Behavioral determinants associated with customers' choice of apparel in Dar es Salaam, Tanzania

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Abstract

Understanding customer decisions on apparel choice together with the underlying behavioral determinants (cultural, social, personal and psychological) is essential in apparel business industry. In Tanzania, studies on behavioral determinants of customers’ choice of imported and locally made apparel are scarce. The purpose of this study was to assess the behavioral determinants that influence customers’ choice of apparel. A cross-sectional survey design was adopted in this study. A systematic randomly sampling technique was used to collect information from 420 customers while purposively sampling technique was applied to select second-hand apparel markets (n = 3); shopping malls (n = 10), boutiques and apparel shops (n = 14) and locally made apparel shops (n = 16) in Dar es Salaam. Generalized Linear Model with binomial and Poisson error distributions were used for the statistical analyses, and p-value of 0.05 or lower was considered significant. Quantity, expenditure of apparel, gender, income, and type of outlets were found to be significant determinants of apparel choice. Choice probability of apparel increased to locally made apparel with an increased in expenditure and being female, while the probability of apparel choice decreased from locally made apparel to imported apparel with an increased in quantity, income, and shopping outlets. Social, personal and psychological determinants as well as cultural determinants were significantly related to the quantity and frequency of purchasing apparel respectively on apparel choice. In conclusion, the quantity and expenditure of apparel, gender, income, types of outlets drive customers on the apparel choice. Social, personal, psychological and cultural determinants were associated to the quantity and frequency of purchasing apparel in that order that retailers need to take them into account when developing business strategies. This study provided additional knowledge on the existing customer’s apparel choice in Tanzania. Understanding customer behavior and the types of outlets required in the area may benefit apparel marketers.

KEYWORDS: Behavioral Determinants, Apparel Choices, Apparel Quantity, Cost, Frequency

Introduction

In developed and emerging countries, the trend to purchase apparel are growing significantly and dominate the world economy (ITC, 2011; Chakrapani, 2015; Rahman et al., 2018). In developed countries, a remarkable increase of apparel in the world market was observed. The USA accounted for 58.2% of the entire market from retailing, while Europe accounted for 80%
of store-based, and 20% of online based apparel (FBIC, 2015; Yang et al., 2017). In developing countries, a steady economic growth (of about 7%) was recorded in 2011 (Sampath, 2014). Ethiopia as emerging country, recorded 9.7% on economic development while the apparel sector contributed 51% (van der Pols, 2015; Shiferaw, 2017). In East African countries including Tanzania, the growth of economic development was observed through marketing of apparel products from 1960 to 1980s (Katende-Magezi, 2017).

The purchase of apparel has increased in Tanzania (Katende-Magezi, 2017), however, due to limited locally made apparel products in the year 2003, the importation of second-hand apparel increased to 31%, while the country exported locally made apparel by 0.05% only (Keregero, 2016). The purchase of imported apparel particularly second-hand apparel increasing yearly due to demand of customers from different backgrounds based on income, age, education, and political power (Kinabo, 2014). Imported second-hand apparel are available and accessible at cheaper prices and are characterised by quality and aesthetic look, leaving down locally made apparel (Kinabo, 2014). Results by Calabrese et al. (2017) enlightened that importation of apparel in Tanzania was higher (97%) than 3% for locally made apparel.

Behavioral determinants, namely, cultural, social, personal and psychological influence economic development and are interdependent (Kumar, 2014; 2017) as they may influence customer choice of imported and locally made apparel (Roszkowska-Holysz, 2013). Culture determinants (Durmaz, 2014; Singh, 2016; Akpan, 2016) interacting with the community that has its own culture appeared to influence purchasing decision (Rajagopalan and Heitmeyer, 2005). According to Kotler and Keller (2016) social determinants provide customers with information about the products and the purchases. Kotler and Armstrong (2012), and Jisana (2014) added that customers have their own personal attributes that influence the purchase decision of apparel. Ratilla, (2016) noted that customers knowledge on apparel help them to make informed choice of apparel due to attributes of apparel. Customers are also elicited with psychological determinants to make choice of apparel. Jisana (2014) asserted that psychological determinants stimulate customers to make purchases. The psychological determinants are linked with customers’ attitudes, perception, preference, interest, beliefs and motivation on the choice of apparel (Halepete et al., 2009). The purchase of apparel is also affected by these variables since customers have knowledge, experiences and attitudes to purchase apparel based on demographic characteristics.

Customers’ demographic characteristics change with their needs that influence the purchase of apparel (Iqbal et al., 2013; Roy et al., 2015). Behavioral determinants are used as independent variables that assess customer behavior based on apparel choice (Muhammad & Ghulam, 2019; Lee & Hwang, 2019). Product type, purchase quantity and frequency of purchasing apparel are among of the independent variables that often used to determine how customers’ choice on the imported and locally made apparel (Kotler and Keller, 2016). Including demographic variables as independent factors to determine how they influence customers choice of imported and locally made apparel is important (Kumar, 2014; Anic & Mihic, 2015; Kumburu & Kessy, 2018). Inclusion of demographic characteristics in the determination of key determinants influencing behavior of customers makes the understanding customer behavior to be a challenge, however, focusing on individual determinants can heighten the purchase of imported and locally made apparel.

The magnitude to consume more imported than locally made apparel raise some questions to the researchers on what influences the rate of purchasing imported apparel. It is known that the purchase of imported and locally made apparel contributes to the economic development and the contribution of behavioral determinants cannot be overlooked. Although is advised to understand individual differences in behavioral determinants, namely cultural, social, personal and psychological determinants as they influence customers choice on purchasing of apparel,
still there is limited research on behavioral determinants in Tanzania. Cultural, social, personal, psychological and demographic, determinants could be a stepping stone to be explored and understand how they influence customers’ choice of imported and locally made apparel. This created an avenue undertaking of this study. Since Dar es Salaam city is the biggest business centre of apparel in Tanzania, with people from different parts of the country.

Methodology

The study was conducted in Dar es Salaam, Tanzania (figure 1). Dar es Salaam city is chosen as the study area because it is a business hub of apparel with the adequate number of shopping malls, second-hand markets and made to measure apparel shops dealing with adult males’ and females’ apparel (Owens, 2014). The study employed the purposive and systematic random sampling techniques for selecting shopping outlets and the respondents respectively (Creswell, 2014; Kothari, 2014). Three second-hand apparel markets, 10 malls, 14 boutiques selling imported new apparel, and 16 locally made apparel shops in Dar es Salaam that dealt with adult unisex female and male apparel were purposively selected. A mall with at least 25 shops in one building, made to measure apparel shops with at least 50 customers per week and second-hand market with at least 100 stalls for selling adult females’ and males’ apparel were purposively selected. A systematic random sampling technique (nth) was used in gathering information from the adult customers purchasing apparels from each shopping outlet including boutiques and apparel shops, locally made apparel shops dealt with made to measure and ready-made apparel and second-hand apparel markets. Every third adult exiting from each outlet with a shopping package was selected and requested to fill in the questionnaire.

Proportionate allocation was used to distribute 420 participants. Male and female participants were distributed relatively equal from each sampled population to obtain a diverse range of customers’ interests, preferences, knowledge and experiences with their similarity in purchasing characteristics (Kusumawaty, 2016 & Njuguna, 2015). Cochran’s formula was used to compute the desired sample size of the population (Cochran 1963; Saunders et al., 2012).

Cochran’s formula for infinite population: \[ n = \frac{z^2 \cdot p \cdot (1-p)}{e^2} \]

Where:
- \( n \) = the desired sample
- \( z^2 \) = standard normal deviate value (at 1.96 corresponding to 95% Confidence Interval)
- \( e \) = the acceptable margin error (set at 5%) expressed in 0.05.

The proportion of 50 percentage of the population purchasing apparel was set at the decimal point, \( p = 0.5 \) to calculate the minimum sample size (Ndesaulwa et al., 2017). Ten percentage of 382 was added to accommodate unforeseen responses, which make a total sample size of 420 comprised of 206 (49%) male and 214 (51%) female respondents (Creswell 2014). Krejcie and Morgan (1970) revealed that a sample size of 420 is appropriate when the population has characteristics of 1,000,000 customers or more with a confidence of 95% and a margin error of 5%. During data collection a consent was sought from participants before administering the questionnaire. The researcher administered questionnaires to the customers and filled out on the spot and collected at the main outlets of the selected malls, shops and markets on the same day. While filling the questionnaire copies, clarifications were made to customers when necessary.

Data analysis

Data analysis was conducted by using the statistical software R (R Core Team, 2021). The “Performance Analytics” function was used to explore the strength of the correlation between variables and to generate two correlation matrices to examine correlation between dependent
variables. As the study focused on the customer choice between imported and locally made apparel, our data were of binary nature. Choice on imported apparel was coded as “0” and locally made apparel as “1” and were treated as dependent variables. Because of their binary nature, a generalized linear model (GLM) with binomial error distribution was used. Independent variables included in this model were gender, age, marital, dependants, education, occupation, monthly income, apparel cost, apparel quantity, and shopping outlet type. The final model was selected by utilizing stepAIC function from MASS package. The study assessed how apparel quantity could be affected by customer behavior, of which linear regression model was used by utilizing lm function from R software. To fulfill the condition of linearity, quantity was log transformed and treated as dependent variable, while behavior categories named as cultural, social, personal, and psychological behaviors were treated as independent variables. As of the first binomial model, we used stepAIC from MASS package to determine the best model. Finally, the study assessed frequency (counts) of purchased apparels in relation to the behavior of customers, of which the GLM with Poisson error distribution was used. Annual frequency of purchased apparels were treated as counts, and as dependent variable, while customer behavior categories (cultural, social, personal, and psychological behaviors) were treated as independent variables.

Results
The key determinants associated with the choice of apparel choices determined by GLM with binomial error distribution were gender, income, apparel cost, apparel quantity, and retailer outlets (Table 1). Choice probability from imported to locally made apparels increased with an increase of females and expenditure, while in contrast, the probability decreased with an increase of income, quantity, and outlet type (Figure 2). Generally, quantity and cost of apparel as well as gender, income, and type of outlets are key determinants to consider when choosing apparel. Based on behavioral determinants of customers towards the quantity of apparel, the Linear model results revealed a significant effect of social, personal, and psychological behavior towards the quantity of apparel purchased (Table 2). The quantity of apparel purchased increased with an increase of social, personal, and psychological behavior (Figure 3). Therefore, social, personal, and psychological behavior contributes to the quantity of apparel purchased.

The results on the effects of behavioral determinants and the frequency of purchasing apparel, revealed that there was significant effect of cultural behavioral on the frequency of the purchased apparels (Table 3). This implies that cultural behavior associated with customer purchasing frequency, therefore, marketers should take into consideration the effect of cultural differences among their customers when deciding which apparel products to put in the market.

Discussion and conclusions
Gender, income, type of outlets, quantity and cost of apparel were significant determinants of customer choice of apparel. Expenditure and being a female associated to choose local made apparels, while personal income, quantity availability, and outlet type associated with the choice of imported apparels. Social, personal, and psychological behavior were significantly associated with the choice of apparel. The quantity of apparel purchased increased with an increase of social, personal, and psychological behavior while cultural determinants was significantly associated with the frequency of purchasing apparel.

Gender, income, apparel cost, apparel quantity, and retailer outlets were associated with the choice of apparel (Table 1). The results revealed that the choice probability from imported to locally made apparels increased with an increase of females and expenditure, in contrast, the probability from locally made to imported decreased with an increase of income, quantity, and outlet type (Figure 2). The findings on gender and income corroborate with Anić and Mihić
Income does not stop customers to purchase apparel but it determines the choice of apparel. In line with the finding, Ezen and Bello (2016) also indicated that income allows customers to make purchase decision and purchase apparel when income goes with it. Being a female or male and the apparel expenditure have an impact in the business. The choice of apparel was significantly associated with apparel expenditure which concurred with Aloma and Lawan (2013) findings. The study by Dhiman et al. (2018) also support the findings, however apparel expenditures were considered when they have value to customers for personal use. Although the difference in purchasing imported and locally made apparel were observed, but customers spend their income to purchase apparel. In this regard, income was seen to be an important indicator in defining the market of imported and locally made apparel.

The findings further revealed that the choice from locally made to imported decreased with an increase of income, quantity and the types of apparel outlet. With regard to quantity, our findings do not correspond with Ezen and Bello (2016); and Chi et al. (2021). The study findings corroborate with Dhiman et al. (2018) studies on the types of apparel brands purchased by customers. The purchase of products in quantity can be related to other attributes as observed by Huang and Yang (2014) and Dhiman et al. (2018). The quantity discounts and brand preference were the attributes influencing the quantity of products to be purchased. It means that when offering discounts can results to willingness to purchase in quantity where customers can make decision based on their requirements.

Based on the income, it was observed that income influenced customers to purchase more imported apparel than locally made apparel. The findings are inconsistent with Haque et al. (2015) findings where customers focused on quality and brand image to purchase imported apparel. This implies that income shapes customers to make decision on the choice of apparel to purchase. However, the more the products are sold at lower prices the more resources are allocated to purchase them irrespective of other attributes.

Considering the outlet type choice, Riungu (2009) found similar findings on the types of shopping outlets to select apparel and purchasing practices. The findings were agreeable by Dhiman et al. (2018) on the types of outlets preferred by customers, however the study focused on different demographic variables towards the purchase of apparel. This was also supported by Wel et al. (2012) on the types of outlets which showed that customers use multiple outlets to find the best bargain while others choose one outlet when there is price reduction of products. This shows that when the outlets deliver customer expectations, consumers tend to patronise the outlets to purchase the products. Based on the findings, income, quantity and types of the outlets are the gateway success for marketing imported and locally made apparel.

The results from linear regression model revealed significant effect of social, personal, and psychological behavior towards the quantity of apparel purchased (Table 2). The quantity of apparel purchased increased with an increase of social, personal, and psychological determinants (Figure 3). These determinants contributed to the quantity of apparel purchased. Irrespective of social, personal, and psychological determinants, customers purchased locally and imported apparel in quantity. With regard to psychological behavior, the findings are inconsistent with Agu and Onuoba (2016); and Riungu (2009). With regard to social behavior, our findings were in line to Asare et al. (2016). With regards to personal behavior the study findings supported by ur Rehman et al. (2017); and Muhammad and Ghulam (2019) that found significant association between personal behavior and the quantity of apparel purchased. Our findings provide evidence that social, personal and psychological determinants enhance the purchase of imported and locally made apparel in quantity.

The frequency of apparel purchased increased with an increase of cultural determinants (Figure 4). Due to cultural reasons, customers have basic needs and expectations which drive them to
frequently purchase apparel (Lawan & Zanna, 2013). This is consistent with Akpan (2016) who revealed that culture have a tendency to shape and guide the behavior of customers to secure the products while Aditi and Uma (2021) disagreed with the study findings. The study findings also dispute the findings of McKinney et al. (2004) who revealed that the frequency of apparel purchases was associated with apparel involvement, social involvement and apparel benefits instead of cultural determinants. This shows that cultural determinants may not only be a factor to frequently guide customers to purchase apparel. This was highlighted by Arpan and Peterson (2008) who indicated that customers may also depend on other attributes to purchase apparel. However, the interactions of customers from diverse cultural background may accelerate the purchase of apparel that may explain their cultural identity.

This study concludes that apparel business requires marketers to consider targeted gender, average monthly income, and where to sell the apparel. The conclusion is also be made on the effect of quantity of apparel the customers would buy, as there are clear relationships with social, personal, and psychological determinants, while frequency of purchasing apparel has relationship with culture of customers. Therefore, this recommends marketers to understand that gender, income, type of outlet, and behavior of customers as the key determinants of purchasing apparel when developing business plan and strategies.

The study findings provide an insight into behavioral determinants influencing the purchase of imported and locally made apparel, however, research work on behavioral determinants toward the choice of apparel is still under minimal consideration. Certain limitations concerning the research setting should be suggested in order to guide future research. For instance, there might be a need of randomizing months of the year during data collection to observe annual / temporal variation, because this study data were collected in October to January, a time when there a correlation of holiday/religious celebrations. This study was conducted in Dar es Salaam city, there is a need of validating the current findings by using same sampling technique involving customers in other cities of Tanzania.

**Study limitations**

The study was limited to customers above 18 years old purchasing outer wear apparel for personal use. Customers below 18 years were not included because they may not have adequate purchasing power, although, they could decide on the choice of apparel with the help of their guardians. The study dealt with customers purchasing apparel from malls, boutiques and apparel shops, locally made apparel shops, and second-hand apparel markets, leaving behind other shops since the study focused on criteria set by the researchers. Despite of the limitations, this study offered important information that can be considered by retailers who are interested in marketing imported and locally made apparel to take into account determinant factors such as gender, price, levels of income, quantity, social, personal, psychological and cultural factors.

**Tables**

Table 1: Generalized Linear Model (GLM) with binomial error distribution results showing most significant determinants associated with the apparel choice

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Z value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.873</td>
<td>0.765</td>
<td>2.448</td>
<td>0.014</td>
</tr>
<tr>
<td>Gender</td>
<td>2.143</td>
<td>0.497</td>
<td>4.314</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Income</td>
<td>-0.010</td>
<td>0.002</td>
<td>-4.410</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>
Table 2: Linear model results showing the most significant behavioral determinants associated with the quantity of apparel

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Z value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.282</td>
<td>0.106</td>
<td>12.112</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Social</td>
<td>0.201</td>
<td>0.055</td>
<td>3.651</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Personal</td>
<td>0.216</td>
<td>0.043</td>
<td>4.976</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Psychological</td>
<td>0.165</td>
<td>0.047</td>
<td>3.497</td>
<td>&lt;0.01</td>
</tr>
</tbody>
</table>

Table 3: Generalized Linear Model (GLM) with Poisson error distribution results showing the behavioral determinants associated with the frequency of purchasing apparel

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Estimate</th>
<th>Standard Error</th>
<th>Z value</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.364</td>
<td>0.230</td>
<td>5.922</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Cultural</td>
<td>0.278</td>
<td>0.066</td>
<td>4.180</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td>Social</td>
<td>0.025</td>
<td>0.076</td>
<td>0.333</td>
<td>0.739</td>
</tr>
<tr>
<td>Personal</td>
<td>0.079</td>
<td>0.061</td>
<td>1.289</td>
<td>0.198</td>
</tr>
<tr>
<td>Psychological</td>
<td>0.015</td>
<td>0.065</td>
<td>0.234</td>
<td>0.815</td>
</tr>
</tbody>
</table>

Figure 1: A Map of Dar es Salaam City and its Districts. Coloured dots indicate sampling units that were markets, malls, and shops. Each colour indicates different outlet. The Municipal Council represented with abbreviation “MC”.

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Figure 2: Relationship between apparel choice probabilities from imported to local made apparels with the associated key determinants. Imported choice was coded as "0" and locally made apparel coded as "1", although the probability was taken as a continuum ranging from 0 to 1. LMAS (Locally Made Apparel Shop), SM (shopping mall), SHAM (Second-Hand Apparel Market), BAS (Boutiques and Apparel Shop).

Figure 3: Relationship between the behavioral effect and the quantity of apparel purchased

Figure 4: Relationship between the cultural effect and frequency of purchasing apparel
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Author Contributions

KGA together with OEB and IJK contributed on the design of the study. KGA collected and organized the data. KMH performed the statistical analysis. KGA wrote the first draft of the manuscript, while other co-authors reviewed and refined the manuscript.

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