

# The Impact of Consumer Decision Making Process towards Apparel Buying in the U.K

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## Abstract:

The objective of the study was to examine the effect of visual merchandising on customers' purchase decisions in the apparel sector in the UK. A questionnaire was applied to collect quantitative data on the influence of the window display and the store design, layout, atmosphere, and loyalty on purchase-related decision making. The sample size of the study was 150 participants. The R and SPSS 25 statistical programmes were used for the analysis of the collected data and data visualisation. The linear regression analysis was applied. The results suggest that the window display and the store design, layout, atmosphere, and loyalty affect the customer's decision-making process. These results present implications for managers in considering visual merchandising to increase in-store traffic and sales. Future studies should consider visual merchandising factors in the online environment.

**Keywords-Quantitative, Linear Regression, Visual, Consumer Behaviour, Merchandising, Apparel, Data Visualisation, SPSS, R**

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## 1. INTRODUCTION

Visual merchandising is an effective means for stores or companies to communicate their fashion values and quality image to their consumers (Jain et al., 2012). Visual merchandising's principal objective is to inform the customers on the current collections as well products, improve the store's image and encourage increased sales through the presentation of apparel and accessories (Nueno, J.L. and Quelch, J.A., 1998).It promotes purchases by appealingly demonstrating products and services at an important phase in the purchasing process (Jain et al., 2012). Saricam et al. (2018) confirmed Moayery and Vazifehdoost's(2014) study concerning visual merchandising's potential of creating an eye-catching and appealing effect by altering the perceived image in customers' minds. The ability of the store layout and atmosphere to guide consumers towards buying goods in retail stores means that visual merchandising impacts consumer behaviour and encourages brand loyalty, leading to the company's competitive advantage against its competitors (Ahmad, A., 2021).

This research aimed to identify different visual merchandising elements that affect customers' decision-making during shopping in retail apparel stores in the UK. The research contains information and facts on the process of decision-making that influence customers' purchase decisions, highlighting several factors such as the window display and the store design, layout, atmosphere, and loyalty. Visual merchandising was also considered in this research, highlighting some of its major advantages in increase the customer and sales.

## **2. Methods:**

2.1. The methodology section aims at identifying the research philosophy, research approach, and research design in the study. This section also outlines data collection approaches and instruments, as well as data analysis software.

### **2.2. Research Philosophy**

The research philosophy goes into the setting of the consumer conduct dynamic interaction at decision-making process. In this way, the cognitive processes associated with purchaser buying choices and how purchasing choices are made.

In this research, positivism research reasoning is utilised. Positivist scientists believe that society shapes individuals and uses quantitative exploration strategies. Positivists accept that the activities of individuals can by and large be made sense of by normal practices they have been presented to through socialisation. The general focal point of research is on revealing the regulations which govern human way of behaving. Consequently, in this review, the specialist uncovers the elements which influence the buy decision-making of clients in the clothing sector. Positivist researcher centre around doing enormous scope reviews for getting an outline of society all in all and uncovering social patterns, for example, connections between visual merchandising and consumer decision making.

2.3. This study employed quantitative research approaches on the principles of positivists, which perceive societal norms as the driver of people's lives. The general focus on research is on uncovering the laws which govern human behaviour (Saunders et al. 2009). Thus, in this study, the researcher uncovered the factors which affect the purchase decision making of customers in the apparel sector (Saunders et al. 2009). Positivists focus on doing large-scale surveys for getting an overview of the society as a whole and uncovering social trends such as relationships among visual merchandising and customer decision making.

### **2.4. Research Approach**

The approach that shapes this study prevails as deduction reasoning, which often draws specific conclusions from general principles. It moves from generalisation towards a specific conclusion. A deductive research approach which starts with a theory, hypothesis development from the theory, and collecting and analysing data to test the hypothesis (Curwin et al. 2013). Thus, a deductive approach is the one that could originate from propositions of the theory. There are some benefits of using deductive reasoning, which include the likelihood of explaining causal relationships among variables, the possibility for measuring different concepts quantitatively, and generalising the research findings.

## **3. Research Design**

This study applies a quantitative research design that emerges as an investigative strategy or structure which aims at obtaining answers to the research problem. This design demonstrates the procedures and guidelines of this study from Alfa to Omega (Saunders et al., 2009). The application of quantitative research helped to focus on statistical and mathematical analysis of data gathered using polls, surveys, or questionnaires (Saunders et al. 2009). This kind of research focused on collecting numerical data and generalise the findings of a group of people for explaining a particular phenomenon. The objective of conducting quantitative research is finding the relationship of visual merchandising (store design and layout, window display, store atmosphere, and store loyalty) on the purchasing behaviour of customers in the apparel sector.

## **4. Data Collection**

Generally, data collection happens through two methods: primary and secondary. Primary data is the one which the researcher collects himself, whereas secondary data comes from the previous journal articles, books, and websites (David & Sutton, 2010). The researcher in this study collects primary data through survey questionnaires, whereas all the secondary data originates from previous journal articles, websites ([www.data.gov](http://www.data.gov)), reports, and

books. Data has been collected from different sources including some expanding resources for gathering the customer's decision making on the purchase of apparel. Several interviews have been conducted by targeting different customers from different regions and these interviews helped in identification of the issues. Along with the interviews, there are distinct questionnaires prepared for obtaining the responses from multiple customers regarding the decision-making process and reacting based on different components. These factors vary according to the decisional approaches made and the survey that included the questionnaire contained multiple questions focusing on the behaviour of the apparel purchase (Binninger, 2008).

## **5. Research Instrument**

The prevailing research embraced a questionnaire as its research instrument. A questionnaire is a list of questions to which respondents answer. For the questionnaire, it is important that all questions are easily read to the sequence of questions must be easy to follow. The formulation of a questionnaire must base on an interactive style (David & Sutton, 2010). There are some benefits for using questionnaire as research instruments such as it is less expensive and do not require to interview respondents. Moreover, the use of the questionnaire is also convenient, and it is one of the most inexpensive methods to collect data. The questionnaire also helps maintain the anonymity of the respondents (Kumar 2019, p. 148). A close-ended questionnaire helped to measure the response of participants by allowing respondents to choose the option which best defines their behaviour or attitude. For designing the questionnaire, the author used a 5-point Likert scale to measure the response of people. This type of questionnaire posed two limitations, namely lack of variety and depth in the responses and likely biases as researcher might list unpopular options. Moreover, respondents could choose the answer without thinking about the issue (Kumar 2019, p. 154). Thus, in this research, a questionnaire aims at analysing whether different visual merchandising factors could affect consumers' purchase decision while visiting apparel stores.

## **6. Sample**

Sample size refers to the number of students, families of friends from who the data comes from, and exist as 'n.' The selection of the sample size would base on the fact that it is often challenging to add everyone in this research. This study's sample size is 150 participants comprising of young customers, male and female, aged 18-45 years old (Saunders et al. 2009). The study utilised a suitable method to select this sample size based on participants' availability and readiness. The population chosen for this research sample included several factors such as number of people to be included in the questionnaire itself along with pol subject and panel data that must be referred within it. The survey has been conducted through an online form that has been circulated to the people included in the survey (Chang, et al., 2011). Thus, in this research, the selection of the sample size occurred on the close proximity of respondents. Although this method offers easy and cheap access to participants, it could give inferior and biased outcomes, not applicable to the actual scenario.

## **7. Ethics**

The involvement of human participants required this study to embrace ethical requirements that affirm their humanity. In concurrence with (Saunders et al. 2009), this research obtained informed consent from participants to verify that they voluntarily participated in the research. The study-maintained participants' confidentiality by keeping their information anonymous throughout the research (Oliver 2010). The study allowed participant withdrawal without conditions. Researchers kept the respondents' data in password-protected folders with specific study members accessing such critical data. This study wanted to store the data for approximately six months before its expiry.

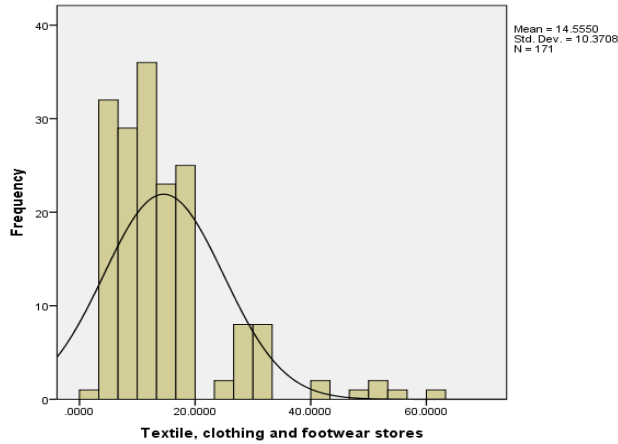
## **8. Data Analysis**

This research used SPSS 20, which is statistical software, to analyse the available data. The analysis of demographic data of the respondents happened courtesy of descriptive analysis and frequencies. Moreover, the testing of the hypothesis happened using regression analysis (Binninger, 2008). Bivariate correlation analysis helped to identify the relationships among different variables. Researchers presented the available data in the form of tables and graphs.

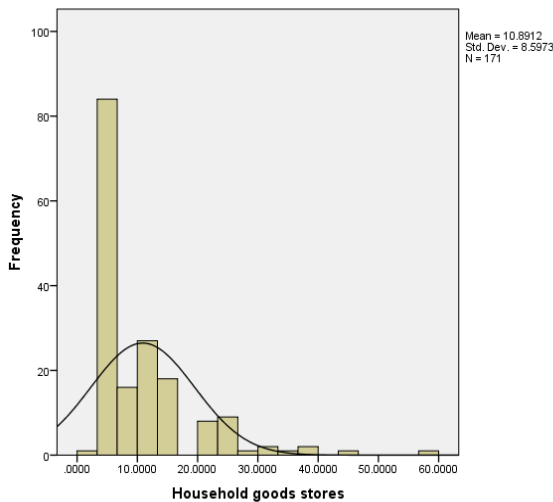
### 9. Validity and Reliability

It is important for the research to establish the quality of results. It is also essential to find the quality and appropriateness of the research; thus, the need to finding answers, and this process is known as validity. The term validity refers to the ability of an instrument to measure the appropriate feature, such as a questionnaire measuring the decision-making process (Chen & Yao, 2018). This word also means the extent to which the researcher could measure the items present in the questionnaire. Thus, reliability and validity associate with the internal consistency approach, which ensures that items in the questionnaire measure a similar underlying phenomenon. In this research, the evaluation of reliability and validity happened through Cronbach's Alpha.

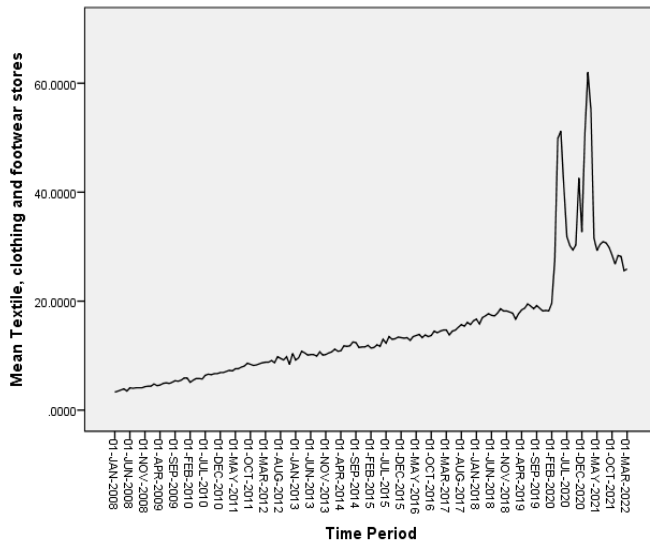
### 10. Results:



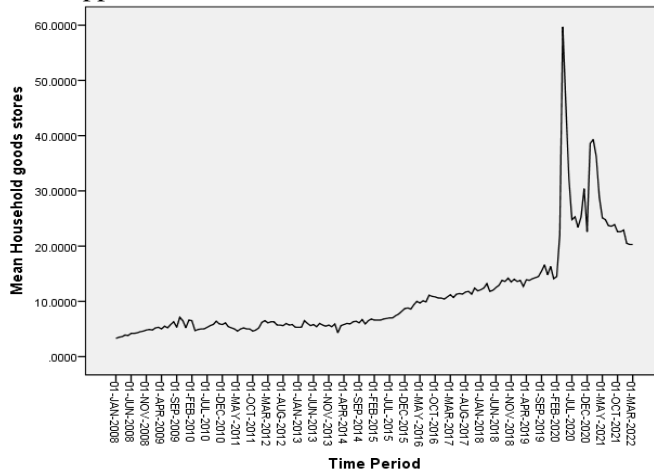
From the chart presented above shows the distribution of the textile, clothing and foot ware stores data. The chart presented, depicted a right-skewed distribution with many data values being on the left side, indicating that the data does not follow a normal distribution.



The chart presented above shows the distribution of the household goods stores data. The chart depicts a right-skewed distribution with many data values being on the left side, indicating that the data does not follow a normal distribution.

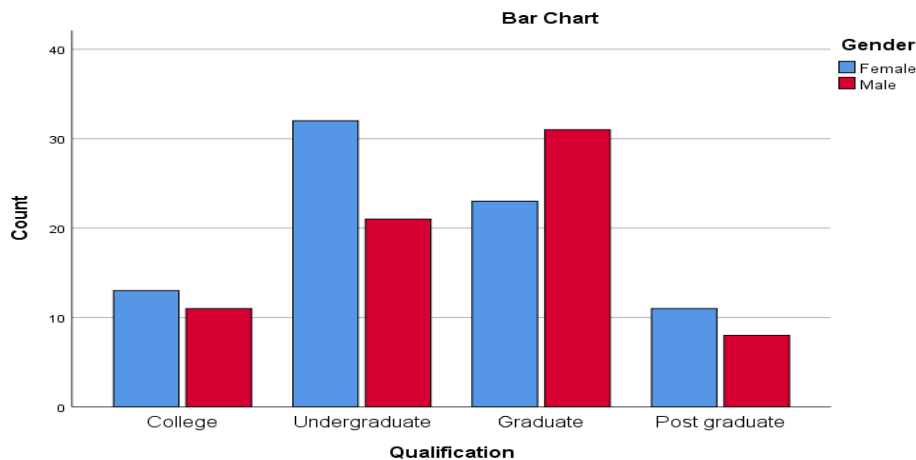
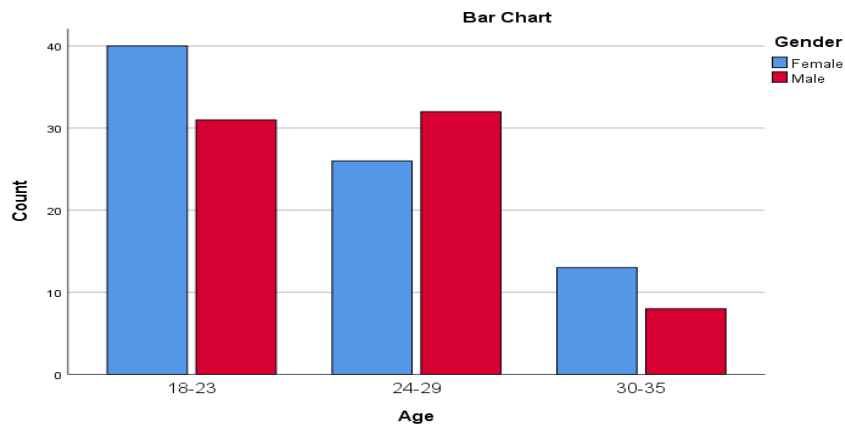


The line chart above shows the trend in the textile, clothing and footwear in the online apparel buying in the U.K. The chart depicts that there was an increasing trend in the textile, clothing and footwear in the online apparel buying from Jan 2008 to July 2020, which later started decreasing in December 2020. Thus, the textile, clothing and footwear in the online apparel buying data depicted an increasing and decreasing trends in the purchase of online apparels in the U.K.



The variable food indicates preferences and choices made by UK individuals. Individuals who does not have adequate capital prefer buying food to cloth. The line chart above shows the trend in the household good stores in the online apparel buying in the U.K. The chart depicts that there was an increasing trend in the household goods stores in the online apparel buying from Jan 2008 to July 2020, which later started decreasing in December 2020. Thus, household goods stores in the online apparel buying data depicted an increasing and decreasing trends in the purchase of online apparels in the U.K.

Variables	Options	Frequency	Percentage
Gender	Male	71	47.3%
	Female	79	52.7%
Age	18-23	71	47.3%
	24-29	58	38.7%
	30-35	21	14.0%
Qualification	College	24	16%
	Undergraduate	53	35.3%
	Graduate	54	36%
	Postgraduate	19	12.7%



### 11. Discussion:

The regression analysis showed that the window display affects customers' decision-making process ( $\beta=0.98$ ). The store window is considered an iconic symbol of contemporary spectatorship and serves as a billboard for urban consumers and a frame to capture the mobilised spectators (Iarocci, 2013). Window displays visually communicate the company's value proposition and encourage buying behaviours (Chang et al., 2011). A positive relationship between customers' purchase decisions and window display has been previously documented (Merugu, 2017). The present results confirm previous literature demonstrating that creative and innovative window displays have a positive impact on customers by capturing their attention and influencing their opinion about the images of the store, positively affecting the experience of customers during shopping (Lange et al., 2016). Moreover, the window has been documented as a variable that affects the interaction reactions, between behavioural responses and shopping experience of customers, (Lucia-Palacios, Y. 2016), shaping their purchase intentions and behaviours (Hoyer, W.D., MacInnis, D.J. and Pieters, R., 2012) Customers use window displays to identify the products offered by the store and decide whether to enter or not the store, as shown in the present study that confirms the results by Lange et al. (2016). Lang et al. (2016) carried out a field experiment revealing that creative store window displays help capture the attention of consumers and positively affect their intentions to enter the store.

### 12. Figures



Figure 1: SOR Model: Source (Mehrabian & Russell, 1974)

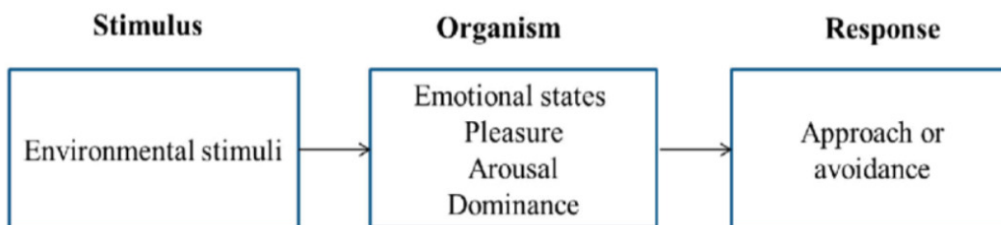


Figure 2: SOR Model: Adopted from (Chang et al., 2011)

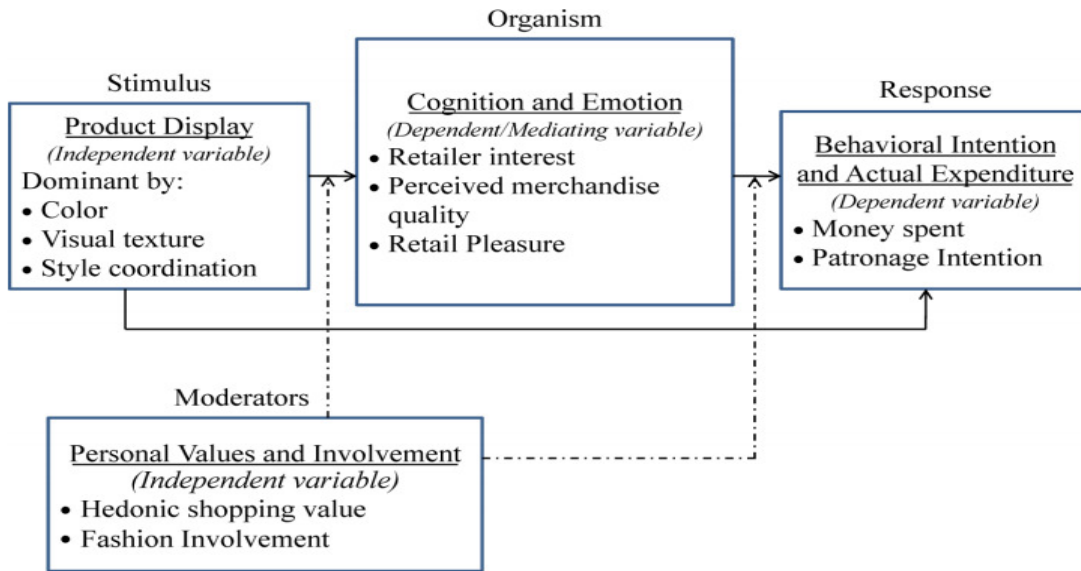


Figure 3: Window display



Figure 4: Holt

Renfrew mannequins: (Lea-Greenwood, 2013, p. 96).



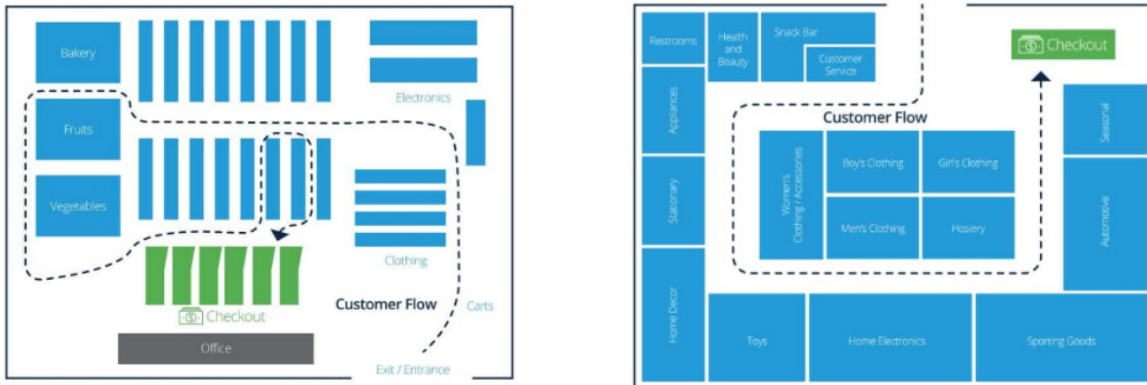


Figure 5: Loop store, racetrack-boutique, and angular layout

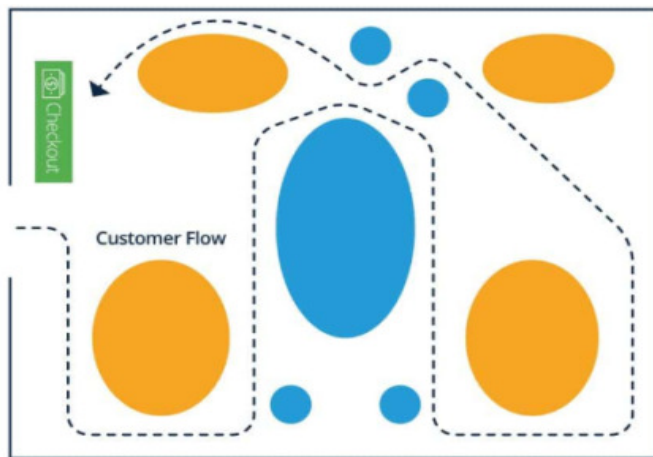


Figure 6: Mehrabian-Russell Model: Source (Ebster, 2011, p. 119)

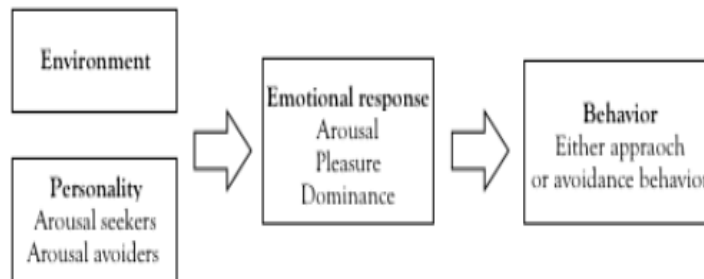
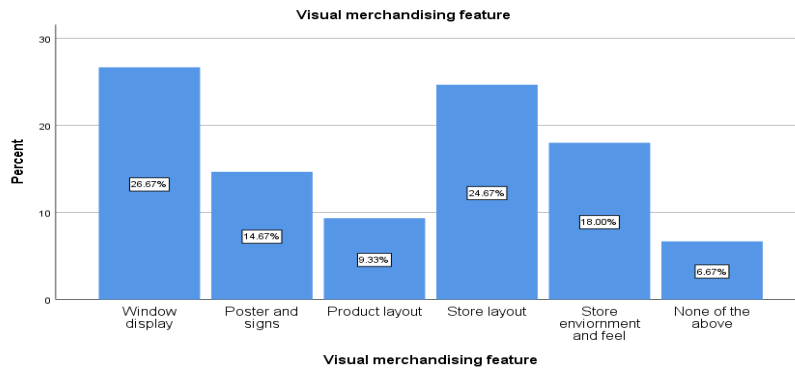
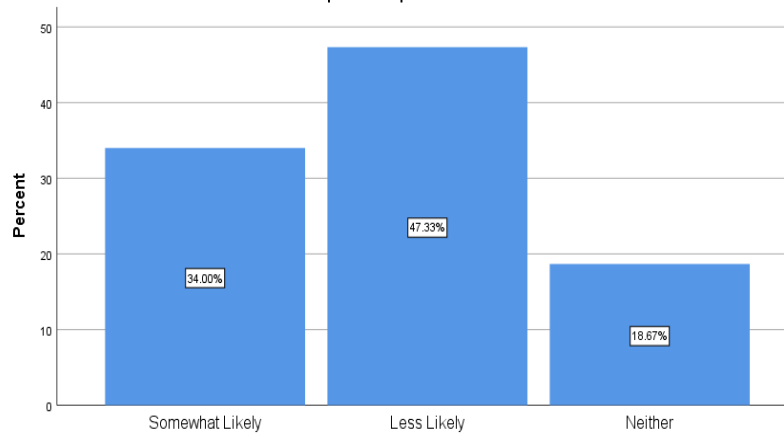


Figure 7 : Abercrombie



**Figure 8: Mostly observed merchandising features**

With reference to the list give above, if a store has a poor visual merchandising, are you more or less likely to purchase products?



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**Figure 9: Poor visual merchandising**

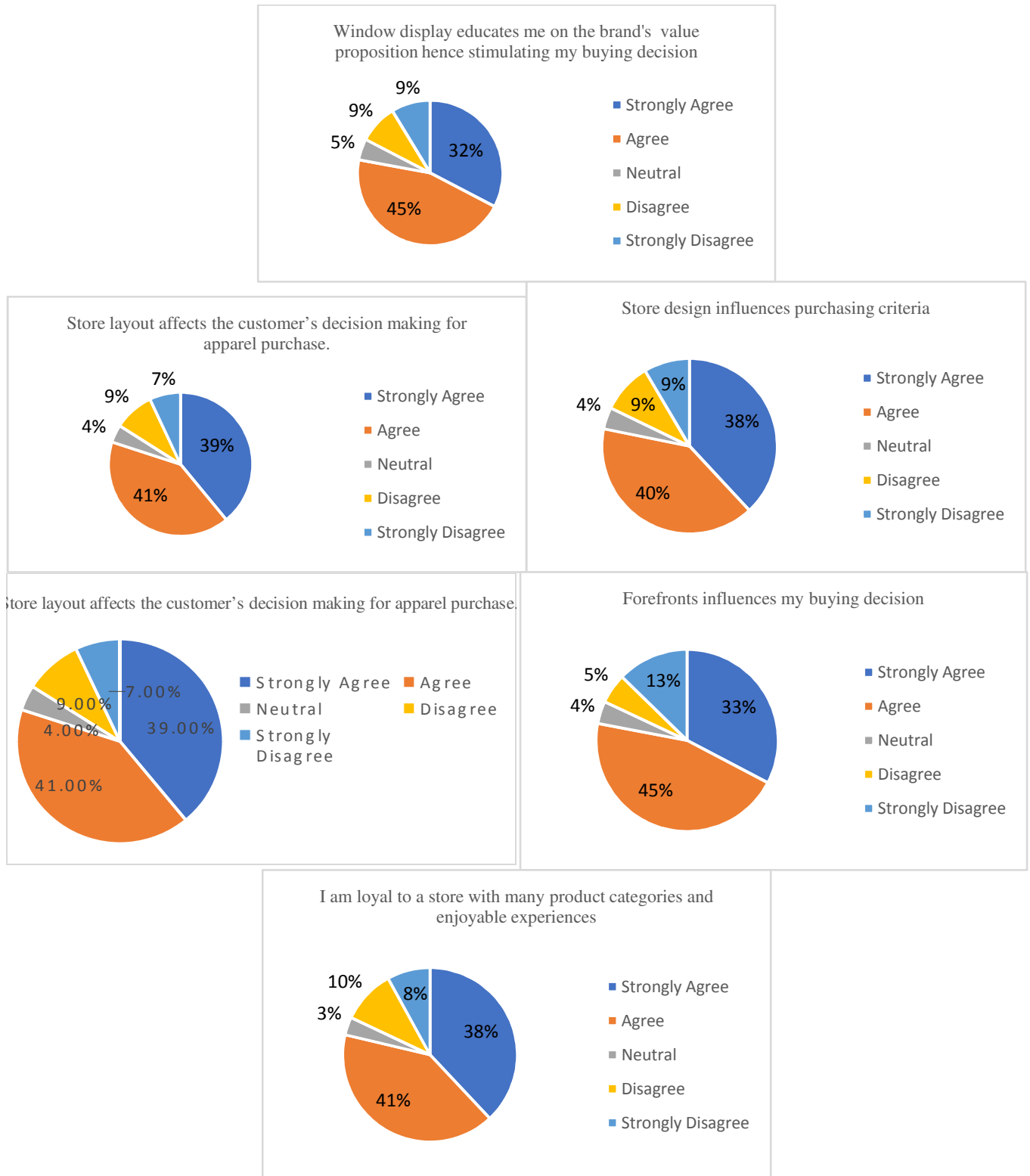


Figure 10: Frequencies

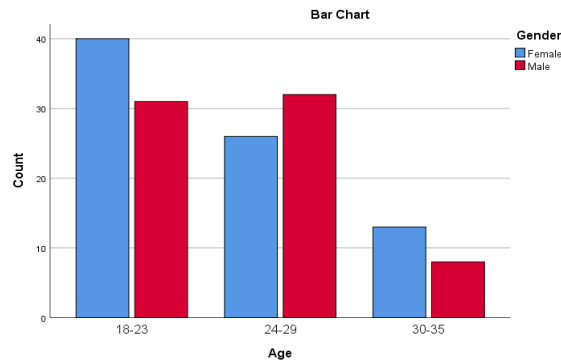


Figure 11: Gender and Age Count

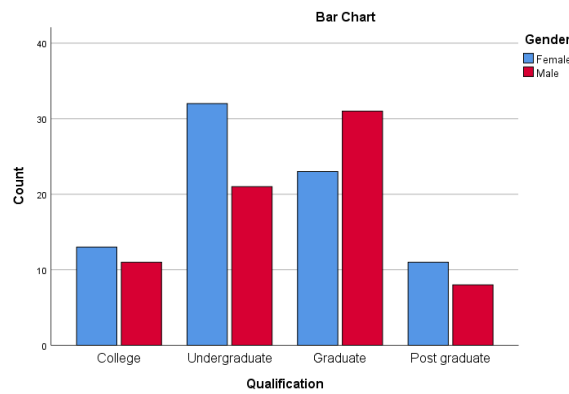


Figure 12: Gender and Qualification Count

13. Tables

Table 1:

1. Stimulus (S)	2. Organism (O)	3. Response (S)	4. Key findings	5. Authors
6. Visual and olfactory cues	7. The Tactile sense	8. Time spent, touching time, buying intentions,	9. Visual cues positively affect time, which outcomes in more purchases.	10. (Hultén, 2012)
11. Scent congruity	12. Evaluating the merchandise and store	13. Perceived and actual time spent.	14. Scent positively influences the overall store	16. (Spangenberg, et al., 2006)

			and merchandise assessment. 15.	
17. Item price, light, and colour	18. Price, fairness, and excitement	19. Patronage and purchase intentions	20. S-O-R link supported	21. (Babin, et al., 2003)
22. Ambient, social and design cues	23. Quality of merchandise, the psychic cost	24. Patronage intentions	25. Design factors predict all organism variables	26. (Baker, et al., 2002)
27. Product display and fragrance	28. Cognitive, sensory and emotional pleasure	29. Approach response	30. The fragranced display influence pleasurable store experiences	31. (Fiore, et al., 2000)
32. Store environment	33. Arousal, pleasure, value for money	34. Unplanned purchasing and time spent	35. Pleasure predicts extra time spent by the customer	36. (Donovan, et al., 1994 )

**Table 2: Descriptive statistics**

37. Age bracket	38. Frequency	39. Percentage
40. 30-35 years	41. 22	42. 14.7%
43. 24-29 years	44. 18	45. 12 %
46. 18-23 years	47. 110	48. 73.3 %
49. Total	50. 150	51. 100%

Table 3: Frequencies

52. Questions	53. Strongly Agree	54. A gree	55. Neutr al	56. Disagr ee	57. Stro ngly Disagree
58. I visit the store after watching the window display	59. 36.7%	60. 3 4.7%	61. 11.3%	62. 10.7%	63. 6.7%
64. Seeing the window display orchestrates my entry into the apparel store	65. 32.0%	66. 4 2.7%	67. 8.0%	68. 7.3%	69. 10%
70. Window display educates me on the brand's value proposition hence stimulating my buying decision	71. 32.7%	72. 4 5.3%	73. 4.7%	74. 8.7%	75. 8.7%
76. Store layout affects the customer's decision making for apparel purchase.	77. 39%	78. 4 1%	79. 4%	80. 9%	81. 7%
82. Store design influences purchasing criteria	83. 38%	84. 4 0%	85. 4%	86. 9.3%	87. 8.47 %
88. Forefronts influences my buying decision	89. 32.7%	90. 4 5.3%	91. 4%	92. 5.3%	93. 12.7 %
94. The inner feature of a store appeals to emotional response towards buying.	95. 29.3%	96. 4 8%	97. 6%	98. 10%	99. 6.7%
100. I am loyal to a store with many product categories and enjoyable experiences	101. 38%	102. 4 0.7%	103. 3.3. %	104. 10%	105. 8%

Table 4: Reliability Statistics

106. Reliability Statistics	
107. Cronbach's Alpha	108. No. of Items
109. .990	110. 2

Table 5: Demographic Data

111. Variables	112. Options	113. Frequency	114. Percentage
115. Gender	116. Male	117. 71	118. 47.3%
	119. Female	120. 79	121. 52.7%
122. Age	123. 18-23	124. 71	125. 47.3%
	126. 24-29	127. 58	128. 38.7%
	129. 30-35	130. 21	131. 14.0%
132. Qualification	133. College	134. 24	135. 16%
	136. Undergraduate	137. 53	138. 35.3%
	139. Graduate	140. 54	141. 36%
	142. Postgraduate	143. 19	144. 12.7%

Table 6: Window Display and Purchase Decisions

145. Model		146. Unstandardised Coefficients		147. Standardised Coefficients	148. t	149. Sig.
		150. B	151. Std. Error	152. Beta		
153. 1	154. (Constant)	155. .016	156. .112	157.	158. .139	159. .889
	160. Window display affecting purchase decision	161. .938	162. .045	163. .862	164. 20.696	165. .000

**Table 7: Store layout and purchase decision**

166. Coefficients						
167. Model		168. Unstandardised Coefficients		169. Standardised Coefficients	170. t	171. Sig.
		172. B	173. Std. Error	174. Beta		
175. 1	176. (Constant)	177. -.064	178. .096	179.	180. -.662	181. .509
	182. Store layout and design affect the purchase decision	183. .983	184. .039	185. .899	186. 24.970	187. .000
188. a. Dependent Variable: Purchase decision affected by visual merchandising elements						

**Table 8: store atmosphere and purchase decision:**

189. Coefficients						
190. Model		191. Unstandardised Coefficients		192. Standardised Coefficients	193. t	194. Sig.
		195. B	196. Std. Error	197. Beta		
198. 1	199. (Constant)	200. -.086	201. .092	202.	203. -.941	204. .348
	205. Store atmospheres affect the purchase decision	206. .994	207. .038	208. .909	209. 26.503	210. .000
211. a. Dependent Variable: Purchase decision affected by visual merchandising elements						

**Table 9: Store loyalty and purchase decision**

212. Model	213. Unstandardised	214. Standardised	215. t	216. Sig.



		Coefficients		Coefficients		
		217. B	218. Std. Error	219. Beta		
220. 1	221. (Constant)	222. -.028	223. .081	224.	225. -.342	226. .733
	227. Store loyalty affect purchase decision making	228. .997	229. .034	230. .924	231. 29.324	232. .000
233. a. Dependent Variable: Purchase decision affected by store loyalty.						

**Table 10: Hypothesis Summary**

234. Hypothesis	235. $\beta$	236. t-value	237. Sig value	238. Status
239. H1: Window display Purchase decision	240. 0.98	241. 20.6	242. .000	243. Accepted
244. H2: Store layout/design → Purchase decision	245. 0.98	246. 24.9	247. .000	248. Accepted
249. H3: Store atmosphere → Purchase decision	250. 0.99	251. 26.5	252. .000	253. Accepted
254. H4: Store loyalty → Purchase decision	255. 0.99	256. 29.3	257. .000	258. Accepted

**Table 11: Pearson correlation**

259. Variables	260. Pearson
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	Correlation
261. Window display Purchase decision	262. 0.862
263. Store layout/design →Purchase decision	264. 0.899
265. Store atmosphere → Purchase decision	266. 0.909
267. Store loyalty → Purchase decision	268. 0.924

**14. Regression Statistics**

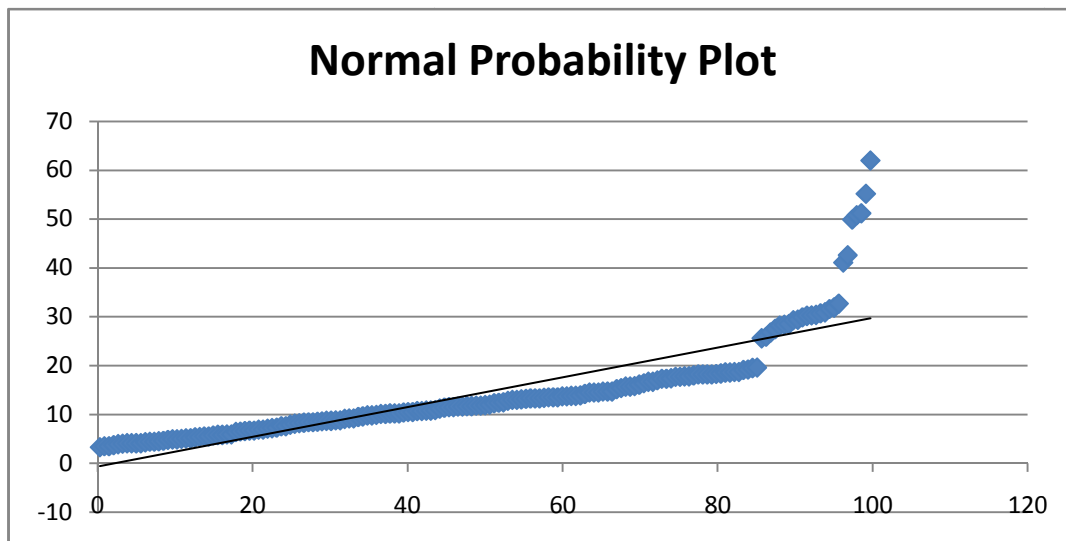
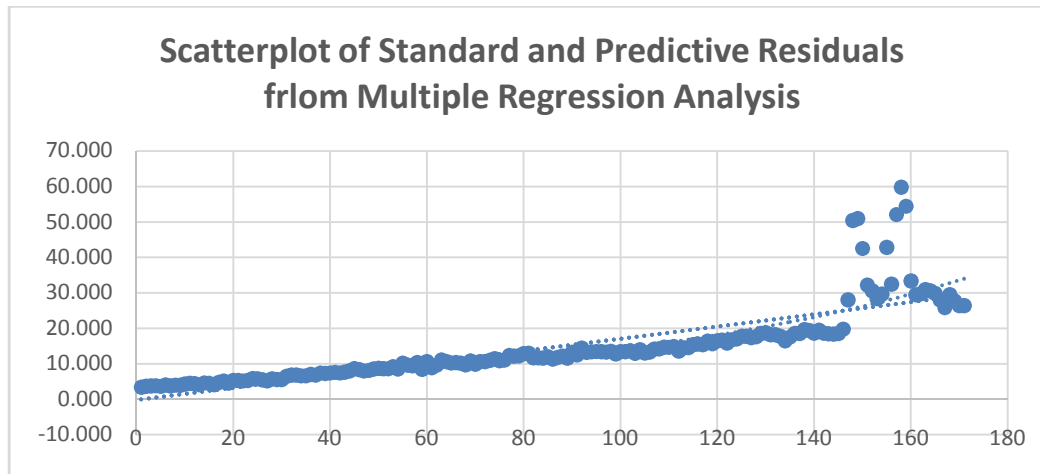
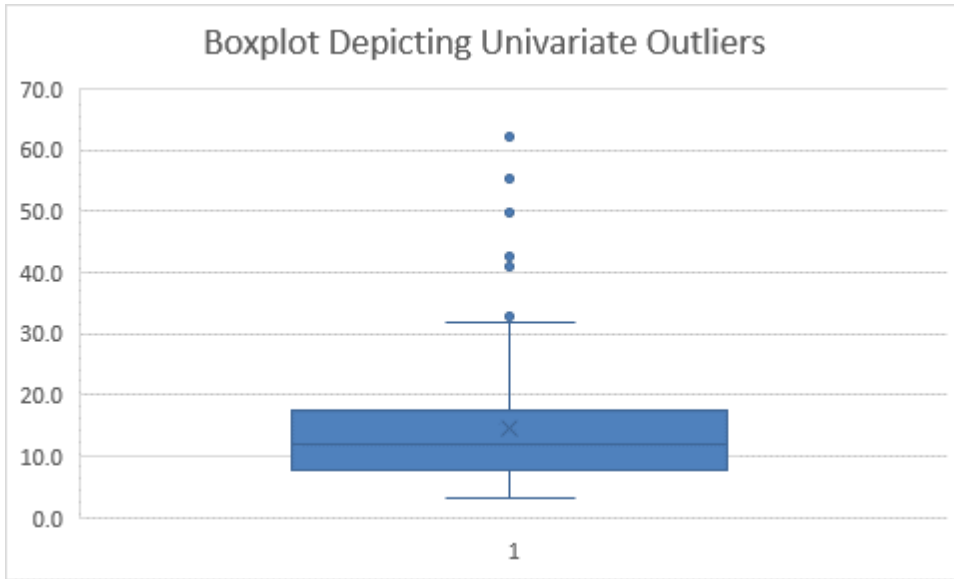
**Table 12: ANOVA**

<i>Regression Statistics</i>		<i>%</i>
Multiple R	0.9993	99.93%
R Square	0.9986	99.86%
Adjusted R Square	0.9984	99.85%
Standard Error	0.3981	39.81%
Observations	171	

**Table 13: ANOVA**

	<i>df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	7	18258.35	2608.34	16456.95	0.00**
Residual	163	25.83	0.16		
Total	170	18284.18			

\*\*P<.01 df, degree of freedom; SS, Sum of squares;MS, Mean Squared Errors



**Table 14: Coefficient**

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>	<i>Lower 95%</i>
Intercept	1.13	0.33	3.43	0.00**	0.48	1.77	
All retailing excluding automotive fuel	-0.07	0.05	-1.50	0.14	-0.17	0.02	
Predominantly food stores	0.09	0.08	1.21	0.23	-0.06	0.25	
Total of predominantly non-food stores	4.40	0.09	50.02	0.00**	4.23	4.58	
Non-specialised stores	-1.04	0.03	-31.45	0.00**	-1.10	-0.97	
Household goods stores	-0.89	0.02	-36.55	0.00**	-0.94	-0.84	
Other stores	-1.32	0.04	-29.44	0.00**	-1.41	-1.23	
Non-store retailing	-0.03	0.01	-5.08	0.00**	-0.05	-0.02	

\*\*P<.01

Table 15: Residual Outputs and Predicted Y

<i>Observation</i>	<i>Predicted Y</i>	<i>Residuals</i>	<i>Standard Residuals</i>
1	3.354	-0.054	-0.139
2	3.669	-0.169	-0.433
3	3.750	-0.050	-0.128
4	3.761	0.139	0.356
5	3.588	-0.088	-0.226
6	3.993	0.107	0.275
7	3.715	0.285	0.731
8	3.944	0.156	0.399
9	3.931	0.169	0.433
10	4.289	-0.189	-0.484
11	4.464	-0.164	-0.421
12	4.327	0.073	0.186
13	4.045	0.355	0.912
14	4.574	0.226	0.580
15	4.450	0.050	0.127
16	4.061	0.539	1.382
17	4.692	0.208	0.535
18	5.078	-0.078	-0.200
19	4.519	0.381	0.978
20	5.263	-0.163	-0.418
21	5.247	0.153	0.393
22	5.125	0.175	0.448
23	5.260	0.240	0.615
24	5.774	0.126	0.323
25	5.768	0.132	0.340
26	5.425	-0.325	-0.835
27	5.133	0.367	0.943
28	5.712	0.088	0.225
29	5.563	0.237	0.609
30	5.521	0.179	0.458
31	6.420	-0.020	-0.051
32	6.788	-0.188	-0.482
33	6.762	-0.262	-0.672
34	6.556	0.144	0.370
35	6.574	0.126	0.324
36	6.978	-0.078	-0.199
37	6.751	0.149	0.381
38	7.373	-0.273	-0.701
39	7.247	0.053	0.136
40	7.376	-0.176	-0.451
41	7.550	0.050	0.127
42	7.390	0.210	0.539
43	7.635	0.265	0.679
44	7.963	0.137	0.352
45	8.569	0.031	0.079
46	8.335	0.065	0.166

47	7.912	0.288	0.738
48	8.100	0.200	0.512
49	8.508	-0.008	-0.020
50	8.709	-0.009	-0.023
51	8.602	0.198	0.508
52	8.562	0.238	0.612
53	9.110	-0.010	-0.026
54	8.537	0.163	0.417
55	10.103	-0.303	-0.777
56	9.590	-0.090	-0.230
57	9.369	-0.169	-0.434
58	10.315	-0.515	-1.321
59	8.420	-0.020	-0.052
60	10.603	-0.203	-0.520
61	8.815	0.385	0.988
62	9.540	0.060	0.154
63	11.035	-0.235	-0.603
64	10.558	-0.058	-0.149
65	10.179	-0.079	-0.202
66	10.313	-0.113	-0.289
67	10.159	0.041	0.104
68	9.641	0.259	0.664
69	10.785	-0.085	-0.218
70	9.803	0.297	0.761
71	10.592	-0.392	-1.006
72	10.530	-0.030	-0.076
73	10.972	-0.272	-0.697
74	11.406	-0.206	-0.528
75	10.802	-0.002	-0.005
76	11.062	-0.162	-0.416
77	12.302	-0.502	-1.287
78	12.087	-0.387	-0.993
79	12.211	-0.411	-1.055
80	12.821	-0.321	-0.822
81	12.929	-0.529	-1.357
82	11.684	-0.184	-0.472
83	11.683	-0.083	-0.212
84	11.545	0.055	0.140
85	11.933	-0.033	-0.085
86	11.262	0.138	0.354
87	11.772	-0.272	-0.698
88	12.108	-0.108	-0.278
89	11.523	0.177	0.455
90	13.231	-0.231	-0.592
91	12.471	-0.171	-0.439
92	14.350	-0.850	-2.180
93	13.205	-0.205	-0.526
94	13.321	-0.221	-0.566

95	13.417	-0.017	-0.043
96	13.389	-0.089	-0.229
97	13.238	-0.038	-0.097
98	13.511	-0.211	-0.542
99	12.709	0.091	0.233
100	13.371	0.129	0.330
101	13.385	0.315	0.809
102	13.676	0.224	0.575
103	12.957	0.343	0.880
104	13.930	-0.130	-0.333
105	13.015	0.485	1.243
106	13.312	0.388	0.996
107	14.098	0.402	1.031
108	14.209	-0.009	-0.024
109	14.640	-0.140	-0.360
110	14.591	0.109	0.278
111	14.808	-0.108	-0.277
112	13.541	0.259	0.664
113	14.460	0.040	0.102
114	14.499	0.201	0.515
115	15.354	-0.154	-0.395
116	15.546	0.154	0.395
117	15.382	0.018	0.046
118	16.334	-0.234	-0.600
119	15.627	0.073	0.186
120	16.473	-0.073	-0.186
121	16.617	0.083	0.213
122	15.832	-0.032	-0.082
123	16.765	0.235	0.603
124	16.943	0.357	0.916
125	17.695	0.005	0.012
126	17.706	-0.306	-0.785
127	17.368	-0.068	-0.175
128	17.635	0.165	0.423
129	18.494	0.106	0.271
130	18.672	-0.472	-1.211
131	18.174	0.026	0.067
132	18.159	-0.159	-0.408
133	17.676	0.124	0.317
134	16.416	0.284	0.728
135	17.486	0.214	0.548
136	18.571	-0.171	-0.440
137	18.499	0.201	0.514
138	19.605	-0.105	-0.269
139	19.334	-0.234	-0.602
140	18.591	0.009	0.022
141	19.420	-0.220	-0.565
142	18.633	0.067	0.171

143	18.425	-0.225	-0.577
144	18.346	-0.046	-0.118
145	18.497	-0.297	-0.761
146	19.730	-0.130	-0.334
147	28.012	-0.512	-1.313
148	50.376	-0.476	-1.222
149	50.879	0.321	0.823
150	42.455	-1.355	-3.476
151	32.130	-0.230	-0.590
152	30.498	-0.298	-0.765
153	28.338	1.062	2.724
154	29.601	0.699	1.792
155	42.749	-0.149	-0.383
156	32.424	0.276	0.707
157	52.022	-1.222	-3.135
158	59.746	2.254	5.783
159	54.374	0.826	2.120
160	33.283	-1.683	-4.317
161	29.380	-0.080	-0.206
162	29.726	0.674	1.728
163	30.884	0.016	0.042
164	30.512	0.188	0.483
165	29.780	0.120	0.307
166	27.996	0.504	1.293
167	25.813	0.987	2.532
168	29.436	-1.036	-2.656
169	27.638	0.562	1.441
170	26.374	-0.774	-1.986
171	26.374	-0.474	-1.216

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## 16. Analysis/Result Interpretation:

To evaluate the data of the online sales index, which illustrates the value of the company after adjustment for the depicted seasons mean charismas per date, and the percentage of online retailing sales, a multiple regression analysis was performed. The regression model evaluated the effectiveness of seven control variables derived from various sources of sales data as intercepts (all retailing excluding automotive fuel; food stores; non-food stores; non-specialised stores; household goods stores; other stores; and non-store retailing). The presumptions of normality, linearity, multicollinearity, and homoscedasticity were tested in advance.

The boxplots demonstrated that all the variables in the regression analysis were normally distributed, even though they included some univariate outliers that were deemed negligible. Then, the scatterplot of the standardised residuals against the standardised predicted values and the homogeneity of variance of the standardised residuals showed that the suppositions of homoscedasticity, normality and linearity were satisfied. Next, the Mahala Nobis distance in the dataset did not exceed the crucial value of 2 for  $df=7$  ( $p=0.001$ ), indicating the lack of multivariate outliers. The relatively high limits for all the predictors of the regression model showed that multicollinearity does not conflict with the interpretation the regression model thanks to its relatively high tolerance.

## 17. Conclusion

This quantitative research was conducted to demonstrate the influence of visual merchandising on decision-making in purchasing apparel. A positivist research philosophy and a deductive reasoning approach were applied to demonstrate the impact by using data collected from primary (questionnaire) and secondary (books, journal articles, websites, reports, etc.) sources. In the statistical analysis the sample size of the study was 150 participants who took part in online, and demographic based like age, gender, education level, income etc. The independent variables were the window display and the store layout, design, atmosphere, and loyalty, while the dependent variable was the purchase product in decision making process. All hypotheses developed in the research were accepted with store window ( $\beta=0.98$ ,  $p=0.000$  &  $p < 0.05$ ), store layout and design ( $\beta=0.98$ ,  $p=0.000$  &  $p < 0.05$ ), store atmosphere ( $\beta=0.99$ ,  $p=0.000$  &  $p < 0.05$ ) and store loyalty ( $\beta=0.99$ ,  $p=0.000$  &  $p < 0.05$ ) presenting statistically significant results. The outcomes of this study demonstrated a significant relationship between the store window display, store layout, design, atmosphere and loyalty and the customers' decision-making process, highlighting these factors' effect on the decision of entering a store or purchasing goods.

## 18. References

- Albert, C., 2002. Service Loyalty: The Effects of Service Quality and the Mediating Role of Customer Satisfaction. *European Journal of Marketing*, 36(6), pp. 811-828.
- Altuntas, S., 2017. A novel approach based on utility mining for store layout: a case study in a supermarket. *Industrial Management & Data Systems*, 117(2), pp. 304-319.
- Babin, B., Hardesty, D. & Suter, T., 2003. Color and shopping intentions: the intervening effect of price fairness and perceived affect. *Journal of Business Research*, Volume 56, pp. 541-551.
- Bagozzi, R., 1986. *Principles of marketing management*. Chicago: Science Research Associates.
- Bakamitsos, G., 2000. *Mood effects on product evaluations: when and how does mood makes a difference*, Chicago: Northwestern University, Evanston and Chicago, .

Baker, J., Parasuraman, A., Grewal, D. & Voss, G., 2002. The influence of multiple store environment cues on perceived merchandise value and patronage intentions. *Journal of Marketing*, Volume 66, pp. 120-141.

Ballantine, P. W., Parsons, A. & Comeskey, K., 2015. A conceptual model of the holistic effects of atmospheric cues in fashion retailing. *International Journal of Retail & Distribution Management*, 43(6), pp. 503-517.

Barros, L. B. L., Petroll, M. D. L. M., Damacena, C. & Knoppe, M., 2019. Store atmosphere and impulse: a cross-cultural study. *International Journal of Retail & Distribution Management*, 47(8), pp. 817-835.

Bigné, E., Llinares, G. & Torrecilla, C., 2015. Elapsed time on first buying triggers Brand choices within a category: a virtual reality-based study. *Journal of Business Research*, 69(4).

Binninger, A. S., 2008. Exploring the relationships between retail brands and consumer store loyalty. *International Journal of Retail & Distribution Management*, 36(2), pp. 94-110.

Cant, M. & Hefer, Y., 2014. Visual merchandising displays effect – or not – on consumers: the predicament faced by apparel retailers. *Journal of Business and Retail Management Research*, 8(2), pp. 95-104.

Chang, H.-J., Eckman, M. & Yan, R.-N., 2011. Application of the stimulus-organism-response model to the retail environment: the role of hedonic motivation in impulse buying behavior. *The International Review of Retail, Distribution and Consumer Research*, 21(3), pp. 233-249.

Chang, H. J., Eckman, M. & Yan, R. N., 2011. Application of the Stimulus-Organism-Response model to the retail environment: the role of hedonic motivation in impulse buying behavior. *The International Review of Retail, Distribution and Consumer Research*, 21(3), pp. 233-249.

Chen, C. C. & Yao, J. Y., 2018. What drives impulse buying behaviors in a mobile auction? The perspective of the Stimulus-Organism-Response model. *Telematics and Informatics*, 35(5), pp. 1249-1262.

Cox, A. et al., 2016. *Productivity in the retail sector: challenges and opportunities*, s.l.: Institute for Employment Studies.

Curwin, J., Slater, R. & Eadson, D., 2013. *Quantitative Methods for Business Decisions*. 7th ed. Andover: Cengage.

David, M. & Sutton, C., 2010. *Social Research: An Introduction*. 2nd ed. London: Sage.

Diehl, K., van Herpen, E. & Lamberton, C., 2015. Organizing products with complements versus substitutes: effects on store preferences as a function of effort and assortment perceptions. *Journal of Retailing*, 91(1), pp. 1-18.

Donovan, R., Rossiter, J., Marcoolyn, G. & Nesdale, A., 1994. Store atmosphere and purchase behaviour. *Journal of Retailing*, 70(3), pp. 283-294.

Du Plessis, P. & Rousseau, G., 2003. *Buyer Behaviour: A Multi Cultural Approach*. Cape Town: Oxford University Press.

Dunne, P. M., Lusch, R. F. & Carver, J. R. (.), 2013. *Retailing*. Boston, Massachusetts: Cengage Learning.

Ebster, C., 2011. *Store design and visual merchandising: creating store space that encourages buying*. 2nd ed. London: Business Expert Press.

Ezeh, C. & Harris, L. C., 2007. Servicescape research: a review and a research agenda. *The Marketing Review*, 71(1), pp. 59-78.

Fiore, A., Yah, X. & Yoh, E., 2000. Effect of a product display and environmental fragrancing on approach responses and pleasurable experiences. *Psychology & Marketing*, 17(1), pp. 27-54..

Floor, K., 2006. *Branding a store: How to build successful retail brands in a changing marketplace*. London, United Kingdom: Kogan Page Publishers..

Hinton, P. R., 2014. *Statistics explained*..London: Routledge.

Hinton, P. R., McMurray, I. & Brownlow, C., 2014. *SPSS explained*. London: Routledge..

Hultén, B., 2012. Sensory cues and shoppers' touching behaviour: the case of IKEA. *International Journal of Retail & Distribution Management*, 40(4), pp. 273-289..

Iarocci, L., 2013. *Visual merchandising: The image of selling*. London: Ashgate Publishing, Ltd...

Jain, V., Sharma, A. & Narwal, P., 2012. Impact of visual merchandising on consumer behavior towards women's apparel. *International Journal of Research in management*, 2(5), pp. 106-117.

Krasonikolakis, I., Vrechopoulos, A., Pouloudi, A. & Dimitriadis, S., 2018. Store layout effects on consumer behavior in 3D online stores. *European Journal of Marketing*, 52(5), pp. 1223-1256.

Krishna, A., 2012. An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior. *Journal of consumer psychology*, 22(3), pp. 332-351.

Kumar, R., 2019. *Research methodology: A step-by-step guide for beginners*. London: Sage Publications Limited..

Lange, F., Rosengren, S. & Blom, A., 2016. Store-window creativity's impact on shopper behavior. *Journal of Business Research*, 69(3), pp. 1014-1021.

Lange, F., Rosengren, S. & Blom, A., 2016. Store-window creativity's impact on shopper behaviour. *Journal of Business Research*, 69(3), pp. 1014-1021.

Law, D., Wong, C. & Yip, J., 2012. How does visual merchandising affect consumer affective response?..*European Journal of marketing*., 46(1), pp. 112 – 133.

Lea-Greenwood, G., 1988. Visual merchandising: a neglected area in UK fashion retailing?..*International Journal of Retailing and Distribution Management*, 18(4), pp. 21-31.

Lea-Greenwood, G., 2013. *Fashion marketing communications*. s.l.:John Wiley & Sons..

Lecointre-Erickson, D., Dauce, B. & Legohérel, P., 2018. The influence of interactive window displays on expected shopping experience. *International Journal of Retail and Distribution Management* ,46(9), pp. 802-819.

Levy, M. & Weitz, A., 2012. *Retailing Management*. 8th ed. New York: McGraw-Hill/Irwin.

Liao, S. H. & Tasi, Y. S., 2019. Big data analysis on the business process and management for the store layout and bundling sales. *Business Process Management Journal*., 25(7), pp. 1463-7154.

Madzharov, A., Block, L. &Morrin, M., 2015. The cool scent of power: effects of ambient scent on consumer preferences and choice behavior. *Journal of Marketing*, 79(1), pp. 83-96.

Manganari, E. E., Siomkos, G. J., Rigopoulou, I. D. &Vrechopoulos, A. P., 2011. Virtual store layout effects on consumer behaviour: Applying an environmental psychology approach in the online travel industry. *Internet Research*, 21(3), pp. 326-346..

Manganari, E., Siomkos, G., Rigopoulou, I. &Vrechopoulos, A., 2011. Virtual store layout effects on consumer behaviour: applying an environmental psychology approach in the online travel industry. *Internet Research*, 21(3), pp. 326-346.

Mathew, R., 2008. *Apparel Merchandising*. New Delhi: Book Enclave.

Matthews, K. I. I., Hancock, H. & Joseph, Z. G., 2013. Rebranding American Men's Heritage Fashions through the Use of Visual Merchandising, Symbolic Props and Masculine Iconic Memes Historically Found in Popular Culture. *Critical Studies in Men's Fashion*, 1(1), p. 39 – 58.

Mehrabian, A. & Russell, J. A., 1974. *An approach to environmental psychology*. s.l.:MIT Press..

Melis, K., Campo, K., Lamey, L. &Breugelmans, E., 2016. Bigger slice of the multichannel grocery pie: when does consumers'Online channel use expand retailers' share of wallet?.*Journal of Retailing*, 92(3), pp. 268-286.

Merugu, P. a. V. K., 2017. Visual merchandising: a study on consumer impulsive buying behavior in greater Visakhapatnam city. *International Journal of Engineering Technology Science and Research*, 4(7), pp. 2394-3386..

Michon, R., Chebat, J. C. & Turley, L. W., 2005. Mall atmospherics: the interaction effects of the mall environment on shopping behavior. *Journal of Business Research*, 58(5), pp. 576-583.

Moayery, M., Zamani, S. &Vazifehdoost, H., 2014. Effect of visual merchandising on apparel impulse buying behaviors among Iranian young adult females..*Indian Journal of Science and Technology*, 7(3), p. 360.

Mohan, G., Sivakumaran, B. & Sharma, P., 2013. Impact of store environment on impulse buying behavior..*European Journal of marketing*., 47(10), pp. 1711-1732.

Mohinta, S. &Surarchith, N. K., 2014. Relationship between Store Loyalty and Shopping Behavior: A Conceptual Study..*European Journal of Business and Management*, 6(4), pp. 175-179.

Nishanov, B. &Aahunjonov, U., 2016. The Influence Of Store Characteristics On Consumers' Impulse Buying Behaviour..*Journal of international business research and marketing*., 1(3), pp. 20-26.

Office of Metropolitan Architecture, 2019. *Prada Epicenter New York*. [Online] Available at: <https://oma.eu/projects/prada-epicenter-new-york> [Accessed 29 Feb 2020].

Oh, H. & Petrie, J., 2012. How do storefront window displays influence entering decisions of clothing stores. *Journal of Retailing and Consumer Services*, 19(1), pp. 27-35..Oliver, P., 2010. *The student's guide to research ethics*. London: McGraw-Hill Education.

Opris, M. & Brațucu, G., 2013. Visual merchandising window display. *Bulletin of the Transilvania University of Brasov*, 6(55), pp. 51-56.

Opris, M. & Bratucu, G., 2013. Visual merchandising window display..*Bulletin of the Transilvania University of Brasov. Economic Sciences Series*, 6(2), pp. 51-59.

Pandey, S., Khare, A. & Bhardwaj, P., 2015. Antecedents to local store loyalty: influence of culture, cosmopolitanism and price. *International Journal of Retail & Distribution Management.*, 43(1), pp. 5-25.

Pantano, E., Priporas, C. & Foroudi, P., 2019. Innovation starts at the storefront: modelling consumer behaviour towards storefront windows enriched with innovative technologies. *International Journal of Retail and Distribution Management*, 47(2), pp. 202-219..

Park, H. H., Jeon, J. O. & Sullivan, P., 2015. How does visual merchandising in fashion retail stores affect consumers' brand attitude and purchase intention?.*The International Review of Retail, Distribution and Consumer Research*, 25(1), pp. 87-104.

Pegler, M., 2012. *Visual Merchandising and Display*. 6th ed. New York : Fairchild Publications.

Poncin, I. & Mimoun, M., 2014. The impact of “e-atmospherics” on physical stores. *Journal of Retailing and Consumer Services*, 21(5), pp. 851-859.

Rigby, D., 2011. The future of shopping. *Harvard Business Review*, 89(12), pp. 65-76.

Robert, D. & John, R., 1982. Store atmosphere: an environmental psychology approach. *Journal of retailing*, 58(1), pp. 34-57.

Roozen, I., 2019. The influence of external design elements on clothing store entry intentions for recreationally and task-oriented female clothing shoppers. *The International Review of Retail Distribution and Consumer Research*, 29(4), pp. 409-429.

Saricam, C. et al., 2018. *Analyzing the Visual Merchandising Elements for the Apparel Retailers*. In *IOP Conference Series: Materials Science and Engineering*..s.l., IOP Publishing..

Saunders, M., Lewis, P. & Thornhill, A., 2009. *Research Methods for Business Studies*. 5th ed. Harlow: Pearson.

Schifferstein, H. N. & Blok, S. T., 2002. The signal function of thematically (in) congruent ambient scents in a retail environment. *Chemical Senses*, 27(6), pp. 539-549.

Sen, S., Block, L. G. & Chandran, S., 2001. Window displays and consumer shopping decisions. *Journal of Retailing and Consumer services*, 9(5), pp. 277-290..

Shin, J., Park, M. & Moon, M., 2015. Do eco-friendly VMD and store reputation increase satisfaction of retail customers?.*Psychology & Marketing*.,32(12), pp. 1148-1157..

Singh, P., Katiyar, N. & Verma, G., 2014. Retail shoppability: the impact of store atmospherics & store layout on consumer buying patterns..*International journal of scientific & technology research*.,3(8), pp. 15-23.

Soars, B., 2009. Driving sales through shoppers' sense of sound, sight, smell and touch”. *International Journal of Retail & Distribution Management*, 37(3), pp. 286-298.

Spangenberg, E., Sprott, D., Grohmann, B. & Tracy, D., 2006. Gender-congruent ambient scent influences on approach and avoidance behaviours in a retail store. *Journal of Business Research*, Volume 59, pp. 1281-1287.

Spence, C., Puccinelli, N. M., Grewal, D. & Roggeveen, A. L., 2014. Store atmospherics: A multisensory perspective. *Psychology & Marketing*. *Psychology & Marketing*, 31(7), pp. 472-488.

Spies, K., Hesse, F. & Loesch, K., 1977. Store atmosphere, mood and purchasing behavior. *International Journal of Research in Marketing*, 14(1), pp. 1-17.

Tendai, M. & Crispen, C., 2009. In-store shopping environment and impulsive buying. *Africa Journal of Marketing Management*, 1(4), pp. 102-108.

Tony, M., 2011. *Visual Merchandising : Window and In-Store Displays for Retail*..2nd ed. London, United Kingdom: Laurence King Publishing.

Turley, L. W. & Milliman, R. E., 2002. Atmospheric effects on shopping behavior: a review of the experimental evidence. *Journal of business research*, 49(2), pp. 193-211.

Varley, R., 2014. *Retail product management: buying and merchandising*. London: Routledge.

Venter, M., Chinomona, R. & Chuchu, T., 2016. The influence of store environment on brand trust, brand satisfaction and brand loyalty among the black middle class. *The Retail and Marketing Review*, 12(2), pp. 46-58.

Wu, J. et al., 2013. Fashion product display..*International Journal of Retail & Distribution Management*., 41(10), pp. 765-789.

Wu, J., Kim, A. & Koo, J., 2015. Co-design visual merchandising in 3D virtual stores: a facet theory approach. *International Journal of Retail & Distribution Management*, 43(6), pp. 538-560.

Zhou, L. & Wong, A., 2004. Consumer impulse buying and in-store stimuli in Chinese. *Journal of International Consumer Marketing*, 16(2), pp. 37-53.

Zhou, L. & Wong, A., 2004. Consumer impulse buying and in-store stimuli in Chinese supermarkets. *Journal of International Consumer Marketing*, 16(2), pp. 37-53.

Ahmad, A., 2021. Antecedents and outcomes of innovation capability: A case of European automotive organizations. *Journal of Digitovation and information system*, 1(1), pp.1-14.

Lucia-Palacios, L., Pérez-López, R. and Polo-Redondo, Y. (2016), "Cognitive, affective and behavioural responses in mall experience: A qualitative approach", *International Journal of Retail & Distribution Management*, Vol. 44 No. 1, pp. 4-21. <https://doi.org/10.1108/IJRDM-05-2014-0061>

Hoyer, W.D., MacInnis, D.J. and Pieters, R., 2012. *Consumer behavior*. Cengage Learning.