



**ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES**

**THE EFFECT OF DISTRIBUTION PERFORMANCE ON
CUSTOMER SATISFACTION: THE CASE OF AQUA ADDIS
BOTTLE WATER**

BY

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Statement of Certification

This is to certify that Mahelet Sebhatu has carried out his research work on the topic entitled **The Effect Of Distribution Performance On Customer Satisfaction: The Case Of Aqua Addis Bottle Water P.L.C.** The work is original in nature and is suitable for submission for the Master's Degree in Marketing Management.

Advisor: Mohammed Mohammednur (Asst. Prof.)

Date: _____

Statement of Declaration

I, Mahelet Sebhatu here by declared that this thesis titled the effect of distribution performance on customer satisfaction the case of Aqua Addis bottle water p.l.c. is my original work. I have carried out the present study independently with the guidance and support of the research advisor, Mohammed Mohammednur (Asst. Prof). Any other sources used there in this study have been duly acknowledged. Moreover, this study has not been submitted for any degree or other program in this or other university.

Mahelet Sebhatu signature -----

Date-----

Confirmed by Advisor signature -----

Date-----

Mohammed Mohammednur (Asst. Prof.)

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List of Acronyms

ANOVA- Analysis of variance

CRM- Customer relation management

ERP- Enterprise resource planning

FMCGS- Fast moving consumer goods

PDS- Physical distribution service

PDSQ- Physical distribution service quality

PSS- Performance support solution

RBV- Resource based view

SPSS- Statistical package for social science

SWOT- Strength, weakness, opportunities, threats

ABSTRACT

The main objective of the study is to investigate the effect of distribution performance on customer satisfaction in case of Aqua Addis bottled water. The study involved a self-designed and pre-tested questionnaire with 36 question elements that were distributed to 384 Hotels, Restaurants, Bars, Cafes, and Shops. The reliability of the questionnaire was assured through determination of Cronbach's alpha after which to check whether the distribution performance (independent variables) associated with customer satisfaction (dependent variable) after which regression analysis was conducted to investigate the impacts of independent variables (distribution performance) on customer satisfaction in the case of Aqua Addis bottled water p.l.c. A conceptual framework was used as a guideline to test the relationships between distribution performance and customer satisfaction. A quantitative and qualitative approach is chosen in this research. The findings of the study show that the identified distribution performances, product accessibility, distribution timeliness, distribution flexibility, distribution quality and distribution quantity were implemented in varying degree but strongly associated with customer satisfaction in Aqua Addis bottle water p.l.c. Moreover, the impacts of this distribution performance against customer satisfaction from strongest to the weakest are mentioned here: Distribution Quality, Distribution Flexibility, Product Accessibility, Distribution Quality and Distribution Timelines.

*. **Key Words:**-Distribution, customer satisfaction, Accessibility of products, Distribution timeliness, Flexibility of distribution, quality of delivery.*

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the Study

Distribution is one of the four aspects of marketing. A distributor is the middleman between the manufacturer and retailer. After a product is manufactured, it may be warehoused or shipped to the next echelon in the supply chain, typically a distributor, retailer or consumer. Frequently there may be a chain of intermediaries; each passing the product down the chain to the next organization, before it finally reaches the consumer or end-user. This process is known as the 'distribution chain' or the 'channel.' Each of the elements in these chains will have their own specific needs, which the producer must take into account, along with those of the all important end-user (Kotler, P. 2003)

Distribution system is a key decision for building a successful business. Many companies have built lasting competitive advantages through their choices of distribution systems, which are integrated into coherent and well-executed business models. An excellent distribution system is critical to a company's efficient and profitable performance. In addition, companies with the highest customer retention rates earn the highest profits. (Mei Su Chen,2009). Distribution is one of the components of marketing mix that in simplest task transfer the product from the production place to the purchase place to the customer. In other words, the main task of distribution management is placing the goods in hand of potential customers at the right time and place.(Roosta, A.Venus, D. Ebrahim, Abdul. ", 2009).

A distribution channel, a chain of intermediaries, is the how and where a good or service reaches the end consumer. It comprises wholesalers, retailers, distributors and nowadays the internet too. Many companies do not sell their products directly to end users. In mass production and consumption industries in particular, many manufacturers rely on distributors, representatives, sales agents, brokers, retailers or some combination of these intermediaries to distribute their products (Hughes and Ahearne, 2010). On the same note, the beverage industry is not exceptional either. (The Drink Business, 2013). These intermediaries perform a variety of

functions and constitute a marketing channel, that is also referred to a trade channel or distribution channel (Kotler, and Keller, 2008).

Distribution channel consists of a group of individuals or organizations that assist in getting the product to the right place at the right time (Asiamah, Alfrid and Solomon, 2013).

Distribution plays a vital role, primarily because it ultimately affects the sales turnover and profit margins of the organization. If the product cannot reach its chosen destination at the appropriate time, then it can erode competitive advantage and customer retention. Therefore, distribution logistics is the link between a company and its customers (Skjoett,- T 2002); it comprises all activities related to the provision of finished products and merchandise to a customer. The products can be delivered directly from the production process or from the customer's procurement logistics (Kahia, G. 2014). in distribution logistics, customer orientation plays a special role because of the close link to the customer. According to (Zheng, L. and Zhang, J. 2010) distribution logistics is the management activities to pursue customer satisfaction and order fulfillment, connecting the main body of supply and demand, overcoming space and time obstacles to achieve efficient and rapid movement of goods. It also involves conveying of information related to the distribution of physical goods thus making it slightly distinct from physical distribution. Performance of distribution logistics can be measured by on time delivery. This determines whether a perfect delivery has taken place or not, it thus measures customer service. (Xu, Y. 2013) in (Stewart, E. 1995) identifies the following as the measures of performance logistics: delivery-to-request rate, delivery-to-commit date, order fill lead-time and goods in transit. Quality and the way the information is exchanged determine performance of distribution logistics to a large extent; possible performance indicators are: number of faultless invoices, flexibility of delivery systems to meet particular customer needs.

(Kaplan and Norton, 1996) note that business enterprises must keep track of their financial and non-financial measures of performance such as market share, speed of response, and product quality; pay attention to externally focused measures such as customer satisfaction and brand preference; and take into account forward-looking measures such as employee satisfaction, retention, and succession planning. (Wiele, et al, 2002) on the other hand, have demonstrated that business performance can be measured in terms of sales volume, sales margin, number of hours service was sold to the customer, and number of placement per customer. The resulting

deduction is that organizational performance, therefore, is a multidimensional construct tapping into the financial, operational, and customer-related domains.

Introduction to ASKU P.L.C (Aqua Addis bottle water factory)

ASKU PLC is the proud owner of brand Aqua Addis, which it produces in 5 major SKUs (Stock Keeping Units) targeting different market segments. The product is available in 0.6lit, 1 lit, 1.5 lit, 2 lit and 20 lit.

✓Aqua Addis is one of the earliest bottled water brands in Ethiopia and has been refreshing consumers with the taste they love and quality they trust. It is also comes with environmentally friendly packaging, reducing its carbon footprint for a more sustainable environment. With an ISO Certification ISO 22000:2005, Aqua Addis meets local and international standards of quality.

It is the only bottled water brand in Ethiopia that consistently meets rigorous annual quality and taste inspections by the United States Army.

1.2 Statement of the problem

(Smith, A.D. 2009) in a study of customer relation management (CRM) for the concept of attracting and retaining customers pointed out that organization which did not pay attention to the features and service that customers wanted were in risk of reduced profits and market share. In another study, (Kumar, Lemon, and Parasuraman, A. 2006) propose a chain of effects framework for understanding and managing customer lifetime value which affects shareholder value. They had identified econometric and data-related challenges in establishing the link of direct relation among two variables, which means longer is the customers stay, better is the value. They have also suggested directions for future research.

One major challenge facing production companies is that of attracting and retaining customers in a competitive environment. Companies can attract customers by offering better customer service through physical distribution system that is sufficiently sensitive and flexible to permit timely response to customer requirements and cost effective to ensure profit. A company's failure to provide desired level of customer service leads to customer dissatisfaction and loss of customers. The strategic importance of an effective and efficient distribution system cannot be over-

emphasized, especially in wider industry where brand loyalty is not strong, but availability and price play major roles in determining the final demand for the products.

The performance of distribution impacts tremendously on the performance of an entire organization (Paulraj, A. and Chen, J.J 2007); this is mainly because it links the organization to the customers and thereby has much effect on customer satisfaction which influences (product accessibility, distribution service timeliness, and distribution service quality, distribution quantity and distribution service flexibility). However, despite distribution logistics being very vital, many production organizations perform short of customer expectations in this area.

The student researcher assesses the practice of distribution channel in Aqua Addis bottle water p.l.c. It observes that there exist problems regarding on delivering. The company delivers fixed quantity to their customers. The customers are not getting the amount they want (quantity distribution), service suffers from product delivery delay time (distribution timeliness), during delivery time sometimes damage happens and it decreases the satisfaction level of customers and quality is related not only to a product but also to the services provided. Any late deliveries can be regarded as bad for the customers. (Distribution quality), sometimes there is a problem regarding the ability to respond quickly to changing customers need (distribution flexibility). Using direct distribution system, and not include other intermediaries make the (product accessibility, distribution service timeliness, distribution service quality, distribution quantity, and distribution service flexibility) less attractive and have significant effect on customer satisfaction.

1.3 Research Question

1. How does Accessibility of the product influence customer satisfaction?
2. How does the distribution timeliness influence on their customer satisfaction?
3. What is the effect of Flexibility of distribution programs on their customer satisfaction?
4. How does Quantity of delivery influence customer satisfaction?
5. What is the effect of Quality of delivery customer satisfaction?

1.4 Research objective

1.4.1 General objective of the study

The general objective of the study is to investigating the effect of distribution performance on customer satisfaction, a case of Aqua Addis bottle water factory.

1.4.2 Specific objectives

1. To analyze the influence of Accessibility of the production customer satisfaction.
2. To analyze the influence of the distribution timeliness on their customer satisfaction.
3. To investigate the effect of Flexibility of distribution programs on their customer satisfaction.
4. To examine the influence of Quantity of delivered on their customer satisfaction.
5. To analyze the influence of Quality of delivery on their customer satisfaction.

1.5 Scope of the Study

This study was limited on the effect of distribution performance (product accessibility, distribution timeliness, distribution service quality, and distribution service quantity and service flexibility) on customer satisfaction regarding to Aqua Addis bottle water P.L.C.

Aqua Addis delivers its products to other part of Ethiopia and abroad, the study was only focus on Addis Ababa. The student researcher selected Addis Ababa because the company sells large number of its products in Addis Ababa, in terms of time it is difficult to assess all parts of Addis Ababa, so the student researcher has focused only on two sub cities Nefas Silk Lafto and Lideta sub cities these areas are selected because there are lots of Hotels, Restaurants, Bars, Cafes and shops in the area.

1.6 Significance of the Study

As a research, the primary merits of the study goes to the university academics. Since there are few studies in the area, it will give a comprehensive starting point for more distribution performance measure for bottle water products.

Secondly Organizations, which are taken up as a case study, will get ideas on distribution performance for improving their product and service delivery.

1.7 Definition of Terms

- ✚ **Distribution:** According to (Kotler, P. 2003) Distribution is one of the four aspects of marketing. A distributor is the middleman between the manufacturer and retailer. After a product is manufactured, it may be warehoused or shipped to the next echelon in the supply chain, typically a distributor, retailer or consumer. Frequently there may be a chain of intermediaries; each passing the product down the chain to the next organization, before it finally reaches the consumer or end-user. This process is known as the 'distribution chain' or the 'channel.' Each of the elements in these chains will have their own specific needs, which the producer must take into account, along with those of the all important end-user.

- ✚ **Customer satisfaction:** Customer satisfaction has been one of the top tools for a successful business. Customer satisfaction is defined as an overall evaluation based on the total purchase and consumption experience with the good or service over time (Fornell, C. Johnson, D.M. Anderson, W.E. Cha, J. & Bryant, E.B. 1996).

- ✚ **Accessibility of product:** Accessibility the product is always owned by the company, and so, customers only have access to products. (Lawson, A. 2011) offers a set of additional characteristics with which accessibility can be distinguished from ownership.

- ✚ **Flexibility of distribution program:** The organization's ability to meet an increasing variety of customer expectations without excessive costs, time, organizational disruptions, or performance losses (Zhang, Q. et al. 2003) the ability of the firm to rapidly and effectively adjust inventory, packaging, warehousing and transportation of the physical products in respond to customer requirements (Day, G.S 1994; Lambert, D.M et al.1998

- ✚ **Distribution timeliness:** Timeliness is the order cycle time performance of the entire distribution system linking buyers and sellers. For the buyer, it is the time elapsed between placing and receiving an order. Timeliness encompasses the duration of one order cycle for a single customer as well as central tendency and variability across multiple order cycles for one or more customers (Mentzer, J.T et al., 1989)

✚ **Quality of delivery:** Quality of delivery is the “form and composition of the delivery order” (Beinstock, C.C et al., 1997, p.32). It is about the accuracy and quality of the order.

1.8 Organization of the study

The arrangement of the research paper was organized into five chapters; the first chapter deal about background of the study, statement of the problem, research question, objectives of the study, significant of the study, scope of the study and organization of the study. The second chapter of the paper is concerned on presenting the review of the related literature which described the detail theoretical aspects that support and clarify the practical aspects of the study. The third chapter focused on research design and methodology. The forth chapter discusses about data presentation and analysis. The last chapter has presented the summary, conclusion and recommendation of the study.

CHAPTER TWO

REVIEW OF RELATED LITRATURE

2. Definition of Distribution

Distribution is one of the four aspects of marketing. A distributor is the middleman between the manufacturer and retailer. After a product is manufactured, it may be warehoused or shipped to the next echelon in the supply chain, typically a distributor, retailer or consumer. Frequently there may be a chain of intermediaries; each passing the product down the chain to the next organization, before it finally reaches the consumer or end-user. This process is known as the 'distribution chain' or the 'channel.' Each of the elements in these chains will have their own specific needs, which the producer must take into account, along with those of the all important end-user (Kotler, P. 2003)

According to (Havaldar and Cavale, 2007) distribution can be defined as the management of all activities which facilitate movement and consolidation of time and place utility in goods. It's the art and science of determining requirements, acquiring them, distributing them, and finally maintaining them in operationally ready conditions for their entire lives.

The primary bottle water distribution management goal is to dominate a high coverage and creating a brand image of the product. More specifically, according to different theories about factors affecting distribution performance, involves Accessibility of the product, the distribution timeliness, Flexibility of distribution programs, quality of the product and quantity of the product discussed by different researchers in other related journals.

Most producers use intermediaries to bring their products to market. They use a set of Interdependent organizations in the process of making a product or service available for use or Consumption by the consumer or business user. This process is what has been known as distribution channel (Kotler, P. 2001).

(Weiss and Gershon, 2002) noted that, distribution describes all the logistics involved in delivering a company's products or services to the right place, at the right time, for the lowest cost. In the unending efforts to realize these goals, the channel of distribution selected by a business play a vital role in this process. Well-chosen channel constitute a significant

competitive advantage, while poorly conceived or chosen channel can doom even a superior product or service to failure in the market. Effective distribution provides customers with convenience in the form of availability (what, where, when - the right product, at the right place, at the right time), access (customers' awareness of the availability and authorization to purchase), and support (e.g. pre-sales advice, sales promotion and merchandising, post-service repairs).

2.1 Distribution and Its Channel

The role of distribution is to provide to a company the task of delivering the product at a right time, place, and quantity at a minimum cost (Bucklin, L.P. 1966).

It can also incorporate the physical movement, warehousing, ownership of the product, presale transaction, post-sale activities, order processing, credit and collection and other different types of support activities (Gorchels, West and Marine, 2004)

Channel is defined by another writer as a group of business that takes title to produce or facilitate exchange during the marketing process from the original manufacturer to the end user. (Ayers & Odegaard,2007)

2.2 Distribution Strategy

Developing successful strategy in distribution in today's fierce competitive environment is a complex undertaking. Market globalization and deregulation has intensified competitive rivalry and motivated manufacturers to re-examine their current strategies and inherent weakness of these strategies and their inability to address current challenges and opportunities (Stern, N.F. et al. 2006). As the key channel member in direct contact with the consumer end-user, the retailer's actions are also critical to the success of the marketing channel. If they are successfully to program their operations for high yield performance and if other channel members are going to play-significant roles in working with the retailers to make the distribution of their products and services more effective and efficient, it is necessary that all parties to the process recognize emerging opportunities and impending constraints by performing environmental analysis. Thus, the need to examine macro-environmental factors such as technological, social cultural, political and physical variables as well as internal variables or is necessary as they play important roles in influencing the channel structure and performance.

The basic distribution intensity strategies that a manufacturer can employ are intensive, selective and exclusive. As stated by (Stuart, B. 2006).

Intensive distribution exists when a manufacturer sells products or services through all or most of the possible channel distributors that provide a particular category of product in a given market. (Stuart, B. 2006) further clarified that an intensive distribution approach gives manufacturers the highest probability of selling their products or services but only after the required investments in demand generation are made. (Stern, N.F et al. 1988) argued that the higher the intensity of brand distribution in a given market, the lower the manufacturer's influence on channel member performance. Having too many channel partners can harm the brand image and its competitive position. This coverage strategy is more appropriate for manufacturers of brands placed near the low end of the quality continuum to promote convenience and competitive pricing for the customers.

Selective distribution, a manufacturer's product or service is available from more than one channel partner, but the product is not accessible from all businesses that market the category of product (Stuart, B. 2006). Customers seeking particular brand of product will interact with the businesses in the market that the manufacturers has selected as partners. Selective distribution is a suitable choice when manufacturers would like to design their strategies so that their channel partners have a rather active than passive role (Stuart, B. 2006). argued that manufacturers positioning their brands as high quality have reason to pursue a highly selective distribution policy.

Exclusive distribution provides high levels of channel partner profitability that allows them to offer functionality consistent with their roles in the 'push' strategy. According to (Stern, N.F.et al. 2008), exclusive distribution implies that a manufacturer can have strong influence over the distributors of the brand. However, manufacturers should be careful because exclusivity may lead to conflict between the manufacturer and the distributors due to the high level of control from the manufacturer's side. Exclusive distribution creates an image of the brand that has superior ability to perform its functions (Stern, N.F et al., 2008). The manufacturers need well-trained sales force to convince the target channel members to carry the brand. The strategy also involves active channel partners and loyal business partnerships between manufacturers, distributors and customers.

2.3 Distribution Performance

Shifting business environments are causing a growing number of IT managers to rethink how they handle distribution management. Growing dependence on extended and diffuse partner networks, for instance, is creating new operational complexities that have put a strain on traditional management practices. IT managers are wrestling with how to integrate distribution management operations in new geographical areas with a wide range of systems; from ERP (enterprise resource planning) applications to inventory management and supply chain management packages. Pulling together information from a variety of sources also carries with it security concerns, including access control (Cooper, F. 2006).

According to different theories about factors affecting distribution performance, involves accessibility of the product, the distribution timeliness, Flexibility of distribution programs, quality of the product and quantity of the product discussed by different researchers in other related journals

1-Accessblity of product

Accessibility the product is always owned by the company, and so, customers only have access to products. (Lawson, A. 2011). Offers a set of additional characteristics with which accessibility can be distinguished from ownership. Accessibility has a lot of similarities with a PSS, as accessibility can actually be seen as a product which is being offered as a service (e.g. offering a bicycle for rent). This means that a pure product or service, or a product with the addition of a service is no examples of accessibility. A main difference between a PSS and accessibility is that products in case of accessibility can be intangible (e.g. Spotify), whereas products for a PSS are tangible. It can be concluded that several market scenarios exist in which accessibility based products can be offered.(Kotler, P. 1977, p.8) states that the “importance of physical products lies not so much in owning them as in obtaining the services they render”. (Pine, B.J. and Gilmore, J.H. 1999) also acknowledge this and mention that we are shifting to an economy that values experience over possessions. This clearly shows the transition from the ownership period in which owning physical products was of major importance, to the accessibility phase in which consumers want to obtain the services the products render, and not the physical product itself.

2- Flexibility of distribution program

The organization's ability to meet an increasing variety of customer expectations without excessive costs, time, organizational disruptions, or performance losses (Zhang, Q. et al. (2003) the ability of the firm to rapidly and effectively adjust inventory, packaging, warehousing and transportation of the physical products in respond to customer requirements (Day, G.S 1994; Lambert, D.M et al.1998). Supplier flexibility should affect the link between customer service and customer satisfaction. The extent to which a firm will adapt to a customer's needs may be characterized as flexibility (Buffa, E.S 1984; Bandyopadhyay, S. and Robicheaux, R.A 1997). Providing Flexibility offers the firm an opportunity to meet or exceed the customers' expectations, thereby resulting in customer satisfaction (Oliver, R. 1980).

3- Distribution timeliness

Timeliness is the order cycle time performance of the entire distribution system linking buyers and sellers. For the buyer, it is the time elapsed between placing and receiving an order. Timeliness encompasses the duration of one order cycle for a single customer as well as central tendency and variability across multiple order cycles for one or more customers (Mentzer, J.T et al., 1989)

4- Quality of delivery

According to (Mentzer,J.T et al. 1989) the quality of physical distribution service depends on the incidence of in-transit damage, shipment of incorrect items, and incorrect shipment quantity. Quality is the most heterogeneous of the constructs, yet it remains a distinct area of customer benefit, clearly within the delivery domain. Quality of delivery is the "form and composition of the delivery order" (Beinstock, C.C et al., 1997, p.32). It is about the accuracy and quality of the order. Research by (Millen, R.A et al. 1999) identifies significantly improved customer satisfaction as a key benefit of PDSQ. On these lines, research in Spain by (Va'zquez, R. Casielles et al. 2002, p. 40) confirms that quality in supplier physical distribution activities has the greatest influence on customer satisfaction.

2.4 Customer satisfaction

Customer satisfaction has been one of the top tools for a successful business. Customer satisfaction is defined as an overall evaluation based on the total purchase and consumption experience with the good or service over time (Fornell, C. Johnson, D.M, Anderson, W.E, Cha, J. & Bryant, E.B. 1996). With marketing, customer satisfaction also comes along with it which means it ascertains the expectation of the customer on how the goods and services are being facilitated by the companies. Actionable information on how to make customers further satisfied is therefore, a crucial outcome (Oliver, R.L. 1999.)

Customer satisfaction is dynamic and relative. Only the idea “customer-centric” can help companies improve satisfaction and keep customer truly, conversely, if competitors improve customer satisfaction, then it may loss corporate customers. While improving customer satisfaction, customer expectations should be noticed. Service quality, product quality and value for money have a direct positive impact on customer satisfaction. Employee satisfaction is equally important before achieving the customer satisfaction. If employees have a positive influence, then they can play a big role to increase customer satisfaction level. Satisfaction is a dynamic, moving target that may evolve overtime, influenced by a variety of factors. Particularly when product usage or the service experience takes place over time, satisfaction may be highly variable depending on which point in the usage or experience cycle one is focusing. (Lovelock, C & Wright, L.2007, 86-87.)

Customer satisfaction is influenced by specific product or service features and perceptions of quality. Satisfaction is also influenced by customer’s emotional responses, their attributions nether perception of equity (Zeithal, V.A & Bitner, M.J. 2003, 87-89.) Increased customer satisfaction can provide company benefits like customer loyalty, extending the life cycle of a customer expanding the life of merchandise the customer purchase and increases customers positive word of mouth communication. When the customer is satisfied with the product or service of the company, it can make the customer to purchase frequently and to recommend products or services to potential customers. It is impossible for a business organization to grow up in case the company ignores or disregards the needs of customers (Tao, F. 2014.)

2.4.1 Measuring customer satisfaction

Measuring customer satisfaction is a key performance indicator within business and is often part of the balanced scorecard. The main aim of measuring customer satisfaction is to make a prompt decision for the continuous improvement of the business transactions. Attracting a new customer as a source to build on existing relationship, customer satisfaction measurement is essential to be measured. Similarly, to retain the current customer base, measuring customer satisfaction is equally important. Actionable information on how to make customers more satisfied is, therefore, a crucial outcome. Unless the organization focuses on their improvement efforts in the right area the organization cannot maintain the competition level of business in a market. To recognize the needs of the customer is to satisfy the customer and to meet the need of the customer, a measurement of customer satisfaction is what matters the organization. (Hill, N. Roche, G. and Allen, R. 2007.)

Measuring a customer satisfaction may be different in the different organization since there are different approaches to measure customer satisfaction. As one of the measurements of the performance of the quality management system, the organization shall monitor information relating to customer perception as to whether the organization has met the customer requirements. The methods for obtaining and using this information shall be determined. Every organization seeks customer satisfaction where these sorts of parameters help an organization to measure the customer's satisfaction and demands so that organizations can provide them with appropriate services as per their requirements. The possible dimension to measure customer satisfaction could be quality, price, trust relationship, complaints, problems and many others. The key point of measuring customer satisfaction is to conclude how to improve it and how to keep building a good relationship with customers and potential customers.

2.4.2 Importance of customer satisfaction

Customer satisfaction is extremely important because it is the way of getting feedback from the customers in a way that they can use it to manage and improve their business. Customer satisfaction is the best indicator of how the business looks like in the future. Customer satisfaction helps in doing SWOT analysis that could help them to develop their business in an advance and in a systematic way. Besides this, it will also help in making the right decision to use the appropriate resources while manufacturing the products. Similarly, it maintains the

relationship with the existing customers and also creates the possibility to acquire others. (SSRS research 2016.)

When products are bought customers expect perfection instead of quantities. There are varieties of products that are similar in the market and sometimes it is difficult to distinguish which one is qualitative and durable. This is the great opportunity for the business organization doing marketing of their products and services to understand what exactly customers are seeking for. Customer satisfaction is a key indicator of the marketplace that evaluates the success of the organization. People have varieties of tastes and choices and therefore, satisfaction also differs from one person to another. It also may vary the expectation of the consumer depending on the option they may have, such as the national and international market (Kotler & Keller, 2006.)

A technique for assessing the customer satisfaction should also have to go through the international market procedure to meet the requirement internationally. In the process, granting the satisfaction to the customer in both physical and technological aspects has changed drastically. However, there is still no method of measuring customer satisfaction. But the feedback from the customer can be taken as a crucial tool for measuring customer satisfaction. On the other hand, it's cheaper to retain customers than acquire new ones. To make a customer's cost lot of money. Marketing team spends lots of money and time in convincing their excellence. Customer satisfaction is a primary aim of every company. Customer satisfaction ensures the customer wants to return to purchase the service. Satisfied customers are more likely to recommend their friends and families which will help to grow the business. A totally dissatisfied customer decreases revenue, whereas satisfied customer has a positive effect on profitability.

2.4.3 Management approaches about customer expectation

Customer expectations are the belief about service delivery that serves as standard or reference points against which performance is judged. Customer expectation is difficult to know in service delivery, wrong actions and failure which could cause of losing a customer, waste of investment, time and eventually business. Customer expects some level of service quality from a service provider during the transaction; therefore customer's opinion about the quality standards and also what kind of standard customer expects are essential to know. (Zeithaml, V.A et al. 2009, 75.)

Knowing what the customer expects is one of the most critical factors in delivering good and service quality (Zeithaml, V.A et al. 2009). Customer expectations are the standards of performance against which service experiences are compared. The difference between what a

customer expects and perceives in the service delivery formed customer gap. Which leads to customer dissatisfaction with the product or service? It is important for companies to close the gap between customer expectations and perceptions in order to satisfy their customers and build long-term relationships with them. (Zeithaml, V.A. & Bitner 2000, 481 – 482.)

2.5 Empirical Review

From empirical literature review of previous studies have shown that in the current complex business environment, the competition faced by business organizations is no longer mere inter-firm competition, but also inter-channel competition caused by adapting to industry globalization.

In line with this a firm's choice of a distribution channel are mainly targeted to minimize the distribution cost and reduce the delivery time. When compared to alternative agencies, the gross margins required by industrial distributor are better qualified than alternative agencies to offer services such as emergency delivery, credit clearance and knowledge of source of supply for buyers. The system theory is a theoretical back up for the subsequent research undertaking where by a decision in one area as a system has an implication in other variable which needs an effective designing of a distribution strategy which has an implication for the firms ultimate performance.

(Bowersox, D.J 1974) suggested two dimensions: 1) availability, and 2) the length and uncertainty of time associated with each order cycle component. Availability is the proportion of units, order lines, or orders completely filled. Goods that are unavailable must either be backordered, causing time delays and extra costs, or the order is simply cancelled by the customer. Notably, the availability benefit is provided whenever the customer is not required to wait an abnormal length of time, or to place the order again. Thus, an order directed to a location that is stocked out, if filled in timely fashion from another location, does not produce a reduced availability level from the customer's perspective. From the retail perspective, availability is provided if the product is on the shelf for purchase when the customer arrives at the shelf to obtain it. Timeliness is the order cycle time performance of the entire distribution system linking buyers and sellers. For the buyer, it is the time elapsed between placing and receiving an order. Timeliness encompasses the duration of one order cycle for a single customer as well as central tendency and variability across multiple order cycles for one or more customers. Quality of

physical distribution service depends on the incidence of in-transit damage, shipment of incorrect items, and incorrect shipment quantity. Quality is the most heterogeneous of the constructs, yet it remains a distinct area of customer benefit, clearly within the PDS domain. It should be noted that shipment to the wrong location affects timeliness more than quality as presumably the items can be rerouted to the correct destination, albeit arriving late.

(Cunningham and Roberts, 1974) examined the role of customer service in influencing industrial buyer behavior. Buyers were asked to name the five most important service factors and to rank them in order. Service factors were then compared by three criteria: 1) times mentioned, 2) times ranked in top 5, and 3) times ranked first. By all three criteria delivery reliability was indicated to be the most important. The rankings from combined results were delivery reliability, technical advice, test facilities, and replacement guarantee. It was also found that 80% of the buyers formed a favorable impression of suppliers (leading to purchase patronage) based on the suppliers' ability to meet the buyers' need for, 1) quality, 2) service, and 3) price. The nature of this market was such that suppliers had to rely on non-price factors to compete.

(Gilmour, P. 1977) examined the service provided by the major suppliers in the scientific instrument and supplies industry in Australia. Each respondent was shown a list of 17 customer service elements and asked to rank order the five most important for this industry. The average importance of each of the nine most mentioned elements was noted for all customers, for all suppliers and for each of the five types of customer organizations. The five most important purchasing elements for all customers were availability, after-sales service, delivery reliability, delivery time, and technical competence of the representatives.

According to the resource-based view (RBV), a manufacturer uses rare, valuable, inimitable, and non substitutable resources to ensure sustained competitive advantage (Barney, J.B 1991). Based on the RBV, exploiting these resources and developing competitive advantage require that manufacturers obtain complementary resources from external sources. Responsiveness in the supply chain “elicits the dynamic nature of a firm’s supply chain capabilities” (Wu, F. et al., 2006, p. 495). A manufacturer is able to access the flexibility of its suppliers as a complementary resource to quickly respond to customer demands. Alternatively, if suppliers are able to provide flexibility to accommodate uncertainty in demand, then manufacturers could increase customer satisfaction, market share, sales growth, or the number of new projects. Drawing on the RBV of

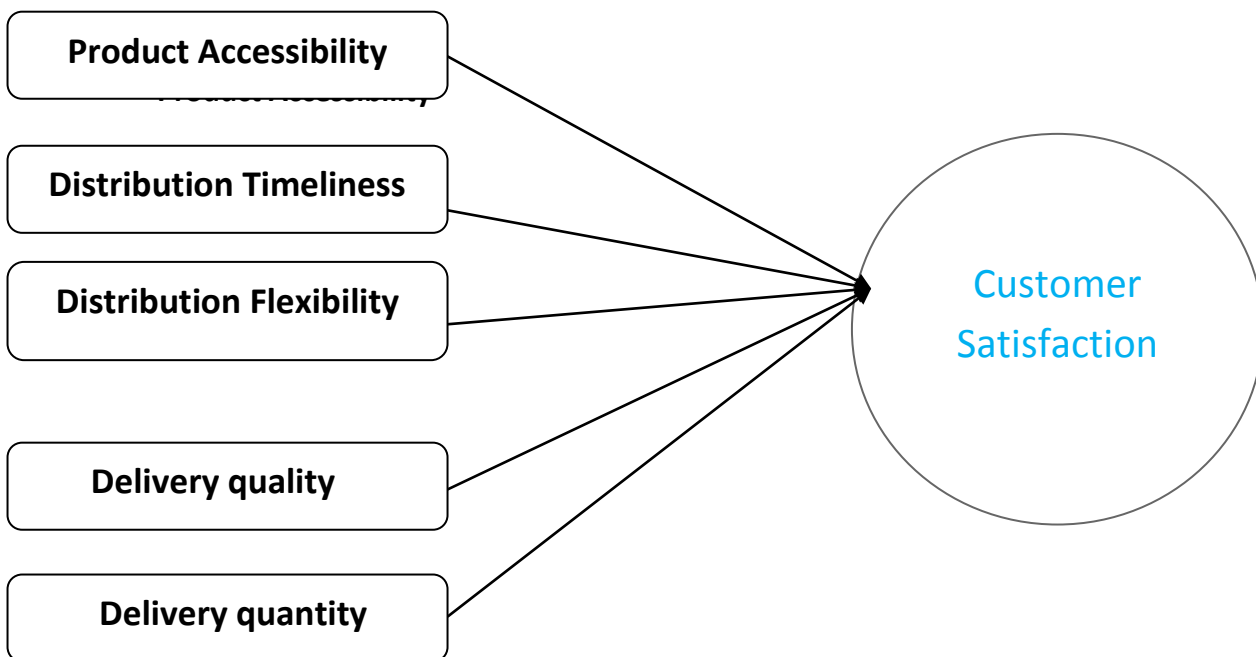
firms, this study argues that supplier flexibility can be employed as complementary resources leading directly to improved performance. Given the supplier flexibility described in previous sections, a manufacturer could increase performance by leveraging supplier flexibility. Therefore: The flexibility of suppliers positively influences manufacturer performance.

2.6 Conceptual Framework and Hypothesis of the Study

2.6.1 Conceptual Framework of the study

With conceptual frameworks theories are connect to all aspects of inquiry such as problem definition, purpose, literature review, methodology, data collection and analysis. Conceptual framework can act like maps that give coherence to empirical inquiry. Because conceptual frameworks are potentially so close to empirical inquiry, they take different forms depending upon the research question or problem (Shields, P. 1998).

The below diagram, shows the proposed conceptual framework to serve as foundation of this study. According to the figure, customer satisfaction the dependent variables, while distribution performances (product accessibility, distribution timeliness, distribution flexibility, delivery quality and delivery quantity) are the Independent Variables.



(Source; research own conceptual framework 2020)

Fig 2.6.2 Conceptual framework

2.6.2 Research Hypothesis

H1 Accessibility of product

Product accessibility of Aqua Addis bottle water p.l.c has a significant effect on satisfaction of its customers.

H2 Distribution timelines

Distribution timeliness of Aqua Addis bottle water p.l.c. has a significant effect satisfaction of its customers.

H3 Delivery quality

Delivery quality of Aqua Addis bottle water p.l.c has a significant effect on satisfaction its customers.

H4 Distribution flexibility

Delivery flexibility of Aqua Addis bottle water p.l.c has a significant effect on satisfaction its customers.

H5 Delivery Quantity

Delivery quantity of Aqua Addis bottle water p.l.c has a significant effect on satisfaction its customers.

CHAPTER THREE

3.1 Research Approach

In order to achieve the main research objectives, quantitative and qualitative mixed research approach was employed; the researcher collects both qualitative and quantitative data concurrently and compared the data to determine if there are differences (Creswell, J. 2009). Using varied methods helps the researcher to utilize strength of both quantitative and qualitative data and help to gather data that is not be obtained by a single method so that the findings with a single approach could be substantiated by others possible method.

3.2 Research Design

In simple terms a research design is a plan of methods and procedures that is used by researchers to collect and analyze the data needed. Decisions regarding what, where, when, how much, by what means concerning an inquiry or a research study constitute a research design (Kothari, C.R 2004).

The descriptive research sets out to describe and to interpret what it is. The major purpose of descriptive research is describing the state of affairs as it exists at present. In addition, Explanatory research is conducted when we encounter an issue that is already known and have a description of it. The desire to know why to explain is the purpose of explanatory research (Kothari, C.R 2004). Thus, explanatory research aims to understand phenomena by discovering and measuring casual relations among them.

This researcher collect data on five dimensions from customers of Aqua Addis bottle water p.l.c. to describe the effect on customer satisfaction across five dimensions. So, the researcher use descriptive research and analyze the causal relations between the dependent variable (Customer satisfaction) and the independent variables (distribution performance dimensions) using correlation and regression, which makes the research explanatory, and this makes the research both descriptive and explanatory.

3.3 Population and Sampling

3.3.1 Population of the study

A population is defined as the set of individuals, objectives, or data from where a statistical sample can be drawn (Saunders, M. et al., 2007). The total population of the study comprised of customers of Aqua Addis bottle Water p.l.c. statistically, the population of the study consists of all the customers includes Hotels, Restaurants, Bars, Cafes and shops. The study is conducted in Addis Ababa on the selected sub cities Nifas Silk Lafto and Lideta.

3.3.2 Sample size

(Saunders, M. et al., 2007) refers to sample as a subset of the target population. A sample can be used to derive inferences about the population if appropriate sample size and sampling techniques are used. A sample size is the number of units of observation that the researcher intends to collect information from. In this case, it is the customers of Aqua Addis bottle water p.l.c. that the researcher intends to collect data on the effect of distribution performance on customer satisfaction. There are various formulas that have been proposed for sample size determinations. However, this study follows the formula proposed by (Cochran, W.G 1977) since there are a large number of populations which is infinite and to find the appropriate sample size the researcher use appropriate formulas for unknown population.

Formula for Sample Size Determination Cochran, W.G 1977)

$$\mathbf{n = \frac{Z^2 (Pq)}{e^2}}$$

Where

n = required sample size

z = is the value from z tables (1.96) at 95% confidence level

P = the population proportion (assumed to be 0.5 since this would provide the maximum sample size)

q = 1 p (0.5) the estimate of variance

e = the desire level of precision (0.05)

$$\begin{aligned}
& ((1.96)^2 \times .5(.5)) / (.05)^2 \\
& (3.8416 \times .25) / .0025 \\
& .9604 / .0025 \\
& 384.16 \\
& 384 \text{ respondents are needed}
\end{aligned}$$

3.4 Sampling Technique

Sampling technique is a technique used to select suitable sample so as to represent the whole population. There are two common sampling techniques; probability and non-probability sampling. Probability sampling is where the population has an equal opportunity of being selected but in non-probability sampling method, the probability of being selected is unknown (Bhattacharjee, A. 2012).

One of the non-probability sampling techniques, Convenience sampling was employed to draw sample respondents. Convenience sampling is a type of non-probability sampling where members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study (Dornyei, Z. 2007) Furthermore convenience sampling is affordable, and the subjects are readily available. In light of the above practical consideration, the researcher had adopted non probability convenience sampling. The respondents are namely; Hotels, Restaurants, Bars, cafe and shops.

3.5 Source of Data

The research study was performed quantitative and qualitative research with the help of structured questionnaires from customers of Aqua Addis bottle water p.l.c. This is primary sources of data collection so as to address the research objectives using statistical based methods.

3.6 Research Instrument

The study uses a structured questionnaire to collect data from 384 sample-respondents of Aqua Addis Bottle water p.l.c. customers. As stated by (Creswell, J and Miller, 2003), in a questionnaire there may be open and closed questions. This study use closed end questions which is one where responses are restricted to small set of responses that generate precise answers to develop the empirical study. In designing the questionnaire, a five point likert-type scale was used in order to provide the extent of the respondent's feelings or opinions on the effect of Accessibility of the product, the distribution timeliness, Flexibility of distribution programs, quality of the product and quantity of the product on customer satisfaction. The close end questionnaire designed on a five-point Likert scale weighing as 1= Strongly Disagree, 2=Disagree, 3= Neutral, 4= Agree and 5= Strongly Agree. It is a widely used rating scale which requires the respondents to indicate a degree of agreement or disagreement with each of a series of statements or questions (Sekaran, U. 2003). this rating scale is easy to conduct and administer and respondents readily understand how to use the scale.

3.8 Data analysis

The data collection method is both quantitative and qualitative. The data was analyzed using appropriate statistical tools SPSS version 20. The analysis was done using descriptive statistics including minimum, maximum, means, mode and standard deviations to presents the results. This section presents the analysis of the research findings arranged in line with the research objectives. Such as the influence of (product accessibility, distribution timeliness, distribution flexibility, product quality and quantity on customer satisfaction). Finally, interpretation of results is made and the conclusions are drawn and further recommendations are forwarded.

3.9 Validity Test and Reliability Test

3.9.1 Validity Test

Validity refers to the credibility or believability of the research. The genuinely of the findings and a valid measure of intelligence. It is concerned with whether the findings are really about what they appear to be (Sounders, M. et al., 2003). Validity defined as the extent to which data collection method or methods accurately measure what they were intended to measure. In order to achieve this objective, the researcher is take different steps to ensure the validity of the study:

- Data was collect from the reliable sources, from those respondents who have good understanding and experiences in using the service of the company.
- Survey questions were prepared based on previous empirical review and literature review to ensure result validity.

3.9.2 Reliability Test

Reliability test was conducted to check the measuring tools employ on the study was free from error, so that the measurement instrument yields a reliable outcome. There are several different reliability coefficients. One of the most commonly used is called Cronbach's Alpha. The reliability of the two scales of measurement of distribution performance and customer satisfaction was estimated using the Cronbach alpha technique, by which low Cronbach alpha values mean that items do not capture the same construct and high value of Cronbach alpha indicates that items effectively measure and reflect the construct. In order to produce a reliable scale, the Cronbach alpha should be more than 0.70 and any scale with Cronbach alpha less than this scale should not be considered reliable (Gaur A. and Gaur S, 2009).

3.10 Ethical Considerations

According to (Leedy and Ormrod, 2013), in doing any research, there is an ethical responsibility to do the work honestly and with integrity. The basic principle of ethical research is to preserve and protect the human dignity and rights of all subjects involved in a research project In this regard, the researcher assured that the respondents 'information was confidential and used only for the study purpose. Before the data collection, the ethical issues were taken in to consideration when the study is conducted. Appropriate communication was undertaken with the staff of Aqua Addis bottle water PLC. During data collection respondents was informed the objective of the research. Anyone who may not interest to involve and bring any information was not included in the study. For the purpose of respondents 'security their names was not written on the questionnaire. As a general rule, therefore the study was not raising any ethical anxiety.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

Introduction

The survey data was collected from the customers of Aqua Addis bottle water p.l.c. Although a total of 384 questionnaires were distributed to customers of Aqua Addis bottle water, out of this only 233 questionnaires were returned at the end of the data collection process, due to the current situation of the country the researcher couldn't collect the entire questioner which gave the response rate of 60.6%.

4.1 Reliability Test

Reliability analyses were conducted prior to the regression analysis in order to identify the appropriate items for the analysis. The consistency reliability and the value of Cronbach's alpha will determine the variables' reliability and measure the consistency of a multiple item scale (Sekaran, U. 2003).

Variables	Cronbach's Alpha	N of Items
Product accessibility	.725	5
Distribution timeliness	.833	6
Distribution flexibility	.818	6
Distribution quality	.784	7
Distribution quantity	.713	4
Customer satisfaction	.786	3

Source: Own Survey, 2020

Table 4. 1 Reliability statistics

As shown in table 4.1 below the Cronbach's alpha coefficients for determinant of distribution performance items of respondents is 0.886. This is greater than the minimum value suggested by (Nunnally, J.C 1978). Therefore, the scales used in this study demonstrate reliability as well as it indicates the acceptability of the scale for further analysis.

4.2. Demographic profile

Although a total of 384 questionnaires were distributed to customers of Aqua Addis bottle water, 233 questionnaires were returned at the end of the data collection process, which gave the response rate of 60.6% percent. The demographic profile of the respondents is shown in Table 4.2.

table 4. 2 Demographic Profile of Respondents

Item	Description	Frequency	%tage	Valid percent	Cumulative Percent
Gender	Male	122	52.4	52.4	52.4
	Female	111	47.6	47,6	100
Age	30<	67	28.8	28.8	28.8
	31-40	108	46.4	46.4	75.1
	41-50	51	21.9	21.9	97.0
	51>	7	3.0	3.0	100.0
Education	Primary	8	3.4	3.4	3.4
	high school	26	11.2	11.2	14.6
	Diploma	97	41.6	41.6	56.2
	Degree	86	36.9	36.9	93.1
	Above	16	6.9	6.9	100.0
Which of these business categories do you belong?	Hotel	45	19.3	19.3	19.3
	Bar	25	10.7	10.7	30.0
	Restaurant	59	25.3	25.3	55.4
	Café	35	15.0	15.0	70.4
	Shop	69	29.6	29.6	100.0
How often are you supplied with aqua Addis bottle water?	twice a week	80	34.3	34.3	34.3
	Weekly	95	40.8	40.8	75.1
	every two week	42	18.0	18.0	93.1
	Monthly	16	6.9	6.9	100.0

Source: Own Survey, 2020

As shown under item 1 of table 4.2, the majority of respondents were males. That is, they are 122(52.4%). On the other hand, the female included in the survey were 111(47.6%).

Due to customers' differences, the researcher targeted customers on their age group under item 2, indicates that 67 of the respondents fall within the ages of <30 years, 108 respondents' fall within 31-40 years, 51 respondents' fall above 41-50 years, and 7 respondents fall on>51. Therefore, it indicates greater number of respondent fall within 31 to 40 years which represents 46.4% and fellow by <30 years which represent 28.8%., 41 to 50 years represent 21.9% and >51 years were 3.0%.

Item 3 shows 41.6% of respondents were diploma holder, 36.9% of respondents are degree holders, 11.6% high school completed, 6.9 % of them are above and 3.4% are primary school finished.

Regarding the business category of the respondents, 29.6 % of the respondents were shops; 25.3 % of the respondents were restaurants; 19.3% of respondents were hotels and other 10.7 % and 15.0 % of the business category are Bars and Cafes.

Regarding the frequency of supply, 40.8% were supplied once a week, 34.3% were supplied twice a week, 18.0% were supplied every two weeks and 6.9% were supplied every month.

4.3. Descriptive Statistics

4.3.1 Determinants of Distribution Performance

The aim of this research is to identify the effect of distribution performance on customer satisfaction. The researcher was focusing on investigating the effect of product accessibility, distribution timeliness, distribution flexibility, distribution quality and quantity on customer satisfaction.

To analyze the overall distribution performance, 384 questions were developed. These questions were grouped in to five dimensions of product accessibility, distribution timeliness, distribution flexibility, distribution quality and quantity. In this analysis the researcher want to investigate how far the distributors perceived those factors using statistical tools like number, mean and standard deviation. The mean value represents the average of all customer response on certain dimensions while, standard deviation shows how diverse the responses of the respondents are that means if the standard deviation shows smaller number, it indicates that the response of the

respondents shows close opinions and when the standard deviation is high, it indicates the response of the respondents shows high variation (Zaidatol, A.L & Bagheri, A. 2009).

table 4. 3 : Descriptive statistics

Descriptive Statistics

	N	Mean	Std. Deviation
Product accessibility	233	2.6996	.83813
Distribution timeliness	233	2.7554	.84034
Distribution flexibility	233	2.9263	.78901
Distribution quality	233	2.4954	.73205
Distribution quantity	233	2.6502	.90047
Customer satisfaction	233	2.7325	.97451
Valid N (listwise)	233		

Source: Own Survey, 2020

In the output presented above concerning the product accessibility, the mean is 2.6996 with a standard deviation of .83813. Distribution timeliness has a mean value of 2.7554 with a standard deviation of .84034. For this variables on average respondents are agree for the statement of distribution timeliness. The mean of Distribution Flexibility is the maximum among the listed variables which is 2.9263 with a standard deviation of .7891. For this variable on average respondents are strongly agree. There are seven statements which were used to test effect of distribution Quality on customer satisfaction. From the above statistics result, the customer’s response rate is Mean 2.4954 with the standard deviation .73205 which is minimum among the listed variables. The mean for Distribution quantity is 2.6502 with a standard deviation of .90047. Which means the response of the respondents are neutral on quantity statement questions. When we see the dependent variable means it has a mean of 2.7325 with standard deviation of .97451.

4.4 Inferential Statistics

4.4.1 Correlation Analysis

Correlation refers to synonym for association or the relationship between variables and it measures the degree to which two sets of data are related. Higher correlation value indicates stronger relationship between both sets of data. When the correlation is 1 or -1, a perfectly linear positive or negative relationship exists; when the correlation is 0, there is no relationship between the two sets of data (Vignaswaran, R. 2005). 2007). the classification of the correlation coefficient (r) is as follows: - 0.1 – 0.29 is weak; 0.3 – 0.49 is moderate; and > 0.5 is strong (Field, A. 2005). In addition, when Pearson's r is positive (+), this means that as one variable increases in value, the second variable also increases in value. Similarly, as one variable decreases in value, the second variable also decreases in value. This is called a positive correlation. When Pearson's r is negative (-), this means that as one variable increases in value, the second variable decreases in value. This is called a negative correlation (Field, A. 2005).

4.4.1.1 Relationship between the Factors and customer satisfaction

In this section the researcher is trying to evaluate the relationship between five factors and customer satisfaction using spearman's rho correlation. Correlation determines whether and how pairs of variables are related. Spearman's rho correlation coefficient - R shows the extent and direction of linear relationship between the variables

table 4. 4 Correlation

		Correlations						
		Accessibilit y	T.distr	F.distr	Q.distr	Qu.distr	Cu.satisf	
Spearman's rho	Accessibility	Correlation Coefficient	1.000	.472**	.313**	.398**	.548**	.473**
		Sig. (2-tailed)	.	.000	.000	.000	.000	.000
		N	233	233	233	233	233	232
	T.distribution	Correlation Coefficient	.472**	1.000	.668**	.555**	.528**	.490**
		Sig. (2-tailed)	.000	.	.000	.000	.000	.000
		N	233	233	233	233	233	232
	F.distribution	Correlation Coefficient	.313**	.668**	1.000	.607**	.485**	.580**
		Sig. (2-tailed)	.000	.000	.	.000	.000	.000
		N	233	233	233	233	233	232
	Q.distribution	Correlation Coefficient	.398**	.555**	.607**	1.000	.356**	.477**
		Sig. (2-tailed)	.000	.000	.000	.	.000	.000
		N	233	233	233	233	233	232
	Qu.distribution	Correlation Coefficient	.548**	.528**	.485**	.356**	1.000	.491**
		Sig. (2-tailed)	.000	.000	.000	.000	.	.000
		N	233	233	233	233	233	232
	Cu.satisfaction	Correlation Coefficient	.473**	.490**	.580**	.477**	.491**	1.000
		Sig. (2-tailed)	.000	.000	.000	.000	.000	.
		N	232	232	232	232	232	232

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Own Survey, 2020

A correlation analysis was performed to establish the relationship between the independent variables and dependent variable. All the ratings on factors that were used to measure the variables were aggregated for each variable. The average for each independent and dependent variables were used to perform the correlation analysis. The study results (Table 4.4) revealed that product accessibility had a strong positive relationship with customer satisfaction ($r = 0.473$; $p < 0.01$). This indicates that improvement of customer satisfaction towards product accessibility would be related with improved performance of the distribution. Distribution timeliness had a strong positive relationship with customer satisfaction ($r = 0.490$; $p < 0.01$). These results indicated that customer satisfaction towards the distribution timeliness was very much related to performance of the distribution. This points out that improved distribution performance towards distribution timeliness would very much be related to improved customer satisfaction. Distribution quality has strong positive relationship with customer satisfaction ($r = 0.477$; $p < 0.01$). Distribution quantity has high strong positive relationship with customer satisfaction ($r = 0.491$, $p \leq 0.01$).

Hence, there is a high significant positive relationship between distribution flexibility and customer satisfaction. Distribution flexibility seemed to have the strongest relationship among the five variables tested. Finally, Distribution flexibility had highly significant positive relationship with customer satisfaction ($r = 0.580$; $p < 0.01$). Generally, the above correlation shows that all variables are positively and strongly correlates with the dependent variable.

4.4.2 Regression Analysis

Linear regression estimates the coefficients of the linear equation, involving one or more independent variables that best predict the value of the dependent variable. In this study, the regression analysis uses distribution performance dimensions which are product accessibility, distribution timeliness, distribution flexibility, and distribution quality and distribution quantity as independent variables to measure overall customer satisfaction. The significance level of 0.05 was used with 95% confidence interval. The reason for using this multiple regression analysis was to examine the effect of these distribution performance dimension on customer satisfaction towards Aqua Addis bottle water p.l.c. multiple regression analysis was conducted to examine effect of distribution performances on customer satisfaction.

4.4.3 Multiple Regressions Assumptions

In order to determine the explanatory power of the independent variables in the variance of the dependent variable, multiple linear regression analysis was employed. To evaluate the effect of distribution performance on customer satisfaction, this research looked at the five predictive variables. These are product accessibility, distribution timeliness, distribution flexibility, and distribution quality and distribution quantity.

Multiple linear regressions also use to compare which independent variable has more effect than other independent variables. The assumptions in multiple regressions which are normality of the distribution, multicollinearity, linearity and homogeneity should be satisfied and the results are summarized below.

I. Normality Test

Screening data for assessing the normalization of variables is a critical step in multivariate analysis (Hair, J.B 2010). Normality refers to the shape of a normal distribution of the metric variable (Robert, H. 2006). Even though there are many testes for normality all having their advantage and disadvantages, in this study a statistical test skewness and kurtosis are used to assess normality of the data. Skewness refers to the symmetry of distribution and kurtosis refers to the peakness of distribution (Ebrahim, R.S 2013). For variables with normal distribution the values of skewness and kurtosis are zero, and any value other than zero indicates deviation from normality (Hair, J.B 2010). According to (Hair, J.B 2010) the most commonly acceptable criteria value for (kurtosis/skewness) distribution is ± 2.58 . For this study kurtosis and skewness of variables are calculated for items as shown below they fall within acceptable range.

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Product Accessibility	.132	232	.000	.953	232	.000
Distribution Timeliness	.160	232	.000	.933	232	.000
Distribution Flexibility	.119	232	.000	.976	232	.001
Distribution Quality	.199	232	.000	.813	232	.000
Distribution Quantity	.146	232	.000	.919	232	.000
Customer Satisfaction	.162	232	.000	.951	232	.000

a. Lilliefors Significance Correction

table 4. 5 Normality test

Source: Own Survey, 2020

II. Multicollinearity Assumptions

Multicollinearity refers to the situation in which the independent/predictor variables are highly correlated. When independent variables are multicollinear, there is —overlap or sharing of predictive power (Dillon, W.R 1993). This may lead to the paradoxical effect, whereby the regression model fits the data well, but none of the predictor variables has a significant impact in predicting the dependent variable (Robert, H. 2006). This is because when the predictor variables are highly correlated, they share essentially the same information. Thus, together, they may explain a great deal of the dependent variable, but may not individually contribute significantly to the model (Robert, 2006). Thus, the impact of multicollinearity is to reduce any individual independent variable’s predictive power by the extent to which it is associated with the other independent variables. That is, none of the predictor variables may contribute uniquely and significantly to the prediction model after the others is included.

The multicollinearity in this study was checked using the Tolerance and VIF value. As it is showed in the table 4.7 all independent variables have a Tolerance value greater than 0.1 and a VIF value less than 10. The VIF, which stands for variance inflation factor, is computed as $1/\text{tolerance}$, and it is suggested that predictor variables whose VIF values are greater than 10 may merit further investigation (Robert, 2006).

table 4. 6 Multicollinearity test

coefficients ^a		
Model	Co-linearity Statistics	
	Tolerance	VIF
Product accessibility	.482	2.074
Distr. Timeliness	.343	2.918
Distr. Flexibility	.406	2.463
Distr. quality	.370	2.704
Distr. Quantity	.427	2.340

Source: Own Survey, 2020

We can see from the above table 4.7 based on the coefficients output co linearity statistics, obtained VIF value of 2.074 for product accessibility, 2.918 for distribution timeliness, 2.463 for distribution flexibility, 2.704 for distribution quality and 2.340 for distribution quantity, meaning that the VIF value obtained was between 1 to 10 together with indicated tolerance values greater than 0.1. (i.e. 0.482, 0.343, 0.406, 0.370, 0.427). As a result, it can be concluded that there were no Multicollinearity symptoms. The predictor variables in a multiple regression model are not correlated, meaning that one cannot be linearly predicted from the others with a substantial degree of accuracy.

III. Linearity

Multiple Regressions assume a linear relationship between the independent and dependent variables. Nonlinearity can be diagnosed by observing in a plot of observed versus predicted values which are a part of standard regression output. The points should be symmetrically distributed around a diagonal line in the P-P plot with a roughly constant variance. In order to determine the relationship between distribution performance and customer satisfaction, plots of the regression residuals had been used.

4.4.4. ANOVA

By examining the significance of the regression in the ANOVA table, we determine whether or not there is a relationship between the independent variable and the dependent variable.

table 4. 7 anova

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1040.759	5	208.152	50.007	.000 ^b
	Residual	940.719	226	4.162		
	Total	1981.478	231			

a. Dependent Variable: Customer. Satisfaction

b. Predictors: (Constant), distribution quantity, distribution flexibility, product accessibility, distribution quality, distribution timeliness

Source: Own Survey, 2020

The summary table shows the various sum of squares described in the table above and the degrees of freedom associated with each. From these two values, the average sums of squares (the mean squares) can be calculated by dividing the sums of squares by the associated degrees of freedom. The most important part of the table is the F-ratio, which is a test of the null hypothesis that the regression coefficients are all equal to zero. Put in another way, this F statistics tests whether the R^2 proportion of variance in the dependent variables accounted for by the predictors is zero and the table 4.8 also shows the associated significance value that F-ratio (Field, A 2009). For this data, F is 50.007, which is significant at $P < .001$ (because the value in the column labeled Sig. is less than 0.001). This result tells us that there is less than a 0.1% chance that an F-ratio this large would happen. If the null hypothesis proposed about F-ratio were true. Therefore, we can conclude that our regression model results in significantly better prediction of customer satisfaction and that the regression model overall predicts customer satisfaction significantly well.

4.4.5. Regression Analysis of Distribution Performance and Customer Satisfaction

The Results of regression analysis against customer satisfaction can be seen in Table 4.8 the result shows that distribution performance has the power to explain customer satisfaction. In this case the results of correlation of distribution performance and customer satisfaction and R Square (0.525) are taken into consideration.

Table 4.8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.725 ^a	.525	.515	2.040	.525	50.007	5	226	.000

Source: Own Survey, 2020

a. Predictors: (Constant), distribution quality, distribution flexibility, product accessibility, distribution quality, Distribution timeliness.

The regression analysis model summary indicates that distribution performance which is entered into the regression model on SPSS has relationship with customer satisfaction with correlation coefficient of 0.725. The R square is explained variance and it is actually the square of the multiple R $(0.525)^2$. Results (Table 4.8) indicate that 52.5% of change in distribution performance can be explained by customer satisfaction. These findings indicate that 47.5% of change in distribution performance is explained by other factors that were not included in the model. This indicates that product accessibility, distribution timeliness, distribution flexibility, distribution quality and distribution quantity can be used as predictors of distribution performance. Moreover, results reported high level of significance $p < 0.01$. And also the R square value of 0.525 confirming that, 52.5% of the variation in distribution performance is explained by customer satisfaction.

4.4.6. The regression coefficient

This study intends to identify the most contributing independent variable in the prediction of the dependent variable. Thus, the strength of each predictor (independent variable) influencing the criterion (dependent variable) can be investigated via standardized Beta coefficient.

The regression coefficient explains the average amount of change in the dependent variable that is caused by a unit change in the independent variable. The larger value of Beta coefficient an independent variable has, brings the more support to the independent variable as the more important determinant in predicting the dependent variable.

Table 4.9 Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			
1	(Constant)	-.702	.598		-1.174	.242
	Product Accessibility	.130	.051	.169	2.563	.011
	Distribution timeliness	.009	.045	.016	.203	.839
	Distribution flexibility	.127	.037	.247	3.434	.001
	Distribution quality	.156	.043	.273	3.617	.000
	Distribution quantity	.142	.064	.156	2.222	.027

a. Dependent Variable: Customer satisfaction

Source: Own Survey, 2020

The column B is the value for the intercept (a) in the regression equation on the first row, labeled (constant). The numbers below the column Beta are the values for the regression coefficients for product accessibility, distribution timeliness, distribution flexibility, and distribution quality and distribution quantity. In the multiple regression, this standardized regression coefficient Beta (β) is useful, because it allows you to compare the relative strength of each independent variable's relationship with the dependent variable (Pedhazur, E.J 1982). The above coefficient table shows the constant beta value (β) and p-value of the variables to examine the significance of the hypothesis. The significance level of each variable (P-value) is: < 0.05% except distribution timeliness its (p-value) is 0.839 and their standardized coefficients are 0.273, 0.243, 0.169, 0.156 & 0.016 respectively. The p-value of all the independent variables is below 0.05 except distribution timeliness which implies all have a significant relationship with the dependent variable (customer satisfaction).

Based on these results, the regression equation that predicts overall customer satisfaction based on the linear combination of for product availability, physical distribution service timeliness, physical distribution service quality, product distribution service flexibility is as follows:

$$Y = -0.702 + 0.273 X1 + 0.247 X2 + 0.169 X3 + 0.156 X4 + 0.016X5 + e$$

Where:

X1 = Product Accessibility

X2 = Distribution Timeliness

X3 = Distribution Flexibility

X4 = Distribution Quality

X5 = Distribution Quantity

E = Sampling Error

4.5 Hypothesis Testing

table 4. 8 Overall Outcome of the Hypothesized Research

Hypothesis	Result	Reason
H1: Product accessibility of Aqua Addis bottle water p.l.c has a significant effect on satisfaction of its	Accepted	$\beta=0.130$, $p<0.011$
H2: Distribution timeliness of Aqua Addis bottle water p.l.c. has a significant effect satisfaction of its customers.	Rejected	$\beta=0.009$, $p<0.839$
H3: Delivery quality of Aqua Addis bottle water p.l.c has a significant effect on satisfaction its customers.	Accepted	$\beta=0.156$, $p<0.000$
H4: Delivery flexibility of Aqua Addis bottle water p.l.c has a significant effect on satisfaction its customers.	Accepted	$\beta=0.127$, $p<0.001$
H5: Delivery quantity of Aqua Addis bottle water p.l.c has a significant effect on satisfaction its customers.	Accepted	$\beta=0.142$, $p<0.027$

4.6. Discussions of Findings

Product accessibility had a strong relationship with customer satisfaction and was a significant predictor of customer satisfaction ($\beta = 0.130$; $t = 2.563$; $p < 0.05$). The research finding show that there is significant and positive relationship between product availability and overall customer satisfaction supports the marketing theory, which says that customer service expectations compared to perceived customer service performance affect satisfaction. The strength of the relationship shows the extent of the impact product accessibility, which was measured in terms of in-stock rate and percent orders, units and lines filled will make on overall customer satisfaction. This relationship will greatly affect intention to buy.

The study established that distribution timelines had a weak positive relationship with customer satisfaction. Regression results indicated that distribution timeliness was not a significant predictor of customer satisfaction ($\beta = 0.009$; $t = 0.203$; $p > 0.05$). The current study findings do not concur with findings from a study by (Johnson, M.D and Gustatson, A. 2000) finding that customer satisfaction is customer's overall evaluation of the purchase and consumption experience with a product, service or provider. The strength of this relationship which PDS

timelines, measured in terms of order cycle time, average delivery time and consistent delivery, has with overall customer satisfaction will immensely influence purchase decisions.

The current study established that distribution flexibility had strong and positive relationship with customer satisfaction. Regression findings revealed that distribution flexibility was a significant predictor of customer satisfaction ($\beta = 0.127$; $t = 3.434$; $p < 0.05$). These study findings concurred with findings from a study by (Manders, J. 2009). finding that distribution flexibility has a significant positive impact on customer satisfaction. Manders study took place in Netherlands with manufacturing companies producing technical products as units of analysis hence the need to confirm the study finding in a company of Fast Moving Consumer Goods (FMCGs) sector. The Strength of relationship distribution flexibility measured in terms of flexible order policies, expedite and substitute capacity, and meeting customers' special needs, has with overall customer satisfaction indicates the degree of impact it can make on customer satisfaction.

The study reveals that distribution quality had high strong and positive relationship with customer satisfaction. Regression findings revealed that distribution quality was a significant predictor of customer satisfaction ($\beta = 0.156$; $t = 3.617$; $p < 0.05$). These study findings concurred with findings from a study by (Johnson, D.M and Gustatson, A. 2000) who found out that customer satisfaction is customers' over all evaluation of the purchase and consumption experience with a product, service or provider. The strength of relationship distribution quality measured in terms of minimum damage in transit, and order filling accuracy has with overall customer satisfaction indicates the extent of impact it makes on overall customer satisfaction.

Distribution quantity had a strong relationship with customer satisfaction and was a significant predictor of customer satisfaction ($\beta = 0.142$; $t = 2.222$; $p < 0.05$). The strength of relationship distribution quality measured in terms of correct amount in-stock rate and percent orders, units and lines filled will make on overall customer satisfaction.

CHAPTER FIVE

MAJOR FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Summary of Major Findings

The research general objective was to examine the effect of distribution performance on customer satisfaction case of Aqua Addis bottle water. The study distributed questioners for three hundred eighty-four respondents. Due to the current situation that happen in our country the researcher can't collect the entire questioner that prepared. Out of the distributed questioner; only 233) were properly filled and respond for the study. In line with this, it carried out by coucting a regression model using SPSS through testing relevant assumptions that were adopted from primary sources of data to have well-built quantitative analysis.

From the analysis and discussions of the study the following summary is drawn. The demographic characters of the respondents are found to be proportional. Female respondents accounted for 47.6% while male respondents accounted for 52.4% of the total respondents.

Regarding educational level majority of the respondents were educated that means they can read and write therefore the respondent fill the questioner properly.

The result of independent variable of descriptive statistics has shown that, the mean score of distribution performance variables i.e. product accessibility, distribution timeliness, distribution quality, distribution flexibility and distribution quantity has been 2.9263, 2.7554, 2.7325, 2.6996 and 2.4954 respectively. The result indicated that, the highest mean score from the independent variable is 2.9263 for distribution flexibility. Therefore, the company had better flexible order policies, expedite and substitute capacity, and meeting customers" special needs.

The result of multiple regression analysis between dependent variable (customer satisfaction) and independent variables(product accessibility, distribution timeliness, distribution flexibility, distribution quality and distribution quantity). Among the five independent variables, multiple regression analysis revealed that product accessibility, distribution flexibility, distribution quality and distribution quantity were a significant predictor of distribution performance by the p-value ($p < 0.05$), while the influence of distribution timeliness ($p = 0.839$) on customer satisfaction was not found significant. The nature of relationship was positive for product accessibility ($\beta = 0.$

.130), distribution flexibility ($\beta=0.127$), distribution quality ($\beta=0.156$), distribution quantity ($\beta=0.142$) and distribution timeliness display ($\beta= 0.009$).

Among variables those have a significance relationship with customer satisfaction. Distribution quality has the highest standardized regression coefficient and the lowest significance ($\beta=0.156$, $p=0.000$), which means distribution quality are the most important predictor of distribution performance and customer satisfaction followed by distribution quantity ($\beta=0.142$, $p=0.027$). Product accessibility has ($\beta=0.130$, $p=0.011$) and distribution flexibility was found to be the list variable that influences the customer satisfaction.

According to the research findings it is clear that the, product accessibility, distribution timeliness, distribution quality, distribution flexibility and distribution quantity are factors that affect customer satisfaction.

Correlation analysis was conducted to analyze the relationships between variables; the correlation matrix revealed that all coefficient of correlation independent variables were positive and strongly correlates with the dependent variable. Further regression analysis was also conducted to verify if the independent variables have effect on customer satisfaction.

According to the findings, product accessibility, distribution timeliness, distribution flexibility, distribution quality and quantity has significant impact on customer satisfaction. Therefore, all selected dimension of physical distribution service have a significant and positive effect on the dependent variable.

5.2 Conclusion

Based on the findings the following conclusions are drawn; the research was aimed at identifying the various effects that affect customer satisfaction. According to the research findings it is clear that the, product accessibility, distribution timeliness, distribution quality, distribution flexibility and distribution quantity are factors that affect customer satisfaction.

- The result indicates positive and significant association between product accessibility and customer satisfaction which implies that an increase in product accessibility inevitably lead to enhance customer satisfaction by attracting more potential customers comfortably. The correct and right product distribution facilitates and increase market share.

- Distribution flexibility has also positive and significant association with customer satisfaction. This implies that changing company's policy, definitely lead to an increase in customer satisfaction by meeting customers changing needs.
- Distribution quality has positive and significant effect on customer satisfaction. This implies that delivering products with minimum damage, delivering the supplied unit correctly, and the like increase the attention and trustworthiness of customers. Quality delivery certainly leads to go up in customer satisfaction.
- The result indicates positive and significant association between distribution quantity and customer satisfaction which implies that the various sizes of minimum delivery quantities to all customers. Definitely leads to enhance customer satisfaction caused by high quality perceptions have higher satisfaction rates, focusing on the target customer can influence positively the customer satisfaction.

5.3 Recommendation

Based on the findings which are obtained from regression and questionnaires, the researcher has drawn the following recommendations.

- product accessibility has a positive and significant effect on customer satisfaction, so that the company should always have all the assorted product mix in the stock in order to continue satisfying its customers
- The analysis indicated that distribution quantity has positive and significant effect on customer satisfaction. Aqua Addis have to deliver whatever amount of requires products to all its customers at all the time.
- The finding explained that distribution flexibility has positive and significant effect on customer satisfaction. Consequently, the company has to focus on meeting special customers need by preparing flexible policy orders, expedite and substitute capacity.
- The result disclosed that distribution quality has positive and significant effect on customer satisfaction. Accordingly, the company has to deliver the product with minimum damage in transit, and order filling accuracy to satisfy customers.

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APPENDICES I
ST MARRY UNIVERSTY MASTER’S DEGREE IN MARKETING
MANAGEMENT
QUESTIONNAIRE FOR CUSTOMERS

Dear Respondent

My name is Mahelet Sebhatu. I am a student in St Marry University. I am conducting a research on the topic “The effect of Distribution performance on customer satisfaction the case of Aqua Addis bottle water p.l.c.” for partial fulfillment of the requirement of Master in marketing management. Hence, the purpose of this questionnaire is to collect primary data from customers of Aqua Addis bottle water p.l.c. As your valuable information is crucial for the success of the study, I kindly request you to take a few minutes to fill the questionnaire. Your response for all questions will be used only for academic purpose and will be kept confidential.

Section One: General Information

Please put a tick (√) mark in the box of your response for the following questions.

1. Gender: Male
 Female

2. Age: 30 years & below 31-40
 41-50 51 and above

3. Educational Level: Primary Degree
 High School Above
 Diploma

4. Which of these business categories do you belong?

Hotel Restaurant Shop
Bar Cafe

5. How often are you supplied with Aqua Addis bottle water?

Twice a week every two week
Weekly Monthly

Section Two: Distribution Services

Please indicate the extent to which you agree or disagree with each of the following statements by putting “√” in the appropriate place to choose the number from 1-5 that best represents your level of agreement with the statement.

Keys: 1= Strongly Agree; 2= Agree; 3=Neutral; 4= Disagree; 5=Strongly Disagree;

Product Accessibility		Scale				
No	Statement	S. A (1)	A (2)	N (3)	D (4)	SD (5)
1.	The assorted products (mix) are always in stock.					
2.	The units ordered are fully supplied.					
3.	All orders are consistently supplied.					
4.	Aqua Addis bottle water p.l.c delivers its products with relatively reduced distribution cost.					
5.	Aqua Addis bottle water is accessible in all corner of the market.					
Distribution Timeliness						
6.	The time it takes Aqua Addis bottle water. To supply from receipt of order is fair.					
7.	The average delivery time is reasonable.					
8.	The percent units delivered in specified time is consistent.					
9.	Products always arrive when promised.					
10.	Aqua Addis bottle water deliver the required amount of products timely to clients.					
11.	The total transportation time of the firm main product is relatively short.					
Distribution Flexibility						
12.	Aqua Addis bottled water order policies are flexible enough to permit timely response to					

	changing Market demands.					
13.	Aqua Addis bottle water p.l.c. has expedited and substitutes Capacity to respond special customer requests.					
14.	Aqua Addis bottle water responds timely to special Requests or unexpected needs of customers.					
15.	Aqua Addis bottle water p.l.c. is willing to accommodate changes in order that you have					
16.	The firm use fast mode of transportation to deliver urgent delivery requests.					
17.	The firm gives priority to the requests from strategic customers.					
Distribution Quality						
18.	The percent units received are in acceptable condition.					
19.	The units that are supplied are in correct units.					
20.	The damage in transit is minimum.					
21.	Aqua Addis bottled water p.l.c deliver products as per the required service quality.					
22.	Aqua Addis bottle water p.l.c are able to deliver in a better quality than other brands.					
23.	The firm provides care an individualize attention to the customers.					
24.	Aqua Addis bottle water p.l.c distribution unit is well responsive					
Distribution Quantity						
25.	The units that are delivered are in correct quantity.					

26.	The assorted products (mix) have sufficient amount.					
27.	Aqua Addis bottle water p.l.c supply whatever amount of the required product.					
28.	The firm delivers various sizes of minimum delivery quantities to all customers.					

Section Three: Customer Satisfaction

Statement		Scale				
1.	I am satisfied with Aqua Addis bottle water p.l.c overall distribution service.					
2.	I am loyal to service provider and consider it a first choice.					
3	My satisfaction is directly influenced by Aqua Addis bottle water p.l.c high quality service.					

Thank you for your kind Cooperation

5. አኳ አዲስ የታሸገ ውሃ በየምን ያክል ጊዜ ይቀርብልዎትል?

በሃምንት 2 ጊዜ በየ2 ሃምንት
 በሃምንት በየወሩ

ክፍል ሁለት፣ የማከፋፈል አገልግሎቶች

እባክዎን ለሚከተሉት እያንዳንዳቸው መግለጫዎች የእርስዎን የመስማማት ወይም ያለመስማማት ደረጃ ለመግለጽ ከ1-5 ካሉት አማራጮች ተገቢውን ምላሽዎን በመግለጫዎቹ ላይ የእርስዎን የመስማማት ወይም ያለመስማማት ደረጃ (√) በማድረግ ምላሽዎን ያመለክቱ።
 ቁልፎች: 1= በጣም እስማማለሁ; 2= እስማማለሁ; 3=ድምፀ ተአቅቦ; 4= አልስማማም; 5=በፍፁም አልስማማም;

የምርት መገኘት		ደረጃ				
ተ.ቁ.	መግለጫ	በ. እ (1)	እ (2)	ድ.ተ (3)	እ (4)	በፍ.አ (5)
1.	የተለያዩ ምርቶች (ውሀድ) ሁልጊዜም ክምችት ውስጥ ይኖራሉ።					
2.	የታዘዘው መጠን በሙሉ ይቀርባል።					
3.	ሁሉም ትዕዛዞች በቀጣይነት ይቀርባሉ።					
4.	አኳ አዲስ የታሸገ ውሃ ኃ.የተ.የግ.ማኅበር በአንጻራዊነት ምርቶቹን ዝቅተኛ በሆነ የማከፋፈል ወጪ ያቀርባል።					
5.	አኳ አዲስ የታሸገ ውሃ በገበያ ሁሉም ማዕዘኖች ይገኛል።					
የማከፋፈል ወቅታዊነት						
6.	አኳ አዲስ የታሸገ ውሃ ላዘዘው ለማቅረብ የሚወስድበት ጊዜ ምክንያታዊና ተገቢ ነው።					
7.	አማካኝ የአቅርቦት ጊዜ ምክንያታዊ ነው					
8.	በተወሰነ ጊዜ የሚቀርቡ በመቶኛ ቀጣይነት አላቸው					
9.	ምርቶች ሁልጊዜም ቃል እንደተገባው ይደርሳሉ					

10.	አኳ አዲስ የተሸገ ውሃ ለደንበኞቹ በወቅቱ የሚያስፈልገውን የምርት መጠን ያቀርባል					
11.	ድርጅቱ አጠቃላይ የዋና ምርት ማንንዝ ጊዜ በአንፃሩ አጭር ነው					
የማከፋፈል ተለዋዋጭነት						
12.	አኳ አዲስ የተሸገ ውሃ የትዕዛዝ ፖሊሲዎች ከሚለወጥ የገበያ ፍላጎት አኳያ በወቅቱ ምላሽ ለመስጠት በቂ ተለዋዋጭነት አላቸው					
13.	አኳ አዲስ የተሸገ ውሃ ኃ.የተ.የግ.ማኅበር ልዩ ለሆነ የደንበኞች ጥያቄዎች ምላሽ ለመስጠት የታወቀ እና ሊለወጥ የሚችል አቅም አለው					
14.	አኳ አዲስ የተሸገ ውሃ ለልዩ ጥያቄዎች ወይም የደንበኞች ያልተጠበቁ ፍላጎቶች በወቅቱ ምላሽ ይሰጣል።					
15.	አኳ አዲስ የተሸገ ውሃ ኃ.የተ.የግ.ማኅበር እርስዎ ባልዎት ትዕዛዝ መሠረት ለውጦችን ለመቀበል ፍቃደኛ ነው					
16.	አስቸኳይ የአቅርቦት ጥያቄዎችን ምላሽ ለመስጠት እና ለአቅርቦት ድርጅቱ ፈጣን የትራንስፖርት መንገድ ይጠቀማል					
17.	ድርጅቱ ከስትራቴጂክ ደንበኞች ለሚቀርቡ ጥያቄዎች ቅድሚያ ይሰጣል					
የማከፋፈል ጥራት						
18.	የሚቀበሉት ምርቶች ተቀባይነት ባላቸው ሁኔታ ውስጥ ናቸው					
19.	የሚቀርቡ ምርቶች ትክክለኛ ምርቶች ናቸው					
20.	በትራንዚት ወቅት ያለ ጉዳት ዝቅተኛ ነው					
21.	አኳ አዲስ የተሸገ ውሃ ኃ.የተ.የግ.ማኅበር በሚያስፈልገው የአገልግሎት ጥራት መሠረት ምርቶቹን ያቀርባል					
22.	አኳ አዲስ የተሸገ ውሃ ኃ.የተ.የግ.ማኅበር ከሌሎች ብራንዶች ይልቅ የተሻለ ብራንድ ለማቅረብ ችሏል					

23.	ድርጅቱ ለደንበኞቹ በግል ትኩረትን እና እንክብካቤ ይሰጣል					
24.	አካ ከዲስ የታሸገ ውሃ ኃ.የተ.የግ.ማኅበር አከፋፋይ ክፍል ተገቢ ምላሽ ይሰጣል					
የማከፋፈል ብዛት						
25.	የሚቀርቡ ምርቶች ትክክለኛ ብዛት አላቸው					
26.	የተለዩ ምርቶች/ውህድ/ በቂ መጠን አላቸው					
27.	አካ ከዲስ የታሸገ ውሃ ኃ.የተ.የግ.ማኅበር አስፈላጊውን ምርት ማንኛውንም መጠን ያቀርባል					
28.	ድርጅቱ ለሁሉም ደንበኞቹ በተለያዩ መጠን ዝቅተኛ የአቅርቦት ብዛት ያቀርባል					

ክፍል ሦስት: የደንበኞች እርካታ

መግለጫ		ደረጃ				
1.	አካ ከዲስ የታሸገ ውሃ ኃ.የተ.የግ.ማኅበር በሚሰጠው አጠቃላይ የማከፋፈል አገልግሎት ረክቻለሁ					
2.	ለአገልግሎት ሰጪው ታማኝ ስሆን የመጀመሪያ ምርጫዬ አድርጌ ወስጄዋለሁ					
3.	የእኔ እርካታ በቀጥታ በአካ ከዲስ የተሸገ ውሃ ኃ.የተ.የግ.ማኅበር ከፍተኛ ጥራት ያለው አገልግሎት ተፅእኖ አድርጎታል።					

ለበጎ ትብብርዎ አመሰግናለሁ።

APPENDICES II

RELIABILITY TEST RESULTS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.725 ^a	.525	.515	2.040	.525	50.007	5	226	.000

a. Predictors: (Constant), Qu. distribution, F. distribution, accessibility, Q. distribution, T. distribution

ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	1040.759	5	208.152	50.007	.000 ^b
Residual	940.719	226	4.162		
Total	1981.478	231			

a. Dependent Variable: Customer .satisfaction

b. Predictors: (Constant), Qu. distribution, F. distribution, accessibility, Q. distribution, T. distribution

coefficient

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	-.702	.598		-1.174	.242		
Accessibility	.130	.051	.169	2.563	.011	.482	2.074
T. distribution	.009	.045	.016	.203	.839	.343	2.918
F. distribution	.127	.037	.247	3.434	.001	.406	2.463
Q. distribution	.156	.043	.273	3.617	.000	.370	2.704
Qu. distribution	.142	.064	.156	2.222	.027	.427	2.340

Correlation

		Accessibilit y	T.distr	F.distr	Q.distr	Qu.distr	Cu.sat
Spearman's rho	Correlation Coefficient	1.000	.472**	.313**	.398**	.548**	.473**
	Sig. (2-tailed)	.	.000	.000	.000	.000	.000
	N	233	233	233	233	233	232
	Correlation Coefficient	.472**	1.000	.668**	.555**	.528**	.490**
	Sig. (2-tailed)	.000	.	.000	.000	.000	.000
	N	233	233	233	233	233	232
	Correlation Coefficient	.313**	.668**	1.000	.607**	.485**	.580**
	Sig. (2-tailed)	.000	.000	.	.000	.000	.000
	N	233	233	233	233	233	232
	Correlation Coefficient	.398**	.555**	.607**	1.000	.356**	.477**
	Sig. (2-tailed)	.000	.000	.000	.	.000	.000
	N	233	233	233	233	233	232
	Correlation Coefficient	.548**	.528**	.485**	.356**	1.000	.491**
	Sig. (2-tailed)	.000	.000	.000	.000	.	.000
	N	233	233	233	233	233	232
	Correlation Coefficient	.473**	.490**	.580**	.477**	.491**	1.000
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.
	N	232	232	232	232	232	232

** . Correlation is significant at the 0.01 level (2-tailed).