Analyzing Situational Factors of Consumer Reaction in an Out-of-Stock Situation: A Study of Two Products

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Abstract - This paper is a study of consumer response to a situation of 'out-of-stock' of a specific product that the consumer wanted to purchase. This study has focused on two categories of products – category 1: necessity goods, where milk has been selected as the representative product; category 2: luxury goods, where branded clothes are taken as the representative product of this category. This is a primary study conducted on a random sample of consumers residing in Haridwar and Dehradun in order to support the practical implications of the study area along with the literature review which has been sourced from verified published sources. This paper contains the relevance of pertaining factors that drive the behaviour of the consumers in such situations providing the base of contribution of each factor for the providers of the products as well. The derived results show that the major situational factors highlighted in the study drive consumer behaviour to a significant extent in the situation of stock-outs in retail stores.

Key words: out-of-stock, consumer response, situational factors, retail, in-shelf availability, inventory

I. INTRODUCTION

Often, it happens that the consumers or potential buyers go to a store to buy a specific product but that specific product is not available. The goods may be unavailable or the stock may be finished in retail outlet. There arises a situation of out of stock. The Cambridge English dictionary explains the out-of-stock situation (simply called "stock-out") [1] as a condition in which a certain commodity is not available in the store for sale at the time of demand. Out of stock events are usually seen in retail stores, which are direct point for customers to buy, in case when the inventory of any preferred or demanded goods is exhausted & this sort of situation is not so uncommon in case of Fast Moving Consumer Goods. The retailers usually face a complexity of managing the miscellaneous things such as the products pertaining to the price, the consideration towards their promotional part and the overall job of stocking them in the store taking into consideration each and every aspect related to the product and its buyers says David R. Bell and Gavan J. Fitzsimons(1999) [2] and along with this, the complexity of this job goes ahead with the diverse nature of consumers leading to different choices and demand and the need of offering the demanded variety in order to satisfy the diverse cluster of consumers to serve the ultimate aim of business. The setting up of Stock Keeping Units (SKU's) is seen as a way of managing the huge of number items efficiently in a store. According to Walter Zinn & Peter C. Liu (2011) [3], the clear understanding of the response of consumers in the

out of stock situation plays a vital role in the measurement of cost of a stock-out. Each time an out-of-stock situation occurs, it incurs a cost to the retailer since it represents a loss of a prospective sale if the consumer returned without purchasing the product, resulting in an immediate effect on profitability, and a long term effect on store loyalty.

In this paper, the factors that impact the behaviour, driving the response of the consumers, in such a situation are studied to-

- Analyse the pattern of consumer reactions when they do not get a product in a store which is meant to satisfy their basic necessity and purchase is unavoidable.

- Understand the pattern of consumer response in case of luxury items that a consumer desires and doesn't find in the store but the purchase is avoidable at the very point time.

Jana Luisa Diels, Nicole Wiebach & Lutz Hildebrandt(2013) [4] embrace the fact that the patterns of substitution depicted by the consumers in the situation of stock-outs are dependent on a variety of contexts, and depend on a number of facts and factors that pertain to the impact of the product on the consumer.

In this study, the behaviour or response of the consumer is studied by analysing the impact of the time constraint, brand loyalty, store loyalty & store distance as the factors

that influence consumer decisions for the select categories of products.

II. LITERATURE REVIEW

An out of stock situation leads to an unfavourable impact generating a sense of dissatisfaction among the minds of consumers which is pervasive and hence occurs in all the cases says Kofi Q. Dadzie & Evelyn Winston (2007) [5]. The condition of out of stock items may take place due to many pitfalls coming out of mistakes in predicting the demand, not having efficiency in supply and logistics, any drawbacks in placing order for the inventory etc. (Thomas W. Gruen, & Dr. Daniel Corsten, 2008) [6]. Hai Che, Xinlei (Jack) Chen & Yuxin Chen (2012) [7] talks about the Fast Moving Consumer Goods with reference to stock-outs embracing that such a condition is commonly observed in retail stores of such products. Along with this, the reduction in level of adherence emerging due to stock-outs is also observed from the side of consumers having more frequent purchases of those commodities. Concerning apparels, an out of stock condition in case of such goods may induce a negative perception about the store leading to dissatisfaction and unfavourable behaviour of consumers, however, financial incentives are an efficient tool to remove that depressed feeling among the customers says Minjeong Kim & S.J. Lennon (2011) [8] . Managers usually have an intended picture of consumer behaviour towards stock-outs whereas the actual behaviour may or may not be same & hence it should be understood clearly (Walter Zinn & Peter C. Liu, 2011)[9].The adhesion of individuals to a particular store, the exclusiveness of a product and the intention of consumers before visiting a store plays a vital role and are some of the most promising aspects that managers should take into consideration in order to understand the actual and calculated behaviour of consumers in case of stock-outs (Walter Zinn & Peter C. Liu, 2011)[9].

Jana Luisa Diels, Nicole Wiebach & Lutz Hildebrandt (2013) [4] emphasize on the incidence of stock-outs being a complication for the retail stores. David R. Bell and Gavan J. Fitzsimon (1999) [2] also consider the out-of-stock situation as an extremely critical problem for managers to look upon & maintaining efficient inventory is a major challenge in that. Managing appropriate variety of products is also a fact to be considered so that the inventory is not more than required to avoid the cost of managing the stock that would not help in generating revenue and to eliminate the risk of losing sales due to lack of stock leading to unfulfilled demand. Roland Helm & Wolfgang Stolzle (2015) [10] explain the importance of availability of items on the shelf in order to ensure the success of the retailer and the producer of the product and to achieve this, understanding the behavioural pattern of consumers is of great significance which is induced by various factors related to the product itself, the purchase conditions and the characteristics of consumers. It is more important to have

insights of the attitude of the customers than their behaviour as attitude shapes the behaviour and aids the strategic decision making of retailers says Prof. Dr M.A.K Chishty, Samiya Loya, Saman Ismail & Humza Zaidi (2015) [11]. Yael Perlman [12] elaborated that consumers are not homogeneous and hence they have the tendency of substituting the product if their choice is not available in a store. Tom Van Woensel, Rob A. C. M. Broekmeulen & Jan C Fransoo [13] extracted the results of existence of a significant difference in behavioural pattern of consumers in case of decomposable and non-decomposable items and eagerness to substitute is always there.

A. Belén del Río, Rodolfo Vázquez, Víctor Iglesias(2001)[14] observed the adherence to a brand through the perceived brand image for the sake of various aspects like personal recognition and social status, consumers of the brand may have a tendency to suggest a particular brand or even pay a luxury amount for the brands they are associated with which also has an influence on the response of a consumer when it comes to that particular brand. Jacob Hornik (1992) [15] suggests the favourable impact of informal nonverbal communication which may include handshaking, grooming etc. on consumers by developing a sense of belongingness and connection towards the retailer, or any other individual over the place initiating such form of communication. Peter H. Bloch (1995) [16] explains that the psychology of consumers regarding a product is affected highly through design and structure of the product as well, by creating value for product in their mind & explaining the core of product in an alluring manner which ultimately influence their response in various situations. Wejdene Yangui & Nibrass Hajtaïeb El Aoud (2014)[17] investigating the consumer response in stock-out situation of milk as a representative of food products conclude the significance of oral conveying and the perception of width and length of the product in anticipation of total stock-out in a retail store. Jeffery I. Turk (2011)[18] talked about an important aspect for the retailers and producers of a product which is customer loyalty and it gets diminished as a result of frequent stock-outs and customers may intend to discard the retailer as well as the product or the brand that they go to buy. However, such situation may be dealt through perks to the customers and strong informal or personal relations so as to make positive efforts to create a feel-good factor for consumers and aiding retailer to maintain the competitive edge through loyal mass of consumers as suggested by Jeffery I. Turk (2011) [18]. In case of readymade garments, Bonnie D. Belleau & Teresa Summers (1994) [19] understood the positive impact of the retailers and manufacturers towards inculcating the computer technology and systems such as computer-aided design/computer-aided manufacturing towards data interchange which has become a common trend in current era. Joel E. Collier, Robert S. Moore, Alisha Horky & Melissa L. Moore (2015) [20] in their research confirmed the

strong impact of various situational factors on consumers while shopping such as volume of the order, tolerance to wait for a stipulated time, how convenient the location is and the availability of employees.

Statement of the problem

Stock outs signify loss of potential sales and hence loss of potential earnings, both for the retailer and the manufacturer. A study to identify factors that influence consumer buying decision is of interest both to retailers and to researchers. On the basis of literature review, a number of factors were considered for further study and after deliberation four were selected for the survey. The first factor considered was whether the availability of time for shopping influences the decision of the consumer if the product they wished to purchase was not available. What decision does the consumer take in such a case? Do they postpone the purchase, do they purchase a substitute product, do they decide to visit another retailer to search for the product of their choice or do they decide to cancel their purchase decision all together because it was a current need and therefore if the product is not available today, it will be of no relevance tomorrow. The three other factors considered are: the distance of the retail outlet from the residence of the consumer, the preference of the consumer to shop at a certain retail outlet, and the preference of the consumer to a certain brand. So considering all of these factors and possible consumer decisions, a survey was conducted to prove or disprove the assumptions that consumers change their purchase decision if the product is not readily available on the shelf (stock-out) at the time of their visit to the retail store.

Objective of the study:

The objective of the study is to understand the responses of customers in condition of stock-outs specifically in two categories: necessity goods and luxury goods pertaining to select independent factors.

Products selected:

- For representing the category of necessity goods, milk has been taken as a product.

- For representing the category of luxury goods, branded clothes are taken in the study.

III. RESEARCH METHODOLOGY

The research was done on a random sample of consumers from the cities of Haridwar and Dehradun in Uttrakhand. The factors that influence consumer decision are considered to be the same whether it is a large urban area or a smaller one. The research study is based on hypothesis testing. Primary data was collected through random sampling technique. A self-structured closed-ended questionnaire was prepared and distributed through a Google form. Since four factors were identified, each factor was analysed through a

different hypothesis pertaining to the two representative products; giving a total of eight hypothesis and eight questions in the Google form. The respondents were given the option of selecting one option from among four options in case of non-availability of the product of choice in their visit to the retail store. The options were: to postpone purchase, substitute the product of choice with another product, decide to visit another store but decide not to substitute, and finally decide to cancel purchase altogether. The collected data was analysed by using Chi-square test. Secondary data has been used for the purpose of validation and justification of the literature review from verified and published sources.

Sample size:

A sample size of hundred respondents has been taken. Of them, 45% were female and 55 % were male. The sample consisted of respondents from urban areas only. An age profiling of the respondents shows that 85% are below 30 years of age, thus the data reflects the consumer response of the young, educated, urban population who is brand conscious. Only those responses were considered for analysis that were having utility of both the products i.e. milk and branded clothes.

IV. RESULTS AND DISCUSSION

Technique used for analysis of Data:

The data has been analysed using the chi-square test and out of three common types of the same, the "test of independence" has been applied to check whether the independent variable has a significant relation with the response of the consumer.

Hypothesis:

Some of the common factors that are often considered by consumers while going out for shopping are taken up in this study and the respective hypothesis have been generated accordingly to test whether these factors influence the behaviour of consumers in situation of stock-outs and understanding the manner in which these factors influence the psychology of the consumers in case of a necessity product (which is a low involvement product) and branded clothes which is seen as a high involvement product.

FACTOR 1- the constraint of time for shopping:

In the era of busy and tight schedules, consumers usually face a constraint of time limitation and hence this may lead to a quick decision making which may or may not result into correct output says Saad Ahmed Javed & Sara Javed (2015)[21] . Keeping in mind this fact, the hypotheses have been generated for testing how significantly this constraint or pressure of time impacts the reaction of consumers in out-of-stock situation in case of the two selected products.

Hypothesis 1:

H_0 (Null hypothesis): time pressure has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

H_a (Alternate hypothesis): time pressure has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

Table 1: Data of Hypothesis 1

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 hour	2	4	7	13
1-2 hours	5	14	21	40
2-3 hours	3	10	16	29
Above 3 hours	2	6	10	18
Total	12	34	54	100

Table 2: Result of chi-square test of Hypothesis 1

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
0.2986	6	0.999

Hypothesis 2:

H_0 (Null hypothesis): time pressure has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

H_a (alternate hypothesis): time pressure has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

Table 3: Interpretation of Hypothesis 2

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 hour	8	2	3	13
1-2 hours	13	11	16	40
2-3 hours	7	9	13	29
Above 3 hours	7	3	8	18
Total	35	25	40	100

Table 4: Result of chi-square test of Hypothesis 2

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
6.4345	6	0.3763

FACTOR 2- adherence to a particular store:

The concept of store being an important factor has great significance on satisfaction of consumers. Consumers feel accomplished or satisfied with a particular store when they realise that their place of purchase is agreeable and their requirements are totally understood leading to a specific segment of customers being loyal to the store as brand as observed by Rita Martenson (2007)[22] .

Hypothesis 3:

H_0 (Null hypothesis): adherence to particular store has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

H_a (alternate hypothesis): adherence to a particular store has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

Table 5: Interpretation of Hypothesis 3

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 year	5	13	14	32
1-2 years	5	11	8	24
2-3 years	3	8	7	18
Above 3 years	1	5	20	26
Total	14	37	49	100

Table 6: Result of chi-square test of Hypothesis 3

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
11.87	6	0.0649

Hypothesis 4:

H_0 (Null hypothesis): adherence to particular store has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

H_a (alternate hypothesis): adherence to a particular store has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

Table 7: Interpretation of Hypothesis 4

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 years	11	8	13	32
1-2 years	9	4	11	24
2-3 years	3	8	7	18
Above 3 years	9	6	11	26
Total	32	26	42	100

Table 8: Result of chi-square test of Hypothesis 4

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
5.0588	6	0.5362

FACTOR 3- adherence to a particular brand:

Ebru Tümer Kabadayi, Alev Koćak Alan (2012) [23] concluded the critical importance of brands driving the behaviour of consumers and adhesion towards a brand is emerged from the core of experience that a consumer receives out of that brand.

Hypothesis 5:

H_0 (Null hypothesis): adherence to particular brand has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

H_a (alternate hypothesis): adherence to a particular brand has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

Table 9: Interpretation of Hypothesis 5

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 year	3	12	12	27
1-2 years	8	16	5	29
2-3 years	1	11	7	19
Above 3 years	3	8	14	25
Total	15	47	38	100

Table 10: Result of chi-square test of Hypothesis 5

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
12.5339	6	0.051

Hypothesis 6:

H_0 (Null hypothesis): adherence to particular brand has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

H_a (alternate hypothesis): adherence to a particular brand has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

Table 11: Interpretation of Hypothesis 6

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 year	11	8	8	27
1-2 years	9	8	12	29
2-3 years	3	7	9	19
Above 3 years	6	4	15	25
Total	29	27	44	100

Table 12: Result of chi-square test of Hypothesis 6

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
7.3746	6	0.2875

FACTOR 4: distance to the store:

Bernhard Swoboda, Bettina Berg, Hanna Schramm-Klein & Thomas Foscht [24] in their research put the spotlight that along with other aspects, an easy to reach and well timed store plays a vital role in determining the level of adherence that consumers maintain towards that particular store. Hence a competitive location matters a lot for the retailers and store distance is a considerable factor in such case.

Hypothesis 7:

H_0 (Null hypothesis): distance to reach the store has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

H_a (alternate hypothesis): distance to reach the store has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

Table 13: Interpretation of Hypothesis 7

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 hour	13	23	18	54
1-2 hours	6	11	9	26
2-3 hours	1	4	7	12
Above 3 hours	1	4	3	8
Total	21	42	37	100

Table 14: Result of chi-square test of Hypothesis 7

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
3.5428	6	0.738

Hypothesis 8:

H_0 (Null hypothesis): distance to store has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

H_a (alternate hypothesis): distance to store has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

Table 15: Interpretation of Hypothesis 8

Time/Decision	Postpone/cancel purchase	Substitute brand	Switch to another store	Total
Below 1 hour	21	13	20	54
1-2 hours	6	12	8	26
2-3 hours	4	1	7	12
Above 3 hours	0	2	6	8
Total	31	28	41	100

Table 16: Result of chi-square test of Hypothesis 8

Value of chi square (Pearson chi square)	Degree of freedom	Significance value
13.158	6	0.0406

Table 17: Hypothesis Assessment Summary

Hypothesis (null)	Significance value	Conclusion
1. Time pressure has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.	0.999	Rejected: Time pressure has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.
2. Time pressure has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.	0.376	Rejected: Time pressure has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods
3. Adherence to a particular store has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.	0.065	Rejected: Adherence to a particular store has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.

4.	Adherence to a particular store has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.	0.536	Rejected: Adherence to a particular store has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.
5.	Adherence to a particular brand has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.	0.051	Rejected: Adherence to a particular brand has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.
6.	Adherence to a particular brand has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.	0.287	Rejected: Adherence to a particular brand has noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.
7.	Distance to the store has no noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.	0.738	Rejected: Distance to the store has noteworthy impact on the response of consumers in out-of-stock situation of necessity goods.
8.	Distance to the store has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.	0.041	Accepted: Distance to the store has no noteworthy impact on the response of consumers in out-of-stock situation of luxury goods.

V. ANALYSIS

The results obtained from hypothesis testing show that the overall consumer behavior is influenced by the four identified situational factors in out-of-stock situation in retail stores. Time (Factor 1) is a factor of consideration in decision making. Chi-square test gave a significance value of .999504 hence the result is not significant at $p < .05$ which leads to the conclusion that time is a factor in consumer decision in an out of stock situation. Further analysis reveals that consideration (necessity goods) , the overall results show that 66 % of the respondents decided to go to another store or cancel purchase and only 34% of the respondents decided to purchase a substitute product of different brand (as shown in Table 1). Additionally, when the time available for shopping was less than one hour, only 30 % of the buyers substituted the desired product, but when time was one to three hours, the rate of substitution increased to 35%. The decreased availability of time means the consumer will not buy a substitute and prefer to remain with the pre-decided product. In case of branded clothes (as representative of luxury goods), overall 25% of the consumers purchased a substitute and 75 % of the consumers either went to a different store or postponed a purchase in case of non availability (Table 3). A point of interest is that when consumers had less than one hour or more than three hours, only 15% went for a substitute product. But when they had one to two hours or two to three hours, 27% and 31% respectively went for a substitute purchase. The data of both tables proves that an out of stock indicates a loss of sale to the retail store.

Data analysis of the second factor – adherence to a particular store shows that 37% of the consumers prefer to purchase a substitute but 63% decide to move to another store or postpone purchase in case of non availability of their preferred brand of milk (Table 5). 41% of the consumers with a patronage of less than one year bought a substitute product, and when the patronage was one to three years, 45% of the consumers purchased a substitute. But in case of an association of more than three years, only 19% of the buyer went for a substitute purchase. In the case of branded clothes the data (Table 7) shows that despite a preference of a particular store, only 26% of the consumers decided to purchase a substitute. Additional analysis reveals that in case of an association of two to three years, 44% of the consumers purchased substitute apparel.

Analysis of the third factor Hypothesis 5 gave a significance value of .051063; hence the result is not significant at $p < .05$ which led to rejection of the null hypothesis and the conclusion that consumer reaction to stock out is associated with preference for a particular brand of products. Overall results show that 47% of the consumers substituted the product in case of non-availability and 53% either postponed the purchase or went to another store to buy the product (Table 9). If the consumer was a user of a certain brand for less than a year, 44% product substitution took place but for a brand loyalty of more than three years, substitution was 32%. In the case of branded clothes, (Table 11) the significance value is .287555; the result is not significant at $p < .05$ leading to the conclusion that the customer is loyal to the brand of clothes they prefer to purchase. Overall only 27% consumers went for a substitute when faced with stock-out; with only 16 % substitution when the association of a customer to the brand was more than three years.

The fourth factor of consumer decision as related to distance of the preferred store – Hypothesis 7, the p-value is 0.73824 which is not significant at $p < .05$ the null hypothesis stands rejected. Consumer response to an out of stock situation can be said to be related to store distance in the case of necessity goods. An analysis of data (Table 13) shows that 42% of consumers decide to substitute if the desired product is not available at the nearest store. In fact if the store was very far, 50 % consumers purchased a substitute and the rest went to look for the desired product at a different store. Comparably in case of branded clothes,

the consumer's response is different. In Hypothesis 8, the chi-square test has a p-value of .040594; hence the result is significant at $p < .05$. Thus we can conclude that the consumer response is not related to distance of the store. Therefore the consumer actually has very strong preference for certain brand of clothes and the distance of store does not influence buyer decision. 54% of the respondents purchased branded clothes from stores nearest them and substituted only 25% of the times when the desired product was not available. Even when the store was very far, the substitution percentage was 25 and 75% of the times the consumer went to another store to look for the product of choice.

VI.   CONCLUSION

An increased concern towards consumer relationships is validated from these results. The modern consumer is brand conscious, and believes in adhering to a particular brand - from daily use items to expensive branded products. This validates the fact that brand loyalty influences the behavior of consumers. Store loyalty plays a role in consumer decision making. The buyers also look to purchase from the stores that are conveniently situated or accessible, and can be easily visited in their daily schedule. This is also seen as a competitive factor to set the stores at a convenient and easy to reach location. Majority of consumers do not prefer to travel too far in order to purchase the things they need and they look for another nearby store to get the same product in case of unavailability at their preferred store to make the purchase whether it is low involvement product or a high involvement product. Thus store distance is also a determinant of consumer behavior in an out-of-stock situation. The results highlight that situational factors are important and considerable while studying consumer behavior towards different products and retail stores whenever they face an out-of-stock situation.

VII.   LIMITATIONS

since this was a student research project conducted during a course of study, majority of the respondents were friends, family and college students. The sample size is small and the collection of data and its analysis reveals a bias towards the decision of younger population rather than a balanced mix of all age groups.

REFERENCES

[1] STOCKOUT: meaning in the Cambridge English Dictionary. (n.d.). Retrieved from https://dictionary.cambridge.org/dictionary/english/stockout

[2] Bell, D. R., & Fitzsimon, G. J. (1999, December 30). An Experimental and Empirical Analysis of Consumer Response to Stockouts. Retrieved from https://pdfs.semanticscholar.org/0560/33a938b1fb95ad3b2d f5b4a16db60320c968.pdf

[3] Zinn, W., & Liu, P. C. (2011). Consumer Response To Retail Stockouts. *Journal of Business Logistics*, *22*(1), 49–71. doi: 10.1002/j.2158-1592.2001.tb00159.x

[4] Diels, J. L., Wiebach, N., & Hildebrandt, L. (2013, May 29). The impact of promotions on consumer choices and preferences in out-of-stock situations. Retrieved from https://www.sciencedirect.com/science/article/pii/S0969698 913000490

[5] Dadzie, K.Q. and Winston, E. (2007). Consumer response to stock-out in the online supply chain. *International Journal of Physical Distribution & Logistics Management*, Vol. 37 No. 1, pp. 19-42. https://doi.org/10.1108/09600030710723309

[6] Gruen, T. W., & Corsten,, D. D. (2007). A Comprehensive Guide To Retail Out-of-Stock Reduction In the Fast-Moving Consumer Goods Industry A research study conducted. Retrieved from https://www.semanticscholar.org/paper/A-Comprehensive-Guide-To-Retail-Out-of-Stock-In-the-Gruen/19280a78f21294dabcbe300c71791f0b7e9bf9bf

[7] Che, H., Xinlei, Jack, Chen, & Chen, Y. (n.d.). Investigating Effects of Out-of-Stock on Consumer Stockkeeping Unit Choice - Hai Che, Xinlei (Jack) Chen, Yuxin Chen, 2012. Retrieved from https://journals.sagepub.com/doi/10.1509/jmr.09.0528

[8] Kim, M., & Lennon, S. J. (2011, January 10). Consumer response to online apparel stockouts. Retrieved from https://onlinelibrary.wiley.com/doi/full/10.1002/mar.20383

[9] Zinn, W., & Liu, P. C. (2011, May 10). A COMPARISON OF ACTUAL AND INTENDED CONSUMER BEHAVIOR IN RESPONSE TO RETAIL STOCKOUTS. Retrieved from https://onlinelibrary.wiley.com/doi/abs/10.1002/j.2158-1592.2008.tb00090.x

[10] Helm , R., & Stölzle, W. (2015, May 15). Out-of-Stock Situations within Retail Shops: Influential ... Retrieved from https://www.researchgate.net/publication/227987046_Out-of-Stock_Situations_within_Retail_Shops_Influential_Factors _and_Customer_Reaction_Patterns

[11] Loya, S., Ismail, S., & Zaidi, H. (2015). Consumer Response in out of Stock Situation at a Retail Store: Semantic Scholar. Retrieved from https://www.semanticscholar.org/paper/Consumer-Response-in-out-of-Stock-Situation-at-a-Loya-Ismail/3a4f9b119981ec297b3c12555fb409a6f2b01417

[12] Perlman, Y. (2019). Inventory Levels of Two Stock-out-based Substitutable Products under Centralized and Competitive Settings. *IFAC-Papers On Line*, *52*(13), 1450–1454. doi: 10.1016/j.ifacol.2019.11.403

[13] Woensel, T. V., Donselaar, K. V., Broekmeulen, R., & Fransoo, J. (2007). Consumer responses to shelf out-of-stocks of perishable products. *International Journal of Physical Distribution & Logistics Management*, *37*(9), 704–718. doi: 10.1108/09600030710840822

[14] Belén del Río, A., Vázquez, R. and Iglesias, V. (2001). The effects of brand associations on consumer response. *Journal of Consumer Marketing*, Vol. 18 No. 5, pp. 410-425. https://doi.org/10.1108/07363760110398808

[15] Hornik, J. (1992). Tactile Stimulation and Consumer Response. *Journal of Consumer Research*, *19*(3), 449. doi: 10.1086/209314

[16] Bloch, P. H. (1995). Seeking the Ideal Form: Product Design and Consumer Response. *Journal of Marketing*, *59*(3), 16. doi: 10.2307/1252116

[17] Yangui, W., & Aoud, N. H. E. (2014). Consumer behavior and the anticipation of a total stockout for a food product: proposing and validating a theoretical model. *The International Review of Retail, Distribution and Consumer Research*, *25*(2), 181–203. doi: 10.1080/09593969.2014.951675

[18] Turk, J. I. (2011, January 1). The Impact of Stockouts on Customer Loyalty to Lean Retailers. Retrieved from https://scholarworks.waldenu.edu/dissertations/1011/

[19] Belleau, B. D., & Summers, T. (1994). Attitudes towards computer technology: comparison of retail buyers and apparel manufacturers in the U.S.A. *Journal of Consumer Studies and Home Economics*, *18*(4), 379–388. doi: 10.1111/j.1470-6431.1994.tb00707.x

[20] Collier, J. E., Moore, R. S., Horky, A., & Moore, M. L. (2015). Why the little things matter: Exploring situational influences on customers self-service technology decisions. *Journal of Business Research*, *68*(3), 703–710. doi: 10.1016/j.jbusres.2014.08.001

[21] Javed, S. A., & Javed, S. (2015). The impact of product's packaging color on customers' buying preferences under time pressure. *Marketing and Branding Research*, *2*(1), 4–14. doi: 10.33844/mbr.2015.60293

[22] Martenson, R. (2007). Corporate brand image, satisfaction and store loyalty. *International Journal of Retail & Distribution Management*, *35*(7), 544–555. doi: 10.1108/09590550710755921

[23] Kabadayi, E. T., & Alan, A. K. (2012). Brand Trust and Brand Affect: Their Strategic Importance on Brand Loyalty. *Journal of Global Strategic Management, 1*(6), 80–80. doi: 10.20460/jgsm.2012615788

[24] Swoboda, B., Berg, B., Schramm-Klein, H., & Foscht, T. (2013). The importance of retail brand equity and store accessibility for store loyalty in local competition, *Journal of Retailing and Consumer Services*, *20*(3), 251–262. doi: 10.1016/j.jretconser.2013.01.011