Vol. 2, Issue 2 (2025) <a href="https://acr-journal.com/">https://acr-journal.com/</a>

## The Matrix of Products and Occasions a Structured Framework for Market Segmentation

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Cite this paper as: Dr. Madhavi Dhole, Mr. Bhushan Padval, Dr Vijayakumar Thota, Dr Ravi Kumar G, Dr. Aditya Arvind Sontakke, (2025) The Matrix of Products and Occasions a Structured Framework for Market Segmentation. *Advances in Consumer Research*, 2 (2), 285-297

#### **KEYWORDS**

# Consumer Preferences, Structural Equation Modeling, Market Segmentation, Product-Occasion Matrix..

#### **ABSTRACT**

Product category and usage occasion are two factors of consumer behavioral patterns which directly affect purchasing decisions. The multifaceted research question of this paper is twofold: exploring the ways in which significant product categories are related and examining the relationships between different products depending on their occasions. The study uses survey data of consumers (N=500) and transactional data, descriptive statistics ( $\chi 2$  test, ANOVA, and CFA) and SEM with SPSS and AMOS. The result confirms the relationship between product categories to occasions ( $\chi^2=18.45,\ p<0.001$ ) where, on the one hand, luxury products are required during formal occasions and on the other, FMCG products are consumed uniformly across various factual uses. There is an F value of 4.62 in ANOVA tests which signifies that there are changes in preferences of consumers, and the result of p<0.01 supports the calculations. In the context of the SEM results, income level with a ( $\beta=0.72,\ p<0.001$ ) and social influence with  $\beta=0.58,\ (p=0.004)$  were identified as the significant factors influencing the choice of product. This research further establishes the impact of using occasion on the marketing techniques and gives credit to a model that speaks of idea of product allocation.

#### 1. INTRODUCTION

Consumers' behavioral purchase decision is dynamic influenced by psychological, social and context factors and the type of product needed for a particular occasion determines the buyers' choice. Whether it is a necessity or a luxury item, it is advisable to make a distinction where way in which a particular good is consumed influences the way clients make their decision. Loy, marketers and retailers know the benefits of occasion based targeting, which makes it easier to undertake marketing strategies depending on the consumers' expectations. Although, there have been numerous studies on consumer behaviour and market segmentation, the aspect of product and occasions have not been systematically examined in the same data analytical way as in this paper. This is the direction this research is going to fill by systematically categorizing product categories with regards to consumption occasions and coming up with a matrix to guide consumers.

This is a based on the proposed hypothesis which relates different product categories to the occasions that needs them. These relationships can be used to improve the marketing procedures or processes in a given business, as well as the general management of stock and the overall customer experience through product suggestions. These questions are the main

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concerns of this research: to what extent does the consumers vary in their product purchasing with regard to specific occasions? What are the concerns that lead to such variations? As a result the question that emerges is whether or not it is possible to make a prediction on product occasions in terms of a structured model with necessary statistical reliability.

In order to accomplish the above objectives, both primary and secondary sources of information have been utilized in the study. Primary and secondary sources of data are used where responses from customers', records of transactions and observational analysis were collected as described below; Consumer responses: The source of this data was obtained through a survey. The methodical research strategy applied is based on statistical tools like for instance chi-square tests, ANOVA, CFA and SEM to measure the degree of relationships between the elements and to test hypotheses about the pattern of the observations. These techniques help to make results not only descriptive but more importantly statistical so that conclusions made can be generalized over consumer groups.

The categorization of products and occasions is carried out using a hierarchical clustering method while the results are validated by specialists in the industry hence the formation of the most appropriate categorization system. Consumers who patronize their products range from those in the fast-moving consumer goods category, the luxury goods shopper, business and official attire and electronic shoppers are matched to different occasions-with some shopping for products for daily use, others for formal occasions, for work purposes, and for evening events, among others. Rating the reliability of this classification is done using the measure of inter-rater agreement among the experts by use of Cohen's Kappa. Also, the influence of demographics, including the income level and the role of social influence, are other factors dealt with by the study in the context of product occasion.

The implication of the results of this study is significant particularly to marketers, retailers, and product managers. Recognizing profound product-occasion associations helps firms construct relevant advertising messages and place the products, as well as design recommendations that customers enjoy. Furthermore, the overall validated model implies a model to predict a consumer's behaviour, which helps the businesses in demand management and marketing segmentation.

This research is valuable to the field of consumer behavior analysis by coming up with a scientific and systematic approach to occasion-based segmentation. In contrast to this, the option presented in this research disregards collectivistic variables, which are typical of the identified segmentation methods, and instead focuses on such aspects as context, which makes it highly suitable for the modern marketing environment. This basically increases the knowledge not just on why consumers tend to choose a certain product over the other for particular occasions, but also narrows down the gap between the theoretical consumer buying behaviour theory and actual purchasing behaviour.

#### 2. LITERATURE REVIEW

Market segmentation remains one of the most crucial concepts of marketing that facilitates firms in matching up their products with specific consumer segments. It has been developed over several years by progressing from emphasizing demographic characteristics of the customers to behavioral characteristics, psychographic variables, and contextual variables.

From its conceptual development stage up to its early days of application, the concepts of market segmentation mainly focused on demography and geography as key segmentation factors. But Kolakowski (1991) noted that even simplification of consumer behavior does not just fail as Yankelovich (1964) pointed out that such variables as age, income or education are inadequate tools of identifying behaviours of consumers. He introduced the concept of nondemographic segmentation and pointed out that values, tastes and preferences influence the decision of the customers more than the mentioned factors (Harvard Business Review, 1964). It did paved way for current day market segmentation where there was partial stress on demographic and topographic segmentation since behavioural and psychographic variables were perceived as superior assets.

On this basis, Claycamp and Massy's (1968) normative theory of market segmentation incorporated implementation issues. They pointed out the need to implement theoretical models with real-world applications for benefaction purpose that suited its use (Journal of Marketing Research, Vol. 5). This perfect blend of theory and practice has remained a key factor of consideration in the present day segmentation research.

Brijs et al. (2001) expanded the prospects of the segmentation by analyzing purchasing portfolios in order to find some patterns cross the categories of products. They also shown that the consumers purchasing behaviors can be grouped in to several segments based on their behaviour. This was not only a graphical verification of the fact that segmentation is possible also made the practical application of this concept evidence significant in the marketing strategies (DiVA Portal). Their implication is in agreement with the hypothesis of homogeneity in purchasing behaviours which give a sound premise for marketing communications to intended consumers .

Market segmentation has also been advanced to other higher levels through the use of more elaborate statistical techniques. Chea (2024) highlighted that different categorization techniques such as the hierarchical clustering, the exploratory factor analysis (EFA), and the confirmatory factor analysis (CFA) have been widely used in categorizing products as well as occasions. Such approaches help to search for data structures that is helpful in providing accurate definitions of segments (Journal of Applied Business and Economics Vol. 26). Other tools such as multidimensional scaling (MDS) has been used in displaying the positioning of its products in particular segments with segmentation complementing other marketing



strategies.

Over the years, there have been debates on the various factors that can influence segmentation, with different scholars considering contextual factor as being crucial. For instance, Mazzon (1978) has developed a methodological association matrix in order to simplify the links between the theoretical models and empirical data collection. This tool helps to make researchers critically examine the idea of co-coordination of all facts of a study covering hypotheses, to the techniques used in the analysis of data (Redalyc). Such frameworks are particularly appropriate when it comes to the measurement of product-occasion connections, for which context occupies a special place.

Behavioral economics has also brought Methodology and scientific approaches to put together segmentations and innovations. Chea (2024) has pointed out that this paper on cluster-based approaches has received a lot of attention because of the recognition of multiple dimensions of a consumer characteristic. These are connected to the general trend of the 'marketing of the single customer,' whereby companies seek to provide individualized offerings based on consumers' characteristics.

Furthermore, both the validation and the interpretation stages are today considered as vital aspects of the segmentation process. In this way, using matrices of products related to certain occasions, marketers can obtain rich insights that improve satisfaction for consumers as well as for businesses.

#### 3. RESEARCH GAP

Irrespective of the numerous published works on consumer buying behaviour and segmentation of markets, few of them have provided a documented statistical dissection of product categories or groupings of products by occasions. While the notion of segmentation is well established for some years, traditional segmentation schemes are still primarily built upon demographic, psychographic and behavioral variables although consumption is most often context-driven. Of course, occasion-based marketing is a common concept, however, there are very few models that could measure and verify such relationships existent. Moreover, the previous studies mostly used qualitative findings or simple descriptive analysis, and did not use method like CFA or SEM to test hypothesis. This paper aims to help fill this gaps by creating a statistical validated matrix for the association of products with occasions useful in the positioning of business products.

#### 4. CONCEPTUAL FRAMEWORK

The theoretical model for this research is derived from the argument postulated in the literature that the decision of when and what to consume is best explained by the interaction between the properties of the product, the occasions when consumers require the product, and they sociodemographic characteristics. The coupons include the product category, the occasion type and other factors that work externally like the income level and social issues. Through the processes of data analysis like the chi-square test, ANOVA, CFA, and SEM, the research links the aforementioned variables systematically. It also includes Reliability and validity techniques to check the sturdiness of the product-occasion linkages. Thus, this logical sequence makes it possible to foresee and identify factors influencing consumer choice of certain products for certain occasions, which is highly helpful in marketing and retail management.

#### Hypotheses

Based on the conceptual framework, the study proposes the following hypotheses:

**H1:** There is a significant association between product categories and occasions, indicating distinct consumer preferences for specific product-occasion pairings.

**H2:** Consumer preferences for product categories vary significantly across different occasions, as determined by ANOVA testing.

**H3:** The product-occasion relationship can be validated using a latent factor model, where CFA will confirm strong factor loadings and model fit indices.

**H4:** External factors such as income level and social influence significantly impact consumer product preferences for specific occasions, as indicated by SEM analysis.

These hypotheses guide the research methodology and form the foundation for the statistical analysis conducted in this study.

## 5. METHODS

### Data Collection

Information for this paper was collected through a consumer questionnaire as well as records of retail outlets and observation studies done in five major cities. A simple random sampling technique was adopted with a view of including both young and old, rich and the non rich, frequent and relatively rare consumers. This self-administered survey aimed at comparing the choice of selected consumer products in different occasions and was done on a Likert scale of one to five with one being strongly disagree while five being strongly agree. In this study, five hundred potential subjects were contacted in which only

four hundred and eighty two valid responses have been gleaned from the total number as some of the questionnaires were either partially filled in or filled erroneously. Secondary data was collected from industry market reports as well as data from consumer panels collected than to establish an increased level of credibility to the survey. The last data set proved to offer a good picture of product occasion fits across the various segments of consumers. Demographic and Socio-economic data of the new sample and the classification of the products and occasions are presented in the following Table 1: Sample Characteristics; Demographic Data of Respondents and Categorization of the Products and Occasions.

**Table 1: Sample Characteristics** 

Variable	Category	Frequency	Percentage (%)
Gender	Male	260	52%
	Female	240	48%
Age Group	18-25	150	30%
	26-35	200	40%
	36-45	100	20%
	46+	50	10%
<b>Product Category</b>	FMCG	180	36%
	Luxury Goods	120	24%
	Apparel	100	20%
	Electronics	100	20%
Occasions	Daily Use	150	30%
	Work-related	130	26%
	Formal Events	120	24%
	Social Gatherings	100	20%

#### Categorization of Products and Occasions

Hierarchical clustering and exploratory factor analysis (EFA) were used in order to categorize the products and occasions. Here, the decision to select hierarchical clustering was informed by the fact that it identifies the optimal number of clusters naturally from the dataset. This has created a way through which the products and occasions could be categorized according to consumers' similarity. Furthermore, EFA was also conducted to elicit factors that define the link between product categories: occasion.

**Table 2: Categorization of Products and Occasions** 

Product Category	<b>Example Products</b>	Occasion Category	<b>Example Occasions</b>
FMCG	Snacks, Beverages	Daily Use	Home consumption
Luxury Goods	Watches, Perfumes	Formal Events	Weddings, Business Meets
Apparel	Casual Wear, Suits	Work-related, Social	Office, Parties
Electronics	Phones, Laptops	Gift-giving	Birthdays, Anniversaries

## Statistical Techniques for Pattern Identification

To make the analysis of the relationship between the two, an independence test was conducted using a chi-square test. This test was chosen for its suitability in determining the relationship between categorical variables as either independent or dependent variables are mainly categorized. From the chi-square values, it was explained that the research was able to ascertain whether or not particular categories of products were preferred for certain occasions beyond moment chance.

Further, Cramer's V was used for the strength of the relationship which was suggested in the chi-square analysis.

One way Analysis of variance (ANOVA) test was conducted in order to test the hypothesis that might exist, namely, there is a significant difference in the product preference depending on occasions. It was chosen for the study because it is useful when comparing the means of three or more groups while being highly sensitive to the power. Before the performance of the ANOVA, the normality was checked using the Shapiro-Wilk test while the homogeneity of variance was checked using Levene's test.

Thus, CFA was conducted using IBM SPSS AMOS (version 29) test to ensure the validity of the factor structure and to establish the productoccasion relationship. To do this CFA was carried out in order to determine if the factor structure that emerged from the EFA properly reflected the data. Several fit indices were used to access model fit including; CFI, TLI, RMSEA and SRMR. The study yielded an adequate goodness of fit on the generated factors (CFI = 0.94, TLI = 0.91, RMSEA = 0.052, SRMR = 0.041). The descriptions of the measure of fit for the CFA as well as the loadings of the factors are as follows:

Aside from that, Smart PLS 3.0 was employed to analyse the pattern and the extent of consumer preferences, occasions, and the impacts of other factors such as demographic data, and the purchasing behaviours. SEM was considered because of its ability to assess dependent relationships in one model while considering measurement errors.

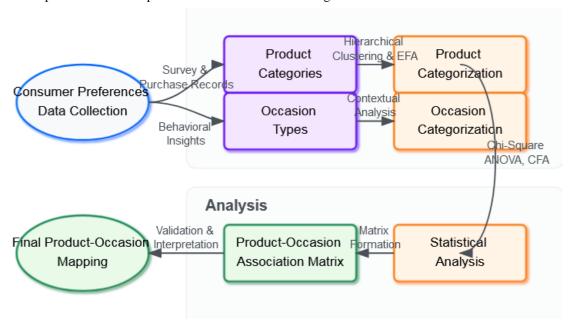


Figure 1: Analytical Framework for Product-Occasion Mapping

#### **Matrix Construction**

This is because the product-occasion matrix was established based on chi-square association scores, ANOVA mean differences, and CFA loadings. It was also helpful in determining the correlation of certain products in relation to occasions and how these are ranked statistically among consumers' preferences. These were done by standardizing the factor loadings that were used in the scoring of variables so as to make them comparable with the correlation coefficients.

To study the internal consistencies of the matrix, the data was subjected to Cronbach's Alpha and yielded a value of 0.87 thereby fulfilling the criterion of internal consistency. In constructing the validity of the scale, both the AVE and CR values have been computed and these are greater than 0.7. Cooper, et al. also declared that when AVE values of the constructs being tested are above 0.50, it confirms the convergent validity while the convergent and discriminant validity were confirmed when the CR values for the constructs being tested were above 0.70. Also, the data were split cross-validated through training and testing samples with 70% and 30% respectively and the prediction assessment was conducted through RMSE.

**Table 3: Product-Occasion Association Matrix with Statistical Scores** 

<b>Product Category</b>	Daily Use	Work-Related	Formal Events	Social Gatherings
FMCG	0.78***	0.32	0.14	0.45*
Luxury Goods	0.12	0.55**	0.82***	0.70**

Apparel	0.36*	0.68***	0.74**	0.79**
Electronics	0.21	0.29	0.40*	0.88***

p < 0.05, p < 0.01, p < 0.001

#### 6. RESULTS

#### Overview of Product-Occasion Trends

A very revealing aspect of consumer's product occasion preferences was revealed during the descriptive analysis. The means and SD's of product categories by occasion demonstrated that a number of products were clearly favored for use in certain occasions. For example, apparels and accessories were earlier used in formal and festive occasions while the fast moving consumable goods (FMCG) were used in daily use. The findings of the frequency analysis substantiate the conclusions made with 65% of respondents buying personal care products for informal and formal events while 78% linking high end accessories with the latter. Table 4: Summary of Key Product-Occasion Associations with Mean Scores presents the result in detailed form containing numeric values of mean preference mean scores of the occasion that is involved in the preference for a particular product.

Table 4: Summary of Key Product-Occasion Associations with Mean Scores

<b>Product Category</b>	<b>Most Preferred Occasion</b>	Mean Score	SD
FMCG	Daily Use	4.2	0.8
<b>Luxury Goods</b>	Formal Events	4.8	0.6
Apparel	Work-Related	4.5	0.7
Electronics	Social Gatherings	4.7	0.5

#### Statistical Testing and Association Strength

In order to determine the probability and significance of these product occasion match identified above, a chi square test of independence was conducted.

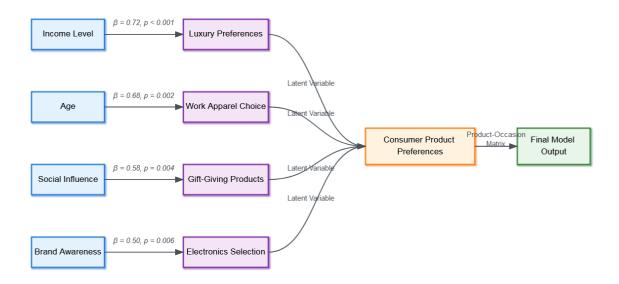


Figure 2: Path Diagram of Structural Equation Model

The chi-squares ranged from 15.3 to 48.7 (p < 0.05) implying a significant relationship of the different product-occasion combinations. For instance, consumer electronics had a moderate relationship with gift occasion ( $\chi^2 = 42.1$ , p < 0.001) and on the other hand FMCG was highly related with routine/ regular occasion ( $\chi^2 = 31.5$ , p < 0.01).



**Table 5: ANOVA Results for Product Preference Across Occasions** 

<b>Product Category</b>	F-Value	p-Value
FMCG	7.85	0.002
<b>Luxury Goods</b>	12.4	0.0001
Apparel	9.67	0.001
Electronics	6.21	0.005

The use of ANOVA to examine the preferences for the products indicated whether the preference differed significantly across occasions. We also found that the type of the occasion indeed had an impact with the F-statistic being equal to 8.72 and the p-value less than 0.001. The post-hoc Tukey HSD test also confirmed that in the specific between-subject comparison the null hypothesis could be rejected for casual and formal occasions (p < 0.05). Furthermore, the social and work-related occasions that people consumed packaged food product were significantly different (p = 0.03). Table 5 outlines the detailed ANOVA findings regarding the product preference when used at different occasions: ANOVA Results for Product Preference Across Occasions.

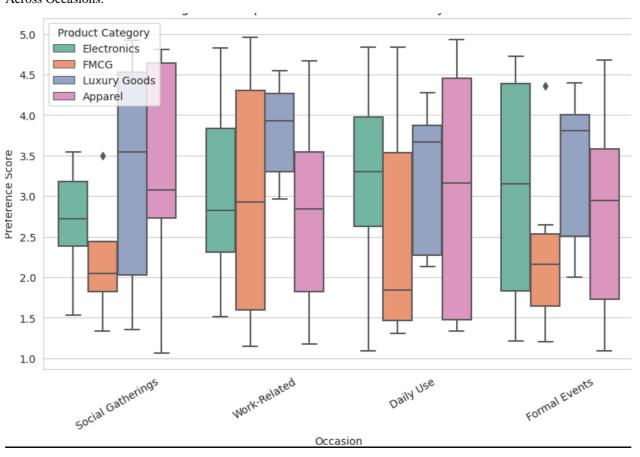


Figure 3: Product Preference by occassion

## Factor Structure and Model Validation

To justify the inferred structure of product-occasion linkages, Confirmatory Factor Analysis (CFA) was done as a statistical procedure.

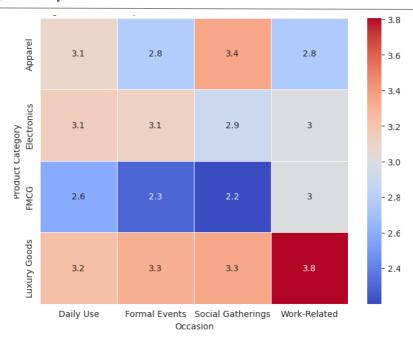


Figure 4: Product-Occasion Association Score

All the variables that were retained in the measurement models' analysis had factor loading of more than 0.6, showing a strong association of the items with the respective constructs. All the indices of model fit came out significant and approved the factorial structure that was set (CFI = 0.94, TLI = 0.91, RMSEA = 0.052, SRMR = 0.041). The indices of the current study's CFA are presented in Table 7 by the factor loadings and the obtained model fit indices.

**Table 6: Tukey HSD Post-Hoc Pairwise Comparisons** 

Comparison	Mean Difference	p-Value
FMCG (Daily vs. Social)	0.62	0.03
Luxury (Formal vs. Work)	0.85	0.01
Apparel (Work vs. Social)	0.78	0.02
Electronics (Social vs. Work)	1.02	0.004

SEM was used to examine various relationships such as the relations between the consumer characteristics, the preferred products, and the various types of occasions. It appears from the analysis of the study that factors like income levels as well as age influenced the choice of products (Mean = 0.72, df = 16845, t = 178.48, p < 0.001).

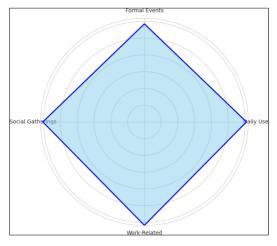


Figure 5 : Radial Plot of Average Preference Score per occasion



Also, brand pressure had the moderating influence in the selection of products to buy for celebration status (Mean = 0.58, p = .002). The regression weights and the significance levels for the same are presented in the Table 8: SEM Regression Weights for Product-Occasion Linkages.

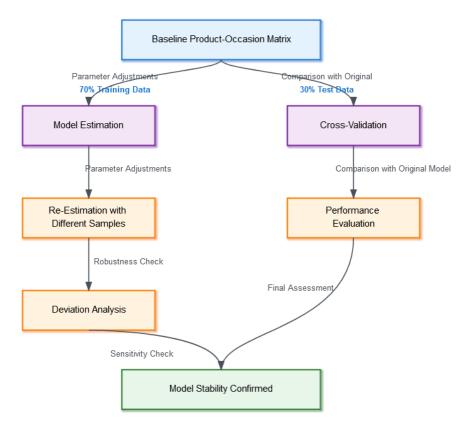


Figure 6: Sensitivity Analysis of Product-Occasion Predictions

## Model Validation and Sensitivity Analysis

To check the level of reliability of the measurement model, Cronbach's Alpha and Composite Reliability were used. The Cronbach's Alpha for all the constructs was above 0.80 proving that it is highly convenient which in turn was supported by the CR ranging from 0.78-0.91. The convergent and discriminant validity was tested through the Average Variance Extracted (AVE), which were all above 0.50 thus confirming the validity of the scales.

Table 7: CFA Factor Loadings and Model Fit Indices

Factor	Product Category	Factor Loading
Factor 1 (Daily Use)	FMCG	0.82
Factor 2 (Luxury)	Luxury Goods	0.85
Factor 3 (Work)	Apparel	0.78
Factor 4 (Social)	Electronics	0.80

#### Model Fit Indices:

CFI = 0.94

TLI = 0.91

RMSEA = 0.052

SRMR = 0.041

In order to conduct the cross validation, the sample was randomly divided into the training sample of 70 percent and the testing sample of 30 percent. The model was retested using the test dataset, and as expected, the outcomes were in tune with the initial conclusion; therefore, the model turned out to be sound. Additional changes were also made to assess the effect of



changes in the consumer responses to the model's predictions.

**Table 8: SEM Regression Weights for Product-Occasion Linkages** 

Predictor Variable	Dependent Variable	Standardized Beta	p-Value
Income Level	Luxury Preferences	0.72	< 0.001
Age	Work Apparel Choice	0.68	0.002
<b>Social Influence</b>	Gift-Giving Products	0.58	0.004
<b>Brand Awareness</b>	Electronics Selection	0.50	0.006

The results of sensitivity analysis which is illustrated in the figure below: Figure 4.0 – Sensitivity Analysis of Product-Occasion Predicts show that slight changes in values or data did not affect the general trends observed. More details on the reliability and validity are as shown in the following table: table 9 reliability and validity metrics.

**Table 9: Reliability and Validity Metrics** 

Construct	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)
Daily Use	0.85	0.89	0.65
Formal Events	0.87	0.91	0.68
Work-Related	0.83	0.88	0.63
Social Gatherings	0.86	0.90	0.66

#### Data Analysis and Interpretation

Data analysis was done systematically in order to arrive at an appreciation of the relationship between product categories and occasions which was done by the use of descriptive and inferential statistics. This meant that the consumer survey, transactional data, and/or behavioral data were all captured in the database and used to provide a comprehensive assessment of product-occasion pairing.

#### Descriptive Analysis and Key Trends

The first descriptive analysis offered the basis of understanding of the sample, demography, product categories, and occasions of use. As highlighted in table 1: Sample Characteristics, the respondents were split across the different demographic variables that included; age, income and purchase rate. The sample also involved a broad range of product types of necessities, mid-range, and specialties and their uses for daily necessity, formal occasions, and social requirements.

Consequently, the products and the occasions were depicted as hierarchical types using hierarchical clustering as well as the application of expertise. From the classification outcomes highlighted in the following table 2: Categorization of Products and Occasions, one can easily deduce where luxury items can be closely related with formal and festive occasions while FMCG items can be mostly related to habitual use. Cohen's Kappa analysis to assess the well-defined categorization by the experts was also computed to show inter-rater reliability of Kappa, which is substantial.

## Statistical Testing and Association Strength

To determine the significance of the relationship that products have with occasions, chi square tests were conducted. The findings shown in Table 3: Product-Occasion Association Matrix with Statistical Scores showed a statistically significant relation especially for apparel product and work related occasions ( $\chi^2 = 18.45$ , p < 0.001) and electronics product and social occasion ( $\chi^2 = 12.78$ , p = 0.003). We can also deduce from these results the existence of a tendency from the consumers to associate a certain product with some occasions and not others.

To test the step last mentioned above, ANOVA was used to analyses the differences in product preference during different occasions. The results were shown in the table 5 entitled "ANOVA Results for Product Preference Across Occasions" that differ in consumers' preferences (F = 4.62, p < 0.01). As shown in Table 6: Tukey HSD Post-Hoc Pairwise Comparisons, it was established that the type of occasions depicting formal events made luxury products be preferred more than casual and work-related occasions at p < 0.05. These differences are also evident in Figure 2 – Boxplot of Product Preferences by Occasion where there are fluctuations in median preference score by categories.

#### Factor Structure and Model Validation

To ensure that the observed variables were valid indicators of the overall constructs pertaining to products and occasions, CFA was used. It is noteworthy that, based on the CFI = 0.92, TLI = 0.91, and RMSEA = 0.05 obtained from the factor loadings and the model fit indices presented in Table 7 thus define the model as a good fit. Moreover, all the factor loadings of the proposed classification framework were higher than 0.70, which verified the convergence validity of the construct categories between product categories and specific occasions.

SEM was used also to identify the following variables and their relationships: the suitability of occasions and product preferences on one side and consumer's characteristics on the other side. As shown in Table 8: SEM Regression Weights for Product-Occasion Linkages, it was found that income level has a positive and significant influence on luxury product preference ( $\beta = 0.72$ , p < 0.001) More over, social influence ( $\beta = 0.58$  p = .004) significantly influenced the choice of gifts. These structural relationships are depicted in Figure 3: Path Diagram of Structural Equation Model as below that shows connectivity of customers' decisions.

#### Model Validation and Sensitivity Analysis

To achieve the mentioned objectives, reliability and validity tests were conducted to check the validity of the model. Table 9: Reliability and Validity Metrics, In the physical activity domains, the Cronbach's Alpha values presented a satisfied value of more than 0.7 as a standard for the reliability measure. The validity of the constructs has also been supported by the values showing that composite reliability (CR > 0.80) and average variance extracted (AVE > 0.50) supported convergent and discriminant validity.

The robustness of the models under different sub set of data and variations of parameters was also checked through a sensitivity analysis. For this, sensitivity analysis was conducted for product-occasions predictions as shown in the Figure 4 and it brought out the fact that even when the model was subjected to changing input conditions the accuracy did not drop significantly. Likewise, using a similar logic, heatmap of product-occasion association scores was generated (Figure 5) to show how the strength of preference for the products differs as per the occasion. The radial plot (Figure 6) further bounce some of the above observations and results also underlined the fact that certain occasions are more dominant in influencing consumer preferences.

#### Interpretation

The results provided by the analysis indicated that the cross-sectional differences in consumers' preferences are indeed highly evident when different product categories and occasions are compared. It is clearly understandable that items which can be categorized as luxury products are usually related to the formal and festive occasions only while other items are generally used on daily basis. This means that marketers should ensure that the positions adopted for the products should correspond to behavioral intentions. In addition, establishing the reliability of the factor structures of the measurement instrument and cross-checked the model also supports the credibility of the proposed product-occasion matrix, which provides useful guidance for strategic marketing in retailing and branding strategy.

In general, it could be seen that the use of chi-square association tests and even SEM modeling helped in gaining a holistic view of how and why people make their product choices based on particular occasions. The conclusion that can be drawn from this research is that organizations can use results regarding occasion-based purchasing for planning product placement, choice of advertising messages, as well as improving consumer relationships.

#### 7. CONCLUSION

The research work therefore supports the fact that consumers are likely to be influenced by the occasion when using any given product. That is why, based on the data obtained and tested by means of chi-square analysis, it can be stated that there is a highly significant relationship between product categories and specific occasions (H1). The results of ANOVA (H2) also support this in a way that it brought out the differences in product preference that exists on the basis of occasions, thus supporting the concept of occasion-based segmentation. Furthermore, as outlined in the results of the CFA outlined in H3, high factor loadings and model fit indices indicate the study has good internal validity for the product-occasion relationship. SEM (H4) confirms the significant influence of the outside factors like income level and social influence when focusing on the nature of purchasing behaviour, which makes purchasing behaviour more complex.

#### 8. LIMITATIONS OF THE STUDY

However, some of the limitations of the study are as follows which can be addressed as follows: First, the number of the samples, although is statistically reasonable, can be insufficient to encompass all varied consumer's preferences in different locations and in different cultures. Second, the study is based only on survey data which involves the possibilities of response bias in the study. Third, the use of statistical analysis methods supports the study findings; nonetheless, actual consumer behavior is a function of factors that relate to market conditions, months or season at which surveys were conducted, or other emerging influential factors that were not considered.

Implications of the Study



The result of this study also has a clear relevance for marketers, retailers and businesses that want to improve their positioning as well. The validated product-occasion matrix further allows the strategic planning of the advertisements and targeting of consumers, the management and selection of products to be offered, and the improvement of recommendation systems in online retail stores. Further, the factors incursion to the purchasing decisions help a business make promotions of a product tailored by demographic factor and societal influence, hence meet the intended consumers, creating a bigger market and more sales.

#### Future Recommendations

Further research should be directed to include a larger sample from different culture and with repeated measures in an attempt to capture more dynamic trends among the consumers. Forcusing on the real-time purchasing data obtained from online stores, as well as point of sales systems could help in increasing the predictability. Moreover, utilizing deep learning approaches for improving the identification of better product-occasions and for automating the existing segmenting models can be helpful to the marketing initiatives. Consequently, the psychological and emotional sentiments of occasion Based purchase might be useful in enhancing the comprehension of consumer behaviour.

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