ASSESSMENT OF SIZE AND FIT OF READY-MADE FORMAL CLOTHING AMONG MALE CONSUMERS: A CASE OF KENYATTA UNIVERSITY

BY

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.

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DEDICATION

I dedicate this thesis to my children **Sheila, Brenda, Geraldine and Gideon** for understanding my absence from them while I was studying and my parents for their continuous support in prayers and emotional encouragement.

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ABBREVIATIONS AND ACRONYMS

CAD	Computer Aided Design
ISO	International Organization for Standardization
KAM	Kenya Association of Manufacturers
KEBS	Kenya Bureau of Standards
KU	Kenyatta University
KUCC	Kenyatta University Conference Centr
SPSS	Statistical Package for the Social Sciences

ABSTRACT

Fit is an important factor for consumers wearing ready-made clothes. Problems related to apparel fit stem from a variety of factors. This study therefore sought to explore size and fit issues of ready-made formal clothes among men with regards to: Origin of imported clothes, satisfaction based on availability of appropriately fitting clothes, fit problems experienced at critical fit points, fit preferences, knowledge on key body measurements and body shapes and finally, knowledge on the communication of size by size labels. The results of this study will facilitate the development of strategies that would help to solve fit problems and to promote the production of well-fitting formal clothing for Kenyan men. The review of related literature reveals the main factors affecting sizing systems and consequently, the fit of ready-made clothes. The research was designed by a descriptive survey. The study was carried out at Kenyatta University. The target population was men working on permanent and pensionable terms who were between the ages of 25 to 75 years. The sample was stratified as, the teaching staff (192) and non-teaching staff (294).The selection of the sample size was done randomly. Questionnaire and observation checklist were employed to collect data. Descriptive statistics was used to analyze obtained data by using the Statistical Package for the Social Sciences (SPSS). Frequency tables, percentages, and bar graphs were used to summarize the results. The findings of the study indicated that men in Kenyatta University buy clothes that are made in China, Kenya, Bitain and America. Clothes sold in chain stores have an excellent fit, while those sold in the supermarkets, boutiques and market stalls have a good fit. The study further indicated that formal ready-made clothes, imported new, custom made and local ready-made clothes have a better fit than second hand clothes for men. The findings concluded that men are satisfied (49.9%) with ready-made clothes though they often alter them. This study found that men experience fit problems with widths of ready-made clothes. Generally they experience more fit problems with the upper torso than the lower torso. Length problems were found to be more at the lower torso and could be concluded that ready-made trousers are longer than required lengths. From this study, it is apparent that numbered coded labels and lettered coded labels effectively guide in selecting formal clothes but illustrated figure, size label and body measurements are extremely effective. The findings indicated also that men prefer to wear fitting and semi-fitting jackets, loosely fitting trousers, semi-fitting shirts and suits to work. It can be concluded that men (28.6%) would want their body measurements to be taken and size labels to be clear and informative. The researcher recommended that apparel manufacturing industries in Kenya and abroad should ensure that their sizing systems are a representative of their target market.

CHAPTER ONE: INTRODUCTION

1.0 Background Information

Fit is one of the most important criteria for consumers engaged in the apparel buying decision. To get the best fit and size dimensions, manufacturers spend large amounts of money on sizing systems. Every garment manufacturer has a target segment with certain demographic characteristics defining consumers' profile. The best range of sizing can be a key to the success factor for manufacturers. To implement this, companies are using advanced technologies and strategies to devise sizing systems and sizing categories (Doshi, 2006).

Given that ready-made apparel depend on an accurate estimate of the distribution of body shapes and sizes within a target population, it becomes necessary for every country, and even regions within countries, to establish their own sizing systems based on the target population (Ashdown 2000; Simmons, Istook and Devarajan, 2004; Honey and Olds, 2007). Dissatisfaction with fit is one of the most frequently stated problems with garment purchase (Otieno, Harrow, and Lea-Greenwood 2005; Zwane and Magagula 2006; Mastamet-Mason, 2008). Consumers' dissatisfaction with apparel's fit has stimulated the development of assistive technologies in manufacturing, processing and retail environment such as the use of body scanners. Through body scan technology, body dimensions and shapes can easily and rapidly be extracted from a population and converted immediately into body form categories, size charts and patterns for garment production (Ashdown 1998; Simmons and Istook 2003; Ulrich, Anderson-Connell, and Wu 2003; Ashdown, Loker, and Adelson 2004; Fiore, Lee and Kunz, 2004).

Due to costs and technical requirements, body scan technology would not be feasible in a less developed country. African developing countries such as Kenya also face similar apparel fit problems, but sizing issues are often overlooked or regarded as unimportant issues, finally giving rise to non-standardised size ranges that do not conform to the recommendations given by standard bodies (Chun-Yoon and Jasper, 1995; Faust, Carrier and Baptiste, 2006). A lack of basic design technologies such as computer-aided design and pattern design systems, in most apparel industries, are an indication of the ignorance about the importance of size and fit, which reveals a reluctance to respond to consumer demands (Mason, 1998). Imported new and second- hand clothes cannot address fit problems either, because they were not manufactured for the Kenyan market. The major concern of this study was to attempt to find out how successfully ready-made formal clothing currently on the market fits men from Kenya.

1.1 Statement of the Research Problem

In Kenya, there are some men who wear closely fitting clothing, while others wear clothes which are oversize. However, there are those who wear clothes that fit well, while others wear clothes which are either too long or short for their height. McCormick, Kimuyu, and Kinyanjui (2002) found that, most of the personnel in Kenyan apparel industry are inadequately skilled to tackle fit issues and seldom employ modern technologies or even utilise dress forms for testing the fit of prototype apparel before even engaging fit models.

Although Mastamet-Mason (2008) carried out research on women's sizing (body measurements) and fit (body shape) in Kenya,still little exists with regards to men's size and fit. According to KEBS (2002), anthropometric data was collected in 1975,

but the original database from which size charts were established is unknown and obscure. This suggests that the data available is flawed and obsolete, as there is no known evidence to guarantee the quality of the sizing systems currently in use.

With the absence of representative sizing systems in Kenya, it is possible that wrong styles and sizes, based on estimates and not on the actual sizes and body shapes of male consumers in Kenya, contributes to fit problems. Consumers' ignorance of their own sizes and body shape leads to inappropriate apparel selection. It is also possible that consumers' fit preferences contribute to fit problems.If a consumer prefers loosely fitted garments on a thin body framework, the aesthetic appearance will be awkward and will appear ill fitting.

Available styles that do not consider consumers' body shapes, and most likely the consumers themselves not understanding their shapes and how to dress accordingly, contribute to fit problems Mastamet-Mason (2008). In light of this, this study sought to assess the size and fit of men's formal ready-made clothing among Kenyatta University male staff members.

1.2 Purpose of the Study

Given that ready-made clothes are made in advance using measurements from size charts, and released to the retailers for consumers to buy, the purpose of this study was to asses issues with sizing and fit that male consumers experience while selecting and buying ready-made formal clothing available in the Kenyan market.

1.3 Objectives

The objectives of the study were:

1. To establish the countries where ready-made formal clothes for Kenyan men come from.

2. To establish male consumers' satisfaction with the fit of men's formal ready-made clothes.

3. To investigate fit problems experienced with ready-made clothes at critical fit points (neckline, chest, shoulder, waist, and length) by male consumers.

4. To determine male consumers knowledge regarding size and fit issues of ready-made formal clothes.

5. To establish male consumers knowledge in clothing communication systems (size labels) on ready-made clothes.

6. To determine male consumers fit preferences for formal male ready-made clothing (trousers, jackets, shirts, and suits.)

1.4 Hypotheses

$H_0$1: There is no relationship between age groups and Ideal male body shape.

$H_0$2: There is no relationship between age groups and fit preferences for formal clothing.

1.5 Significance of the Study

The results of the study will be made available to apparel manufacturers, retailers, researchers, educators, government and public agencies in Kenya such as the Kenya Bureau of Standards (KEBS) and KAM (Kenya Association of Manufacturers). This will make them to be aware of male body shapes and apparel's fit implications, so as to develop strategies that may help to solve fit problems and to promote the production of well-fitting apparel items. The study highlighted critical areas in the current sizing systems that need to be developed or modified to counteract the

identified fit problems. Furthermore, the need to carry out national anthropometric survey becomes an urgent matter.

Understanding the fit preferences of male consumers and relating these preferences to the body characteristics that determine the fit of an apparel item, will help apparel companies to produce suitable and better fitting apparel within consumer's desired fit parameters. This study has provided reference data on apparel sizing and fit issues in Kenya. This will lead to better designing and better predicting of the degree of fit, and ultimately the production of male well-fitting apparel in Kenya.by fashion designers.

1.6 Assumption of the Study

The researcher assumed that all the male employees of Kenyatta university purchase and wear ready-made formal clothing.

1.7 Scope of the Study

This study focused mainly on male body shapes, since they act as the apparel's frame and could affect all the major issues highlighted in Ashdown's model regarding fit (figure1,page 7). This study also focused on the communication of size and fit from the viewpoint of the consumer's knowledge and how consumers would prefer their ready-made formal clothes to fit their bodies.

1.8 Limitations of the Study

1. The research was carried out in Kenyatta University and the results would be generalized to Kenyan males working elsewhere with caution.
2. The study was limited to sampled male staff members at Kenyatta University, who are employed on permanent and pensionable terms.
3. The study was limited to ready-made formal outerwear.

1.Conceptual Framework of the Study

The conceptual framework of this study was conceived from Ashdown sizing and fit model.The model was modifield and adapted as represented in figure 1.1. In an attempt to solve fitting problems, Ashdown developed a model of the factors determining and influencing apparel's fit.

Ashdown (2000) sees sizing systems as the focus around which, all the factors concerning sizing and fit evolve. Ashdown has identified the main factors affecting sizing systems and consequently, the fit of ready-made apparel. These include the population measurements (body dimensions), the design features (construction of the apparel), the fit issues (fit quality management), and the communication of sizing and fit (size labeling).

A review of existing literature covering fit of men's and women's apparel, indicates that problems related to apparel fit stem from a variety of factors. These include an outdated anthropometric database, from which sizing systems could be developed, lack of classified body shapes, non-standardized communication of sizing and fit, non-standardized quality management and a lack of an agreement amongst apparel industries, (Chun-Yoo and Jasper 1996; Winks, 1997; DesMarteau, 2000; Loker et al,2005). The study explored size and fit issues and communication of size and fit related to men's formal clothing through self reporting.

Conceptual Framework

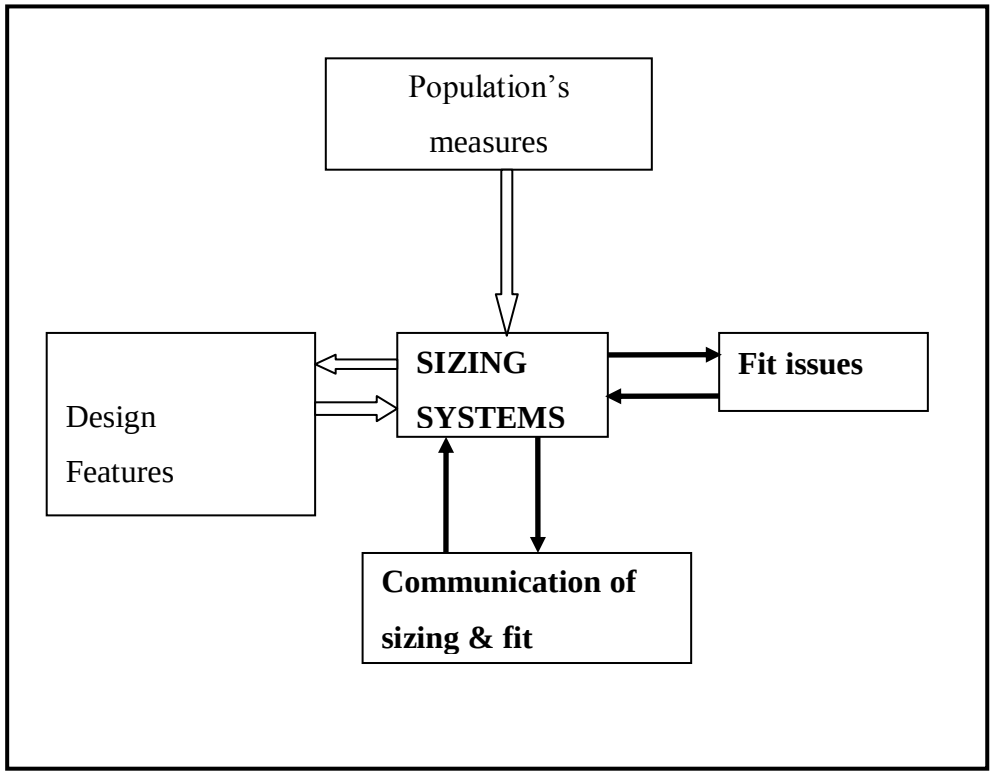


Figure 1.1: Size and Fit Conceptual framework **Source: (Ashdown, 2000)**

KEY

→

The dark arrows in the conceptual framework above indicates the factors affecting sizing systems and were thefocus of the study

⇒

The light arrows in the conceptual framework above.indicates factors affecting sizing systems but were not studied in this research

1.10 Definiton of Terms

Apparel: Is taken to mean the outer garments such as trouser, jacket, coat and shirt.

Clothing: Covering for human body

Critical fit points: These are body parts where key measurements are taken from. Such as chest, neck, shoulders and waistline for men's clothing.

Custom made clothes: These are clothes made based on direct body measurements, Transpose d into patterns.

Fair fit: This is taken to mean a garment that has few fit problems for the wearer.

Fit: Fit may be defined as the way a clothing item that conforms to the body.

Formal clothing: Clothes worn to work comprising of suits, trousers, jackets and shirts.

Good fit: This is taken to mean a garment that has no fit problems for the Wearer.

Ready-made clothes: These are clothes made in advance by clothing manufacturers using standard measurements and releasing to the consumers through the retailers

Shape: This is taken to mean the body figure of males.

Size: This is the body measurements, reflected in a size code such as Extra Large (XL), chest 48 among others.

Sizing Systems: A sizing system is a set of clothing sizes that are created by an apparel firm to fit the range of people in a target market. as in the case of this study, masculine male body is prefered by both males and females.It is also used by fashion industry/media to show case male clothing ranges.

1.10.1 Operational definition of Terms

Ideal male body shape: This is a body shape that is admired by majority of people, as in the case ofthis study,masculine male body is prefered by

males and females.It is also used by fashion industry/media to show case male clothing ranges.

Department: In this study the following: Library, Health unit,Administration, catering services, Accomodation services, Kenyatta University Conference centre in Kenyatta University Comprise of departments.

Locally made clothes: These are clothes which are made in Kenya.

Schools: These are academic schools at Kenyatta University.

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction

The literature review discusses what other researchers have reported on size and fit. This chapter covers size and fit, the concept of fit, size and fit problems with ready-made clothes, sizing systems, body shapes,standard sizing and body shapes,communication of sizing and fit, preferences for clothing and fit and summary of literature review.

2.1 Size and Fit

A well designed fitted garment will look right and the wearer will be comfortable with it (Craig, 1968). Fitting is adjusting design to human figure. This depends on several body measurements like waist, hips, length of shoulder and sizes of other parts of the body, depending on the design requirements. These are generally summed up as garment size.

Horn (1975) adds that garments should have adequate ease for movement, be free of wrinkles and should generally make the wearer feel comfortable. Clothing that fit too tightly and cling to the skin, reduce the effective movement of air surrounding the body. Sproles (1979) cites a study done on information seeking processes of consumers shopping for blouses. A total of 380 shoppers were observed as they made their purchases. Fit of the blouse was one of the most frequently sought pieces of information. However, only 38% of the shoppers actually assessed the fit. In Johnson and Workman's (1990) study, fit was ranked first out of nine factors influencing clothing choices. Kundel's (1990) study, established that wives of blue-collar workers chose fit than their husbands as the most important factor influencing their choice of clothing .

Men these days shop for their clothes than ever before.When shopping men are particular about brands and stores and often choose comfort over fashion (Frith and Gleeson, 2004). Some studies that have been done agree with women's study, that men rank fit as mainly important in clothing selection criteria (Hogge et al., 1988, Liu and Dickerson,1999).

2.2 The Concept of Fit

Fit may be defined as the way a clothing item conforms to the body (Workman and Lentz, 2000) or the relationship between the clothing item and the body (Ashdown and Delong, 1995). Stamper *et al.*, (1991) define a well- fitting garment as one that is comfortable to wear, with sufficient room to allow for easy movement, no unnecessary wrinkles and bunching of fabric or a display of bagginess, and that it should be aesthetically acceptable as well as fashionable. A clothing item with a good fit ought to conceal the wearer's figure faults, compliment the body and provide well-balanced proportions (Tate, 2004). A garment of the correct size, in combination with the correct body measurements, ought to result in a notable fit.

2.3 Size and Fit Problems with Ready-made Clothes

Fit problems are the reason for 50 percent of catalogue returns (DesMarteau, 2000) .Consumers are pressed for time. They order a range of clothing sizes, try them on and return the clothes that do not fit them to the retailers. Manufacturers have come up with ways of creating a range of apparel sizes to fit their target market. The Current methods of creating sizes and analyzing garment fit are:

1. Based on measurements of one "ideal" customer represented by a single fit.

2. Adjusted for additional sizes by using grade rules to define proportional increases and decreases from the base pattern.

3. Evaluated on the fit model visually and in two dimensions by comparing linear garment measurements to linear body measurements, (Keiser and Garner, 2003).

Although these methods are useful in evaluating simple garment fit issues, they are not adequate to investigate the complexities of the multifaceted relationship between body and clothing, for a large number of customers with a variety of body types within each size.

Most sizing systems are derived from the International Organization for Standardization (ISO). However, individual firms have always interpreted the standards differently, in order to distinguish their garments from their competitors' garments. Size and the resulting fit are used as a marketing tactic. Size 10 at one firm is not the same as size 10 at another firm, even when the style and some of the body measurements such as bust/chest, waist, hip, etc. are the same. This is brought about by the body height and proportions of the fit model, plus the preferred "fit" established by a company.

2.4 Sizing Systems

Sizing systems is defined as a set of sizes while size categories is a range of sizes that are presented in a retail situation. A sizing system used for ready-made clothes makes use of a base size, often fitted to fit a model and a set of sizes proportionally graded from this size.Technological advancement in sewing equipment, mass cutting technologies, distribution technology and mass production methods contributed to development of ready-made clothing using this sizing systems.A sizing system can be as simple as one-fits –all, or as complex as a system that provides a custom fitted garment for each individual.

Today's clothing industry is based on a system where clothes are made in ready-to-wear sizes and meant to fit most people. Studies have pointed out that consumers are discontent with the use of these systems: size designations are not accurate enough to find clothing that fits, and different sizes are poorly available.In particular, large women, very large men, and thin, short men are those who experience less priority in clothing stores and have more difficulties in finding clothes that fit (Laitala, Klepp & Hauge, 2009). Dressing requires finding clothes that fit our bodies and the way we look, as well as the society and occasions we are part of (Entwistle 2000). The fit of a garment contributes, among other things, to the confidence and comfort of the wearer (Alexander et al. 2005; Klepp & Grimstad, 2008).

2.5 Body Shapes

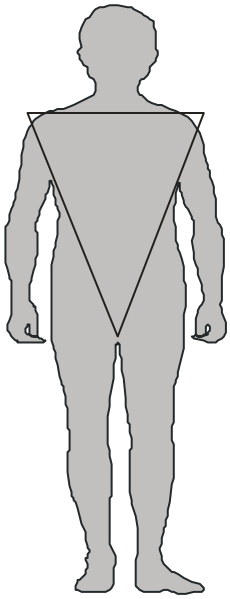
The average size for men has been increasing; consequently, their bodies have changed as well (Tamburrino,1992). Changes in lifestyle and diet, combined with the heterogeneous and ethnic mix of Kenyans today, has instigated this change. Along with today's lifestyle changes, social and cultural values have also affected how individuals interpret and perceive body shapes (Chen and Swalm, 1998). With these changes, apparel companies still use measurements based on the 1942 National Bureau of standards. Though consumers may have similar body measurements, their shapes may be different because consumers reflect a variety of body shapes and sizes. The differences in body shape often determine how a garment will hang on a figure, how comfortable that garment feels, and ultimately, how that garment is perceived to fit by the consumer. However, there have been no studies performed on use of body shapes for analyzing consumers' size and fit (Pisut and Connell, 2007).

2.5.1 Male Body Shapes

Men have a certain type of body shape. They are fortunate in as much as their body shape tends to be much more streamlined than a woman's. Basically there are 3 male body shapes:

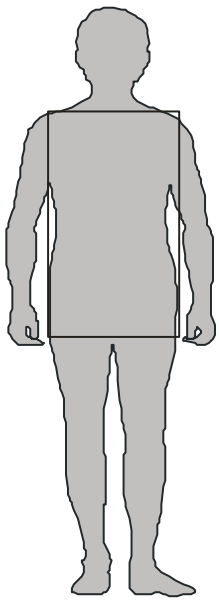
1) The Inverted Triangle

This is sometimes known as a muscular body and it is an ideal or best body for a man.



The above inverted triangle male shape has; Broad shoulders, A full or well-defined chest and a trim waist and narrow hips.

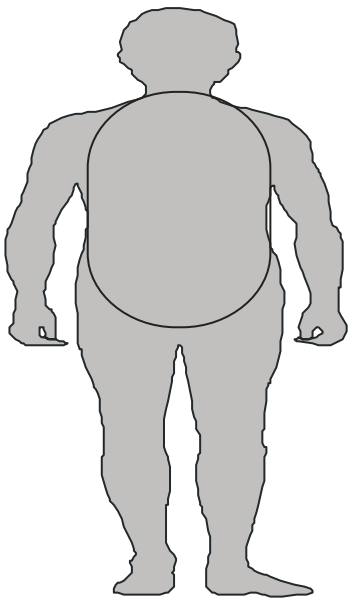
2) The Rectangle



Rectangular shape above is also refered to as a ruler shape.It is characterist by: A straight torso, a flattish bottom and stomach and Straight shoulders.This shape is thin with minimal muscle build up.

3) The Rounded Body Shape

The other names are: Oval body shape, pear, and apple shape.



The body shape on page 15, is also refered to as an oval shape which is characterist by:

- Rounded shoulders and a wider neck
- A cuddly tummy which curves beneath a flat upper chest
- Men with this body shape have larger chest and arms, and a small waist. They have a small butt and legs and may look like they have a heavy top.

It has always been assumed that, compared with women, men have a much easier time when it comes to their bodies. Even in many male magazines the emphasis is still on the perfectly formed female body rather than the man. The critics often point out that the stereotype of, 'men look and women are looked at', are continually reinforced as a result (Kennard, 2006)

More recently research has indicated a change in the way men, and women, are starting to view the male physique. One psychological investigation in the UK found that the average man is feeling a bit intimidated by the images surrounding them. Researchers said the proliferation of male pin-ups advertising products from underwear to after shave, in the same way that female models have been used for decades, was making ordinary men feel inferior and uncomfortable about their bodies.

Hourglass Shape: This is considered as the perfect shape for women. Many football players have an hourglass shape, that is they have small waists and hips, and broad shoulders and muscular thighs.

2.6 Standard Sizing and Body Shapes

Standard sizing attempts to provide apparel to fit a majority of consumers. Most manufacturers use standard sizing systems as a guide to develop size labeling and grading for all sizes (LaBat, 1987).Vanity sizing, where companies often adjust measurement specifications for each size, to enable consumers to fit into smaller sizes, adds yet another complicating factor to the already complex issue of fit. By the early 1990s, dimensions of garments measured two to four sizes larger than the same size ten years earlier (Tamburrino, 1992). Workman and Lentz (2000) found that size 8 specifications for fit models had larger dimensions in 1997, than size 8 specifications for fit in 1986.

According to Pisuit and Connel(2007), consumers reflect a variety of body shapes and sizes. Even though consumers may have similar body measurements,their body shapes may be different.The differences in body shape often determine how a garment will hang on a figure,how comfortable that garment feels,and ultimately how that garment is perceived to fit by the consumer.

Wars during the eighteenth century resulted in expanding armies and the production of large quantities of uniforms, which created the need of systemized size grading and resulted in statistical information about men's body measurements (Aldrich, 2007).
Already then the different size designation systems were considered confusing, and efforts were made in the later part of the twentieth century, both in the US and Europe, to develop standardized sizing through body measurement surveys and the use of statistical methods (Aldrich, 2007). The first scientific size charts were published by the British Standards Institution (BSI), including a set schedule of code

sizing related directly to body measurements in 1953. In the US, the first standard clothing sizes, CS 215-58, were published in 1958 (US Department of Commerce). Development of an international sizing system for clothing started in 1969 and the first international standard for clothing size designations, including definitions and body measurement procedures, was finally published in 1977 (ISO 3635). They have experienced problems in reaching a common size code; it has to be informative and indicate sizes accurately, but at the same time not too complicated for the consumers from different nations to understand or for the apparel industry to use.

Kenya's Standard sizing system (APPENDIX V, page 91) was revised in 2002. The sizing system was prepared by making reference to NZD 8774 (Size designation and body measurements for the sizing of boy's ready-made-wear clothing) and ISO 3636 (Size designation of clothes for men's and boy's outwear garments).This indicates that the sizes might have been adopted and modified from Sizes from other countries and not Kenya. Standard sizes in Kenya were obtained from body measurements from boys and men in Kenya's learning institutions and organizations. The time the anthropometric study was done is unknown. This is pointing out that the current size charts used in Kenya is not a comphrensive representation of Kenyan men's body shapes and measurements and it could be imperfect.

2.7 Communication of Sizing and Fit

2.7.1 Size labelling

Several studies have shown that there are disparities within clothing sizes used today. The most noticeable disparities are the national labelling differences between countries. Ujevic et al. (2005) found that, there were significant differences even though clothing would have the same size designation. To overcome this problem,

international clothing chains often give several size designations in the same label. The sizing differences are not only a problem within the international markets, but also on a national level, as great disparities can be found within sizes. Several studies have demonstrated this by measuring both women's and men's trousers (Kinley 2003; Faust et al. 2006; Laitala et al. 2009). Schofield & LaBat (2005) have studied 40 graded patterns and size charts for women from 1873 up to the year 2000 in the US and found out that they were all different. Rather than taking into account the results from anthropometric studies, they mainly use the proportional grading systems, similar to the ones tailors used before anthropometric data was available. Some of the problems are, for example, that the different height groups recommended by anthropometric data are not taken into account and the vertical and length measurements increase as the girth dimensions increase. Therefore, short or tall women are forced to select a fit based on either their vertical or horizontal measurements.

More than ever before, the apparel industry is faced with customers occupying a larger spectrum of sizes due to both migration from different cultures and an increase in weight and height of the average consumer. Today, more people are considered overweight or obese than in earlier times (WHO, 2006).In the later years several comprehensive, national anthropometric sizing surveys that utilize the new body scanning technologies have been conducted (Meunier 2000; Ashdown & Dunne 2006; Bye et al. 2006; Connell et al.2006).

According to Meunier (2000), the use of three-dimensional landmark coordinates for body type is superior to the use of circumferential measurements in predicting clothing sizes. The studies indicate that the population has changed considerably

during the last decades; for example, the average waist girth of British women has increased by 15 cm since 1952 (Bodymetrics, 2005), and 38% of women and 44% of men are either overweight or obese. This means that most old size charts are out dated, and the international clothing industry is in demand for more international, standardized solutions (Chun-Yoon and Jasper 1994; Stylios, 2004).

Today, many consumers express frustration over the sizing systems and the incorrect use of the system. Several consumers report the need to actively seek out different apparel brands in order to identify brands that sell clothes that fit their body size and type (LaBat, 2007). Such frustration is typical of how sizing systems are experienced today; it is complicated to find clothes that fit the body.

Two contradictory explanations for intentional sizing variations are offered: The most common is so-called ‘vanity labelling’, which means that the garments are labelled smaller than they actually are in order to flatter the customers as they fit into a smaller size than their ‘real’ size (Kinley, 2003; Ennis, 2006). The opposite to this is the claim that fashion manufacturers only produce clothing in small sizes and mark the sizes too large as a marketing advantage for clothes that should only fit thin ‘trendy’ bodies, Other explanations give more coincidental disparities, such as the use of different size fit models, size statistics from different resources, and the grading from the fit model to the other sizes (Workman, 1991; Ashdown 1998; Kinley, 2003). The anthropometric data that may be used as a base for size tables can come from many different sources. There are variations between the decades, nations, as well as company specific adjustments to fit for a specific customer target group. The fit of the garment is dependent on more details than the basic size.

As Ashdown (1998) points out, the size tables are often based on two or three body dimensions such as bust, waist and hips. The proportions and distances between these body measures vary greatly between the individuals. It has been shown that only 47% of the US female population fit the medium hip category, which is defined as hips being 2 inches greater than the bust (Cooklin, 1990). According to UK's national sizing survey performed in 2004, 60% of shoppers have difficulty finding clothes that fit (Bodymetrics, 2005; Treleaven, 2007).

It has been shown that the customer groups that have most problems are mainly women, especially those who need large sizes, and the elderly (Chowdhary and Beale, 1988; Colls, 2004; 2006; Salusso et al., 2006). A study of senior citizens showed that 61% expressed a definite need for special sizing, and 92% mentioned at least one body location that caused fitting problems with ready-made clothing (Richards, 1981).

Attention has also been drawn to disabled users who have problems to find suitable clothing, not only due to sizes and fit problems but also regarding shopping possibilities and service at the stores (Thorén, 1996). Wearing the right clothes with a good fit contributes to the confidence and comfort of the wearer both physically and socially. Being inappropriately dressed for an occasion can cause feelings of awkwardness and vulnerability (Entwistle, 2000). Therefore, everybody should have a possibility to dress appropriately.

2.7.2 Size Labeling in Kenya

KEBS in Kenya is charged with the mandate of designating sizes of men's and boys ready-made garments. The sizes are applied on civilian and uniform garments.The

size designation of each garment comprises of control dimensions in centimeters of intended wearer of the garment.

Sizes in labels are indicated using two types of size designation.One type of labeling is informative size labels. This uses standard pictogram with key body dimensions,wordless pictogram and code and key dimensions where practicable as shown in APPENDIX VI, page 94.

The other type of size designation is the use of uninformative labels. The size labels use numerical values of key body dimensions and lettered size labels.The numerical size labels are in four different types:

1) Lower numbered sizes (even numbers): 8, 10, 12, 14, 16, 18….

2) Upper Numbered sizes (even numbers): 36,38, 40, 42, 44…

3) Numbered sizes (odd numbers) : 13, 14, 15, 17, 19, 21…

4) Half sizes : 8½, 10½ , 12½...

These numerical labels would be seen as meaningless by uninformed consumer, as they cannot link numbers indicated on size label to the body shapes and dimensions, used for the constuction of the actual garment (Brown, 1992). This is coupled by the information on the size labels not being adequate enough, and not sized according to body dimensions to assist the consumer in finding the correct size and style (Chun-Yoon and Jasper, 1995; Faust *et al*.,Shin & Istook,2006). According to Zwane & Magagula,2006; Shin & Istook,2007), differences in body contours exist between people of the same measurements, and between different categories of people, further frustrates and confuses the consumer in apparel selection.

Lettered size labels are also uninformed sizing system that are used on size labels. Examples are: S= Small, M=Medium, L= Large, XL = Extra Large, XXL= Extra

Extra Large, XXXL= Extra Extra Extra Large, XS= Extra Small.According to Hudson (1980), letter sizing has little standardisation from brand to brand, and no consistent correlation to the body dimensions, making it more confusing to the consumer.

In the case of Kenya, the sizing system was revised in 2002 by adopting and modifying sizing systems from ISO 3635 and NZD 8774. There are no studies done on size labels of men in Kenya.

2.7.3 Satisfaction with Garment Fit

Huck et al. (1997) define fit as "the relationship of the size of the garment compared with the size of the wearer". Several studies agree that both men and women rank fit as the most important clothing selection criteria (Hogge et al., 1988; Liu and Dickerson, 1999; Workman, 1991). The customer will not purchase a garment the fit is not up to their standards. These standards of fit are based in physical comfort, fashion trends and aesthetic preferences. Clothing should conform, or fit, to the body without causing discomfort or impeding movement. Essential for good fit is the correct ease, "the difference between the size of the garment and the size of the wearer" (Huck et al., 1997). Ease is an actual measureable distance, whereas fit is a relationship. Judgments of fit are often confused by ease allowing garments to properly fasten over the body when the wearer's body dimensions exceed those the design was intended for.

Men may vary in their fit criteria; one person may wear their clothing more baggy, while another person may prefer slim fitting garments. Due to current fashion standards creating variations in current fit criteria, satisfaction with the perceived fit of a garment may vary from the traditional definition of "good fit" that is based on a set amount of ease located at certain body points and on the proper hang of the fabric

grain in relation to the body and ground. For that reason, this study collected self-reported clothing issues, rather than physically measuring clothing issues first-hand. Self-reported clothing issues are the opinions of the current market's consumers. Those opinions guide purchase decisions and are therefore very important to apparel manufacturers.

2.8 Preferences for Clothing and Fit

Fit is very subjective and each individual differs on what they describe as good fit and how they like clothing to fit their bodies. Numerous factors contribute to consumers' clothing fit preferences including comfort, aesthetics, and personal choice in assessing fit. Current fashion trends, cultural influences, age, sex, body shape, and lifestyle also influence personal fit preferences over the life span (Brown and Gallagher, 1992).

With the continued emergence of diversity in age and ethnic groups, it is difficult to meet everyone's fit preferences with standard sizes. However, when developing specifications for sizing and fit, manufacturers must consider not only their target consumers' size requirements, but their fit preferences as well (Glock and Kunz, 2000). It is crucial for manufacturers to understand the complexity of consumers' fit preferences, in order to achieve consumer satisfaction and reduce high markdowns, lost sales and turnover for their companies. In Kenya, research on male consumers' fit preferences is not known.

2.9 Summary of the Literature Review

The literature reviewed had limited research related to men's clothing issues and less research specifically focused on men's formal clothing. Because of this issue,women's clothing research that was directly related to the current study has been included in the review of literature.The literature review revealed that fit problems

exist with ready-made clothes. This is because sizing systems depend on accurate measurements of a target population. The fit preferences differ with individuals, and fit is subjective, yet most garment manufacturers do not agree on standard sizing. There was a gap in addressing size and fit of ready-made clothes among male consumers. This was because many studies had been done on women, children and teenage girls. The researcher therefore assessed and decided to study size and fit of men's formal ready-made clothes, based on their fit preferences, communication of size, fit and male body shapes.

CHAPTER THREE: METHODOLOGY

3.0 Introduction

This chapter describes the methodology which was used in the study, including the research design, location of the study, target population, sample size and sampling techniques, research instruments, Questionnaire, observation checklist, pre-testing, reliability and validity of the instruments, data collection techniques, research variables, data analysis and logical and ethical considerations.

3.1 Research Design

Orodho (2003) defines research design as the scheme outline or plan that is used to generate answers to research problems. The research design that was used is a descriptive survey. Descriptive survey is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals (Orodho, 2003).

3.2 Location of the Study

The study was carried out in Kenyatta University. The institution is situated 25km from Nairobi, the capital city of Kenya, along Thika Road. The researcher chose Kenyatta University because there are working males of different cadres of employment. Being a public institution, there are men from all parts of the country. The proximity of the researcher to the Institution plus the knowledge of the location was key in choosing the location.

3.3 Target Population

Mugenda and Mugenda (1999) define a population as a complete set of individuals, cases or objects with some common observable characteristics. A target population is

that population to which a researcher wants to generalize the results of a study. The target population of the study was males working in Kenyatta University on permanent and pensionable terms. The age selected was from 25 to 75years. The age range was decided on by the researcher because Kenyatta University data office indicated that, most people start work at an average age of 25 years. Non-teaching staff retires at the age of 60 years while the teaching staff retire at the age of 75 years. The decision to choose Kenyatta University male staff members was because they have the advantage of earning a monthly salary, which enables them to purchase ready-made clothes.

3.4. Sample Size

Kenyatta University had a population of 1627 male staff members on permanent and pensionable terms. The population was stratified into teaching and non-teaching staff members. Non-teaching staff members included administrators, technicians, clerks, accountants, security officers, health centre staff members, library and kitchen staff members. The teaching male staff members were 639, while non-teaching male staff members were 988. Kerlinger (1970) suggests that 30% of a sample population is appropriate for the purpose of research. The sample size representing 30% of KU males staff members is represented on table 3.1 below.

Table 3.1 Sample size

MALE STAFF MEMBERS	**POPULATION**	**%**	**SAMPLE SIZE**
NON-TEACHING	988	30	294
TEACHING	639	30	192
TOTAL	1627	30	486

3.4.1 Sampling Techniques

Kenyatta University had 15 Academic Schools. Table 3.2 below indicates the respondents selected per school.

Table 3.2: Selection of Respondents Per School

KU ACADEMIC SCHOOLS	**Number of Teaching Staff**	**30% of Teaching staff Selected**	**30% of Non-Teaching Staff Selected**
Applied Human Sciences	19	6	6
Agriculture and Enterprise Development	25	8	8
Business	52	16	16
Economics	21	6	6
Education	88	26	26
Engineering and Technology	43	13	13
Environmental studies	34	10	10
Health Sciences	46	14	14
Hospitality and Tourism	11	3	3
Humanities and Social Sciences	146	44	44
Law	4	1	1
Pure and Applied Sciences	107	32	32
Visual and Performing Arts	24	7	7
TOTAL	**639**	**192**	**192**

The assumption in Table 3.2, page 28, was that, there is approximately the same number of male Teaching Staff and Non-Teaching Staff in the Schools.

Table 3.3: Selection of Respondents by Non- Teaching Departments

Department	**Number of respondents**
Administration	20
Health Unit	5
Library	20
Grounds	15
Directorates	38
Graduate school	4
Total	**102**

3.5 Research Instruments

Research instruments are tools used to collect information from the intended sample size. The data collection instruments used in this study were designed and developed by the researcher. The study used a Questionnaires and observation checklist. These are briefly discussed below.

3.5.1 Questionnaire

The study employed the use of a questionnaire as a method of collecting data. The questionnaire was structured, with closed and open ended questions.The questionnaires employed a Likert scale technique to assist the analysis stage. This limited the respondents to the possible answers the researcher was looking for within a short time. The respondents were asked questions related to demographics, communication of size and fit labels, fit preference and satisfaction with ready-made clothes. They also allowed a great deal of information to be gathered in a short period of time. In this study the instrument was administered during the visit,and respondents

were helped when they sought clarification. The questions that were asked were confidential between the researcher and the respondent.The questionnaire is presented in Appendix I, page 79.

3.5.2 Observation checklist

Observation checklists were used to determine the body shapes and the fit of clothes worn by the respondents. This tool allowed the researcher to intermingle with members of the group to be studied, in which, the researcher became an active participant in the events being studied by systematically observing and recording events. The purpose of the observation exercise was to attempt to obtain more sensitive data from the participants that would give some indications of how they felt and think about sizing issues on a more personal level. This approach was inspired by the work of Ortho (2005).For this reason the observation was a valuable research method as it allowed the researcher to see people in their natural setting and to observe how they view their settings. At its best, observational research provides insights that stimulated more controlled research or supplemented more controlled research by seeing what events meant to actors.The observation checklist is presented by Appendix II, page 87.

3.6 Pre-testing

Pre-testing of the instruments was carried out among respondents who were not included in the study at Kenyatta University. The questionnaire and observation checklist was pre-tested on a representative sample of 30 respondents: 10 teaching and 20 non-teaching staff members after which, the researcher adjusted thequestionnaire by removing a question, which was not considered relevant to the study.

3.6.1 Reliability

Reliability is the measure of the degree to which a research yields consistent results or data after repeated trials. It is the degree of consistency that the research instruments or procedures demonstrate. Reliability is the reproducibility of a measurement. It is qualified by taking several measurements on the same subjects. Poor reliability degrades the precision of a single measurement and reduces the ability to track changes in measurement in a study (Mislery, 2004). The reliability of data collection instruments was determined from the pre-test, where the researcher administered the research instruments to respondents in Kenyatta University schools and departments that were not part of the study.

The Cronbach's coefficient alpha was applied on the results obtained to determine how items correlate in the same instrument. Cronbach's coefficient Alpha of more than 0.7 was taken as the cut off value for being acceptable which enhances the identification of the dispensable variables and deleted variables.

3.6.2 Validity

Validity is the degree to which results obtained from analysis of the data actually represent the observable fact under study. In order to ensure that the research instruments accurately reflected the concepts they were intended to measure, the questionnaire and observation checklist were subjected to scrutiny by supervisors, experts in the apparel profession, and the statisticians. Suggestions were used as a basis to adjust the research items and make them more compliant to the study.

3.7 Data Collection Techniques

Permission was sought from KU Vice-Chancellor by writing a letter (APPENDIX IX, page 99) and attaching the letter from the ministry of Higher Education.This was important to be allowed to access the sampled population in different schools and departments of KU.The researcher wrote an introductory letter on the questionnaire requesting the respondent to fill the questionnaire.The respondent was requested to fill the questionnaire in the presence of the researcher in case of any clarification on the questionnaire.It also ensured a high rate of response. Observation checklists were filled on requesting the respondent to stand up, so that the body shape and fit of the apparel could be observed and noted down.

3.8 Research variables

A variable is any researchable character or feature of a given phenomena. An independent variable is one that determines the outcome of the other variable. Whereas dependent variable is the affected one, whose outcome depends on the behaviour of the independent variable. The dependent variable of the study is the fit of formal ready-made clothes and the independent variables are: body shapes, fit preferences and communication of size and fit size label.

3.9 Data Analysis

The researcher ensured that the interview schedule and checklist transcripts were all available and usable as suggested by Neumann (2000).The questionnaires and observation checklists were coded manually, to enable the capturing of data using SPSS (Statistical Packages for the Social Sciences) to be quickly undertaken. The captured data were compared with every completed instruments to ensure that the information of each was correctly captured. Mistakes that emerged were managed and

cleaned. The data was then entered electronically in SPSS and processed. Descriptive statistics such as frequencies and percentages were used to describe basic patterns. Chi-square was used to test the hypotheses. The results of data analysis were presented in tables and bar graphs, after which, they were made available on software and hardware.

3.10 Logical and Ethical Considerations

Kombo and Tromp (2006) noted that researchers whose subjects are people or animals must consider the conduct of their research, and give attention to the ethical issues associated with carrying out their research. This study deals with people as respondents (Teaching and non-teaching male staff members of Kenyatta University). Respondents were assured that whatever they said was considered to be confidential. Permission from the Ministry of Higher Education was sought in order to collect data from Kenyatta University. The letter from the ministry (Appendix VII, page94) was presented by the researcher to the vice-chancellor, who gave the go ahead for the data to be collected from the University.

CHAPTER FOUR: FINDINGS AND DISCUSSION

4.0 Introduction

The focus of this chapter is the statistical analysis of data, interpretation and explanation of the findings of the study with regard to stated research objectives, in view of the research problem. It includes sections on Questionnaires received, demographics, countries where readymade clothes worn originated from, satisfaction with the fit of formal ready-made clothes, fit problems experienced at critical fit points, male consumers' knowledge regarding size and fit issues, male consumers' knowledge on the communication of size and fit by size labels and fit preferences for trousers, jackets, shirts and suits.

4.1 Demographics

The analysis of the demographics of the population served as a background for the examination and interpretation of the findings. The demographic information gathered from Kenyatta University male employees consisted of their ages and professional backgrounds, academic qualifications and height.

1.1 Age, question 1

Question one sought to find out the ages of respondents at KU. The age was important in this study as it helped to ensure that the respondents between ages of 25 to 75 were included. The age bracket was stipulated by section 3.3, of chapter 3.

Table 4.1: Age distribution, question 1

Age	Frequency	Percentage (%)
18-25	75	15.4
26-35	110	22.6
36-45	128	26.3
46-55	117	24.1
56-above	56	11.5
Total	**486**	**100%**

The study found out that 26.3% of the men working in Kenyatta University were between the ages of 36-45. 24.1% were between the ages of 45-55, 22.6% between the ages of 26-35, 11.5% aged 56 and above, 15.4% between the ages 18-25. The majority of the respondents were middle-aged men, therefore, likely to be more aware of the dynamics of fashion and more familiar with fit of clothes.

4.1.2 Education level of the Respondents, Question 2

Since KU is an institution of higher learning, the study sought through question 2 to establish the education level of the respondents. As shown in Table 4.2 overleaf, the study established that, 2.5% of the respondents had primary education, 9.3% had secondary education, 31.8% had tertiary education, 19.3% had a first degree, 17.5% had a second degree, and 19.5% had a third degree. This was interpreted to mean that the majority of the male staff members at Kenyatta University had attained tertiary education.

Table 4.2: Education Level

Education level	Frequency	Percentage (%)
Primary	12	2.5
Secondary	45	9.3
Tertiary	155	31.8
First degree	94	19.3
Second degree	85	17.5
Third degree	95	19.6
Total	**486**	**100%**

4.1.3 Job Category

Table 4.3 below indicates that, out of the respondents interviewed, 60.5% were non-teaching staff members, while 39.5% were teaching staff members. The percentage of the non-teaching staff members were higher than that of the teaching staff because, the later were more in the establishment (988), while the former were 639 in number.This difference was factored in while undertaking the sampling in section 3.4, page 32.

Table 4.3: Job Category

Category	Frequency	Percentage
Teaching	192	39.5
Non-teaching	294	60.5
Total	**486**	**100%**

4.1.4 Height

The height of a consumer affects the way clothes fit that person. Tall and short people are likely to have problems with sleeve, shirt and trouser lengths.

Table 4.4: Heights of Respondents

Height (meters)	Frequency	Percentage
1.40- 1.59	194	40.2
1.60-1.69	224	46.5
1.70-1.79	64	13.3
Total	**482**	**100%**

Though the number of Questionnaires collected were 486, only 482 respondents attempted to answer question 6. Those who did not answer this question, said that they were not sure of their heights. Respondents who were between the heights of 1.40m-1.59m were 40.2%, those between 1.60m-1.69m were 46.5% and those that were between the heights of 1.70m-1.79m were 13.3%. The inference here was that the majority of Kenyatta University working men were between the height of 1.60m-1.69m, as Table 4.4 above shows.

4.2 Countries Where Ready-made Clothes Originate from (Objective 1, Question 7)

The percentage of respondents that bought clothes manufactured in China was 25.3%, Kenya 18.8%, Britain were 13.3%, America 11.4%, Italy, 10.7%, Turkey 9.5%, France 7.7% and Dubai 3.3% . As shown in Table 4.5, overleaf, the majority of the men interviewed bought imported clothes from Eoropean countries (41.2%). It also suggests that Kenyan men are bombarded with clothes from different parts of the world, such that, selection of ready-made formal clothes was a challenge. Different

countries have different sizing codes, some using number codes and others letter codes, which confuse consumers. The sizing systems for some countries are meant for body sizes and shapes of their populations, but when Kenyans buy them, they might not fit in them since the sizes are not a representation of their body sizes and shapes.

Table 4.5: Countries of Ready-made Clothes

Country	**Frequency**	**Percentage**
Kenya	75	18.8
Britain	53	13.3
Italy	43	10.7
Turkey	38	9.5
China	101	25.2
America	46	11.5
France	31	7.7
Dubai	13	3.3
Total	**400**	**100%**

Table 4.5 above indicates that, 400 of the respondents anwered question 7.The rest (86) said that, they hardly look at size labels and so do not know the country of origin of their clothes.

4.3 Satisfaction with the Fit of Formal Ready-Made Clothes, objective 2

Fit, as earlier stated in chapter two (2.8) page.., is the way a garment conforms to the body of the wearer. A good fit is achieved when a person feels comfortable, moves freely, looks smart and wrinkles do not form on the garment. Objective 2 sought to

establish the satisfaction of Kenyan men with the fit of ready-made clothes. This entailed, the fit of formal ready-made clothing sold in retail stores, rating of formal ready-made clothes by male consumers, feeling of ready-made clothes by male consumers in general and alteration of ready-made clothes.

4.3.1 The Fit of Formal Ready-made Clothing Sold in Retail Stores, Question 8

Question 8 sought to find out how the respondents rated the fit of garments sold in various retails stores. The stores that were sampled in this study included supermarkets, boutiques, market stalls, trade fairs, factory outlets, second-hand clothing and chain stores. Figure 4.1 below indicates how the respondents rated the fit of formal ready-made clothing sold in retail stores.

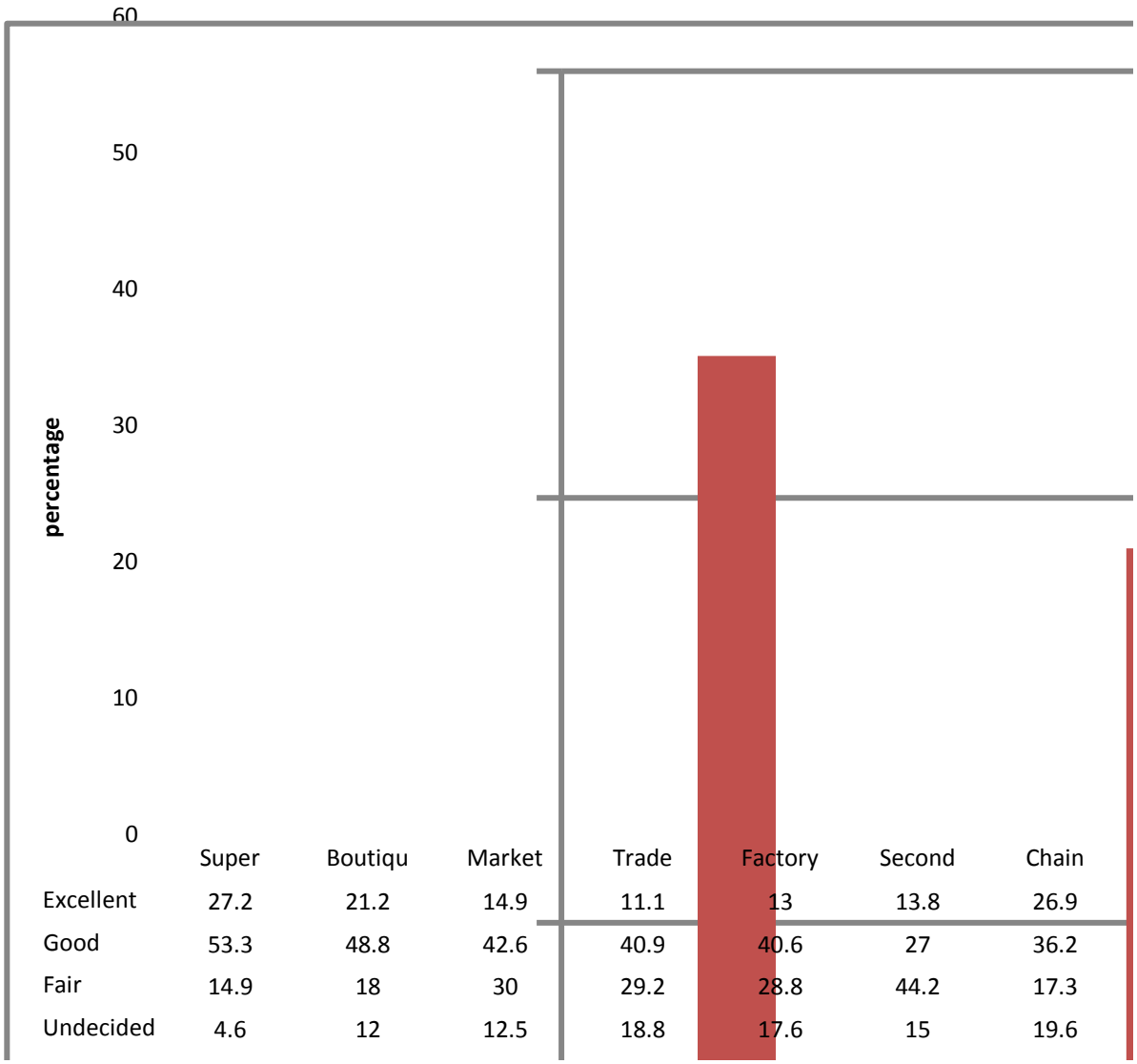


Figure 4.1: The Fit of Formal Ready-made Clothing Sold in Retail Stores

Super=Supermarket (n=478), Boutiqu = Boutiques (n=467), Market = Market stalls (n=470), Trade = Trade fairs (n=469), Factory = Factory outlets (n=468), Second = Second-hand clothing (n=480), Chain = Chain stores (n=475),

The results on fit of ready-made clothing sold in retail stores indicated an excellent fit from different stores in the following percentages:

a) Supermarkets- 27.2%

b) Chain stores - 26.9%

c) Boutiques- 21.2%

d) Other Retail stores – Between 11.1% and 14.9%

The results regarding formal ready-made clothing that were sold in various retail stores (Figure 4.1 on the previous page), indicated that, clothes sold in the supermarkets, boutiques, and market stalls had good fit, as reflected by 53.3%, 48.8% and 42.6% responses respectively. Clothes sold in trade fairs, factory outlets and chain stores recorded responses of 40.9%, 40.6% and 36.2% while second hand clothing stores had the lowest, 27%. Regarding fair fit, second-hand clothes and market stalls scored 44.2% and 30.0% responses, respectively, while trade fairs and factory outlet recorded 29.2%, 28.8% and boutiques 18%. Chain stores and Supermarkets had responses of 17.3% and 14.9% respectively.

In figure 4.1 page 37, it is apparent that some respondents were undecided on the fit of formal clothing. Chain stores, trade fairs and factory outlets, had 19.6%, 18.8%, and 17.6%, respectively of the respondents undecided, while market stalls, second-hand clothing stores, market stalls, boutiques, and supermarkets had 15%, 12.5%, 12% and 4.6% respectively of undecided respondents. The inference is that, according to KU male staff members, supermarkets and chain stores sold ready-made formal clothes with an excellent fit, while supermarkets, boutiques and market stalls sold clothes which had a good fit.

It is eminent that the market stalls, supermarkets and trade fairs sold mixed apparel merchandise, ranging from local ready-made, imported new and imported second-hand apparel. The quality of the apparel varies from fair to poor, depending on the categories available in each case. Most of these stores had inadequate fitting rooms and therefore, consumers could not adequately assess the fit of apparel items before purchasing. All these factors explained the fit of apparel sold in these stores.

4.3.2 Rating of Fit of Formal Ready-made and custom-made Clothes, Question 9

Question 9 sought to find how respondents rated the fit of various ready-made and custom- made clothes. Ready-made clothes are those that are stitched using standard sets of measurements and availed to the market, while custom-made clothes, are clothes that are made by stitching using measurements taken from a specific person. Figure 4.2 below presents results of the fit of local ready-made clothes, imported ready-made clothes, custom- made clothes, and second hand clothes.

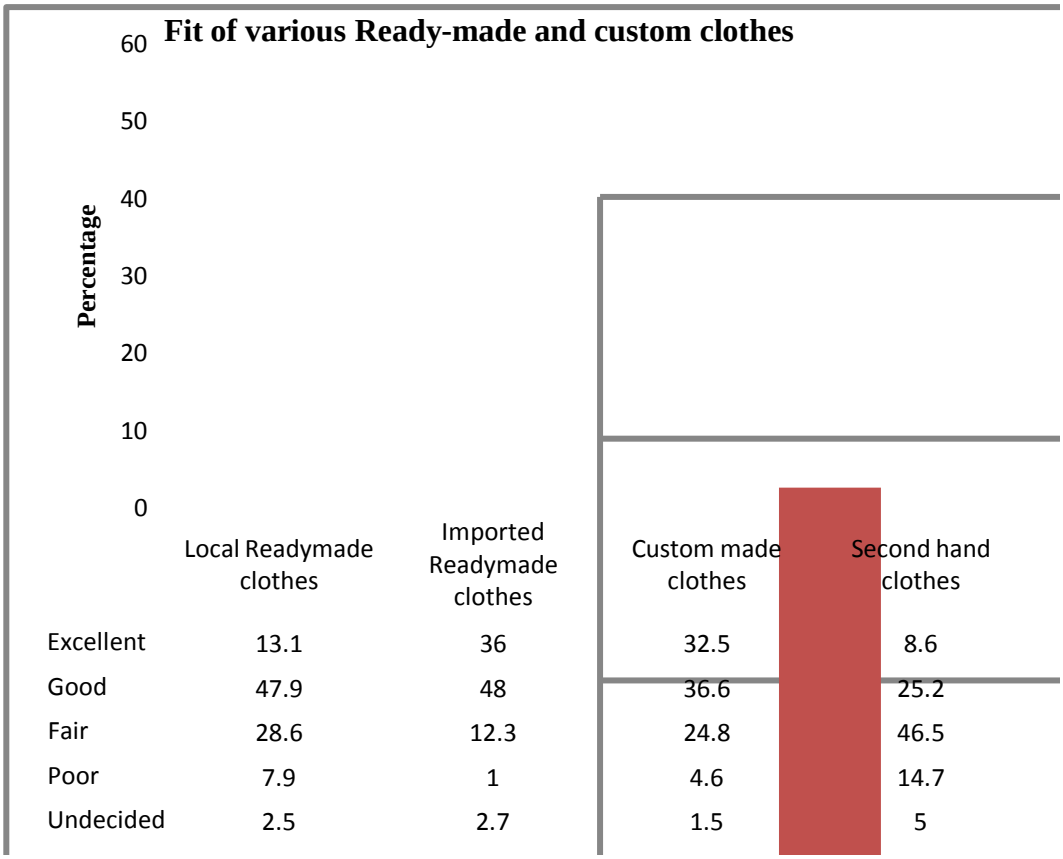


Figure 4.2: Fit of Various Ready-made and custom-made Clothes

Figure 4.2 above shows that, Imported clothes and Custom- made clothes were rated to be excellent in fit as indicated by 36% and 32.5% respectively. Local ready-made and Second-hand clothes were rated to have an excellent fit of 13.1% and 8.6% respectively. As for good fit, Imported new ready-made clothes, Locally made and

Custom-made were reported to have the best fit of 48%, 47.9% and 36.6% respectively. On fair fit of ready-made clothes, imported new scored 12.3%, custom-made 24.8%, locally made 28.6%, while 46.5% of the respondents reported a fair fit on imported second hand clothes.

The study established that, 14.7% of respondents reported poor fit on second-hand imported category of clothes, which was a sharp contrast to the imported new clothes with a score of 1%. The respondents who reported that, custom-made clothes had a poor fit were 4.6%, while those that reported local ready-made clothes to be of poor fit were 7.9%. The respondents that were undecided about the fit of locally made and imported second-hand clothes were 2.5% and 2.7% respectively. While 1.5% and 5% of the respondents were undecided about the fit of custom-made and imported clothes respectively. These results implied that male consumers perceive imported new, custom-made and local ready-made categories of clothes as having better fit than imported second-hand clothes**.**

This may be explained in terms of appealing characteristics compounded in imported apparel such as a variety of styles, good workmanship, quality fabrics and brand names (McCormick *et al*., 2002), rather than in stipulations of excellent fit. The consumers' "ego" associated with imported apparel, could also be seen as an issue affecting their purchasing of imported new and used apparel, as opposed to the local apparel. De Klerk and Tselepis (2007) observed that, consumers may use extrinsic aspects to select apparel items, that would not necessarily satisfy their fit needs, but would rather satisfy their emotional needs.

The good fit of custom-made apparel could be ascribed to the fact that tailors gain experience through constant interaction with the body shapes and dimensions of their consumers. Tailors' frequent interaction with and observations of different body shapes and dimensions facilitate a continuous learning process, enabling them to make better-fitting apparel. Kenya's locally made apparel was ranked low and could be ascribed to poorly skilled personnel in the apparel industry, inadequate and outdated machinery and lack of quality raw materials in Kenya's apparel industries, as observed by McCormick *et al*. (2002). Other reasons could also be the unrepresentative sizing systems in terms of the body shapes and dimensions of the current population (Zwane & Magagula, 2006; Shin & Istook, 2007; Honey & Olds, 2007).

4.3.3 Perceived Fit of Ready-made Formal Clothes in General by male consumers, Question 10

As Table 4.6 overleaf shows, that most of the respondents (49.9%) were generally satisfied with ready-made formal clothes, 31.2% were generally fairly satisfied, 14.9% were generally very satisfied and those who were generally not satisfied were 4.5%. This study showed that KU male garment consumers were generally satisfied with ready-made formal clothes. To the contrary, dissatisfaction with fit is one of the most frequently stated problems with ready-made clothes by women (Otieno, Harrow, and Lea-Greenwood 2005; Zwane and Magagula 2006; Mastamet-Mason, 2008).

Table 4.6: General Feeling on Ready-made Clothes

Feeling	Frequency	Percentage
Very satisfied	72	14.9
Satisfied	239	49.9
Fairly satisfied	151	31.2
Not satisfied	22	4.5
Total	**484**	**100%**

4.3.4 Alteration of Ready-made Clothes, Question 11

This question sought to find if the respondents altered their ready-made clothes after purchasing incase of fit problems. The altering could be by reducing height or width. The study also sought to find how often the alterations were done.

Table 4.7: Alteration of Ready-made Clothes

Alteration	Frequency	Percentage
More often	71	14.8
Often	233	48.6
Rarely	167	34.9
Never	8	1.7
Total	**479**	**100%**

As shown in Table 4.7 above, 48.6% of the respondents reported that they often altered purchased ready-made clothes, 34.9% rarely altered, 14.7% more often did alterations and 1.7% never altered. The interpretation here was that, according to KU male staff members, they often altered their ready-made clothes after purchase.The alteration of ready-made clothes could be due to fit problems encountered with ready-made clothes. Those who rarely alter, could be attributed to the nature of their work, such that they were busy and did not have the time to take their ready-made garments, that are not fitting well for alteration. Another reason could be that some fabrics could not be altered since their shape or style might be affected.

4.4 Fit Problems Experienced at Critical Fit Points, Objective 3 and Question 12

Objective 3 and question 12, solicited responses from KU male staff members on their experiences with fit problems at critical fit points e.g neckline shoulders, chest, sleeve length, waist, abdomen, crotch line, thigh, short trouser, and trouser length. For the purposes of data management and presentation, the body was split into the upper and the lower torso. Table 4.8 below and Table 4.9 overleaf present fit problems encountered at the upper and lower torso respectively.

Table 4.8 : Fit Problems Encountered in the Upper Part of the Torso

Fit Point	Fit Problem	Frequency	Percentage	
Neckline	Too Tight	86	18.1	**59.8**
	Too loose	198	41.7	
	No fit problem	191		**40.2**
		n=475		**100%**
Shoulders	Too Tight	95	20.0	**62.3**
	Too Loose	201	42.3	
	No fit problem	179		**37.7**
		N=475		**100%**
Chest	Too Tight	102	23.9	**61.2**
	Too Loose	188	30.8	
	No fit problem	184		**38.8**
		n=474		**100%**
Sleeve Length	Too short	119	25.4	**73.9**
	Too Long	227	48.5	
	No fit problem	122		**26.1**
		n=468		**100%**
Waist	Too Light	113	23.9	**71.5**
	Too Loose	225	47.6	
	No fit problem	135		**28.5**
		n=473		**100%**

Problems of fit were reported by 66% of the respondents, while of 34% reported no fit problems with ready-made formal clothes. However, waist (47.6%), shoulder (42.3%), necklines (41.7%) and chest (30.8%) were reported to be too loose, and the sleeve length (48.5%) to be too long, while 25.4% declared that the sleeves to be too short in most of the ready-made clothes. The inference that may be drawn from the results presented in Table 4.8, here is that most Kenyatta University male staff experienced fit problems with the widths of ready-made clothes, which were reported as either too tight or too loose.

Table 4.9: Fit Problems Encountered with the Lower Torso

Fit point	Fit problem	Frequency	Percentage	
Abdomen	Too tight	123	26.3	**61.1**
	Too loose	163	34.8	
	No fit problem	182		**44.5**
		n=468		**100%**
Crotch line	Too short	120	25.7	**55.5**
	Too long	139	29.8	
	No fit problem	208		**44.5**
		n=467		**100%**
Thigh	Too tight	114	24.0	**58.5**
	Too loose	164	34.5	
	No fit problem	194		**41.5**
		n=475		**100%**
Short trouser	Too short	129	27.3	**60.3**
	Too long	156	33.0	
	No fit problem	188		**39.7**
		n=473		**100%**
Trouser length	Too short	96	20.2	**76.6**
	Too long	268	56.4	
	No fit problem	111		**23.4**
		n=475		**100%**

From Table 4.9 above, it is clear that 62.4% of respondents experienced fit problems (tight or loose fit) on average, at the lower torso, than those who have no fit problem (37.6%). As for problems with tight fit, 24.0% of the respondents reported that, ready-made clothes were too tight at the thigh region, and 26.3% reported too tight being the problem at the abdomen. For length problems, 33% of the respondents reported that the ready-made shorts were too long for their height ,while 56.4% reported that the trouser lengths were too long for their height. The study also established that 27.3 %

of the respondents found shorts were too short, while 20.2% said that trousers were too short for their height. This may imply that KU men experienced more fit problems with length.

However, with the reported fit problems, KU men generally experienced more fit problems with the upper torso (62.4%) than with their lower torso (39.2%). Common body characteristics that could accelerate fit problems within the upper torso region of the rectangular shape include the broad male shoulders, and for the lower torso, the large stomachs that are positioned above the ideal figure's normal waist position. It is also apparent that there were (68.5%) length problems experienced in the lower torso than the reported acceptable lengths (31.6%). However, 23.8% of the respondents reported shorter, 44.7% reported longer, while 31.6% reported acceptable lengths for trousers' and shorts'. This may suggest that the majority of the respondents **(Table 4.3**) were in the medium height category, and therefore, they were likely to experience fewer length problems. Length is also dictated by fashion trends, and thus, length preference could vary with different consumers. This study indicated that, in as much as the consumers were satisfied with ready-made clothes, they still had a problem with the way the clothes fitted them at their critical fit points.

4.5 Male Consumers Knowledge Regarding Size and Fit Issues, Objective 4

Workman (1991), Desmarteau (2000) and Brown and Rice (2001) underline the importance of consumers' knowledge of their own measurements. Knowledge regarding size and fit issues is very important in the selection of ready-made clothes. It is also important in selecting clothes that can fit consumers in a way that is satisfying. Objective 4 sought to determine the respondents' knowledge of size and fit issues such as, sizes of the various garments like jackets, trousers, and shirts that they

wear. The objective further sought to find out methods that respondents used to arrive at their clothing sizes. Personal body shapes of the respondents were also studied.

4.5.1 Sizes for Jackets, Trouser, and Shirts, Question 4

Sizing systems differ from country to country and from region to region within a country. Numerical and lettered size code labels are used by different manufacturers. Question 4 sought to reveal the sizes of jackets, trousers, and shirts the respondents wear. The numerical sizes used for the purposes of this study were ranged from size 38-54. The sizes had an interval of two from each other, as that is how the clothing manufacturers use them in their sizing systems. The results were presented in Table 4.10 overleaf and figure 4.3 page 38 for jacket sizes.

Table 4.10: Sizes of Jackets Worn by Respondents

Sizes of Jackets	Frequency	Percentage(%)
38	54	11.1
40	78	16.0
42	116	23.9
44	44	9.1
46	24	4.9
48	48	9.9
50	20	4.1
52	15	3.1
54 and above	18	3.7
Missing	69	14.2
Total	**486**	**100%**

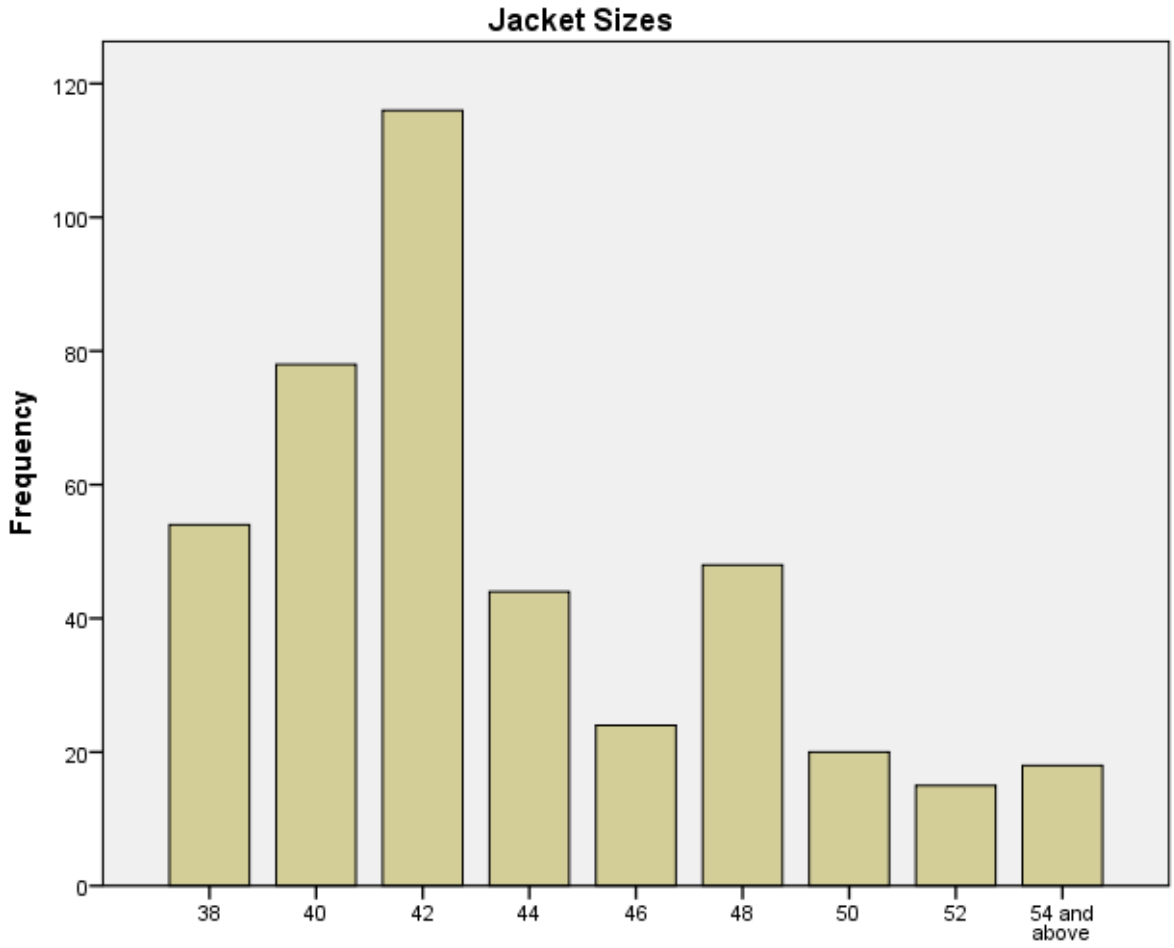


Figure 4.3: Sizes of Jackets

The results indicated that 23.9% of the respondents wore size 42. Those respondents who wore size 40 were 16.0%, while size 38 were 11.1%. The respondents who reported that they wore size 48, 44, 46, and 54 were 9.9%, 9.1% 4.9% and 3.7% respectively. The results also indicated that size 50 and 52 of jackets were worn by 4.1% and 3.1% of the respondents.The inference here is that most of the men interviewed wore a sizes 38, 40, 42 and 48 jackets.

Table 4.11: Sizes of Trousers Worn by Respondents

Sizes of Trousers	**Frequency**	**Percentage(%)**
28	2	0.8
30	33	6.8
32	179	36.8
34	63	13.0
36	60	12.3
38	48	9.9
40	57	11.7
42	28	5.8
44	7	1.4
Missing	9	1.9
Total	**486**	**100**

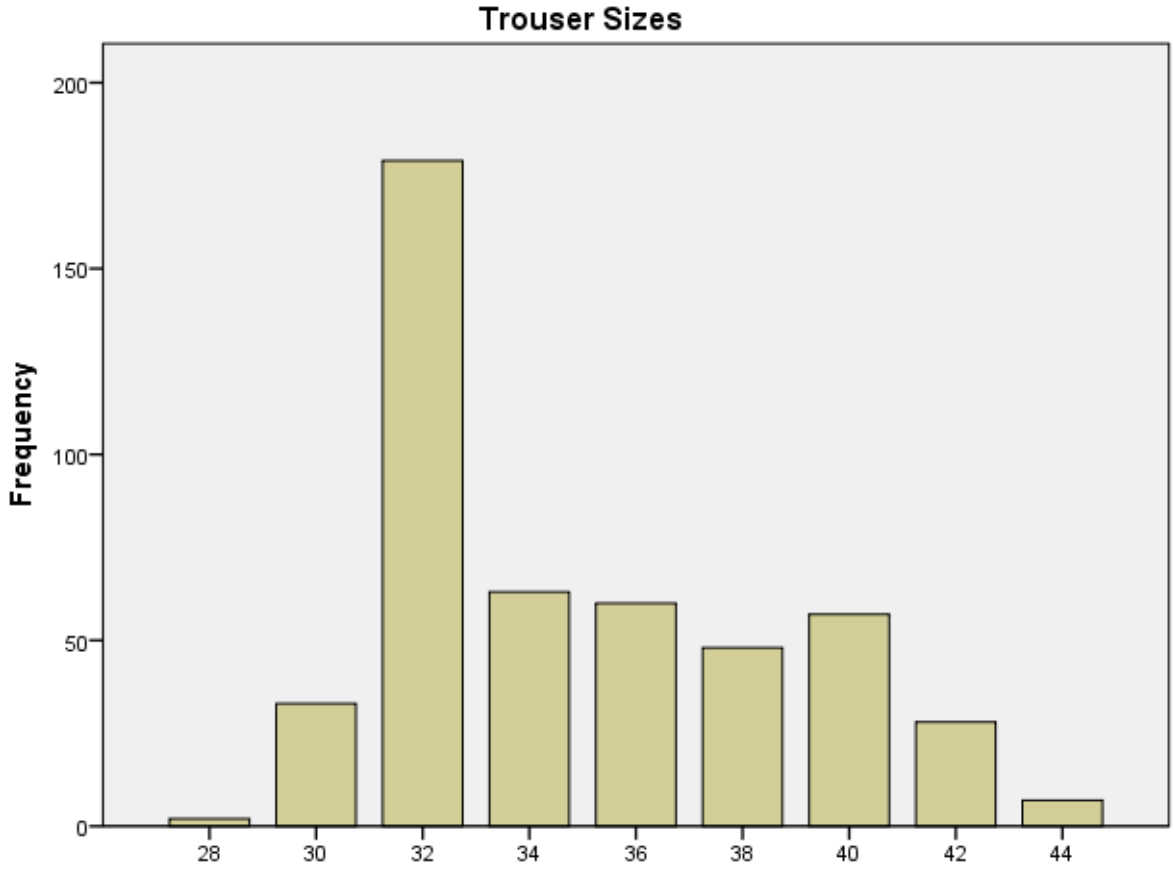


Figure 4.4: Trouser Sizes

As shown in Table 4.11 on the previous page and figure 4.4 above, most of the respondents (36.8%) wore trousers which were size 32, followed by those who wore size 34 (13.1%). The study showed that those who wore size 36 and 40 were 12.3% and 11.7% respectively. The respondents between 0.8% and 1.4% wore sizes 46, 44, 42, 38, and 30. This can be interpreted to mean that the respondnts generally wore trousers between sizes 32 ,36 and 40.

Table 4.12: Sizes of Shirts Worn by Respondents

Sizes of shirts	Frequency	Percentage (%)
14	11	2.3
15	81	16.7
16	171	35.2
17	112	23
18	48	9.5
20 and above	32	6.6
Missing	31	6.4
Total	**486**	**100**

Table 4.12 above shows that,35.2%) of the respondents wore size 16 shirts, while 23% and 16.7% wore shirts size 17 and 15 respectively. The study also established that, 9.5% of the respondents wore shirts that were size 18, while 6.6% wore size 20 and above. The lowest number of the respondents, 2.3% and 1.6% wore size 14.

This study indicated that KU male staff wore shirts that were size 16, 17 and 15, when the labels were coded in numbers. These results confirmed that different size codes were not instructive enough, to guide consumers while selecting apparel, but were rather confusing as many size codes did not directly relate to body dimensions (Workman, 1991; Chun-Yoon and Jasper, 1995 and 1996)

4.5.2 Methods of Arriving at Size of Clothes, Question 5

Question 5 sought to establish the methods that respondents used to arrive at their clothes' sizes. As indicated on Table 4.13, majority of the respondents (52.7%) got to know the sizes of their various clothes by being taken body measurements. Other respondents (52.7%) reported that they came to know about their body measurements for different clothes through experience in buying clothes,while for 18.2%, it was

through estimating their body measurements. This was interpreted to mean that majority of KU male staff members got to know of their size of clothes by being taken body measurements and when they were fitting custom made clothes.

Table 4.13: Methods of Arriving at Clothe Sizes

Measurements	Respondents	Percentage (%)
Estimating body measurements	88	18.2
Being taken body measurements	255	52.7
Experiences in buying clothes	141	29.1
Total	484	100%

4.5.3 Personal body shapes (Question13, 14 and observation checklist question 1)

Body shapes are important when it comes to size and fit issues.Different people can have the same body measurements but, because of their different body shapes, they may not fit in a garment of the same size.The findings in figure 4.5, were from a combination of interview schedule questions 13,14 and observation checklist question 1.Question 13 sought to find out, the body shape that the respondents perceived to be ideal.Three body shapes were presented to the respondents, triangule,rectangular and apple shapes. Question 14, sought to establish the most common body shape of the respondents, from their point of view.The observation checklist question 1 was used to establish the actual body shapes of the respondents.

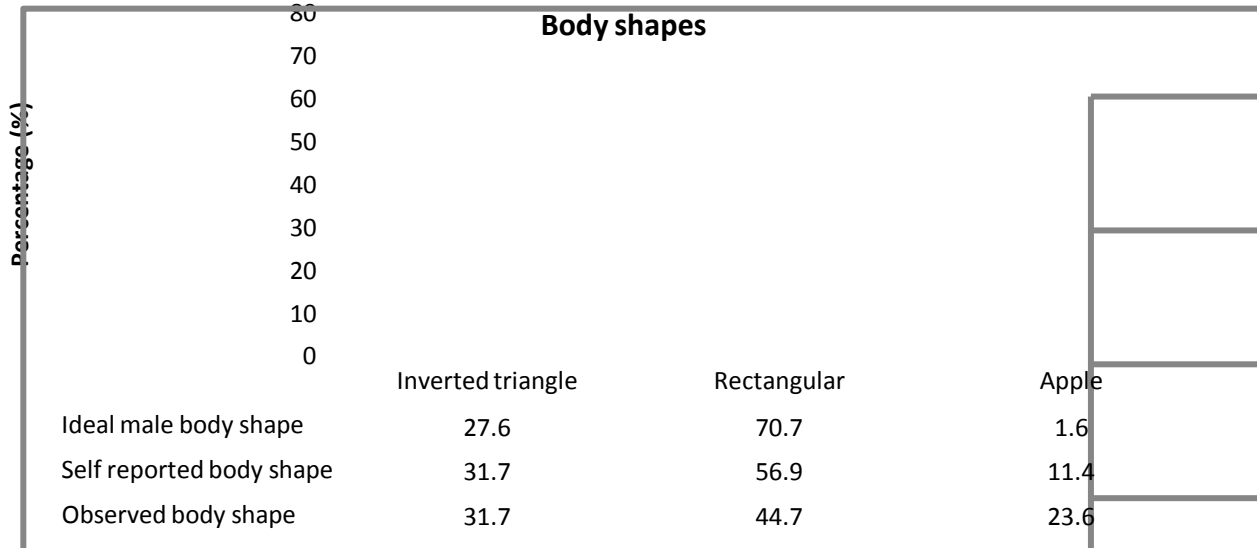


Figure 4.3: Male Body Shapes

Figure 4.3 indicates that majority of the respondents (70.7%) considered the rectangular shape as the ideal body shape,while the inverted triangle was considered by 27.6% of the respondents as the ideal body shape. The least number of respondents (1.6%) considered apple shape as the ideal body shape. The findings indicated that 56.7% of respondents reported that their body shapes were rectangular, while 31.7% said that their body shapes were inverted triangle. Respondents who reported that their body shapes were apple were 11.4%.

The results from observed body shape showed that 44.7% of the respondents are rectangular in shape, 31.7% had inverted triangle shape and 23.6% had apple shape. This implied that the majority of KU male staff members, perceived rectangular body shape as the ideal body shape, followed by the inverted triangle. The apple shape was the least admired. The respondents had a tendency to indicate their body shape as rectangular, because it was their ideal body shape. Although the least admired body shape was the apple, quite a number of respondents were found to be of the apple

shape.This confirms what Lewis(2007) noted,that the ideal figure mentality denies consumers the opportunity to see themselves sensibly. In the process, they ended up purchasing apparel that didn't fit them, hence, why there were size and fit problems.

4.6 Male Consumers Knowledge on the Communication of Size and Fit by Size Labels.

According to Ashdown (2000), one of the factors affecting size and fit is the communication of sizing and fit – in other words, the information that is communicated to consumers that they can interpret and use as knowledge when purchasing apparel items. Objective 5 sought to establish male consumers' knowledge of the communication of fit by size labels. This included the interpretation of size labels on formal ready-made clothes and size description systems' effectiveness in selection of well fitting ready-made clothes.

4.6.1 Interpretation of Size Labels on Formal Ready-made Clothes.

On a size label, the size of a jacket indicates chest measurements. The size of trouser indicates the measurements of the waist, while the shirt size indicates the measurements of the neck. Question 15 was used to examine men's knowledge on size labels used on men's ready-made clothes. Respondents were supposed to give a correct interpretation of a given size, in terms of key dimension it represented in a given clothing item.

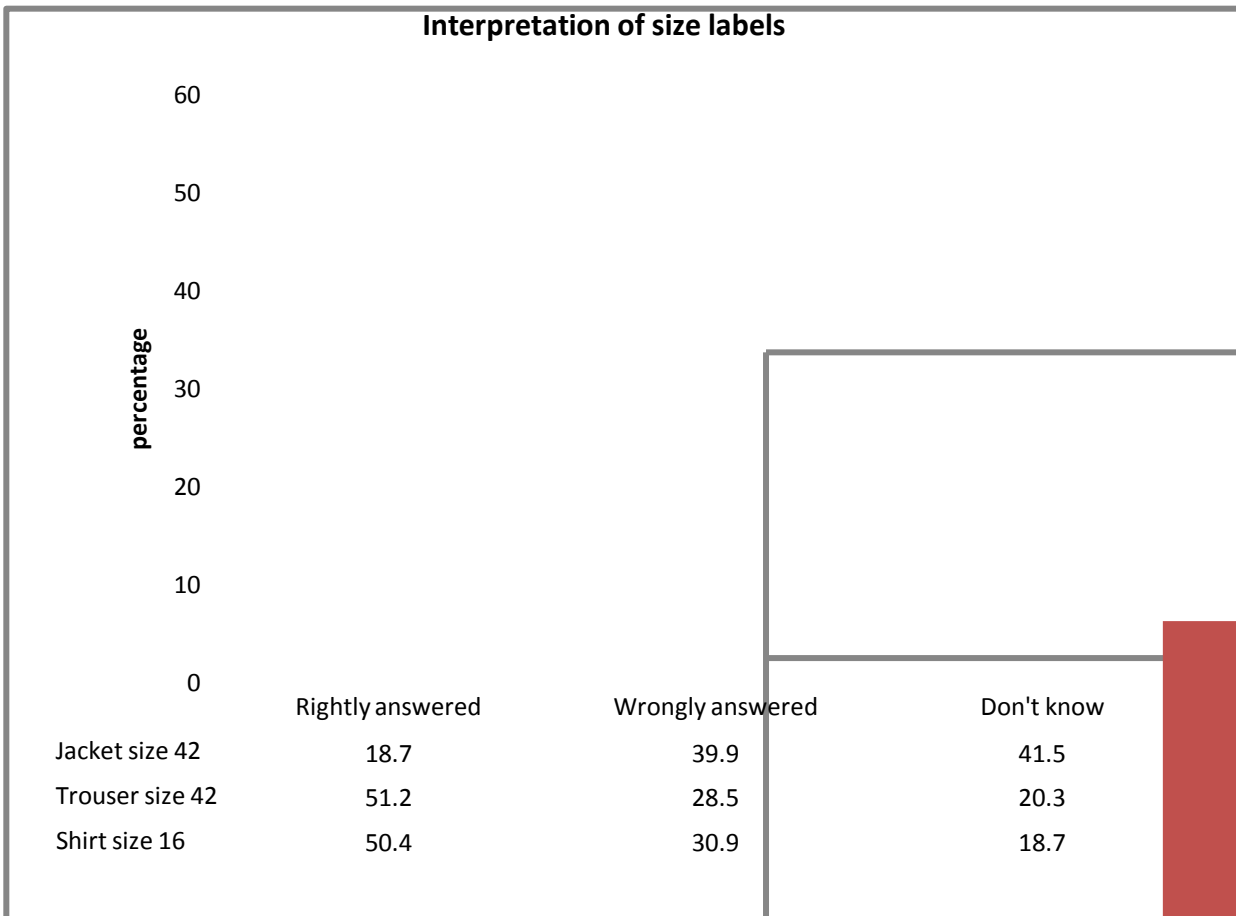


Figure 4.4: Men's Knowledge on Size Labels

As figure 4.4 above shows, that 39.9% of the respondents described the different size labels that were used on jackets incorrectly. Those respondents that described size labels used on trousers and shirts correctly were 51.2% and 50.4% respectively. This showed that the majority of respondents described different size labels correctly, hence, an indication that KU men had knowledge on the meaning of size labels.The results from this study, therefore, contrasts a study done by Mason (2008) which observed that the majority of Kenyan women, do not know the meaning of the information presented on size labels.

It was assumed in this study that the older the consumers becomes, the more experienced and knowledgeable in terms of size labels and appropriate selection of

ready-made clothes. It is also likely that consumers' long experience with size labels did not necessarily guarantee certain knowledge about them. Ignorant consumers end up getting frustrated and confused as they come across different styles and sizes in retail outlets, without any guiding base, as they do not understand the meaning of the size codes presented to them.

4.6.2 Size Description Systems' Effectiveness in Selection of Well Fitting Ready-made Clothes .

Manufacturers of garments provide size labels on garments. The size labels are a representation of body measurements that a garment is supposed to fit into. Size labels are supposed to guide a consumer in selecting a garment that can fit well. Size description systems are many. There are those that are letter coded, number coded, size coded with important body measurements, and illustrated figures with size code and body measurements. Question 16 sought to find the effectiveness of different size description systems in guiding respondents to select a well fitting ready-made clothing. The respondents were presented with different size description systems and were required to state whether the systems were extremely effective; effective; ineffective; extremely ineffective and undecided. The findings are presented in Table 4.14.overleaf.

Table 4.14: Size Description Systems' Effectiveness

Size description systems	Extremely effective	Effective	Ineffective	Extremely Ineffective	Undecided
Letter coded label	20.5%	57.9%	13.8.0%	3.2%	4.6%
Lower coded numbered (14-24) label	16.5%	53.0%	22.7%	19.2%	4.0%
Upper coded numbered (36-50) label	13.7%	50.5%	24.2%	4.2%	7.4%
Size code and important measurements	25.1%	47.7%	13.6%	3.6%	10.0%
Illustrated figure, size code and measurements	36.1%	36.1%	14.0%	3.8%	10.0%
Illustrated figure with measurements indicated on the figure	34.1%	33.5%	17.8%	4.6%	10.0%

Table 4.14 above indicates that 57.9% of the respondents found the letter coded labels to be effective in making them choose well fitting ready-made formal clothes. Respondents that said that letter coded labels were extremely effective were 20.5%, while 13.8% reported that it was ineffective. The respondents that found the lettered coded labels to be extremely ineffective, and those that were undecided turned out to be 3.2% and 4.6% respectively.

For the case of lower numbered coded labels 14-22, 53% reported that it was effective, while 19.2% found it to be ineffective. Those who were undecided were 7.3%, while 16.5% said that lower coded labels were extremely effective. Respondents who reported that the lower numbered lettered code was extremely ineffective were quite low at 7.3%.

Slightly more than half (50.5%) of the respondents reported that the upper numbered coded labels (36-50) effectively guided them in selecting well fitting ready-made formal clothes. Those that reported that it was ineffective were 24.2%, while extremely effective and undecided were 13.7% and 7.4% respectively. Respondents who reported that the upper numbered coded labels were extremely ineffective were 4.2%.

For the labels that showed size codes and important body-part measurements, 47.7% of the respondents said that it was effective in guiding them to select well fitting garments. Respondents that said size code and important body measurements was extremely effective were 25.1%, those that said size codes and important body- parts measurements was ineffective were 13.6%, while those that were undecided, plus the ones that said size codes and important body parts measurements was extremely ineffective were 10.0% and 3.6% respectively. With size descriptions that illustrate the figure and indicate body measurements, 36.1% of the respondents reported that it was effective, 36.1% said it was extremely effective, while 14.0% said that it was ineffective. Respondents at 10.0% were undecided, while 3.8% said it was extremely ineffective.

Size descriptions that illustrate the figure and Have Measurements Illustrated on the figure, had 34.1% of the respondents reporting that it was effective, 33.5% said it was effective, while 17.8% said that it was ineffective. Respondents at 10.0% were undecided, while 4.6% said it was extremely ineffective.

The interpretation from Table 4.14, page 57 indicated that many of the respondents (57.9%, 53%, and 50.5%) found letter coded labels, lower coded numbered and upper numbered coded labels to effectively guide them in selecting well fitting ready-made formal clothes. For the size labels that showed an illustrated figure, size label and body measurements, the majority of the respondents found it extremely effective in guiding them to select garments, followed by size code with important measurements at 36.1%.

Size labels that indicated an illustrated figure, size label and body measurements were informative size labels. Chun-Yoon and Jasper (1995) and Holzman (1996) observed that Informative (self-descriptive) size labelling that relates directly to body dimensions contributes to consumer satisfaction. Uninformative size labels include the numerical and lettered codes. However, Chun- Yoon and Jasper (1995), Workman and Lentz (2000) concur that consumers often find it difficult to link numbers to their own measurements, as they do not understand what those numbers constitute.

4.7 Fit Preferences for Trousers, Jackets, Shirts and Suits

Question 17 was used to explore KU male staff members fit preferences for differently fitted apparel items (jackets, trousers, shirts, and suits). The findings have been presented in Table 4.15.overleaf.

Table 4.15: Fit Preferences

	More often (%)	Often (%)	Sometimes (%) (	Never (%)	Undecided (%)
JACKET/COAT					
I prefer to wear closely fitting jacket/coat to work (n=120)	16.9	29.2	26.7	21.2	3.5
I prefer to wear a semi-fitting jacket/coat to work (n=119)	8.8	24.3	34.4	21.6	6.2
I prefer to wear a loosely fitting jacket/coat to work (n=109)	13.6	17.1	28.8	30.5	6.8
TROUSER					
(I prefer to wear a closely fitting trouser to work (n=119)	21.4	25.3	16.3	29.2	6.2
I prefer to wear a semi -fitting trouser to work (n=117)	12.6	32.7	27.0	18.5	4.7
I prefer to wear a loosely fitting trouser to work (n=120)	14.0	22.2	22.6	31.7	4.5
SHIRT					
I prefer to wear a closely fitting shirt to work (n=120)	22.4	25.9	17.9	21.2	6.2
I prefer to wear a semi- fitting shirt to work (n=120)	14.2	36.0	25.1	15.0	4.3
I prefer to wear a loosely fitting shirt to work (n=120)	13.4	19.3	26.1	28.6	5.1
SUIT					
I prefer to wear a closely fitting suit to work (n=120)	21.6	23.9	20.6	22.2	6.4
I prefer to wear a semi- fitting suit to work (n=120)	13.0	34.6	23.7	16.9	6.0
I prefer to wear a loosely fitting suit to work (n=120)	11.3	16.0	23.0	34.0	8.4

The results presented in Table 4.15, on the previous page clearly demonstrate that 34.4% of KU male staff members preferred to wear semi-fitting jackets, while 29.2% preferred closely fitting jackets often, and sometimes to work. Compared to preferences for loosely fitting jackets, 30.5% of the respondents preferred never to wear loosely fitting jackets to work. This suggested that the majority of KU male staff members preferred fitted and semi-fitted jackets, while their preference for loosely fitted jackets for work was less.

In the case of trousers, 32.7% of the respondents preferred often to wear semi-fitting trousers while 22.6% of the respondents sometimes preferred to wear loosely fitting trousers. 29.2% of the respondents preferred never to wear closely fitting trousers to work. This was interpreted that the majority of KU male staff members preferred to wear semi-fitting and loosely fitting trousers to work.

Just over ¼ (36%) of the respondents preferred to often wear semi-fitting shirts to work. Another sizeable percentage of the respondents (25.9%) often preferred to wear closely fitting shirts and (28.6%), never to wear loosely fitting shirts respectively. This implied that the majority of KU male staff preferred wearing semi-fitting shirts to work and never to wear closely fitting and loosely fitting shirts. In the case of suits, 34.6% of the respondents preferred to wear semi-fitting suits often, while 23.9% preferred often to wear closely fitting and 34% never to wear loosely fitting suits to work.

This suggests that the majority of KU male staff members preferred to wear semi fitting suits to work. Fit preferences by respondents concurred with what Glock and Kunz (2000) pointed out that when manufacturers are developing specifications for

sizing and fit, they must also consider consumers' fit preferences. This is because, fit is very subjective, and individuals differ on what they describe as good fit, as well as the manner in which they like clothing to fit their bodies.

4.7.1 Observed Fit Preferences .

Question 2 of observation checklist sought to find out how the respondents dressed at the time of the interview. This was taken to mean that the respondents preferred such a fit. The fit that was observed were loosely fitting, semi-fitting and closely fitting. The results were analyzed and presented in the Figure 4.7.below

Table 4.16: Observed fit of Ready-made Formal clothes

FIT	**Frequency**	**Percentage %**
Loosely fitting	150	30.9
Semi-fitting	195	40.1
Closely fitting	121	24.9
Missing	20	4.1
TOTAL	**486**	**100.0**

Table 4.16 above indicates that a large number of respondents (40.1%) were found wearing semi-fitting clothes, 30.9% wearing loosely fitting clothes and 24.9% wearing closely fitting clothes. This concurred with the Questionnaire which indicated that the majority of the respondents preferred semi-fitting garments, followed by loosely fitting and lastly by closely fitting.

4.8 Measures to Improve Fit of Ready-made Clothes, Question 18

Question 18 sought to discover opinions of respondents regarding what can be done in order to improve fit of ready-made clothes. Respondents gave different opinions, which were coded and analyzed.

Table 4.17: Respondents suggestions on Improving Fit of Readymade Clothes

Suggestions	Frequency	Percentage
Body measurements should be taken	107	28.6
Size labels should have clear information	64	17.1
Sizing systems should be localized	44	11.8
Wide range of sizes should be provided	70	18.8
Kenyan body shapes to be considered	23	6.1
Personal preferences to be considered	55	14.7
Side seam allowance for adjustment	11	2.9
Total	**374**	**100%**

Table 4.16 above indicates that most of the respondents (28.6%) were for the opinion that manufacturers of ready-made clothes should take their body measurements. The suggestion that a wide range of sizes should be provided and size labels should have clear information was favoured by 18.8% of the respondents and 17.1%, respectively while those who were in favour of the suggestion that personal preferences should be considered were 14.7%. Those respondents who wanted the body shapes to be considered and a Side seam allowance to be enough for adjustment were 6.1% and 2.9% respectively. This was interpreted to mean that KU men would want their body measurements to be taken and size labels to have clear information and clothes of different sizes be made available in the market.

4.9 Hypotheses

In order to establish the relationship between age groups and preferred ideal body shape, hypothesis one, was tested using chi-square. The results are presented in table 4.17 below.

Table 4.18: Age Groups and Ideal Male Body Shapes

	Value	**df**	**Asymptotic sig. (2-sided)**
Pearson chi-square	9.183[a]	8	.327
Likelihood Ratio	10.859	8	.210
N	**483**		

The analysis results indicated that $\chi 2$ =9.183, df=8 and p=0.327. Since p>0.05, this means that there was no relationship between age groups and preferred ideal body shape. In this case, the null hypothesis was accepted.

Table 4.19: Age Groups and fit Preference for Formal Ready-made Clothing

	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	73.382[a]	8	.000
Likelihood Ratio	73.911	8	.000
N of Valid Cases	**466**		

To establish the relationship between age groups and fit preference for formal ready-made clothing, hypothesis 2 was tested. Results are presented in table 4.18 above.The study found that $\chi 2$ = 73.382, df=8 and p=0.000.Since p<0.05, then there was a relationship between age groups of KU male staff members and preferred fitting of formal clothing. In this case, the null hypothesis was rejected.

CHAPTER V: SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter summarizes the findings of the study, concludes the study based on the findings and eventually captures recommendations and suggestions for further research.

5.1 Summary

The purpose of the study was to assess size and fit of ready-made formal clothing among Kenyatta University male staff. The literature review captured what other scholars have done in line with size and fit of ready-made clothes. Descriptive survey was used to collect the data.

The summary highlights the findings of the study with regards to the objectives and hypothesis of the research as follows:

Research Objective 1 sought to establish the countries in which formal ready-made clothes came from. The study established that Kenyatta University male staff members bought clothes that were made from all over the world. The leading exporter to Kenya being China. Kenya also plays an important role in providing the men with ready-made formal clothes. Britain followed by America also sells to Kenya.

Research Objective 2 aimed to explore KU male staff members satisfaction with the fit of formal ready-made clothing. The study established that formal ready-made clothes sold in retail and chain stores had a fair fit, while supermarkets, boutiques and market stalls, sold clothes which had a good fit. For the rating of fit of formal ready-

made clothes, KU male consumers perceived imported new ready-made, custom made and local ready-made categories of clothes as having a better fit than second-hand ready-made clothes. As for the general feeling about fit of ready-made clothes, the study established that the KU male consumers were satisfied with ready-made clothes. In alteration of ready-made clothes, the study established that KU male staff members often alter their ready-made clothes after purchase.

Research Objective 3 sought to investigate fit problems experienced at critical fit points (neckline, chest, shoulder, waist and length) by KU male staff members. The study established that most experienced fit problems with the widths (Neckline, Shoulders, Chest, and waist) of ready-made clothes, which were reported as either too tight or too loose. The fit problems were at the waist, followed by shoulders. In the case of sleeve lengths, it was established that most of the sleeves of ready-made clothes were too long.

The study also established that KU men experienced more fit problems (Tight or loose) on average at the lower torso than acceptable fit. The findings also established that KU men experienced more fit problems with the upper torso than the lower torso. It was also apparent that there were length problems experienced with the lower torso than acceptable lengths. The trousers were established to be too long.

Research Objective 4 aimed at determining the knowledge of size and fit issues by KU male staff members. The study established that the majority of KU men wore sizes 40, 42, and 48 Jackets when numerical size codes are used on the size labels, while, when lettered size codes are used, they wore medium size. For trousers, it was established that the majority of KU men wore size 32, 34, 36, 38 and 40 on numerical

coded labels, and medium size trousers when lettered codes are used. In the case of shirts, it was established that the majority of the men wore size 15, 16 and 17 or extra large when the size labels were letter coded. The study also established that the majority of KU men knew their body sizes as they had either taken their own measurements at some time or had been measured by a third party. For body shapes, the study established that ideal body shape, self reported body shape and observed body shape was rectangular.

Research Objective 5 sought to determine the KU male staff members' knowledge of the communication of size by size labels. The study established that letter and numbered coded labels effectively guided the respondents in selecting well fitting ready-made formal clothes. For size labels that indicated illustrated figures, size code and body measurements, the majority of the respondents found the information extremely effective in guiding them in the garments selection process followed by size codes with important measurements.

Research Objective 6 aimed at determining KU male staff members fit preferences for trousers, jackets, shirts and suits. The study found out that the KU men under study prefered to wear fitting and semi-fitting Jackets, semi-fitting and loosely fitting trousers, semi-fitting shirts and suits to work. It was also established that the observed fit preferences (using observation checklist) indicated that the respondents preferred to wear semi-fitting garments. Asked for suggestions on how to improve the fit of ready-made clothes, the respondents indicated that they would want their body measurements to be taken, and the size labels presented with clear information.

Hypothesis 1 sought to find out if any relationship existed between age groups and preferred ideal male body shape. The null hypothesis was accepted. This meant that there was no relationship between age groups and preferred ideal male body shape.

Hypothesis 2 aimed at establishing if a relationship existed between age groups and preferred differently fitting ready-made The null hypothesis was rejected, meaning, that there was a relationship between age groups and preferred differently fitted ready-made clothes.

5.2 Conclusions

From this study it can be concluded that imported new clothes, custom-made clothes, and local ready-made clothes have a better fit than the second-hand ones. It can also be concluded that KU men experienced fit problems with ready-made clothes. In addition that, despite fit problems, KU men rarely alter ready-made clothes after purchase.

As for satisfaction about the fit of ready-made clothes, it was found out that the respondents were satisfied. Another conclusion made in this study, was that KU men preferred to wear fitting and semi-fitting jackets, semi-fitting and loosely fitting trousers, semi-fitting shirts and suits to work. It can also be concluded that KU men would want their body measurements to be taken and size labels presented with clear information. It was also noted that age did not affect the choice of differently fitting formal clothing and the choice of ideal body shapes.

From this study, it can be concluded that male staff members of KU buy imported and locally-made clothes. Another conclusion from this study is that clothes sold in chain

stores have an excellent fit, while those sold in the supermarkets, boutiques and market stalls have a good fit. On the issue of labels, the conclusion was that informative size labels effectively guided the selection of formal clothes.

The findings of this study has contributed new knowledge to the theory of fit, Ashdown's sizing systems theory. It has contributed to the theory of fit because the study confirms that different markets have different bodyshapes and unique characteristics that affect the fit of apparel. Ashdown (2000) sees sizing systems as the focus around which all the other factors concerning sizing and fit evolve. She has identified the main factors affecting sizing systems and consequently the fit of ready-made apparel to be: the population measurements (body measurements), the design features (construction of the apparel), the fit issues (fit quality management), and the communication of sizing and fit (size labelling). This study has identified body shape, body measurements and size labels as core components revolving around the sizing systems.

5.3 Recommendations

This study clearly underscores the importance of size and fit of ready-made clothing for KU male. On the basis of information gathered, the researcher observed that further efforts were necessary to improve the fit of ready-made clothes for men in KU. As a result, the following recommendations were made:

a) Kenya government agencies like Kenya Bureau of Standards (KEBS) need to carry out a national anthropometric survey, for the purpose of establishing sizing systems for Kenyan men, that include size tables as well as body shape categories.

b) The Clothing manufacturing industries in Kenya and foreign companies that export clothes to Kenya should ensure that sizing systems used conform with the needs of the target market.

c) Clothing manufacturing companies adjust their current sizing systems so as to cater for the Kenyan male body shapes, which are emerging due to lifestyles.

d).Manufacturers should consider including fit preferences on size labels used on ready-made clothing.

e) There is need to educate consumers on size labels presented on their clothes and how they relate to their body measurements and shapes.

f) Clothing manufacturers should communicate with consumers through labelling that contains sizing information that is clear, informative and understandable. Size labels could include size symbols such as pictograms, which communicate to the consumers key body dimensions that garments are designed to fit.

g) Male garment consumers should be sensitized to know which body dimensions are used to size garments, and how to determine their own body dimensions, in order to make appropriate size choices.

h) Consumer education and counselling to be offered, that includes information about size labels and referral services for wardrobe planning.

i) Apparel designers must incorporate consumers' fit preferences within their designs and fashionable styles for male body shapes.

5.4 Further Research

Since the research focused on size and fit of ready-made formal clothes among Kenyatta University male staff members, it is advisable that further research is done in all parts of the country with larger sample.

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APPENDICES

APPENDIX I : QUESTIONNAIRE

Dear Participant,

My name is **Monica Cheruiyot** from **Kenyatta University** and currently undertaking a Masters Degree course in Fashion Design and Marketing. As part of my studies, am required to carry out a research on a specific field. My research topic is**. "Assessment of ready- made formal clothing size and fit among male consumers in Kenyatta University".**

I therefore request you to answer the questions as freely as possible. There are no right or wrong answers. All the answers that you provide will be treated as confidential. Thank you for availing your time.

1. Mark with an **'**X**'** the age bracket which you fall: (**a**) (18-25) (**b**) (26-35) (**c**) 36-45) (**d**) 46-55) (**e**) (56 & above).

2. Mark with an 'X' your education level: (1) Primary (2) Secondary (3) Tertiary (4) University (5) Indicate the level of degrees 1^{st} 2^{nd} 3^{rd}.

3. Which category of employment do you fall at Kenyatta University?
   [ ] Teaching staff
   [ ] Non-teaching staff.

4. Please indicate your size in the following garment items.

	Sizes	Don't know
Jacket		
Trouser		
Shirt		

5. How did you arrive at your size of garments?

[ ] Estimating body measurements

[ ] Being taken body measurements

[ ] Experiences in buying clothes

6. Please mark with an "**X"** against the height applicable to you

		X
1	1.40-1.59 Metres	
2	1.60-1.69 Metres	
3	1.70-1.80 Metres	

7. Which country of origin are your readymade clothes imported from?

8. Please mark with an **"**X" on how you would rate the fit of the formal ready-made clothes sold in the following retail stores.

	Excellent	Good	Fair	Undecided
Supermarkets like Nakumatt and Tusky's				
Boutiques				
Market stalls like Kenyatta and Nyayo markets				
Trade fairs				
Factory outlet stores				
Second hand clothing stores, open air & hawkers				
Chain stores like Woolworth and Truworths				

9. How would you rate the fit of formal readymade clothes below? Please mark your opinion with an "X''

	Excellent	Good	Fair	Poor	Undecided
Local ready-made clothes					
Imported Ready-made					
Custom-made clothes (Fundi)					
Second hand imported clothes					

10. Describe how you feel about Ready-made garments in general.

[1] Very satisfied

[2] Satisfied

[3] Fairly satisfied

[4] Not satisfied

11. How often do you have alteration of purchased ready-made garments? Please mark your answer with an "X".

[1] Very often

[2] Often

[3] Rarely

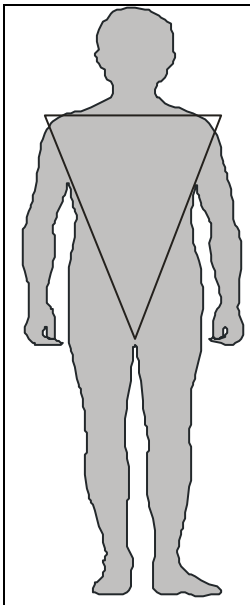
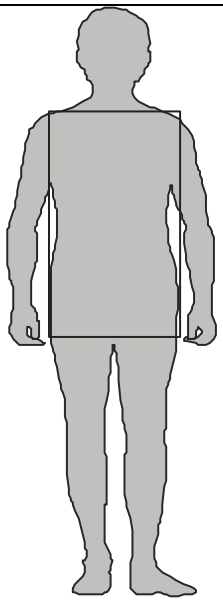
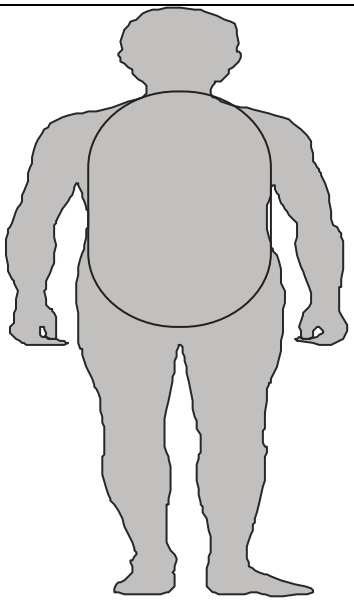
[4] Never

Incase you alter, Which areas of the garments do you often alter?.....

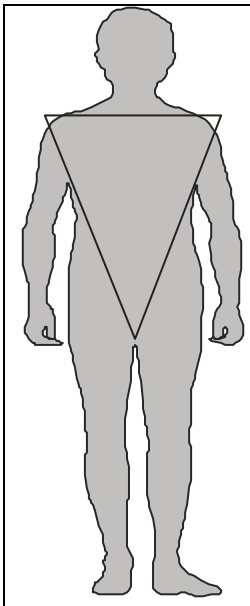
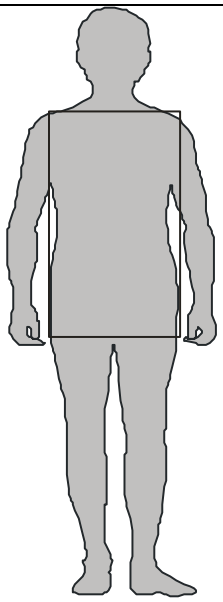
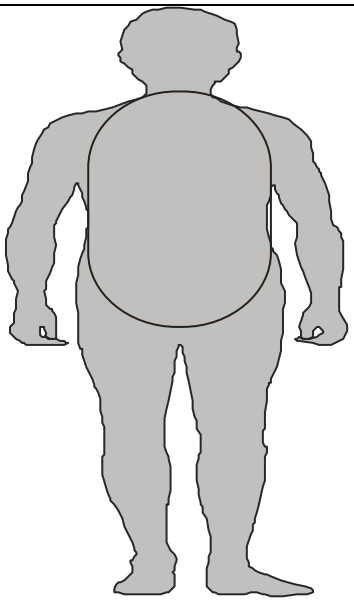
12. What problems do you experience with ready-made clothes at different body locations?.Mark ‘X’ in column 3.

COLUMN 1 (Body locations)	COLUMN 2 (Fit problems)	COLUMN 3 (X)
Neckline	Too tight	
	Too loose	
	None	
Shoulders	Too tight	
	Too loose	
	None	
Chest	Too tight	
	Too loose	
	None	
Sleeve length	Too short	
	Too long	
	None	
Waist	Too tight	
	Too loose	
	None	
Abdomen	Too tight	
	Too loose	
	None	
Crotch line	Too short (tight)	
	Too long (loose)	
	None	
Thigh	Too tight	
	Too loose	
	None	
Short length	Too short	
	Too long	
	None	
Trouser length	Too short	
	Too long	
	None	

13. Which of the body shapes shown below, do you consider as an ideal body shape in your own opinion? Please mark with an "X**"** in the boxes provided below each figure type.

		
A	B	C

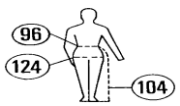
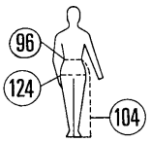
14. Observe the body shapes provided and mark 'X'in the boxes against a body shape that describe your own body shape.

		
A	B	C

15. What do you understand by the size description systems found on the size labels of clothes?

COLUMN 1 (Size description systems)	COLUMN 2 (Meaning)	COLUMN 3 (X)
Size 42 on a jacket	Shoulder measurements	
42	Chest measurements	
	Don't know	
Size 42 on a pair of trousers	Length measurements	
42	Waist measurements	
	Don't know	
Size 16 on a shirt	Chest measurements	
16	The size of the neck	
	Don't know	

16. How would you rate the following size description systems' effectiveness, in terms of guiding you to select well-fitting outerwear garments? Please mark "X" against your responses.

	EXAMPLES	Extremely effective	Effective	Ineffective	Extremely ineffective	Undecided
Letter coded labels such as, small (**S**), medium (**M**), large (**L**)	XL					
Numbered coded labels such as, **14, 16, 18, 20, 22, 24,**	16					
Numbered coded labels such as, **36, 38, 40, 42, 44, 46, 48, 50,**	42					
Size code and important measurements	Size code-14 Chest....					
Illustrated figure, size code and measurements of some important body parts of a specific garment	Size 24 Waist - 96cm Hips-124cm Length-104cm 					
Illustrated figure, size code and measurements indicated on the figure	Size 24 					

17. Please rate the following statements regarding your fit preference on different garment items. Please mark your answer with an "X"

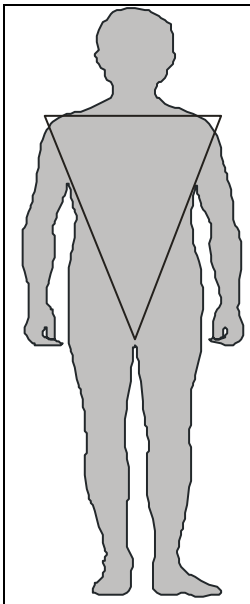
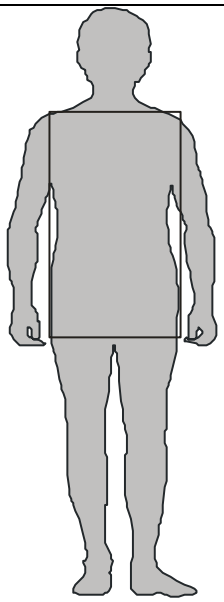
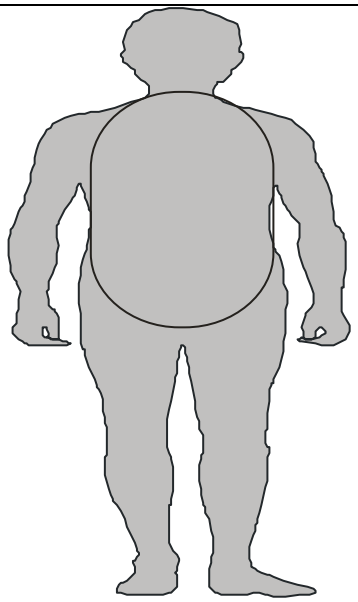
	More often	often	Sometimes	Never	Undecided
JACKET/COAT					
I prefer to wear closely fitting jacket/coat to work					
I prefer to wear a semi-fitting jacket/coat to work					
I prefer to wear a loosely fitting jacket/coat to work					
TROUSER					
I prefer to wear a closely fitting trouser to work					
I prefer to wear a semi -fitting trouser to work					
I prefer to wear a loosely fitting trouser to work					
SHIRT					
I prefer to wear a closely fitting shirt to work					
I prefer to wear a semi fitting shirt to work					
I prefer to wear a loosely fitting shirt to work					
SUIT					
I prefer to wear a closely fitting suit to work					
I prefer to wear a semi- fitting suit to work					
I prefer to wear a loosely fitting suit to work					

18. In your own opinion what can be done to improve on the fit of readymade clothes?

_____

APPENDIX II: OBSERVATION CHECKLIST

Observe the body shape of the respondent, and then **mark "X"** in the boxes against a body shapes that approximately describes **their body shape.**

2. How are the worn clothes of respondents fitting in them?

[ ] Loosely fitting

[ ] Semi-fitting

[ ] Closely fitting

[ ] Other_____

APPENDIX 1II: KENYATTA UNIVERSITY STAFF BY GENDER

Total number of staff = 2767

Teaching staff =953

Non teaching =1814

NON-TEACHING STAFF PER GENDER

DESIGNATION/GRADE	MALE	FEMALE	TOTAL
Grade 15	3	0	3
Grade 14	9	2	11
Grade 13	23	16	39
Grade 12	54	10	64
Grade 11	26	10	36
Grade E/F	84	91	175
Grade CD	116	148	268
Grade AB	227	153	380
Grade III/IV	418	369	787
Grade I/II	32	23	55
Total	**988**	**818**	**1814**

APPENDIX IV:DISTRIBUTION OF TEACHING STAFF BY SCHOOL AND GENDER

SCHOOLS	DESIGNATION														
	PROFESSORS		ASS.PROF		SNR. LECTURERS		LECTURER		ASS.LECT		T/F		T/ASSIST		TOTAL
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
S.P &A. S	10	0	7	4	20	9	49	15	2	1	17	5	2	0	141
AGRICULTURE	1	0	1	2	3	0	14	3	0	0	6	3	0	0	33
APPLIED HUMAN SCIENCES	0	1	3	2	2	4	8	14	1	1	4	15	1	0	56
BUSINESS	0	0	0	0	1	0	15	5	8	5	28	12	0	0	74
ECONOMICS	0	0	1	0	2	1	7	4	1	0	9	1	1	0	27
EDUCATION	8	0	6	3	16	2	38	40	2	2	17	14	0	0	148
ENGINEERING AND TECHNOLOGY	0	0	1	0	2	0	26	4	9	2	1	0	4	2	51
ENVIRONMENTAL STUDIES	0	0	4	0	4	2	13	11	5	0	8	3	0	0	50
GRADUATE SCHOOL	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
HEALTH SCIENCES	1	0	1	0	6	0	30	14	0	1	6	4	2	0	65
HOSPITALITY AND TOURISM	0	0	0	0	1	1	2	3	2	1	6	2	0	0	18
HUMANITIES AND SOCIAL SCIENCES	6	0	7	5	28	16	70	29	4	3	30	16	1	2	217
LAW	0	0	0	0	0	1	4	5	0	0	0	0	0	0	10
PUBLIC HEALTH	0	0	2	0	2	1	7	2	0	0	8	3	0	0	25
VISUAL AND PERFORMING ARTS	0	0	2	1	3	1	10	6	8	2	2	2	0	0	37
TOTAL	**26**	**2**	**35**	**17**	**90**	**38**	**293**	**155**	**42**	**18**	**142**	**80**	**11**	**4**	**953**

APPENDIX V: METHODS OF LABELLING MEN GARMENTS

APPENDIX A

METHODS OF LABELLING

A1. PRINCIPLES

(a) State the size symbol first, followed by the statement of the appropriate body measurements.

(b) When stating the body measurements, give the range in centimetres appropriate to the size symbol (*See* examples c and e in Figure 1) or specific measurements taken from the range (*See* examples (*a*) and (*b*) in Figure 1).

(c) When labelling coats and suits, give the size symbol and the bust, hip and height measurements the garment is intended to fit (*See* examples (a) and (c) in Figure 1). Base the size symbol on the bust measurements.

(d) When labelling sweaters and cardigans, give the size symbol and chest measurements the garment is intended to fit (*See* examples (d) and (e) in Figure 1). Base the size symbol on bust measurements.

(e) (i) When labelling men's trousers and shorts give the size symbol and waist, hip and inside leg measurements the garment is intended to fit (*See* example (b)).

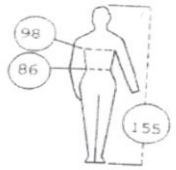
(ii) And for boys give the size symbol and the height, hip, waist and inside leg length measurements (See example (b) in Figure 2). Base all the size symbols on shorts and trousers on waist measurements.

(f) When labelling shirts, give the size symbol and the neck and bust measurements (*See* example (f) in Figure 1) Base the size symbol on neck measurements.

A2. EXAMPLES OF LABELS

The examples of labels given in Figures 1 and 2 illustrate methods of labelling that range from the simple indication on the standard pictogram of the relevant control dimensions to more elaborate forms that provide additional information such as garment measurement.

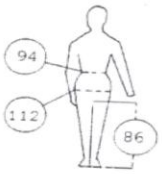
(a) Men's jacket



or

SIZE	98
TO FIT	
CHEST	98
WAIST	86
HEIGHT	155

(b) Men's trousers



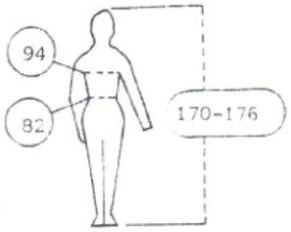
or

SIZE	94
TO FIT	
WAIST	94
HIP	112
INSIDE LEG LENGTH	86
	55 *

FIG. 1 — EXAMPLES OF LABELS FOR MEN'S CLOTHING

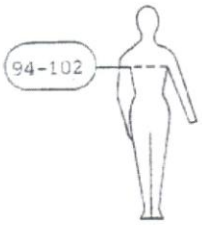
* Examples of additional information included in accordance with **7.3**

(c) Men's suit



SIZE	94
TO FIT	
CHEST	94
WAIST	82
HEIGHT	170-176
INSIDE LEG LENGTH	76 *

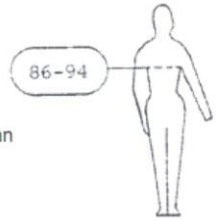
(d) Men's sweater



or

SIZE	98
TO FIT	
CHEST	94–102

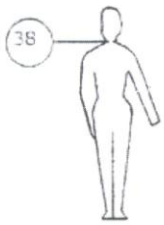
(e) Men's cardigan



or

SIZE	98
TO FIT	
CHEST	86–94

(f) Men's shirt



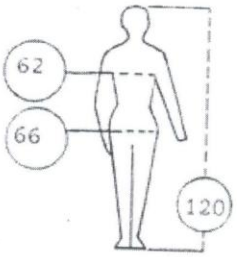
or

SIZE	90
TO FIT	
NECK	38
CHEST	94

FIG. 1 — EXAMPLES OF LABELS FOR MEN'S CLOTHING (CONTD.)

* Examples of additional information included in accordance with **7.3**

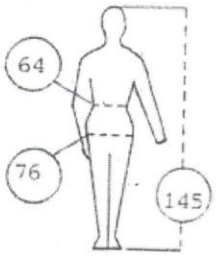
(*a*) Boys' suit



or

SIZE	62
TO FIT	
HEIGHT	120
HIP	66
CHEST	62

(*b*) Boys' shorts

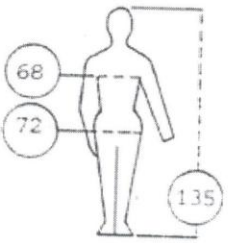


or

SIZE	64
TO FIT	
HEIGHT	145
HIP	76
WAIST	64
INSIDE LEG LENGTH	

*

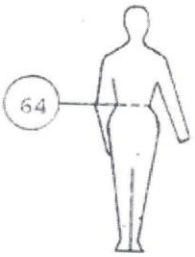
(*c*) Boys' jacket



or

SIZE	68
TO FIT	
HEIGHT	135
HIP	72
CHEST	68

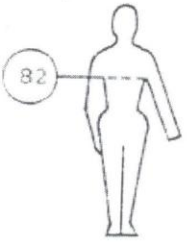
(*d*) Boys' swimming trunks



or

SIZE	64
TO FIT	
WAIST	64

(e) Boys' pullover

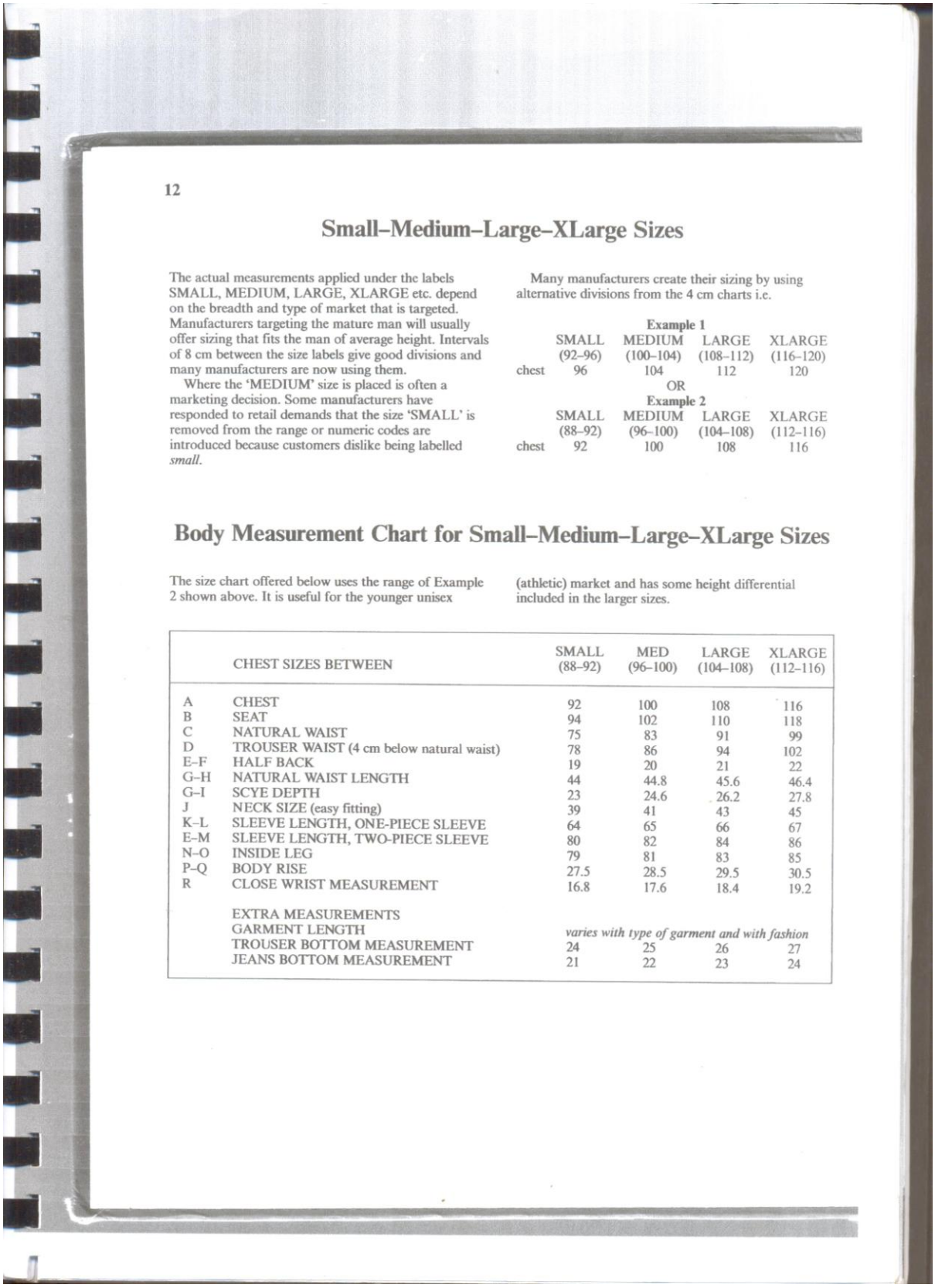


SIZE	82
TO FIT	
CHEST	82

FIG. 2 — EXAMPLES OF LABELS FOR BOYS' CLOTHING

* Examples of additional information included in accordance with **7.3**

APPENDIX VI: BODY MEASUREMENT CHART



12

Small–Medium–Large–XLarge Sizes

The actual measurements applied under the labels SMALL, MEDIUM, LARGE, XLARGE etc. depend on the breadth and type of market that is targeted. Manufacturers targeting the mature man will usually offer sizing that fits the man of average height. Intervals of 8 cm between the size labels give good divisions and many manufacturers are now using them.

Where the 'MEDIUM' size is placed is often a marketing decision. Some manufacturers have responded to retail demands that the size 'SMALL' is removed from the range or numeric codes are introduced because customers dislike being labelled *small*.

Many manufacturers create their sizing by using alternative divisions from the 4 cm charts i.e.

Example 1

	SMALL (92–96)	MEDIUM (100–104)	LARGE (108–112)	XLARGE (116–120)
chest	96	104	112	120

OR

Example 2

	SMALL (88–92)	MEDIUM (96–100)	LARGE (104–108)	XLARGE (112–116)
chest	92	100	108	116

Body Measurement Chart for Small–Medium–Large–XLarge Sizes

The size chart offered below uses the range of Example 2 shown above. It is useful for the younger unisex (athletic) market and has some height differential included in the larger sizes.

	CHEST SIZES BETWEEN	SMALL (88–92)	MED (96–100)	LARGE (104–108)	XLARGE (112–116)
A	CHEST	92	100	108	116
B	SEAT	94	102	110	118
C	NATURAL WAIST	75	83	91	99
D	TROUSER WAIST (4 cm below natural waist)	78	86	94	102
E–F	HALF BACK	19	20	21	22
G–H	NATURAL WAIST LENGTH	44	44.8	45.6	46.4
G–I	SCYE DEPTH	23	24.6	26.2	27.8
J	NECK SIZE (easy fitting)	39	41	43	45
K–L	SLEEVE LENGTH, ONE-PIECE SLEEVE	64	65	66	67
E–M	SLEEVE LENGTH, TWO-PIECE SLEEVE	80	82	84	86
N–O	INSIDE LEG	79	81	83	85
P–Q	BODY RISE	27.5	28.5	29.5	30.5
R	CLOSE WRIST MEASUREMENT	16.8	17.6	18.4	19.2
	EXTRA MEASUREMENTS				
	GARMENT LENGTH	*varies with type of garment and with fashion*			
	TROUSER BOTTOM MEASUREMENT	24	25	26	27
	JEANS BOTTOM MEASUREMENT	21	22	23	24

APPENDIX VII:RESEARCH PERMIT

REPUBLIC OF KENYA

NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOG

Telegrams:"SCIENCETECH", Nairobi
Telephone: 254-020-241349, 2213102
254-020-310571, 2213123.
Fax: 254-020-2213215, 318245, 318249
When replying please quote

P.O. Box 30623-00100
NAIROBI-KENYA
Website: www.ncst.go.ke

Our Ref: **NCST/RRI/12/1/ss-011/459/5**

Date: **21st April, 2011**

Monica Cheruiyot
Kenyatta University
P. O. Box 43844 - 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on **"Assessment of readymade formal clothing size & fit among male consumers in Kenyatta University"** I am pleased to inform you that you have been authorized to undertake research **in Nairobi Province** for a period ending ***30th June, 2011.***

You are advised to report to **the Vice Chancellor, Kenyatta University** before embarking on the research project.

On completion of the research, you are expected to submit **one hard copy and one soft copy** of the research report/thesis to our office.

P. N. NYAKUNDI
FOR: SECRETARY/CEO

Copy to:

The Vice Chancellor
Kenyatta University
P. O. Box 43884
NAIROBI

APPENDIX VIII: MEN OF AVERAGE FIGURE BODY MEASUREMENTS

KS 08-412: 2002

TABLE 2. BODY MEASUREMENTS, MEN OF AVERAGE FIGURE — HEIGHT 168 TO 179 CENTIMETRES

(All measurements in centimetres)

Chest girth	78	82	86	90	94	98	102	106	110	114	118	
Waist girth	66	70	74	78	82	86	90	94	98	102	106	
Hip girth	84	88	92	96	100	104	108	112	116	120	124	
Thigh girth	44	46	48	50	52	54	56	58	60	62	64	
Neck size	34	35	36	37	38	39	40	41	42	43	44	
Armscye (girth)	37	38	39	41	43	45	47	49	51	53	55	
Upper arm girth	23	24	25	26	27.5	29	30.5	32	33.5	35	36.5	
Half back width	16	16.5	17	17.5	18	18.5	19	19.5	20	20.5	21	
Shoulder width	12	12.5	13	13.5	14	14.5	15	15.5	16	16.5	17	
Arm length	60	60	61	61	62	62	63	63	64	64	65	
Crotch length (total)	67	69	71	73	76	79	82	85	88	91	94	
Neck to waist	36.5	37	37.5	38	38.5	39	39.5	40	40.5	41	41.5	
Inside leg length	74	74.5	75	75.5	76	77	78	79	80	81	82	
Outside leg length	102	102.5	103	104.5	105	105.5	106	106.5	107	108	109	

6

Source:(KEBS,2002)

APPENDIX IX: SHORT MEN BODY MEASUREMENTS

TABLE 3 — BODY MEASUREMENTS, SHORT MEN — HEIGHT 155 TO 167 CENTIMETRES

(All measurements in centimetres)

Chest girth	78	82	86	90	94	98	102	106	110	114	118
Waist girth	66	70	74	78	82	86	90	94	98	102	106
Hip girth	81	88	92	96	100	104	108	112	116	120	124
Thigh girth	44	46	48	50	52	54	56	58	60	62	64
Neck size	34	35	36	37	38	39	40	41	42	43	44
Armscye (girth)	36	37	38	40	42	44	46	48	50	52	54
Upper arm girth	23	24	25	26	27.5	29	30.5	32	33.5	35	36.5
Half back width	16	16.5	17	17.5	18	18.5	19	19.5	20	20.5	21
Shoulder width	12	12.5	13	13.5	14	14.5	15	15.5	16	16.5	17
Arm length	55	55	56	56	57	57	58	58	59	59	60
Crotch length (total)	66	68	70	72	75	78	81	84	87	90	93
Neck to waist	34	34.5	35	35.5	36	36.5	37	37.5	38	38.5	39
Inside leg length	66	66.5	67	67.5	68	69	70	71	72	73	74
Outside leg length	97	97.5	98	98.5	99	99.5	100	100.5	101	102	103

Source:(KEBS, 2002)

APPENDIX X: REQUEST LETTER

Monica Cheruiyot,
Fashion Design and Marketing Department,
Kenyatta University,
P.o. Box 43844-00100,
Nairobi.

The Vice-Chancellor,
Kenyatta University.,
P.o. Box 43844-00100,
Nairobi.

Dear Madam,

REF: REQUEST FOR COLLECTING RESEARCH DATA

I am a student doing Masters in Kenyatta University,Department of Fashion Design and Marketing carrying out a research on, " Assessment of size and fit of Ready-made Formal clothing Male Consumers: A case of Kenyatta University".I am requestingfor your permission to collect data in your University.

Thank you.

Yours Faithfully

Monica Cheruiyot