Impact of Assortment Size on Consumer Purchase Decision in Apparel Retail

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Abstract
Many apparels retailers increase their product variety to attract consumers thereby increase the sales volume and profit. This increase in product variety might have positive as well as and negative effects on the retailers' sales. A larger variety might attract customers to buy more and increase sales. It may harm both consumers and retailers like high inventory cost, and choice complexity among the consumers. To understand the customers' perception of a large variety and its effect on consumer behaviour and sales a study was planned. This study was conducted in an apparel retail store by setting up two different assortments for the product "kurti" with six different attributes such as fabric, model, purpose, sleeve length, price, and brand. The data were collected from the consumers through a face-to-face survey and they were analysed using ANOVA. The results show that large assortments create more motivation to purchase, can select precise options, difficulty in choosing, and increases the search time. And a smaller assortment lessens the search time, creates extra purchase, creates attractiveness but it creates less motivation, more confusion, and regret.

Introduction

Clothing is an important item in everyone's life and it is considered as a second skin. It falls in the category of physiological needs and fulfills the need for protection(Dweck & Leggett, 1988). In recent times, garment companies have shown continuous growth in apparel, sportswear, and footwear, etc. Countries like India, Bangladesh, and China are considered leading apparel manufacturers. In this modern era consumer's perception of clothing has changed it is used as a communication tool. People use clothes to express and to differentiate themselves from others. They pick clothes that suit them perfectly and make them comfortable to wear (Mehrjoo & Pasek, 2014). The term "product variety" defines, several versions of a product offered by a firm at a single point in time, for example form (size, shape, and structure), feature (options provided), and style (color, appearance)(Randall & Ulrich, 2001). The product variety directly affects the different departments of the company such as logistics, marketing, manufacturing, etc.(Park, Bellamy, & Basole, 2018). It not only affects the company but also the consumers' buying behavior and product satisfaction (Kahn, 1998). That's the reason that, every year fashion industry comes out with newness in their product(Carugati, Liao, & Smith). On the other hand, making the availability product varieties also changes consumer behavior, for example, better product choice selection strategies, in the long run creates loyal customers(Iyengar & Lepper, 2000). In contrast, reduction in variety harms both the purchase quantity and frequency of shopping (Borle, Boatwright, Kadane, Nunes, & Galit, 2005). In light of this the retailers are afraid to reduce the product varieties because it may reflect in total sales and profit. Other researchers also said that increased product may also create difficulty and confusion for the consumers to pick their best which later turns into dissatisfaction in their purchase decision(Iyengar & Lepper, 2000).

Literature Review

The product variety is a dominant factor for the business to attract consumers and to expand the business by increased profits. For the products to be successful and to place the product varieties in consumer's minds the companies have to incorporate innovativeness to suit customers' choice and taste (Lang & Armstrong, 2018).

The ideology of the supermarket is to have more choice which means more choice is better. This has resulted in an increased number of stocks keeping units (SKU) number of products has increased from 6000 to 30000 in the year 1994(Boatwright & Nunes, 2001). Supermarkets with increased products and varied assortments have gained a high market share while comparing stores with limited variety(Iyengar & Lepper, 2000). Availability of variety is huge in all areas and people can find variety and alternative products in every sphere which helps the consumers to select their most preferred option(Ryzin & Mahajan, 1999). The assortment is an important asset to the retailers because it attracts potential consumers to the stores. Thus, the conventional wisdom among the retailers is to have more variety to pull the heterogeneous group of people and to satisfy their needs and wants(Boatwright & Nunes, 2001). Variety is reflected by several product categories and stock-keeping units (Bhatnagar & Ratchford, 2004). Though variety is an important factor do consumers choose from the varied assortment and gives a positive impact on sales and shopping frequency. Some authors have provided answers that the addition of products increased the store traffic and store size but the store traffic did not increase the sales volume and other reasons like the consumers are not able to find their products what they are looking for it.

Some researchers have said more variety is beneficial to the consumers and they are likely to prefer a larger assortment compared with a smaller variety because of increased options available(Broniarczyk, Hoyer, & McAlister, 1998). From the literature it is understood that consumers prefer a larger assortment than a smaller product assortments. For example, from a larger assortments there are more chance of the consumers will be able to find their most preferred products and larger assortments also supports choice flexibility to the consumers when they would like to change their choice preferences and purchase decision.Thus, larger assortments are able to support variety-seeking behavior of the consumers. An increase in assortment size, is proportional to the increase in the attractiveness and favors additional purchase. Moreover, variety acts as a substitute for the consumers to purchase(Koelemeijer & Oppewal, 1999). Most of the retailers had recognized that consumers prefer larger assortments for many reasons like flexibility which means they can match their preferences when the variety is large. The brand

offering greater variety will influence the perception of quality which in turn enhances the profit. A study has been conducted to know the influence of product variety on quality, brand choice, and sensory experience. And it has been concluded that brand with larger varieties has increased quality perception and repeat purchase(Berger, Draganska, & Simonson, 2007).

On the other hand, a set of researchers has indicated that while shopping from a larger assortment by consumers may result in frustration and choice conflict which may make the consumers feel the attractiveness of the assortment to be low. Though the choice benefit increases the attractiveness of the assortment it involves a cognitive cost which decreases the assortment attractiveness(Van Herpen & Pieters, 2002). When compared to a smaller assortment larger assortment creates a high cognitive cost because of the added processing involved in it which leads to a decrease in consumer preference for larger assortment. In recent times retailers are undergoing increased pressure to come up with more efficient assortments by eliminating low and non-selling products. But they are reluctant and afraid to cut down their product because of their fear of losing their customers who will be unhappy with their offerings and also with the fear of losing their total sales volume and profit. Some of the negative consequences are associated with the larger assortment some of the are,(i) less satisfaction when a choice are overloaded it leads to less satisfaction (ii) cognitive cost, it involves more mental effort and time of the consumer to make a decision (iii) uncertainty of decision when choices are overloaded the consumers are not sure whether they have made a good decision which again leads to lower satisfaction(Iyengar & Kamenica, 2010). In general, people also prefer large variety in the hope to match with their preferences or the product they already know so that they are successful in their search and also increases the satisfaction. On the other side, people experience choice complexity as a result which leads to deferring the decision. Furthermore, from the literature it is understood that when the number of options and the information about the option increases consumers tend to consider fewer choices and process a smaller set of the overall information available regarding their choices. Retailers are currently recognizing that even though variety is appealing to the customers it also reduces the customer wellbeing, customer motivation to purchase, regret, dissatisfaction, and stress and unhappiness. Later the retailers understood that they don't want the customers to be continuously overloaded by huge products and realized to limit the products in an assortment (Smith & Agrawal, 2000).

To conclude this, it is understood that more number products can increase sales but not in all product categories. Lowering variety can also increase sales on average but when stock keeping units are decreased too low it gives negative results on sales Thus, more variety is found to be better, but for only few product categories, similarly a lesser variety is also better , but only for few product categories(Boatwright & Nunes, 2001).

The main purpose of the study is to understand how does variety influences consumer purchase decisions and how it affects the retailers related to retail expenses. To identify the factors influencing varieties in a product. To understand product varieties on retailers in terms of inventory and profit. And to understand product varieties on consumers in terms of purchase time spent and confusion.

Methodology

To understand the impact of assortment size on consumer purchase decisions an experiment was conducted in a retail shop by displaying Kurtis. Kurtis has been selected because it is considered versatile apparel and it can be paired with any matching bottoms and used as a perfect match for casual wear, festive wear, or even for party looks. Six different attributes and two different assortment sizes, one with a large number (60) and the other one with a small assortment (30). To select two main assortments the product stock data were manually collected from the retailers and they were divided into two different assortments there was a total of 63 SKU in the kurti section. Both the assortments had different styles of kurti with variations in attributes like sleeve type, type of fabric, color, style of the garment, and the purpose of the garment. In larger assortment, it had repetitions in it and there is not much repetition in smaller assortment and the questionnaire was prepared by selecting items such as confusion, regret, time spent, satisfaction/disappointment, difficulty in choosing, motivation to purchase, knowledge, repetition, pursuing to purchase extra, etc. These items help to analyze whether consumers find it difficult in selecting their option or did they felt disappointed after selecting their choice. Time spent to purchase and also to know whether they knew all provided assortments. The store selection was based on the store characteristics like store size, products dealt etc. The next step was to prepare the questionnaire.

The questionnaire was prepared based on available questionnaire taken from published articles. The questionnaire was validated for its content and grammar by three academicians.

A 5-point Likert scale has been used. In this (5) represents strongly agree, (4) agree, (3) neither agree nor disagree, (2) disagree, (1) strongly disagree. The sample size was estimated based on the previous study. The sample size of the study is 130 customers and the days spent are two weeks. A face-to-face method was carried to collect data from the willing customers. To analyze the data ANOVA tool has been used. Totally 15 independent variables have been tested in comparison with the dependent variable and 30 hypothesis testing have been done. ANOVA is a statistical hypothesis testing tool used in the analysis of experimental data. A test result is called statistically significant if it is deemed unlikely to have occurred by chance, assuming the truth of the null hypothesis. One-way has been used to analyze the testing. One-way analysis determines whether there is any statistically significant difference between the independent groups.

Results and Discussion

Developed Automated Model

Six attributes were selected for the study viz, Fabric, style, purpose, Brand, Price, and Fit. The larger assortment had 60 kurtis and the smaller assortment had 30 kurtis.

For the 15 items the responses were received in the form of 5-point likert scale. The items were extra purchase, motivation to purch-ase, selection of right item, difficulty in selection, confusion, search time, attractiveness and repetition.

Table 1
Comparison between preference for a large variety and extra purchase

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.070	4	1.517	1.004	.408
Within groups	188.861	125	1.511		
Total	194.931	129			

The first hypothesis is set to test whether a large variety induces extra purchase. From Table 1, it can be understood that consumer don't prefer extra purchases when the variety is more because the significant value is more than .05. so, it can be concluded that having larger variety does not induce extra purchase. There may be many reasons for this, respondents would have felt the products to be repeating or there is no motivation to purchase more.

Table 2
Comparison between the preference for a large variety and less motivation

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	11.785	4	2.946	2.011	.097
Within groups	183.146	125	1.465		
Total	194.931	129			

Based on the first hypothesis, the second hypothesis adds to the understanding whether large variety creates less motivation. Table 2, shows the relationship between large variety and motivation to purchase, as the significant value is .097 which is greater than .05 that implies a larger assortment doesn't create lessen motivation to purchase.

Table 3
Comparison between the preference for a large variety and more motivation.

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	25.991	5	5.198	3.815	.003
Within groups	168.940	124	1.362		
Total	194.931	129			

The next hypothesis is to understand whether large assortment creates more motivation. Table 3, shows that a larger assortment creates more motivation because the significant value is less than

.05. Larger assortment creates motivation to purchase but the previous results suggest that it does not create extra purchase. Therefore, the next hypothesis will be to understand the relationship between large assortment and selection.

Table 4
Comparison between preference for a large variety and selecting the right choice from a large assortment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	19.502	4	4.876	3.474	.010
Within groups	175.428	125	1.403		
Total	194.931	129			

From Table 4, it is noted that as the significant value is less than .05, larger assortment helps to select the right choice.
The next hypothesis was to test the selection of right choice from a smaller assortment and from Table 5, as the significant value is less than .05 which means there is a relationship between selecting the right option in a small assortment.

Table 5
Comparison test between preference for a large variety and selecting right options from small assortments

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	15.172	4	3.793	2.638	.037
Within groups	179.759	125	1.438		
Total	194.931	129			

Table 6
Comparison between the preference of larger variety and difficulty in selecting from a large assortment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	51.865	4	12.966	11.329	.000
Within groups	143.066	125	1.145		
Total	194.931	129			

The next hypothesis is to test on the difficulty in choosing. Table 6, shows thelargerassortment creates difficulty in choosing the option because the significant value is .000. so the nest hypotheses is to test whether smaller assortment creates difficulty while choosing.

Table 7
Comparison between the preference of larger variety and difficulty in choosing from a small assortment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.197	4	.799	.521	.720
Within groups	191.734	125	1.534		
Total	194.931	129			

Table 7, shows that a smaller assortmentdoesn't   create more difficulty in selecting the option because the significant value is more than.05. It is noted that there is difficulty in choosing from larger assortment and no difficulty in choosing from smaller assortment.

Table 8
Comparison between preference for large variety confusing in choosing from a large assortment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	12.055	4	3.014	2.060	.090
Within groups	182.876	125	1.463		
Total	194.931	129			

The next two hypothesis is to test whether there is confusion while choosing from smaller and larger assortment. Table 8, shows that a larger assortment creates more confusion while choosing the option because the significant value is more than .05.

Table 9
Comparison between preference for large variety and confusion in selecting from a small assortment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.310	4	1.578	1.045	.387
Within groups	188.621	125	1.509		
Total	194.931	129			

Table 9, tells that a smaller assortment creates any confusion while selecting the choice since the significant value is more than .05. The next hypothesis is to understand about the search time in choosing from larger assortment and smaller assortment.

Table 10
Comparison between preference for a large variety and high search time in a large assortment

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	15.192	4	3.798	2.641	.037
Within groups	179.738	125	1.438		
Total	194.931	129			

Table 10, shows larger assortment creates a high search time while selecting the option because the significant value is less than.05.

Table 11
Comparison between preference for a large variety and selecting the precise option

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	14.794	4	3.698	2.566	.041
Within groups	180.137	125	1.441		
Total	194.931	129			

From table 11, a larger assortment doesn't help to select the precise option since the significant value is less than .05. this may be due to the fact that it does not create any attractiveness.

Table 12
Comparison between preference for large variety and attractiveness

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5.237	4	1.309	.863	.488
Within groups	189.694	125	1.518		
Total	194.931	129			

Table 12, shows large assortment doesn't create any attractiveness since the significant value is less than .05.

Table 13
Comparison between preference for large variety and repetition

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	19.487	4	4.872	3.471	.010
Within groups	175.444	125	1.404		
Total	194.931	129			

Table 13, shows large assortment has more repetition since the significant value is less than 0.05 The large assortment doesn't create any attractiveness may be because the respondents feel it is repeating. Other results also extend by saying that a larger assortment doesn't create regretting

the selected option and disappointment since the significant value is less than .05 but a large assortment doesn't provide knowledge on the given options.

Conclusion

The variables less than 0.05 are relatable to the dependent variable and the variables more than 0.05 are not relatable.

Thus, from the results, it can be concluded that a large assortment creates more motivation to purchase, but does not create extra purchase, helps to choose right options from the assortment, doesn't create regret but it creates high search time to choose the right option from the assortment, and not able to select precise option, difficulty to choose and it has more repetition in it.

The small assortment is able to choose the preferred option in less time, creates extra purchase of the product. Doesn't create difficulty in choosing the option, creates attractiveness but doesn't able to select a precise option, and has no repetition in it but it creates less motivation, more confusion, and regret.

References

Berger, J., Draganska, M., & Simonson, I. (2007). The influence of variety on brand perceptions, choice, and experience. *Marketing science, 26*(4), 460-472. doi:https://doi.org/10.1287/mksc.1060.0253

Bhatnagar, A., & Ratchford, B. T. (2004). A model of retail format competition for non-durable goods. *International Journal of Research in Marketing, 21*(1), 39-59. doi:https://doi.org/10.1016/j.ijresmar.2003.05.002

Boatwright, P., & Nunes, J. C. (2001). Reducing assortment: An attribute-based approach. *Journal of marketing, 65*(3), 50-63. doi:https://doi.org/10.1509/jmkg.65.3.50.18330

Borle, S., Boatwright, P., Kadane, J. B., Nunes, J. C., & Galit, S. (2005). The effect of product assortment changes on customer retention. *Marketing science, 24*(4), 616-622. doi:https://doi.org/10.1287/mksc.1050.0121

Broniarczyk, S. M., Hoyer, W. D., & McAlister, L. (1998). Consumers' perceptions of the assortment offered in a grocery category: The impact of item reduction. *Journal of marketing research, 35*(2), 166-176. doi:https://doi.org/10.1177/002224379803500203 https://doi.org/10.2307/3151845

Carugati, A., Liao, R., & Smith, P. (2008). *Speed-to-fashion: managing global supply chain in Zara*.

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and personality. *Psychological review, 95*(2), 256. doi:https://doi.org/10.1037/0033-295X.95.2.256

Iyengar, S. S., & Kamenica, E. (2010). Choice proliferation, simplicity seeking, and asset allocation. *Journal of Public Economics, 94*(7-8), 530-539. doi:https://doi.org/10.1016/j.jpubeco.2010.03.006

Iyengar, S. S., & Lepper, M. R. (2000). When choice is demotivating: Can one desire too much of a good thing? *Journal of personality and social psychology, 79*(6), 995. doi:https://doi.org/10.1037/0022-3514.79.6.995

Kahn, B. E. (1998). Dynamic relationships with customers: High-variety strategies. *Journal of the Academy of Marketing Science, 26*(1), 45-53. doi:https://doi.org/10.1177/0092070398261005

Koelemeijer, K., & Oppewal, H. (1999). Assessing the effects of assortment and ambience: a choice experimental approach. *Journal of Retailing, 75*(3), 319-345. doi:https://doi.org/10.1016/S0022-4359(99)00011-1

Lang, C., & Armstrong, C. M. J. (2018). Collaborative consumption: The influence of fashion leadership, need for uniqueness, and materialism on female consumers' adoption of clothing renting and swapping. *Sustainable Production and Consumption, 13*, 37-47. doi:https://doi.org/10.1016/j.spc.2017.11.005

Mehrjoo, M., & Pasek, Z. J. (2014). Impact of product variety on supply chain in fast fashion apparel industry. *Procedia CIRP, 17*, 296-301. doi:https://doi.org/10.1016/j.procir.2014.01.082

Park, H., Bellamy, M. A., & Basole, R. C. (2018). Structural anatomy and evolution of supply chain alliance networks: A multi-method approach. *Journal of Operations Management, 63*, 79-96. doi:https://doi.org/10.1016/j.jom.2018.09.001

Randall, T., & Ulrich, K. (2001). Product variety, supply chain structure, and firm performance:

Analysis of the US bicycle industry. *Management Science, 47*(12), 1588-1604. doi:https://doi.org/10.1287/mnsc.47.12.1588.10237

Ryzin, G. v., & Mahajan, S. (1999). On the relationship between inventory costs and variety benefits in retail assortments. *Management Science, 45*(11), 1496-1509. doi:https://doi.org/10.1287/mnsc.45.11.1496

Smith, S. A., & Agrawal, N. (2000). Management of multi-item retail inventory systems with demand substitution. *Operations Research, 48*(1), 50-64. doi:https://doi.org/10.1287/opre.48.1.50.12443

Van Herpen, E., & Pieters, R. (2002). The variety of an assortment: An extension to the attribute-based approach. *Marketing science, 21*(3), 331-341. doi:https://doi.org/10.1287/mksc.21.3.331.144