

**THE PERCEPTION OF EMERGENCY MEDICAL SERVICES BY
PASSENGERS OF SELECTED ROUTES IN NAIROBI CENTRAL
BUSINESS DISTRICT**

**BY
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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE AWARD OF DEGREE OF
MASTER OF BUSINESS ADMINISTRATION SCHOOL OF
BUSINESS, UNIVERSITY OF NAIROBI**

November 2013

DECLARATION

I declare that this research project is my own original work and has not been presented for award of any degree in any university.

Signature.....

Date.....

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This research project has been submitted for examination with my approval as the university supervisor.

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ACKNOWLEDGEMENT

I give special thanks to God the Almighty for the gift of life, opportunity for education, capacity and determination to study and for His divine providence that has brought me this far.

I thank my supervisor Dr. Justus Munyoki and moderator Dr. Raymond Musyoka for their guidance, encouragement and contribution that enriched this study. I also thank all Lecturers of UON School of Business and the UON fraternity for provision of knowledge and facilities that enabled me to complete my studies.

Special thanks to my family for their moral support and understanding while I was away.

Special acknowledgement to the management of Mash Poa and Modern coast bus companies for allowing me to talk to their passengers. Many thanks to the respondents who took time to provide the required information for this study.

DEDICATION

This work is dedicated to my late grandparents who were my guardians. The late James Kisua Mayalo for his foresight, wisdom and love for education that saw him sacrifice immensely to ensure I got education. My late grandmother, Mwiitu'a Mwenga for the care, stories and friendship we shared. May their souls rest in peace.

ABSTRACT

The objective of the study was to establish the perception of emergency medical services by passengers of selected routes in Nairobi Central Business District. The study used the descriptive research design. The population of interest was passengers of public service vehicles in Nairobi Central Business District. A random sample of 80 passengers of two bus companies along River road and Accra road was selected. Primary data was collected by use of a semi structured questionnaire with statements on a 5 point Likert scale. The questionnaires were self administered but the researcher waited for them to be filled thus improving response rate. Data was analysed by use of descriptive statistics including frequency tables, the mean, standard deviation and the Social Package for Social Sciences. The study revealed that passengers appreciate the role of Emergency Medical Services (EMS) as a critical part of quality health care. The respondents felt that service delivery especially response time to emergencies and dedication of EMS staff was not good and needed to be improved. In view of these findings, companies offering EMS need to make excellent service delivery their point of focus in order to attract and retain clients. The government through the ministry of transport and health need to have a central agency coordinating ambulance services in collaboration with the police and fire services in case of emergencies as is the case in developed countries. The Ministry of Education may consider including first aid training and disaster preparedness as part of the school curriculum and curriculum of driving schools.

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LIST OF ABBREVIATIONS

AAR-Africa Air Rescue

CBD-Central business District

DALYs-Disability adjusted life year

EMS-Emergency medical services

EMT-Emergency medical technician

PSVs-Public service vehicles

RTAs-Road traffic accidents

RTIs-Road traffic injuries

WHO-World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Firms must be keen on how consumers perceive them and their products. Porter (1998) defines perceived quality as customers' perception of the overall superiority of a product or service relative to relevant alternatives and with respect to the intended purpose. Aaker (1991) puts consumer perception high up on the ladder of corporate success with his observation that if customers perceive the brand according to its core identity then the battle is won.

Road traffic injuries (RTIs) are an important cause of morbidity and mortality worldwide, especially in low and middle-income countries and are currently ranked 9th globally among leading causes of disease burden, in terms of disability adjusted life years (DALYs) lost (Osoro, Ng'ang'a, Oundo, Omolo & Luman, 2011). The disability-adjusted life year (DALY) is a measure of overall disease burden, expressed as the number of years lost due to ill-health, disability or early death. Kenya endures one of the highest road fatalities in relation to vehicle ownership in the world (Odero, Khayesi & Heda, 2002) most of these accidents are caused by public service vehicles (PSVs), pedestrians and motor bikes. In 2009 Kenya recorded 3,760 traffic deaths and has among the worst statistics globally (World Health Organisation, 2009).

Public transport in Kenya is dominated by Matatu vehicles (Chitere & Kibua, 2004) and buses; their numbers have increased significantly over the years but there has been limited increase in the existing road infrastructure capacity. The industry's vast growth

has been accompanied by increasing road traffic accidents (RTAs) that have threatened safety of Kenyan road users (Chitere & Kibua, 2004), the accidents have left many victims incapacitated requiring long term healthcare support. Emergency first aid is required during the golden hour after an accident when initial medical attention has greatest impact on the eventual outcome of an emergency.

1.1.1 The concept of Perception

Marketers are concerned with perception because it influences the way purchase decisions are made, it affects reception and understanding of marketing communications. According to Ries and Trout (1998), there is no objective reality, facts or best products. Rather, what exist in Marketing are perceptions in the minds of customers and prospects hence marketing is a battle of perceptions and not of products. Therefore, the only effective way to evaluate products is from customers perspective as a customer's perception is reality.

Perception is defined as the process by which an individual selects, organizes and interprets stimuli into a meaningful picture of the world (Ries and Trout, 1998). Individuals sense information through the five senses of smell, sight, hearing, touch and taste. The stimuli could be products, brand names or advertisement; consumers are exposed to a large amount of stimuli every day hence they subconsciously exercise selectivity as to which aspect of environment to perceive and this is influenced by nature of their needs and expectations. These expectations are based on familiarity and previous experience. Schiffman and Kanuk (2003) define perception as the process by which we attribute meaning to incoming stimuli received through our senses. Our perception of an object is the result of the interaction of two factors; stimulus factors which are the

characteristics of physical objects for instance size and the individual factors. Individual factors include sensory process, past experiences with similar items, motivation and individual expectations. Quality of a product is judged by consumers on the basis of intrinsic and extrinsic cues: Cues that are intrinsic concern the physical characteristics of a product e.g. colour and size, customers feel they can justify their product decisions on basis of a rational choice. Extrinsic cues include price, store, and manufacturer's image and are external to the product. Hawkins and Beatty (1989) found that more often than not consumer preferences are based on extrinsic cues e.g. pricing and advertising.

1.1.2 The concept of Service

One of the major trends globally has been the dramatic growth of services (Schiffman and Kanuk, 2003). A service is an activity or a benefit that one party can offer to another that is essentially intangible and does not result in the ownership of anything; its production may or may not be tied to a physical product (Kotler and Armstrong, 1994). It is also that type of business that sells assistance and expertise as opposed to a tangible product, for instance management consultancy is a service. After purchase assistance offered by the manufacturer to maintain the quality of a service during its use is also a service.

Most services require supporting products, an ambulance is required to offer rescue ambulance services. In industries where there are few differences among the primary products of competitors, supplementary services can be the basis for a differential advantage (Etzel, Walker and Stanton, 2007). Increasingly however, manufacturers, distributors and retailers are providing value added services or simply customer service to

differentiate themselves. Services can be classified in a number of ways (Kotler and Armstrong, 1994). The service can be people based or equipment based. Equipment based services vary depending on whether they are automated or monitored by unskilled or skilled operators. According to Kotler and Armstrong (1994), people based services vary by whether they are provided by unskilled, semi skilled, skilled or professional workers. Some services for example in the medical services require the client's presence and the service provider has to be considerate of his or her needs and make the service environment pleasant.

Services differ as to whether they meet a personal or a business need and service providers need to develop different marketing programs for each category (Kotler and Armstrong, 1994). Services also vary based on the service provider's objective and ownership i.e. public or private. Hence marketing programs of a private investor for example AAR will differ sharply with those of a government owned company like Kenya Red Cross Society. Services have four major characteristics; intangibility, inseparability, variability and perishability that make delivery a challenge.

1.1.3 The concept of Service delivery

The Operating environment is becoming increasingly hostile with ever changing expectations from consumers, intense competition, increased pace of technological change and pressure from regulators and consumer groups. Kotler (1999) argues that today's customers are value maximizers; they form an expectation of value and act on it. Meeting rising customer expectations has proved to be one of the most difficult challenges to service business (Sonneberg, 1991). Miller (1992) states that quality is measured through the eyes of the customer and that it is not found to improve unless it is

regularly measured. Companies that actively search and incorporate best service methods and processes to improve performance are found to excel compared to their competitors. Organizations that exceed customer expectations without affecting profit margins negatively have been found to develop solid foundation of customer loyalty based on segmented service (Porter, 1980). Managers must be vigilant to maintain high quality in order to achieve and maintain customer loyalty.

The goal of any service provider is to deliver quality and timely service in an efficient and effective manner within a set budget. Services have unique traits that complicate the consistent conception and make delivery of service a challenge in each case. Services are intangible, they cannot be displayed hence it is difficult to advertise them (Randall, 2000). Where standards such as ISO 9000 and other certifying bodies exist, the service can only be certified as meeting certain specifications, but these are difficult to communicate to customers (Randall, 2000). Marketers need to be creative to evoke a concrete image in the consumers mind.

A service is inseparable with the service provider. Because the client is present as the service is produced, provider- client interaction is a special feature of service delivery (Kotler and Armstrong, 1994) and the quality of the service depends on provider's performance and customer's participation. Services are heterogeneous; quality varies with point in time, circumstances and assigned resources. Provision of a service includes the institution, service providers, equipment used to provide the service, the physical facilities and the delivery location. For a service encounter to be memorable there needs to be a script that guides sequence of behaviours to be followed by the service providers to ensure role concurrence (Porter, 1980). According to Kotler and Armstrong (1994)

services are perishable and cannot be stored for later sales. The relevant service resources are assigned for service delivery during a definite period in time. To provide a better match between demand and supply during peak seasons, service providers are forced to own more equipment. Key to success in service delivery is the human factor as there is a high degree of interaction between the consumer and the provider. Aaker (1991) argues that loyalty of existing customers is a strategic asset that has potential to provide value through reduced marketing costs.

1.1.4 Emergency Medical Services in Kenya

Emergency in a medical context is a condition that is life threatening. Emergency medical services (EMS) include ambulance rescue services from the scene of accident to a health facility, first aid and first aid kits. First aid is the immediate professional attention given to persons suddenly taken ill or injured using available equipments and accepted principles of treatment to stabilize their condition before being handed over to more qualified medics. Unfortunately in Kenya like in many other developing countries, there is unreliable and inadequate 24 hour Emergency Medical Services which is unable to respond effectively and efficiently to various emergencies due to its limited capacity.

To reduce road traffic related preventable deaths and minimise severity of injuries sustained by using World Health Organization (WHO) recommended treatment protocol on RTAs, it is important to appreciate the role of EMS. An analysis of road traffic accidents victims in Nairobi Hospital revealed that transport of the victims to the hospital was haphazard, recommended ways of handling casualties were not observed and most common mode of transport was by private cars (Saidi and Kahoro, 2001). The main

institutions known to respond to emergencies are Kenya Red Cross Society, St. Johns Ambulance, Africa Air Rescue (AAR), the Kenya Police and City/municipal Councils in case of fire. Public hospitals, private hospitals and health centres provide ambulance transfers from a less equipped to a more equipped medical facility on demand. Other organizations who provide ambulance evacuations on request and at a fee or to their clients are AMREF flying doctors and G4S Security Company.

Kenya Red Cross Society is a humanitarian relief organization formed in 1965 through an Act of Parliament to provide rescue during disasters (KRCS 2013). It provides 24 hour free emergency rescue during disasters and has 30 ambulances located in 8 major towns in Kenya; this is the largest fleet of ambulances in the country. To supplement donor funding for efficient running of its operations, KRCS has a commercial arm which markets ambulances evacuation covers, first aid kits and first aid training. In March 2011, KRCS sent a team of its ambulance crew for two weeks training in Israel to increase their expertise and knowledge.

St John's Ambulance is founded on compassion and service to humanity and was formed in 1928 through an act of parliament. It offers 24 hour free emergency rescue with 6 ambulances located in four towns i.e. Nairobi, Mombasa, Kisumu and Eldoret. St John's ambulance sells ambulances evacuation covers, first aid kits and first aid training (St. Johns, 2013). AAR Rescue Services is the emergency arm of the AAR group of companies; it was formed in 1984 and is a private health care company with presence in East Africa region (AAR, 2013). It offers rescue ambulance covers both by road and air with a medical cover for schools, institutions and individuals and has a limited number of ambulances. Though its rescue packages are more expensive because it is purely a

commercial entity, it has the advantage of a medical cover which allows speedy admission in hospital for critical cases. AMREF Flying Doctors is Africa's leading provider of air ambulance services and provides air ambulance evacuation services in medical emergencies across East Africa, as well as air ambulance transfers between medical facilities (AMREF, 2013).

G4S is an international security company and has been operating in Kenya for forty years. As part of its Crisis Response & Rescue Service, G4S offers fire Services and a 24-hour ambulance service to its clients on a need basis (G4S, 2013). There are three different levels of emergency care providers. First aiders/responders with basic life saving skills such as oxygen administration, they are certified by institutions accredited by Directorate of Industrial Training and Directorate of Occupational Health and Safety. Emergency medical technicians (EMTs) are certified by either Kenya Council of Emergency Medical Technicians or Kenya Resuscitation council. They are specialized in trauma management, basic life support and Emergency Ambulance operations.

Paramedics are critical care/Intensive Care Unit nurses certified by the Kenya Council of Emergency Medical Technicians and Nursing Council of Kenya; they provide advanced levels of care for medical emergencies and trauma and majority of paramedics are based in the field in ambulances. The number of each category is insufficient to handle emergencies and there is urgency to have more people trained. In response to this shortage KRCS started an EMT training school in 2009 in Nairobi (KRCS 2013). In developed countries, EMS staff has same qualifications as in Kenya; difference being more exposure while in training, shorter respond time to emergencies and more personnel available to respond to emergencies in developed countries. In the USA for instance,

many communities are served by efficient emergency ambulance service providers with proven track records in simultaneously delivering clinical excellence, response-time reliability and customer satisfaction. As demonstrated during the 9/11 attacks, ambulance providers are operating at a heightened state of readiness (American Ambulance Association, 2013).

Ambulances in the developed world and in Kenya must be staffed with a minimum of two personnel, one being an EMT and the other a first responder for Basic life support ambulance or an EMT and a paramedic where the condition warrants advanced Life support. According to Wikipedia (Anonymous, 2013) EMS services in the United States are regulated by the federal government which sets the minimum standards that all EMS providers must meet and sometimes integrated with fire and police departments.

The national emergency number in the United States 9-1-1 works for all three emergency services. In most cases, a 9-1-1 call will be answered at a central facility, the Public Safety Answering Point, and operated, in most cases, by the police. The needs of the caller are identified, and the call is routed to the dispatcher for the emergency service required (Wikipedia Anonymous, 2013). Ambulances in Kenya are controlled by individual organizations and are not coordinated with police and fire services resulting to delays where for instance an ambulance cannot access an accident scene without fire fighters responding first.

1.1.5 Transport in Nairobi Central Business District

The central business district (CBD) is defined by Uhuru Highway, Haile-selassie Avenue, Kirinyaga area and spreading northwards towards westlands (Odero, Sibanda, Njenga,

Mbatha, Opiyo & Orwa, 2003). Nairobi is the most populous city in East Africa, according to the Kenya Population and housing Census (2009) Nairobi has an estimated population of 3,138,368 inhabitants. This makes it the 13th largest city in Africa based on population and 4th largest in infrastructure, development and size. It is a host to many companies and organizations and is a cosmopolitan city which hosts people of various cultures from within and outside the country.

Nairobi continues to experience a growing number of rural to urban migration as youth seek employment opportunities, workers from outside the city are estimated to expand from 0.7 million per day in 2004 to 1.6 million per day in 2025 (King'ori, 2007). Conflict between motorized and non motorized users is acute due to lack of understanding of policy on non motorized travelers which result to lack of basic facilities like footpath and cycle lanes (Odero et al, 2003). The CBD is transforming into a market place with mushrooming of exhibition stores and channeling a lot of traffic resulting to numerous accidents (Odero et al, 2003). Traffic congestion on trunk roads (e.g. Thika road, Uhuru Highway, Mombasa Road) culminates in high vehicle operating costs especially during peak hours culminating in waste of time and fuel, and a large number of road accidents (King'ori, 2007).

Hence in the context of changing population and land use patterns in the CBD, it is apparent that the task for transport will be highly complex and demanding (Kenya National Transport Policy, 2009); the importance of emergency preparedness cannot be overemphasized. According to the Kenya National Transport Policy (2009) transport in the CBD is recognized as a key pillar and a critical enabler in the achievement of vision 2030; one of the government visions is to transform Nairobi city into a metropolis by

2030. It will be important not only in improving the competitiveness of products from Kenya, but also serve as a significant basis upon which the economic, social and political pillars of this development strategy will be built (Kenya National Transport policy, 2009). The sector is expected to remain a key component in tackling such challenges as reduction of poverty by half by the year 2015 and overall improvement in the general welfare of the population.

The above will come with increased traffic flow and make RTAs management a central concern for the health care systems. The Kenya National Transport Policy (2009) indicates that co-ordination and co-operation among parties concerned with providing road traffic related emergency services will be improved and training for incident management developed. To be effective, Initiatives must address as a priority the growing dangers faced by vulnerable, none motorized road users, as well as motorized road users and integrate the use of emergency services in the event of accidents (Nzioka, 2004).

1.2 Research Problem

In Service industries globally, the subject of perceived quality of service remains a critical one as businesses strive to maintain a competitive advantage in the market place (Schiffman and Kanuk, 1994). Service quality has been linked to a company's competitive advantage. Porter (1998) defines perceived quality as customers' perception of the overall superiority of a product/service relative to relevant alternatives and with respect to the intended purpose. Customer expectations are constantly changing as more and more consumers want value for the money they spent.

Perceptions and the expectations of the customer are taken from the delivery of the service. Lovelock and Wright (1999) argue that a service provider creates a moment of truth between the organization and the customer and managing a service means having as many moments of truth as possible. A customer makes an assessment of the quality of the service even if unconsciously every time he buys a service and interacts with the service provider.

Road traffic crashes contribute to a significant proportion of the burden of disease in Kenya; most of the casualties are economically productive young adults (Osoro et al, 2011). Accidents have a significant impact on social and economic well being of individuals, their families and the society (Osoro et al, 2011). Critical care is required at the time of an emergency to save a life and/ or vital body organ(s) and to preserve the life time health of the casualty, it is based on two key issues i.e. the level and quality of training of the first aiders and the availability of the right equipment in terms of variety and quality to offer the required service. Despite the marked increase in road crashes in Kenya, little effort has been made to develop and implement effective interventions and to address the issue of emergency response during such emergencies (Odero et al, 2003).

Several studies have been done in the area of road traffic accidents and injuries, for instance Osoro et al 2011 studied factors associated with severity of road traffic injuries, Thika, Kenya and collected information on injury type and severity. The study noted that only 3% of casualties used ambulances to hospital. The perception of the casualties about ambulances was not sought. Saidi and Kahoro (2001) did an analysis on accident victims in Nairobi Hospital in relation to scene of injury and mode of transport to hospital. The

study concluded that only 20.6 used ambulances but did not establish the cause for the low usage.

Nzioka (2004) studied rethinking road traffic accidents (RTAs) management in Nairobi, Kenya. The study concluded that though injuries following road traffic accidents are common in Nairobi, the response to injury is slow and haphazard and that the institution of care incorporating the city's health centers and pre-hospital triage may improve post accident care outcomes. Although the above studies have been done, a knowledge gap still exists. None of these studies focused on perceptions of emergency medical services by passengers of Nairobi Central Business District.

This study sought to answer the following question: What is the Perception of Emergency Medical Services by passengers of selected routes in Nairobi Central Business District?

1.3 Research Objective

The objective of this study was to determine the perception of Emergency Medical Services among passengers of selected routes in Nairobi Central Business District.

1.4 Value of the study

The results of the study are useful to companies in EMS; they can use this information to align their strategies with the perceptions of their consumers in regard to product/service quality, corporate image, price and distribution. Information obtained can aid decision making and help the firms to position themselves competitively in the market. The findings of the study highlight what passengers think of emergency services and what

they consider critical for EMS providers to offer. The level of willingness to purchase EMS services and important factors that guide consumers to make their choice of service provider are highlighted. New entrants can use these results to gain insights into the industry and understand critical strategy issues.

Ministry of health and the traffic police should find the results of the study useful as provision of EMS is critical in reduction of road traffic deaths, disease burden and poverty. These government agents can use this information to identify challenges that they need to address and find a way to integrate EMS with the police and fire department as is the case in developed world. Such integration makes response to emergencies faster and saves lives.

The study contributes to practice in that it aroused curiosity among respondents and this should entice them to undertake necessary trainings and be better prepared to handle emergencies. Based on questions posed in the questionnaire, respondents are more informed of what to look out for when purchasing Emergency Medical Services.

This study contributes to the existing pool of knowledge on consumer perceptions and will stimulate further research in the area of EMS.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter introduces a theoretical foundation of consumer perception. Findings of previous studies on perception and characteristics of services are discussed.

2.2 Theoretical foundation of the study

Perception is the mental impression of a stimulus object, what an individual sees in a perceptual field and no two individuals will perceive a stimulus in exactly the same way (Lazer and Culley, 1983). It is the process by which an individual selects, organizes and interprets stimuli into a meaningful and coherent picture of the world (Schiffman and Kanuk, 1994). According to Dalrymple and Parsons (1990) perception is the values attached to communications about products received from sales people, friends, advertisements and independent test results. According to Schiffman and Kanuk (1994), consumers act and react on the basis of their perceptions and not on the basis of objective reality.

Perception depends on the physical stimuli and the stimuli's relation to the environment and on the condition within the individual. Sensitivity to stimuli varies with the quality of an individual's sensory receptors i.e. eyesight or hearing and amount of intensity of the stimuli to which one is exposed to (Schiffman and Kanuk, 1994). The stimuli that gets selected depends on two factors in addition to the nature of the stimuli, consumers previous expectations and their motive at the time i.e. their needs, desires and interests. Nature of marketing stimuli includes various variables such as nature of the product and

its physical attributes. The lowest point at which an individual can experience a sensation is called the absolute threshold; at this point an individual can detect a difference between “something” and “nothing” for a stimulus. The minimal difference that can be detected between two stimuli is the differential threshold or the just noticeable difference (JND) (Schiffman and Kanuk, 1994). Weber (1986) states that the stronger the initial stimulus, the greater the additional intensity needed for the second stimulus to be perceived as different.

Manufacturers and marketers in their endeavor to apply Weber’s law try to ensure that negative changes e.g. reductions in size and/or quality and increase in price are not readily discernable to the consumer; but that positive changes e.g. improved or updated packaging, increase in size and decrease in price are readily discernable to the consumer without being extravagant. According to Schiffman and Kanuk, (1994) marketers want to meet or exceed the consumers’ differential threshold when it comes to product improvements.

The Perceptual Process illustrates how perceptions form and how they influence ones attitude and behavior. It includes exposure, attention, selection, comprehension and retention (Schiffman and Kanuk, 1994). Principles of selective perception include selective exposure, selective attention, perceptual defense and perceptual blocking (Schiffman and Kanuk, 1994). In selective exposure consumers seek out messages that are pleasant or sympathetic and avoid those that are painful or threatening. They selectively expose themselves to advertisements that reassure them of the wisdom of their purchase decision. Consumers give attention to stimuli that meets their needs and subconsciously block out threatening stimuli even though exposure has occurred.

Comprehension is when the consumer interprets something about the product based on the information provided. Retention occurs if a consumer remembers an advert he had seen about the product at this point when he is making a purchase decision. Consumers organize their perceptions into unified wholes according to the principles of Gestalt psychology i.e. figure and ground, grouping and closure (Schiffman and Kanuk, 1994). Hence they do not experience numerous stimuli as separate and discrete sensations, this facilitates memory and recall. Consumers have a need for closure and organize their perceptions to form a complete picture; if a stimulus is incomplete they subconsciously fill in the missing pieces.

Interpretation of stimuli is highly subjective and based on what consumer expects to see in light of previous experience, motives, interests and clarity of stimulus. Ambiguous stimuli are interpreted in the way that serves to fulfill a consumers needs. Stereotypes that distort objective interpretation stem from physical appearances, descriptive forms, first impressions and halo effect (Schiffman and Kanuk, 1994). Perceived image of products is more important than its actual physical characteristics. Regardless of how well positioned a service appears to be, the provider may be forced to reposition it in response to new competitor strategies and changing consumer preference.

The study of consumer perception gives a deeper understanding of how a customer feels, thinks, reasons and selects between different alternatives and different brands albeit influence from the environment and behavior of other consumers while shopping hence helping organizations to up their marketing strategies (Dalrymple and Parsons, 1990). Consumer perception, motivation and decision strategies are affected by their ability to process information and differ among products that vary in their level of importance and

interest to the consumer. In this brand strategists and marketers find a viable avenue to influence in their favour consumer perception through targeted messages, superior and relevant product offers and unique selling propositions. Hence understanding perception is important in formulation of a brand identity. However, achieving a satisfactory level of perceived quality has become difficult due to continual product improvement over the years which have led to heightened consumer expectations of product quality (Porter, 1998).

2.3 Measuring Perception

Customer focused companies' constantly work to understand their customers needs by measuring the markets perception of their performance against that of their competitors (Sossion, 2003). Though difficult to measure at times because many times consumers do not consciously set out to enumerate how they feel about products, when correctly conducted perception measurement will yield valuable business intelligence.

One of the tools used to measure perception is perceptual mapping. Baker (1992) states that perceptual mapping is the establishment and measuring of criteria which permit one to distinguish between similar products competing in the same market segment. Perceptual mapping quantifies and prioritises the needs, wants and or decision criteria and the desired standards of performance of a target market. The marketer is able to quantify levels of awareness and perceptions they hold in comparison with their desired standard of performance. Another tool used to measure perception is the Likert scale which involves asking individuals whether they agree or disagree with a statement. It measures using 5 categories thus Strongly agree, Agree, Neutral/Don't know, Disagree and Totally disagree. Likert scale categories have values attached to them which provide

a measurable score. Chemayiek (2006) used this tool to assess consumer attitudes towards Re-branding of Kenya Airways. The Thurstone scale technique designed in 1929 is also used to measure perception (Onyango, 2007). Many statements as possible are collected from respondents on the issue to be measured. The statements should be clear and unambiguous and should distinguish the different perceptions of respondents. The responses are then grouped according to their similarity in view.

Schiffman and Kanuk (2002) have identified a number of applications for consumer perception. The target market can be segmented according to consumers' attributes in a product category and different marketing strategies developed for each segment depending on their perceived needs. Sossion (2003) in her study of customer's perception of telephone providers' value propositions in Nairobi used price, service quality and benefits derived to measure perception. Price is perceived value and must be understood by service providers so that their price offering is in line with customers expectations (Sossion, 2003).

Customers demand fair prices, prompt delivery and excellent after sales services. Satisfaction is therefore a persons feeling of pleasure arising from the products perceived performance in relation to his expectations (Sossion, 2003). Hence customers choose product/service offerings which deliver the most value in terms of functional and emotional benefits.

2.4 Factors affecting service delivery in EMS

Client satisfaction is an evaluation of distinct healthcare dimensions (Linder-Pelz, 1982). Client satisfaction enhances service providers image, which translates to increased

service use and market share (Andaleeb, 1988). Satisfied customers usually exhibit favorable behavioral intentions which are beneficial to the service provider's success; they express intentions in positive ways such as praising and preferring company over others (Zeithaml and Bitner, 2001).

Satisfaction is predicted by factors relating to service providers conduct, professional credibility, outcomes, core services, competence, availability of service and efficiency. Human factor involvement includes emotions such as empathy, positive patient outcome like life saving, pain relief and dealing with trauma after medical interventions (Hall & Dornan, 1988). Courteous, well groomed sensitive staff whose competence is perceived high increases levels of client satisfaction (Andaleeb, 1988). Outcomes are the change in health status directly attributable to medical interventions.

Due to demand fluctuations and service perishability, waiting time affects quality of service delivery. According to Zeithaml and Bitner (2001), firms adopt strategies to match capacity and demand. They expand their capacity during peak demand by recruiting more staff, adding facilities and using reservation system. To manage waiting time ambulance companies have medical dispatchers who engage clients on phone giving first aid tips to manage the patient's condition. To work around traffic jam, ambulances are parked at strategic locations near major clients' location. Zeithaml and Bitner (2001) argue that waiting time strategies aim at making waiting time more tolerable. Perceived service quality is a result of customer's service expectations and performance based on facilities and equipment cleanliness, service provider's attitude and competence. Due to lack of information for evaluating EMS quality, customers and patients rate services according to their perception of how those services are provided (Cerci, 2004). A

conducive environment is related to physical design, light and décor; a pleasant environment positively influences the affective response to waiting time (Pruyn and Smidts, 1998). Service quality is an important aspect in relation to costs, profitability, customer satisfaction and retention. It is defined as conformance to customer specifications and is a driver of financial performance and marketing (Buttle, 1996). Good communication signifies that a patient is heard, kept informed of what is happening, afforded social interaction and time during consultation and provided with non technical information (Tucker, 2002). Andaleeb (1998) states that if information is available in regard to type of care to be received this alleviates uncertainty, increases awareness of what to expect and increases satisfaction.

Satisfaction is a key indicator of patient's intentional behaviours; patient is more likely to return to same provider and recommend them to family and friends (Linder-Pelz, 1982). Service provider's primary objective affect perceived quality and performance. Main objective for EMS providers such as Kenya Red Cross and St. Johns is mainly humanitarian. As a result of their work during emergencies most patients have a positive attitude towards them. Finally, if a firm's prices are perceived high, client satisfaction is lower (Andaleeb, 1988).

2.5 Characteristics of Service

Whether public or private, profit or non profit, services have four major characteristics that affect the design of marketing strategies and make delivery a challenge in each case: intangibility, inseparability, variability and perishability (Kotler and Armstrong, 1994). Services are intangible; they cannot be seen, tasted or smelled before they are bought. The intangible aspect of a service makes it difficult to evaluate or compare services prior

to experiencing them. A service cannot be displayed thus making it difficult to advertise (Randall, 2000). To reduce uncertainty, buyers look for signs of service quality. They draw conclusions about quality from the place, people, equipment, communication material and the price they can see. The service provider's task is to add tangibles to the intangible offer.

Services are inseparable from their providers; if a person provides a service then he is part of the service. Whereas physical goods are produced then sold, services are first sold, then produced and consumed at the same time. Because the client is present as the service is produced, provider- client interaction is a special feature of service delivery (Kotler and Armstrong, 1994) and the quality of the service depends on provider's performance and customer's participation. In the case of professional services, buyers care about who provides the service. When clients have strong provider preferences, price is used to ration the limited supply of the preferred provider's time.

Services are highly variable, their quality depends on who provides the service and when, where and how it is provided. Even the quality of a single employee's service varies according to his or her energy and frame of mind at the time of each customer contact. For the service encounter to be memorable there needs to be a script that guides sequence of behaviours to be followed by the service providers to ensure role concurrence. Relying on a customer's satisfaction with a specific service transaction does not necessarily mean that the customer will be satisfied enough to return, or recommend the service and that a satisfied customer does not necessarily develop into a loyal customer (Hesket, Sasser and Schlesinger, 1994). Unlike products that can be stored for future orders, Services cannot be stored or returned, they can only be repeated (Berry and Parasuraman, 1985). Services

are perishable; the relevant resources are assigned for service delivery during a definite time. The perishability of services is a major problem for service companies when demand fluctuates as they are forced to own more equipment and employ extra staff because of the extra demand.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the research methodology that was used to achieve the objectives of the study outlined in chapter one. It includes the research design, population of interest and sample, data collection and data analysis procedures that were used.

3.2 Research Design

The study used descriptive survey to determine the perception of Emergency Medical Services among passengers of selected routes in Nairobi Central Business District. A descriptive design is intended to find out who, what, where and how of a phenomenon (Cooper & Schindler 2003). A descriptive study has been used in related studies such as Misumi (2003) and Chemayiek (2006).

3.3 Population

According to Mugenda and Mugenda (1999), population is a universal set of individuals, cases of objects with some common observable characteristics. The population of interest in this study was passengers of Public service vehicles in Nairobi Central Business District. The researcher identified the junction of River road/Accra road which has several bus and matatu vehicles travelling to different destinations as an ideal location to conduct the research. Two bus companies Mash Poa and Modern Coast bus were selected for the study; they were selected on the basis that they make the highest number of trips from Nairobi to various destinations. Based on their charges and compared to other bus companies in the same location, they deal with passengers of middle and upper class.

3.4 Sample Design

A combination of random and convenient sampling was used to select respondents from waiting bays of selected bus companies at the junction of River road/Accra road in Nairobi Central Business District. This location is ideal as it has several bus companies in the same area.

A sample size of 80 respondents was selected; this sample size was considered appropriate to get required results within a reasonable time frame. Rosco (1975) proposes a rule of thumb for determining a sample size and states that a size of 30 to 500 is appropriate for most researches. Two main bus companies i.e. Mash Poa and Modern coast were identified for the study with a target to interview 40 passengers from each bus company. These buses were chosen on the basis of trips they make per day; each of these buses make five trips during the day to various destinations which is the highest number among all buses in that location.

3.5 Data Collection

Primary data was collected using a semi structured questionnaire which had closed and open ended questions; respondents were passengers of Mash Poa and Modern Coast bus in Nairobi Central Business District travelling to Mombasa and Malindi. The questionnaire had two sections; Section A collected general details of the respondents while section B sought to get perceptions of emergency medical services. The questionnaires were self administered but the researcher waited for them to be filled. Ngahu (2003) and Nyagah (2007) used similar questionnaires for studies on perception.

3.6 Data Analysis

Data was analysed by use of descriptive statistics, the purpose of descriptive statistics is to enable the researcher to meaningfully describe distribution of scores or measurements. Responses in the questionnaire were tabulated and processed with aid of Statistical Package for Social Sciences to derive the mean and standard deviation of the scores. Frequency tables were used to show distribution of scores for specific variables and the data was presented by use of tables. Further analysis was done to check degree of relationship between respondent's perception of EMS and their demographic characteristics.

3.7 Validity and Reliability

The sample size was purposely selected and was representative of the target population. The sampling procedures used are universally accepted hence data collected was valid and reliable.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter contains analysis and findings of the study based on interpretation of the data collected and with respect to the objective of the study. The objective of the study was to determine the perception of Emergency Medical Services among passengers of selected routes in Nairobi Central Business District. The study involved collection of primary data through the use of questionnaires which were self administered. The researcher targeted 80 respondents and received 77 responses achieving a response rate of 96% thus enabling meaningful data analysis. Of these 60% were male while 40% were female. This is because the researcher encountered more female respondents who were unwilling to fill in the questionnaire. The analysis is presented in two main parts; demographic characteristics of the respondents and their perception of emergency medical services.

4.2 Demographic characteristics of the respondents

The respondents were requested to indicate their age bracket; their responses are as shown in table 4.1

Table 4.1: Respondents age bracket

Age bracket	Frequency	Percentage
20 years & Below	10	13%
21-30 years	36	47%
31-40 years	25	32%
41-50 years	3	4%
Above 50 years	3	4%
Total	77	100%

Source: Research data

As noted in table 4.1, 92% of the respondents were young aged below 41 years while those above 50 years formed 4% of the total respondents. This is an indication that the youth travel more either for business, work or pleasure.

The respondents were asked to indicate their level of education; the results are shown in table 4.2

Table 4.2: Respondents Education Level

Education Level	Frequency	Percentage
KCPE	3	4%
KCSE	11	14%
Certificate	8	10%
Diploma	25	33%
Bachelors degree	24	31%
Masters	6	8%
PHD	Nil	0
Total	77	100%

Source: Research data

As indicated in table 4.2, 33% of the total respondents had diplomas and 31% of respondents had a bachelor's degree. Respondents with the highest academic qualifications had a master's degree and formed 8% of the total respondents, none had a PhD qualification. This may be due to the fact that PhD holders are fewer in the population and that when travelling long distances they prefer to go by air to save on time as they are likely to be senior managers at their places of work. Only 4% of the respondents had KCPE qualifications as their highest education level, this meant that

majority of the respondents easily understood the questions asked in the questionnaire. The researcher noted that respondents with bachelors and masters degrees easily accepted to fill in the questionnaire as opposed to KCSE and KCPE holders who needed some persuasion.

In response to the question on their employment status, respondents provided views summarized in table 4.3

Table 4.3: Respondents Employment status

Employment status	Frequency	Percentage
Formal employment	34	44%
Self employed	23	30%
Unemployed	16	21%
Students	3	4%
Retired	1	1%
Total	77	100%

Source: Research data

From the findings in table 4.3, 44% of the respondents were formally employed while 30% were self employed. This meant that 74% of respondents were in gainful employment and could thus afford to buy ambulance rescue covers. It also made that based on the insight they get from this study about EMS they can influence their employers and colleagues to purchase ambulance rescue covers and first aid kits. It is important to mention that among the unemployed 56% were certificate and diploma graduates all aged below 30 years. The interpretation is that these are fresh graduates looking for employment.

4.3 Respondents Willingness to buy ambulance rescue cover

The respondents were asked if they would consider buying an ambulance cover, their responses were captured in table 4.4.

Table 4.4: Respondents willingness to buy ambulance cover

Response	Frequency	Percentage
Yes	53	69%
No	23	30%
Don't know	1	1%
Total	77	100%

Source: Research data

The findings in table 4.4 revealed that 69 % of the respondents were willing to buy an ambulance cover. As noted in table 4.2, 96% of the respondents have at least KCSE qualification meaning that they understand the importance of quality healthcare for themselves and their families. The fact that 74% of respondents have gainful employment means that they have already fulfilled basic needs and are pursuing safety needs as per Maslow's hierarchy of needs. The researcher noted that 43.5% of those who said No were unemployed hence lacked purchasing power. This is an indication that there is a potential market for EMS companies as willingness to buy ambulance cover is a positive perception towards emergency medical services. This is despite the fact that there has been little if any marketing in the country for such services.

4.4 Perception towards Emergency Medical Services

This study sought to establish perception on various aspects of EMS. The respondents were to indicate the extent to which they disagreed or agreed with each given statement

using the Likert scale where 1 is strongly disagree, 2 disagree, 3 don't know, 4 agree and 5 strongly agree. Likert scale categories have values attached to them which provide a measurable score. The mean score for each statement was calculated and used as a basis for ranking the importance of each statement to the respondents; the following results in table 4.5 were obtained.

Table 4.5: Respondents perception on various aspects of Emergency Medical Service

Statement	SD	D	N	A	SA	Mean	Std Dev
Every vehicle and building should have a first aid kit to be used in case of an emergency.	3	1		7	66	4.714	0.871
Emergency Medical services increase survival chances of injured casualties	3	1	1	15	57	4.584	0.918
First aid given at scene of accident helps save live by for example arresting bleeding and restarting breathing among others	3		4	21	49	4.468	0.912
The government should make first aid training a prerequisite to securing a driving license	5	1		18	53	4.468	1.059
Rapid response of first aiders to accident victims help improve outcome of injuries, speed up recovery and save vital body organs	3	2	4	24	44	4.351	0.984
Emergency medical services is critical for provision of quality health care	5	1	4	26	41	4.26	1.081
Ambulances help save lives by rushing injured to hospital in good time	5	5	2	25	40	4.169	1.174
Ambulance staff are knowledgeable, professional and caring	1	2	13	39	22	4.026	0.827
Ambulance teams play a key role during national disasters, they search for missing victims, rescue victims and offer counseling services	7	1	9	26	34	4.013	1.198
Ambulance staff compliments hospital activities by sorting casualties at accident scene according to level of injuries and dispatching them to different hospitals based on each hospital's capacity to handle such injuries.	5	6	9	27	30	3.922	1.189
Ambulance crew are dedicated to providing best medical care to patients whenever called upon even at night	6	9	7	35	20	3.701	1.204
Ambulances arrive at accident scene as quickly as possible enabling medical care to begin immediately	9	18	12	19	19	3.273	1.373
Ambulance average response time to emergencies is acceptable	11	17	12	26	11	3.117	1.308

Source: Research data

As noted from the findings in table 4.5, 86% of the respondents strongly agreed that every vehicle and building should have a first aid kit as evidenced by the highest mean score of 4.714 out of a maximum mean of 5. This view was supported by a small standard deviation of 0.871 which meant that there was minimal variation in opinion of the respondents. This can be attributed to the fact that 96% of respondents have KCSE as their minimum academic qualification hence they understand the importance of a first aid kit. Respondents felt that emergency medical services increases survival chances of injured casualties as this ranked second with a mean score of 4.584 and a standard deviation of 0.918.

Statements ranked 1 to 4 are related in that if drivers are trained as first aiders and have first aid kits in their cars then in case of an emergency they can administer first aid which will increase survival chances of the casualties. What this means for companies offering EMS is that they need to work closely with government agencies who have the responsibility of enforcing policies on safety to educate the public on their safety obligations. As the government agencies do periodic checks to confirm compliance, EMS companies can use this opportunity to market and sell their products and services to the public, transport companies and colleges offering driving courses.

The statement that ambulance crew are dedicated to providing best care was not convincing to many respondents and scored a mean of 3.701 and was ranked 11 out of 13. Other less convincing statements were that ambulances arrive at accident scenes immediately and that their response time to emergencies is acceptable with mean scores of 3.273 and 3.117 respectively. These are weak areas of service delivery that EMS providers need to address. Of significant importance with these three statements is that

they are considered most important by respondents when choosing an EMS provider as shown in table 4.6. Hence any EMS provider who wants to be considered serious and excellent in their service provision must analyze its position in relation to this, take drastic measures to improve and communicate the same to the public.

To ensure long term consistency in excellent service delivery, EMS providers should develop a system of measuring customer satisfaction regularly against their response time and employee professionalism which impact greatly on quality of service. Although respondents are willing to buy ambulance cover the slow response of ambulances coupled with undedicated staff can result to negative image and turn customers away. These two aspects of emergency medical services are the core of such a service because if a consumer buys a rescue cover and the ambulance does not arrive in time when it is required the consequences can be enormous and can result to death or loss of vital body organs like the brain resulting to a coma. This is complicated by the fact that this being a service it cannot be tested or evaluated in advance until the moment of truth.

There is a relationship between table 4.2 and 4.5; the appreciation that EMS is critical for provision of quality health care can be linked to the fact that 96% of the respondents have post primary education hence they understand the importance of EMS. As per table 4.3 74% of respondents were in gainful employment, the positive perception of EMS displayed in table 4.5 can be associated with findings in table 4.3. This is because since they have a source of income to meet their basic needs they have purchasing power to buy ambulance cover and they have peace of mind to objectively assess their healthcare. All in all the above portrays a positive perception towards emergency medical services as the lowest ranked aspect had a mean score of 3.117 out of 5.

4.5 Analysis of Relationship between Perception and respondents demographics

Willingness to buy ambulance cover was construed as positive perception and was used to analyse if any relationship between perception and gender, age, level of education and employment existed. 64% of the respondents who were willing to buy ambulance cover were male while 36% were female. The researcher noted that 74% of the total male respondents said they would consider buying an ambulance cover compared to 61% of total female respondents who would consider buying an ambulance cover. This indicates a relationship between gender and perception of EMS and more men have a positive perception towards EMS.

An analysis on perception of EMS by each age category revealed the following

Table 4.6: Perception of EMS & Age

Age	Frequency	Total no. of respondents in each category	% of positive perception in category	% of positive perception
Below 20	3	10	30%	5.7%
21-30	26	36	72.2%	49%
31-40	19	25	76%	35.8%
41-50	2	3	66.7%	3.8%
Above 50	3	3	100%	5.7%
Total	53	77		100%

Source: Research data

The findings in table 4.6 reveal an interesting relationship between willingness to buy ambulance cover and age. Willingness is high between the ages of 21 to 40 years; at this point in time most people have settled in employment and have young families. Health care becomes a necessity which most of them can afford. Between 41 and 50 years

people have children in high school and college who fall sick less often at that age, focus of spending shifts to school fees and ambulance cover is not seen as a necessity any more.

Table 4.7: Perception of EMS & Level of Education

Education Level	Frequency	Total No. of respondents in each category	% of positive perception in category	% of positive perception
KCPE	1	3	33.3%	1.9%
KCSE	5	11	45.5%	9.4%
Certificate	6	8	75%	11.3%
Diploma	19	25	76%	35.8%
Bachelors	18	24	75%	34%
Masters	4	6	66.7%	7.5%
Total	53	77		100%

Source: Research data

The study found a relationship between willingness to buy cover and level of education as 88.7% of the total respondents willing to buy had a post-secondary qualification. Considering the total number of respondents by each category, 76% of total respondents with a diploma were willing to buy cover followed by 75% of total respondents with either a certificate or a bachelor's degree. This means that at a higher level of education there is a positive perception towards EMS.

Table 4.8: Perception of EMS & Employment status

Employment status	Frequency	Total No.in each category	% of positive perception in category	% of positive perception
Formal employment	28	34	82.3%	52.8%
Self employed	15	23	65.2%	28.3%
unemployed	6	16	37.8%	11.3%
students	3	3	100%	5.7%
Retired	1	1	100%	1.9%
Total	53	77		100%

Source: Research data

Research findings in table 4.8 show that 81.1% of total respondents willing to purchase ambulance cover were in gainful employment and as such had a source of income. The highest category with a positive perception of EMS was those formally employed at 82.3% of the total number of respondents.

4.6 Factors influencing choice of an ambulance provider

The respondents were asked to indicate the extent to which each of the given factors would be important in influencing their choice of an ambulance provider; A Likert scale with 1 as not important (NA), 2 somewhat important (SI), 3 important (I), 4 very important (VI) and 5 extremely Important (EI) was used and the results in table 4.9 obtained.

Table 4.9: Factors influencing choice of an ambulance provider

Factor	NI	SI	I	VI	EI	Mean	Std Dev
Quality of care offered by staff	4	1	2	22	48	4.416	1.005
Ambulance Response time to emergencies	5	3	3	17	49	4.325	1.152
Qualification of their staff and accreditation by the relevant authorities	5	2	5	23	42	4.234	1.123
Medical equipment in the ambulance	5	3	5	22	42	4.208	1.408
Reputation of service provider	5	6	11	27	28	3.87	1.185
Number of ambulances owned by service provider/capacity to deliver	10	6	7	21	33	3.792	1.408
Price of the service	9	7	6	29	26	3.727	1.334
Referral by friend/relative	10	18	12	24	13	3.156	1.319

Source: Research data

The findings in table 4.9 revealed that quality of care offered by staff was the highest with a mean score of 4.416 and a standard deviation of 1.005 depicting consensus amongst respondents; this means that perceived quality of care offered would be the major determinant of an ambulance cover provider. This is consistent with the opinions of respondents expressed in table 4.5 where they agreed that emergency medical services is critical for provision of quality health care with a mean score of 4.26 and a standard deviation of 1.081 depicting a slight variation in opinion. The second main determinant of an ambulance provider was ambulance response time to emergencies with a mean score of 4.325 followed closely by qualification of staff and accreditation by relevant authorities with a mean score of 4.234. The above three factors are the core of any emergency service as how efficient they are performed most of the times is the thin line between life and death. Price was not seen as a very important determinant when buying

an ambulance cover and was ranked 7th position out of 8 with a mean score of 3.727. This means that respondents are more concerned with the quality of the service and how it is delivered and would be willing to pay for efficient quality service. The least important factor to consider while choosing an ambulance provider was referral by either a friend or relative with a mean of 3.156.

4.7 Perceived perception of the community towards ambulances

The study as well sought to establish the community’s perception towards ambulances and asked the respondents to indicate how they thought the community perceived ambulances. The responses were as shown in table 4.10

Table 4.10: Respondents’ opinion on community’s perception towards ambulances

Opinion	Frequency	Percentage
They appreciate the role ambulances play in saving lives	48	62%
They find them a nuisance with sirens on as they push for right of way in traffic	2	3%
They are indifferent, need more education on importance of ambulances	26	34%
Don’t know	1	1%
Total	77	100

Source: Research data

As per the findings in table 4.10, 62% of respondents were of the opinion that the community appreciates the role ambulances play during emergencies and disasters. 34% of the respondents felt that the community is indifferent to ambulances and needs more education on the role of ambulances in saving lives. This is an indication that ambulances are appreciated and perceived positively despite the fact that little (if any) marketing campaigns have been done to inform the public the critical role of ambulances in saving

lives. This appreciation may be as a result of what people see on television or on the roads during disasters. This positive perception indicates that there is a potential market and it is likely to be easy for EMS companies to penetrate this market. However the 34% who are indifferent cannot be ignored. These are likely to be people who have not had the opportunity to see an ambulance in action to appreciate the risky work that they do and the difference that they make in lives of accident victims. Companies offering emergency medical services need to be more aggressive and carry out intense marketing programs to educate the public on the critical role of ambulances. This will raise awareness levels, result to increased consumption of emergency medical services and ambulances will be accorded more respect on Kenyan roads.

The ministry of health as the government body charged with the responsibility of ensuring that citizens have access to quality healthcare has a role to play as well. The ministry needs to sensitize the public on the critical role of ambulances and encourage them to use ambulances during emergencies. To make this possible the ministry needs to increase the number of ambulances in public hospitals and upgrade their condition to include important equipment that will help manage patients' condition en route to hospital.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives a summary of findings from the research, conclusions and recommendations. The recommendations are presented in two tiers; recommendations with policy implications and recommendations for further research.

5.2 Summary of the study findings

To establish perceptions of emergency medical services, this study sought responses on a Likert scale. The study found that passengers have a positive perception and appreciate the role of EMS in saving lives. The statement highly rated was that every building and vehicle should be fitted with a first aid kit to be used in case of an emergency followed by the statement that EMS increases survival chances of injured casualties. This means that consumers are ready to adopt emergency medical services in large scale and all that is needed is an education campaign and marketing to push customers to make purchase decisions.

The factor considered important in choice of an ambulance provider was the quality of care offered by staff and ambulance response time to emergencies. It is important for institutions offering EMS to note that these two factors were poorly rated by passengers as shown in table 4.6 as they felt their delivery needed improvement hence the need for these institutions to focus on these critical areas of service delivery. Among the least important factors to consider when buying an ambulance cover was price, meaning that consumers care more about quality of service and would be willing to pay for quality

service delivered professionally and in time. The study established that 62% of the respondents were of the opinion that the community has a positive perception towards EMS and that 69% of the respondents said they were willing to buy an ambulance cover, this means that there is a potential market for EMS business. However, understanding how each individual aspect of EMS is perceived by consumers is critical to sustain such business; an indication that constant feedback from consumers through market research should be part and parcel of the business strategy for EMS companies to enable them position their products according to the needs of target market.

5.3 Conclusion

This study was important as it brought out insight into how passengers view different components of EMS. It is evident that they have high expectations of service quality, how and when such service is delivered hence EMS companies need to understand these and address any shortcomings to gain a competitive advantage in the market.

From the research findings, customers attached immense importance to quality of care offered, response time to emergencies and training and accreditation of staff by relevant authorities in that order and at the same time identified these as the weak areas of current service delivery. This means that knowledge and professionalism of EMS care givers need to be at its best. EMS companies need to recruit well qualified staff with passion for their work; the staff will need to undergo continuous training and testing as is required in the medical profession to ensure that they are up to speed with current technology and trends in their field. Bearing in mind the unique characteristics of service that it is inseparable with the service provider, EMS companies need to design a way to track performance of each employee from customers' perspective. A culture of motivating

good work and rewarding exemplary performance should be inculcated in institutions offering EMS to encourage excellent service delivery. Analysis of data collected indicated that the least ranked aspect of EMS scored 3.117 against a maximum rating of 5 meaning that perception of such aspects amongst passengers is positive. The statement that the government should make first aid training a prerequisite to securing a driving license was highly rated. Also highly rated was the statement that ambulances play a key role during national disasters as they search for and rescue casualties. This is an opportunity that should be exploited by companies in EMS through marketing and awareness campaigns to enlighten the public on their products and services and emphasize what differentiates them from their competitors. It is worth noting that perception is positive without any marketing or education programs on the role of ambulances in provision of healthcare except what people see of ambulances on television and on the roads during emergencies. This is perhaps because this is a basic service whose value is easy to appreciate without much persuasion.

5.4 Limitations of the study

Scope and depth of this study was limited by time factor and financial resources. It was limited to passengers of selected routes i.e. Nairobi to Mombasa. The researcher also encountered respondents who were unwilling to fill in the questionnaire.

5.5 Recommendations

5.5.1 Recommendations with policy implications

The study found that there was above average perception of EMS and makes the following recommendations. Firstly, companies offering emergency medical services

should take advantage of the positive perception and educate the general public on their services and market their products to increase awareness levels. This should be supported by constant feedback from consumers through market research to enable them position their products according to the needs of target market. Market research will gauge perception of consumers, identify weak areas that need improvement and as a result strengthen their brands.

Secondly, there is need for EMS companies' to address weak areas of service delivery, this include turnaround time in responding to emergencies and dedication of staff in offering the best medical care. There is need to adopt a customer focused culture, benchmark their services with best standards internationally and train all employees on excellent customer service and the expectations of customers; this will help EMS companies to differentiate themselves on quality.

Thirdly, the fact that respondents felt that first aid kits should be available in buildings and vehicles and that first aid training should be prerequisite to securing a driving license should be pursued further. EMS companies should take the initiative and partner with institutions offering driving courses for training on first aid skills and sell their first aid kits through such colleges.

Finally, in an attempt to reduce morbidity and mortality from the increasing road traffic accidents, the government though the ministry of transport and health need to have a central agency coordinating ambulance services in collaboration with the police and fire services in case of emergencies as is the case in developed countries. The government may consider compelling transport companies especially matatus and buses to train

drivers and touts on first aid and enforce compliance with the requirement on first aid kits. The ministry of Education may consider including first aid training and disaster preparedness as part of the school curriculum and the curriculum of driving schools. The government should establish guidelines on minimum standards to be adhered to by all emergency medical providers and enforce compliance to such.

5.5.2 Recommendations for further research

Further research can be carried out in other routes and towns. Further research can also target a different population for instance drivers and touts of public service vehicles to gauge their perception and their preparedness to handle emergencies. Study on challenges facing Emergency Medical Service providers can be carried out to inform the relevant stakeholders and help identify solutions to increase up take of these services.

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APPENDICES

APPENDIX 1: LETTER OF INTRODUCTION

MERCY MUENI
C/O UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
P.O BOX 30197
NAIROBI

17th July 2013

Dear Sir/Madam,

RE; REQUEST FOR PERMISSION TO COLLECT SURVEY DATA

I am an MBA student at the University of Nairobi. In partial fulfillment for the award of the degree of Master of Business Administration, I am undertaking a management research project on “Perception of Emergency Medical Services by passengers of selected routes in Nairobi Central Business District”.

Being one of the major players in transport business, your company has been selected to form part of this study. This is therefore to kindly request you to allow me to talk to your passengers in the waiting area. The information collected will provide important information on what people think about first aid services and what can be done to improve delivery of such service.

Please note that the data collected will exclusively be used for academic purposes and will be treated with utmost confidence, the opinions of your clients will not appear in any report. A copy of the research findings will be availed to you on request.

Thank you for your cooperation.

Yours faithfully,

Mercy Mueni

Student

Dr. Munyoki

Supervisor

APPENDIX 2: QUESTIONNAIRE

PERCEPTION TOWARDS EMERGENCY MEDICAL SERVICES QUESTIONNAIRE

Section A; Demographic characteristics of the respondents

1. Please indicate your gender Male () Female ()
2. Please tick the age bracket in which you fall
 - 20 years & below ()
 - 21-30 years ()
 - 31-40 years ()
 - 41-50 years ()
 - Above 50 years ()
3. Please indicate your level of education
 - KCPE ()
 - KCSE ()
 - Certificate ()
 - Diploma ()
 - Bachelors Degree ()
 - Masters ()
 - PHD ()
4. Please tick your occupation below as appropriate
 - Unemployed ()
 - Self employed ()
 - Formal employment ()
 - Others (specify) ()
5. Would you consider buying an ambulance cover? Yes () No ()

Section B; Perception Towards Emergency Medical Services

1. Please indicate the extent to which you agree or disagree with the following statements, tick the appropriate number where 5 is strongly agree, 4 agree, 3 don't know, 2 disagree, 1 strongly disagree

Note; Emergency Medical Services refers to Ambulance and First aid services

	1	2	3	4	5
Emergency medical services is critical for provision of quality health care					
Emergency Medical services increase survival chances of injured casualties					
Ambulances arrive at accident scene as quickly as possible enabling medical care to begin immediately					
Ambulances help save lives by rushing injured to hospital in good time					
Ambulance staff compliments hospital activities by sorting casualties at accident scene according to level of injuries and dispatching them to different hospitals based on each hospital's capacity to handle such injuries.					
Ambulance teams play a key role during national disasters, they search for missing victims, rescue victims and offer counseling services					
Ambulance average response time to emergencies is acceptable					
Ambulance staff are knowledgeable, professional and caring					
Ambulance crew are dedicated to providing best medical care to patients whenever called upon even at night					
First aid given at scene of accident helps save live by for example arresting bleeding and restarting breathing among others					
Rapid response of first aiders to accident victims help improve outcome of injuries, speed up recovery and save vital body organs					
The government should make first aid training a prerequisite to securing a driving license					
Every vehicle and building should have a first aid kit to be used in case of an emergency.					

2. Please indicate (by ticking in appropriate box) the extent to which each of the factors below would be important in influencing your choice of an ambulance provider where 5 is extremely important, 4 very important ,3 important ,2 somewhat important and 1 not important

	1	2	3	4	5
Quality of care offered by staff					
Price of the service					
Medical equipment in the ambulance					
Number of ambulances owned by service provider/capacity to deliver					
Reputation of service provider					
Qualification of their staff and accreditation by the relevant authorities					
Ambulance Response time to emergencies					
Referral by friend/relative					
Others (specify)					

3. In your opinion, what is the community perception towards ambulances? Please tick one

- They appreciate the role that ambulances play in saving lives ()
- They find them a nuisance with sirens as they push for right of way in traffic ()
- They are indifferent, they need more education on importance of ambulances ()

Thank you for your cooperation