability level. Therefore the results are statistically significant. This means that the customer portfolio size has a positive effect on the quality of new products produced by TelOne. The research results agree with the research findings by Yli-Renko and Janakiraman (2008) from their research on how customer portfolio affects new product

development in technology based entrepreneurial firms. The researchers founded that customer portfolio size has an impact on the quality and innovation of new products. Form the responses that were gathered from the employees and corporate customers it shows that the majority of the 276 corporate customers that TelOne has are enjoying the product quality because they are still small in customer base size. The moment the customer base size is going to increase it means that the product quality that the customers are receiving is going to be compromised.

4.4 Effect of corporate customer relationships on product features
Interviews with management highlighted that TelOne has introduced the corporate sales department which handles the corporate customers and this has increase the relationship between the key account managers and the Information Technology managers from different sectors. The key account managers TelOne are differentiated with the customer sectors they handle and this has improved the relationship between each key account manager and his/her sector. The responses are shown on the graph below.
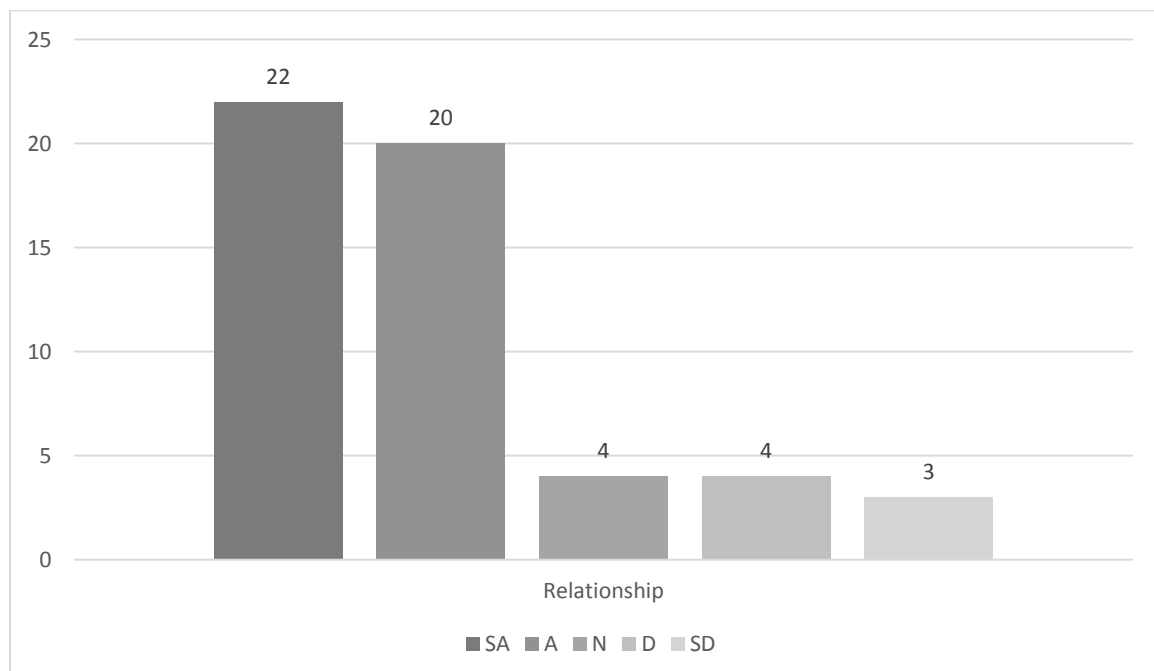
Figure 4.6: Corporate customer relationships responses

TelOne corporate customer are happy with the relationships they are receiving from TelOne as 42 of the 53 respondents agreed that TelOne was providing them with better customer service and 7 respondents stated that they were not receiving customer service that they expect. The remaining 4 respondents were neutral. The employees from TelOne disagreed that they were producing corporate products according to customer requirements in terms of product features. The diagram below shows the responses from employees.
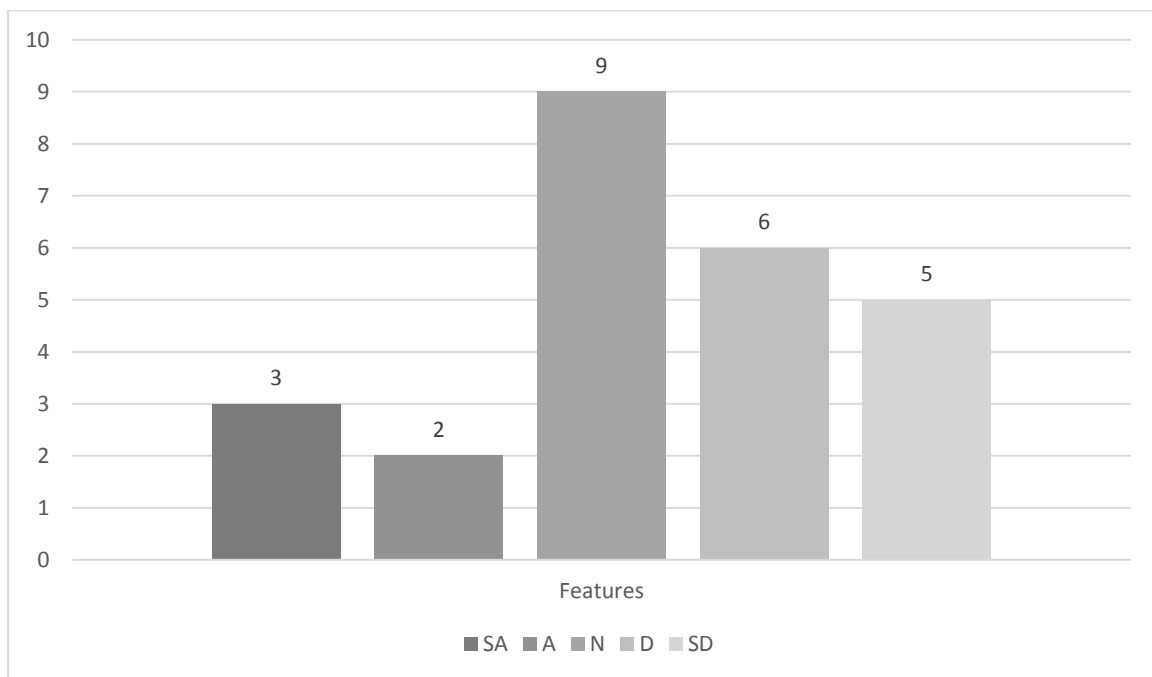
Figure 4.7: Product Features Employee responses

5 of the 25 employee respondents agreed that TelOne produces product feature as per customer requirements and 11 of the respondents disagreed to the responses. The remaining 9 responses remained undecided of their decisions of TelOne producing product features as per customer expectations.

Furthermore, the researcher hypothesised the following on the variables:

H_2: corporate customer relationships have a positive impact on product features.

H_0: corporate customer relationships have a negative impact on product features.

To test the null hypothesis the researcher used the chi-square (x^2) and the research was tested at 0.1 probability level at 4 degrees of freedom which gives the critical value of 13.28.

Degrees of Freedom = (Rows-1) (Columns-1)

DF= (5-1) (2-1) = 4×1 = 4

Table 4.5: Corporate customer relationships and product features responses

Variable	Relationships	Features	Total
Strongly Agree	22	3	25
Agree	20	2	22
Neutral	4	9	13
Disagree	4	6	10
Strongly Disagree	3	5	8
Total	53	25	78

Table 4.6: Calculation of chi-square for corporate customer relationships and product features

Oi	Ei	$Oi - Ei$	$(Oi - Ei)^2$	$\dfrac{(Oi - Ei)^2}{Ei}$
22	16.987	5.013	25.128	1.479
20	14.949	5.051	25.515	1.707
4	8.833	-4.833	23.361	2.645
4	6.795	-2.795	7.811	1.150
3	5.436	-2.436	5.934	1.092
3	8.013	-5.051	25.128	3.136
2	7.051	-5.051	25.515	3.619
9	4.167	4.833	23.361	5.607
6	3.205	2.795	7.811	2.437
5	2.564	2.436	5.934	2.314
x^2				25.186

We reject H_0 for the value of chi-square 25.186 is greater than the critical chi-square value 13.28 for the 0.1 probability level. Therefore the results are statistically significant, thus corporate customer relationships has a positive impact on the features of new products produced by TelOne. The research results were also in agreement with the research findings

by Yli-Renko and Janakiraman (2008) in their research on the effects of relational embeddedness of customer portfolio. The researchers founded that the more relationally embedded the firms' customer portfolio, the larger the number of new products developed by the firm. This shows that customer relations increases the willingness of the exchange parties to share information of new product design and features, thus TelOne can benefit more from each relationship with customers.

4.5: The influence of customer portfolio revenue on product cost.
From the results that were obtained from the research the telecommunications sector contributes more revenue than any other sector. The diagram below shows the revenue contributions between five major sectors that the researcher researched on.
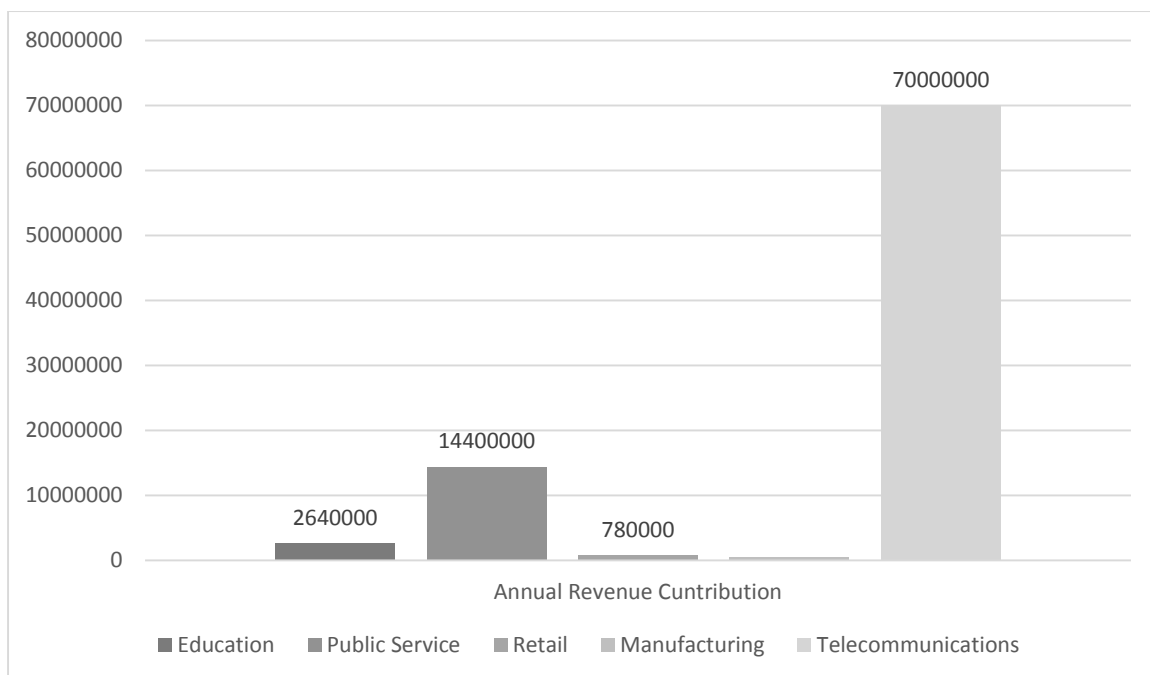
Figure 4.8: Sector revenue contribution results

The telecommunications sector contributes more revenue to TelOne with an annual revenue of approximately $70.000.000, the public service follows with an annual revenue of $14.400.000. Of the TelOne revenue the education sector, retail and manufacturing contributes the revenue of $2.640.000, $780.000 and $480.000 respectively. The results shows that TelOne should keep

a good relationship with the telecommunications sector as they contribute more revenue to the organisation.

Furthermore, the researcher hypothesised the following on the variables:

H$_3$: customer portfolio revenue has a positive impact on product cost.

H$_0$: customer portfolio revenue has a negative impact on product cost.

To test the null hypothesis the researcher used the chi-square (x^2) and the research was tested at 0.1 probability level at 4 degrees of freedom which gives the critical value of 13.28.

Degrees of Freedom = (Rows-1) (Columns-1)

DF= (5-1) (2-1) = 4×1 = 4

Table 4.7: Customer portfolio revenue and product cost responses

Variable	Revenue	Product cost	Total
Strongly Agree	21	2	23
Agree	18	3	21
Neutral	2	6	8
Disagree	5	4	9
Strongly Disagree	7	10	17
Total	53	25	78

Table 4.8: Calculation of chi-square for customer portfolio revenue and product cost

Oi	Ei	$Oi - Ei$	$(Oi - Ei)^2$	$\dfrac{(Oi - Ei)^2}{Ei}$
21	15.628	5.372	28.856	1.846
18	14.269	3.731	13.919	0.351
2	5.436	-3.436	11.805	2.172
5	6.115	-1.115	1.244	0.203
7	11.551	-4.551	20.714	1.793
2	7.372	-5.372	28.856	3.914
3	6.731	-3.731	13.919	2.068
6	2.564	3.436	11.805	4.604
4	2.885	1.115	1.244	0.431
10	5.449	4.551	20.714	3.802
x^2				21.185

We reject H_0 for the value of chi-square 21.185 is greater than the critical chi-square value 13.28 for the 0.1 probability level. Therefore the results are statistically significant, thus customer portfolio revenue has a positive effect on new products costs at TelOne. The research results agree with the results findings by Jacobs (1974) in his research on the resource

dependence theory. The researcher founded that being depended on the resources of a customer

portfolio has an effect on the bargaining power of that customer portfolio.

4.6 Summary

The research used hypothesis testing and came out with the results customer portfolio size has

a positive influence on product quality. Furthermore, the researcher found out that corporate

customer relationships have a positive impact on product features. Furthermore, the researcher

found out that customer portfolio revenue has a positive impact on product cost.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Summary

In a bid to counter competition TelOne has introduced a number of new products since the introduction of the multi-currency regime in 2009. Despite these innovations some of the products have not performed up to the expectations of the company in terms of market adoptability. This research sought to investigate the effect of customer portfolio management on new product design, with the main focus being on corporate customers as they are viewed by the researcher as the portfolio that is sustaining the organisation. Review of literature revealed that there is limited knowledge on how customers of an organisation affect new product design in the business to business marketing. The research was therefore undertaken to provide empirical knowledge on how portfolio size, customer relationships, portfolio revenue contribution affects new products designed by an industrial organisation.

The researcher used descriptive research design and exploratory research designs to collect data for the research. The descriptive research design was used to acquire first-hand information through the distribution of questionnaires to the employees and the corporate customers of TelOne. The exploratory research design was used to acquire more detailed information on the research understudy through the use of in-depth interviews held with management and employees. The targeted population for this research consisted of 58 corporate customers, 25 employees and 6 managers. The research data was collected using the primary sources of data which included questionnaires and in-depth interviews and the secondary sources of data which included in-house magazines, website, corporate customer database, public relations monthly bulletins. Pie charts and tables were used to analyse and

present the research findings. A hypothesis was tested using the chi-square to ascertain the effect of the research objectives.

The study showed:

- Employees at TelOne noted that customer portfolio size affects the quality of the products they design.

- TelOne new products features are affected by the type of the relationship that the organisation has with its customers.

- The larger the revenue contribution by a consumer to TelOne the more likely the company was to approach the client soughing for information to include when designing the features of a new product.

5.1.0 Conclusions
From the research objectives the following conclusions are derived.

5.1.1 Effects of customer portfolio size on new product quality.
The study concludes that customer portfolio size affects new product quality at TelOne. The calculated chi-square value of 30.144 which was greater than the critical value of 13.28 resulted in the rejection of the null hypothesis which had assumed that customer portfolio size has a negative influence on product quality.

5.1.2 Effect of corporate customer relationships on new product features
Furthermore the study concluded that there is an inverse relationship between new product features and corporate customer relationship. The calculated chi-square value of 25.186 which was greater than the critical value of 13.28 resulted in the rejection of the null hypothesis which had assumed that corporate customer relationships have a negative influence on product features.

5.1.3 Effect of customer portfolio revenue on new product costs

The research can conclude that TelOne dependency stemming on high revenue contributing customer portfolio has an effect on new product cost. The calculated chi-square value of 21.185 which was greater than the critical value of 13.28 resulted in the rejection of the null hypothesis which had assumed that customer portfolio revenue has a negative influence on product cost.

5.2 Recommendations

In view of the slow adoption for TelOne products and to avoid this slow adoption the researcher recommend strategies that can help TelOne to avoid slow new product adoption and acceptance. The researcher recommend that:

- TelOne may consider not concentrate on a larger portfolio size as it has a positive effect on new product quality, so TelOne must concentrate on a small number of subscribers as this will not compromise the portfolio product quality and it will maintain a limited external knowledge base which is not hard to manage. Yli-Renko and Janakiraman (2008) are in agreement with this as they state that pursuing new customers should be the result of thoughtful consideration of the trade-offs involved in directing managerial attention from existing customer relationships.

- TelOne may consider nurture customer relationships as this helps in information sharing. Customers are willing to share information with organisations to which they are viewed as partners. Ganesan, Malter and Rindfleisch (2005) state that relational ties help organisations to acquire knowledge and it helps in protecting firms against opportunism.

- Customer involvement in product design may be implemented at TelOne as this reduces slow adoption of the new products. Customer involvement increases new product acceptance as customers are willing to purchase products they know and have participated in their making.

- The researcher recommends that TelOne cross-sell its products and bundle products so as to increase customer revenue from customers hence reduce product design costs.

- TelOne should categorise the customers according to the revenue contribution.

5.3 Further Study

Several limitations exist in terms of the generalizability and interpretation of the results of the research. First, the sample was taken from two cities and urban, over a particular period. Future studies could examine whether the results are valid for firms and address the question whether the impacts of the customer portfolio on new product development vary over time.

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Employees Questionnaire

Introduction

R112081P is a Midlands State University student, studying a bachelor of Commerce Honors Degree in Marketing Management. In partial fulfilment of the honors degree I am carrying out a research on the extent customer portfolio management affects new product design in the fixed telecommunications sector, a case of TelOne Zimbabwe. This research is for academic purpose only and your participation in the research is greatly appreciated.

Section A: Demographics

Please tick the box with your answer and give explanations where required.

1. State your Gender?

1 Male   2 Female

2. Department?

1 Marketing   Sales 3

2 Engineering   Business 4 Development

3. How long have you been working for TelOne?

1 Less than 1 year   2 1-5years   3 5+ years

4. Does TelOne incorporate corporate customers in coming up with new products?

2 Yes   1 No

5. What are TelOne business objectives?

1 Number of customers   Revenue 3

2 Profit   Market 4 share

Section B: Customer Portfolio Size

Use the following ratings, answer the following statements.

Strongly Agree (SA) 5, Agree (A) 4, Neutral (N) 3, Disagree (D) 2, Strongly Disagree (SD) 1

Statement	5	4	3	2	1
The number of subscribers affects TelOne's product quality					
TelOne has a large knowledge base because of the number of subscribers it has					
Quality is what consumers want from TelOne					
Customers consider the customer base size and its effects on product quality before making a purchase					
We make sure that all our customers receive the same standard of quality					

Section C: Customer Relationship Management

Statement	5	4	3	2	1
At TelOne we give preferential treatment to corporate customers					
TelOne provides better customer service than competition					
Customers buy from TelOne because of TelOne relationship standards.					
Customers that purchase frequently from TelOne are given special treatment					

Section D: Customer portfolio revenue contribution

Statement	5	4	3	2	1
TelOne product prices are differentiated as per customer revenue contribution					
TelOne products have high perceived value in relation to their prices					
TelOne offers trade discounts to customers depending on their number of transactions					
Customers that contribute more to TelOne are the only one's consulted in new product design					
Customers that contribute more revenue are given first preference on product testing					

20. Since 2009 there was a reduction in subscriber base of TelOne customers, which of the following factors do you think has a positive impact on this decrease?

| 1 | Product cost | Product | 3 | quality |

| 2 | Product features | Customer | 4 | Relationship Management |

Others, specify**…………………………………….**

Thank you for your time and God bless you.

Corporate Customer Questionnaire

Introduction

R112081P is a Midlands State University student, studying a bachelor of Commerce Honors Degree in Marketing Management. In partial fulfilment of the honors degree I am carrying out a research on the extent customer portfolio management affects new product design in the fixed telecommunications sector, a case of TelOne Zimbabwe. This research is for academic purpose only and your participation in the research is greatly appreciated.

Section A: Demographics

Please tick the box with your answer and give explanations where required.

1. State your Gender?

| 1 | Male | 2 | Female |

2. What TelOne product(s) do you use?

| 1 | Landline | 2 | Fibre | 3 | ADSL | 4 | Data |

2. For how long have you been using TelOne product(s)?

| 1 | Less than a year | 2 | 1-5 years | 3 | 5-more years |

3. What type of business are you in?

1	Health	4	Telecommunications
2	Finance	5	Public service
3	Retail	6	Education

Others specify…………………………………

4. What type of a customer are you to TelOne?

| 1 | End-user |

| 2 | Reseller |

Section B: New Product Quality

Using the ratings that follow, answer the following questions.

Strongly Agree (SA) 5, Agree (A) 4, Neutral (N) 3, Disagree (D) 2, Strongly Disagree (SD) 1

Questions	5	4	3	2	1
TelOne products are of superior quality					
The quality of TelOne products meets my expectations					
I purchase TelOne products because they are of high quality					
TelOne product prices are in relation with their quality					
TelOne products performs well in terms of overall quality					
This quality is exactly what I need					
I recommend TelOne products to my colleagues because they are of quality					

Section C: Product Features

Questions	5	4	3	2	1
TelOne products features are different from those of competitors					
I purchase TelOne products because of the associated benefits I receive					
I purchase TelOne products because of its features					

	5	4	3	2	1
I recommend TelOne products to colleagues because they have good features					
TelOne consults me on product features whenever I make a purchase					
I'm satisfied with TelOne products features					

Section D: Product Cost

Questions	5	4	3	2	1
TelOne products are affordable					
I recommend TelOne products to my colleagues because they are affordable					
TelOne reduces my purchase prices because of my previous transactions					
TelOne charges low prices compared to competitors					
I'm satisfied with TelOne products prices					

23. How do you rate your TelOne product(s) use?

| 1 | Below basic level | 2 | Basic | 3 | Competent |

24. How do you rate the overall performance of TelOne product(s)?

| 5 | Excellent | 4 | Good | 3 | Average | 1 | Below Average |

25. What recommendations and suggestions would you give TelOne to improve new product design?

……………………………………………………………………………………………………

……………………………………………………………………………………………………

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Thank you for your time and God bless you.

Employee Interview Guide

Introduction

The interviewer introduces himself and the drive of the interview.

Employee Background

a) Can you please tell me a bit about yourself?

b) What position do you hold and for how long?

c) What are the responsibilities of your job?

Questions

1. Does TelOne implement key account management?

2. What strategies does TelOne implement to ensure that the voice of customer in included in new product design.

3. In your view, how does the subscriber base size affect TelOne product quality?

4. How do you nature customer relationships up to new product design?

5. In your opinion, who should come up with new product features?

6. Does TelOne price products according to customer revenue contribution?

7. When designing new products, do you incorporate customer suggestions?

8. Where do you think change should be implemented to improve new product design through key account management?

Management Interview Guide

Introduction

The interviewer introduces himself and the drive of the interview.

Management Background

a) Can you please tell me a bit about yourself?

b) What position do you hold and for how long?

c) What are the responsibilities of your job?

Questions

1. TelOne has introduced a number of new products from 2009 to date, which are these new products?

2. Do you consult customers when designing new products at TelOne?

3. Does TelOne incorporate customer complaints when coming up with new product features?

4. Do you test market new products before launching them and do you use your targeted market on the product test phase?

5. After test marketing the product, does TelOne make use customer follow ups' suggestions on the new product design before final launch?

6. What measures do you implement in ensuring that TelOne products meet customer expectations in terms of quality?

7. Does customer revenue contribution have an impact on TelOne product pricing?

8. How does TelOne manage corporate customer relationships to ensure that they have a long customer life time value?

Appendix E

Chi-square table of critical values

Degrees of Freedom	Probability Level		
	0.05	**0.01**	**0.001**
1	3.84	6.64	10.83
2	5.99	9.21	13.82
3	7.82	11.34	16.27
4	9.49	13.28	18.47
5	11.07	15.09	20.52