Ushus-Journal of Business Management
2021, Vol. 20, No. 4, 27-43
ISSN 0975-3311 | https://doi: 10.12725/ujbm.57.3

Impulsive buying during Flash Sales on E-Commerce sites and the Ramification of Flash Sales on Shopping

Hansel Dsilva* & Elangovan N†

Abstract

Even though E-Commerce has been advanced for decades, it is today's buzzword. The industry has endured impressive growth since the last decade. The business context is fierce as big companies try to vanquish while small companies enter the space and institute themselves. Flash sales are a comparatively recent E-Commerce phenomenon in which a business offers a substantial discount on one or more products or services for a limited time. Though many studies have been executed on flash sales and how they are crucial for E-Commerce sites to increase sales and visibility. Very little has been investigated on the attributes of flash sales. This paper endeavours to examine the eclectic characteristics of flash sales, namely effective duration, a variety and assortments on online shopping enjoyment, portal preference towards online impulse buying, and factors such as perceived perishability and perceived scarcity on attitude towards flash sales. The research further counts to better knowledge while formulating flash sales.

Keywords: E-Commerce, Flash sales, attitude towards flash sales, impulsive buying, shopping delight

* School of Business and Management, CHRIST (Deemed to be University). Bengaluru, Karnataka, India; hansel.dsilva@mba.christuniversity.in
† School of Business and Management, CHRIST (Deemed to be University). Bengaluru, Karnataka, India; elangovan.n@christuniversity.in

1. Introduction

The business environment is getting competitive on a day-to-day basis. Well-established E-Commerce sites such as Amazon, Myntra, Flipkart, etc., have been predominant in the segment with stable progress. Since the internet has become widely available, consumers have become more refined, while preferring online shopping partly to access the vast collection of varieties that earlier were not available and primarily for convenience (Appel et al., 2019). What E-Commerce has done is to bring the customer nearer to selecting a product from a wide variety of designs, features, and styles. Leading the pack of E-Commerce websites is Amazon. It is known for its state-of-the-art innovations and excellent customer service delivery. The online retail giant has revolutionized the E-Commerce sphere by delivering its customers unlimited service offerings from grocery delivery to entertainment media to apparel to web cloud services. The growth of the E-Commerce sector is fueled by refinements in the quality of Internet services, a growing middle class with disposable income, improved user experience, and increased mobile penetration.

Lately, E-Commerce websites have conducted programs such as flash sales, wherein special offers in terms of discounts are delivered for a limited amount of time.

1.1. Flash sale as a promotion tool for the E-Commerce industry

Flash sales are shopping intermediaries used to stimulate the market until electronics, clothes, and other items are intensely discounted. Flash sales are electronic distribution outlets used for a limited time, steep discounts on products and services. They are also known as daily deals and private sales. E-Commerce platforms are discount-driven and are highly competitive in markets like India. Flash sales are described as discounts provided by online sellers for a limited time on a special occasion such as a festival (Sujata et al., 2017). Flash sales assist online E-Commerce sites faster by allowing them to experience large merchandise sales and increase profitability. Excess inventory could also be easily uploaded and sold, resulting in no profit for the website. Flash

sales pricing is done so that inventory is converted into cash quickly. Increased earnings, new consumer acquisition, inventory management, increased brand use, and market development is only a few of the primary objectives that flash sales can achieve. Filling immediate occupancy needs growing visibility, targeting new consumer market segments, and including first customer trials, which are some of the goals that can be accomplished through flash sales.

1.2. Impulse Buying

Rook and Fisher (1995) were among the first marketing researchers to propose that normative assessment act to moderate individual impulsive traits and, as a result, minimize customer impulse buying. Consumers try to bring in their natural notions to avoid being labelled childish or unreasonable. An impulse buy, also known as an impulse purchase, is an abrupt decision to buy goods or services. According to many reports, many online shoppers make impulsive purchases. There is no way to categorize impulsive buying into a single product group. Accessories, clothing, and cell phones are examples of impulse purchases and large ticket objects such as furniture and jewellery. Having an unplanned purchase is referred to as impulsive buying. It is concentrated on irrational reasoning. Marketers attempt to capitalize on this consumer behaviour to increase profits. Customers are more likely to purchase after browsing the E-Commerce website even though they had no intention of doing so. The digitalization of shops and more disposable income have contributed to the organized retailing industry's rapid growth in India. Consumer purchase preferences, as well as impulsive purchasing behaviour, are dynamically evolving. The companies have to comprehend customer evolution in making a purchase decision. The approaches must be devised so that buyers can make impulsive purchasing decisions, and retailers can attempt to upsell and cross-sell to customers by adequately displaying the product and implementing effective strategies.

Flash sales such as Amazon's Great Republic Day Sale and Flipkart's Big Billion Day Sale are stimuli to attract the crowds towards the products and create a buzzword around the brand in public. The tingling question remains about what drives

purchasing decisions during such Flash Sales. The study tends to comprehend and decipher the underlying factors influencing purchase decisions during flash sales. Based on the literature review, no studies gauge the influence of variety and assortment of products, effective duration, portal preference, perceived perishability, and perceived scarcity on aspects such as attitude towards flash sales and impulsive online buying and shopping enjoyment.

The study strives to understand the factors that help build perspective towards flash sales; the study further scrutinizes the factors that lead to online shopping delight and impulsive online buying and their interlink to attitude towards flash sales.

2. Literature Review

The advent of the internet has paved the way for E-Commerce. According to D'silva et al. (2010), the immense progress in technology worldwide and the internet has led to new dynamic markets. E-Commerce can be considered a new market and has gained immense popularity in the last decade. E-Commerce is a paradigm shift that has influenced marketers and customers to teach different behaviours and patterns. E-Commerce should not be viewed as another way to boost existing business practices but has fundamentally changed the traditional way of doing business.

Dennis et al. (2009) developed a conceptual model to uncover the factors that affect E-Commerce shopping style and suggest that consumer behaviour is affected by their perception and expectations while shopping. Intention to buy is a mental state that allows a customer to determine whether they want to own a product in the future. In the case of online shopping, promotional tools such as flash sales play a vital role in boosting sales among consumers, impacting their purchase decision-making patterns. Flash sale is a type of promotion offered to consumers for a minimal time at a deeply discounted price to get as many customers as possible to embrace the proposed Flash sale deal. Customers and users who have subscribed to the email Receive

notification via email, as well as through social media, when a flash sale deal goes live on an E-Commerce website (Kaaviya, 2009)

A flash sale has a set limit, such as a quantity or time limit, and the promotional mechanisms vary depending on the type of limit. Although a quantitative cap allows customers to think of a commodity as incredibly unique, it encourages them to buy quickly. A time limit is primarily intended to encourage consumers to buy. Svenson and Maule (1993) enforce a time limit that sends a signal to customers and increases the likelihood of choosing the product. It is discovered that when buying time is reduced, customers have a negative perception of the process. Many researchers suggest this is due to consumers' perceptions of "time pressure" due to a time limit (Sinha et al., 1999).

According to Schiffman and Kanuk (2007), Impulse purchasing is a powerful emotional decision that can serve as the foundation for the dominant unplanned purchase motive. When it comes to impulse shopping, gender plays a vital role because it affects purchase habits. Both have different perspectives on the commodity. Men engage in impulse buying due to their identity, while women do so due to their social identity. Women are more likely to make impulse purchases, while men are more likely to consider options carefully before making a purchase (Agarwal, 2015). The amount of money determines whether they buy impulsively or within their budget. The abundance of money gives consumers a good feeling, contributing to impulsive purchases. Nanda (2013) finds that disposable income among teenagers in India makes for extravagant spending on luxury and trendy products.

2.1. Perceived Perishability

Flash sales provide a short period for customers to shop, limiting the duration of promotional offers. Aggarwal and Vaidyanathan (2003) state that limited promotions are more effective than time-free promotions as it reduces the possibility of the customers to continue seeking better agreements. Zhang et al. (2018) further pointed out that limited time and discounted offers are characteristic of flash sales.

2.2. Perceived Scarcity

Purchase intentions, as per Aggarwal et al. (2011), are more favourable for products with scarcity than offers attractiveness without scarcity. According to Dilme and Li (2014), the seller keeps a portion of the items to show scarcity.

2.3. Effect of variety and assortments on online shopping enjoyment

In flash sales, the available products are limited. Only a fraction of products on E-Commerce are placed on flash sales. Agrawal and Sareen (2016) state that the sole purpose is to increase the number of users and E-Commerce transactions. As per the article published by The Indian Express Tech in 2016, the three major E-Commerce websites such as Snapdeal, Amazon, and Flipkart assign separate days for significant categories such as Home & Appliances, Fashion, Mobile and Accessories, Electronics and Books. These flash sales help consumers shop for particular products and keen interest products.

2.4. Effect of effective duration on online shopping enjoyment

Chandon and Wansink (2000) state that effective duration leads consumers to explore new products. The exhibition of a favourable attitude is seen towards price as the customer perceives monetary savings and increased value proposition. Jeko (2018) finds that the common thing which becomes an obstacle during flash sales is the E-Commerce system failure caused by high access traffic.

2.5. Effect of portal preference on online impulse buying on flash sales

Promotion and security are the most influential factors in consumer purchase decisions (Dennis et al., 2011). Hess (2008) suggests that the company's reputation is the perception of the customers on how well a company can serve. When the company's reputation is positive, consumers will have more confidence in the company's offerings and promotion efforts.

3. Model Development

The research model is developed to investigate how perceived perishability, perceived scarcity, variety and assortment of

products, portal preference, and effective duration link to online shopping enjoyment, attitude towards flash sales, and impulsive online buying during flash sales.

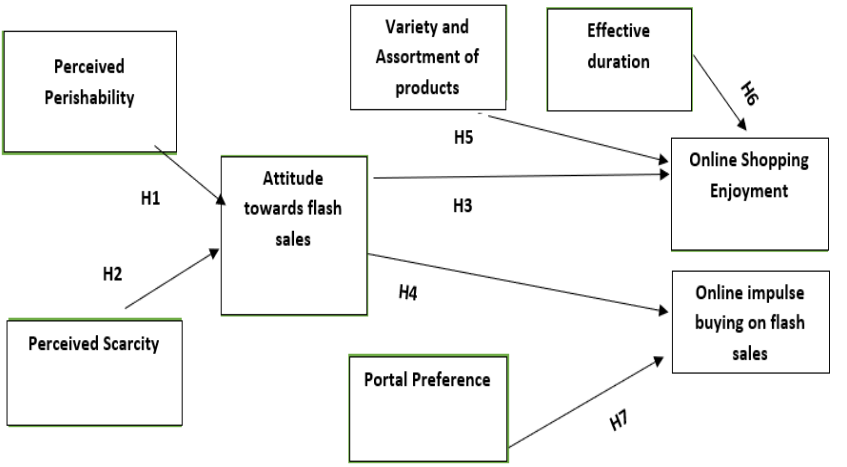


Figure 1: Research model

4. Research Methodology

The study is an empirical study, and the data is collected from primary sources, which is the critical input for the study. Online questionnaires were sent to the target group, and responses were documented as a method for data collection. The target population for this study is E-Commerce users with varying age groups. No data suggests the number of E-Commerce customers in India; hence the total population is unknown. The number of samples required for the Structural Equation Model (SEM) method referring to the "10-times rule" approach built by Hair et al. (2011), suggests ten times the maximum number of inner and outer model links pointing at various latent variables in the model. There are 14 overall links in the model, so the minimum sample size should be 140 for the research to proceed. The question uses a 7- point Likert

scale ranging from "strongly disagree" to "strongly agree." Overall, 198 responses were collected from the survey.

5. Data Analysis and Interpretation

The following test was done to determine if all the items in the questionnaire measure the same kind of measurable trait/characteristics.

Table 1: Number of Respondents

	N	**%**
Valid	198	99.5
Excluded	1	0.5
Total	199	100

Source: Primary Data

Table 2: Test of Reliability

Cronbach's Alpha	**N of Items**
0.925	28

Source: Primary Data

Cronbach's alpha measures the item's internal consistency; in other words, it determines how closely a set of items are as a group. The above data depicts that the Cronbach Alpha is 0.925, which shows that the data collected through the questionnaire is acceptable, and further tests can be conducted using this data. There were 28 items on which this test was conducted.

Table 3: Gender Distribution

	Number	**Percent**	**Cumulative Percent**
Male	96	48.5	48.5
Female	100	50.5	99
Prefer not to say	2	1	100
Total	198	100	

Source: Primary Data

We can see almost equal responses from the above table from both genders.

Table 4: Age Distribution

	Number	Valid Percent	Cumulative Percent
Below 18	3	1.5	1.5
18-22	36	18.2	19.7
23-40	137	69.2	88.9
Above 40	22	11.1	100
Total	198		

Source: Primary Data

Table 5: Occupation Distribution

	Number	Valid percent	Cumulative Percent
Student	94	47.5	47.5
Employed	82	41.4	88.9
Self-employed	11	5.6	94.5
Homemaker	7	3.5	98
Others	4	2	100
Total	198		

Source: Primary Data

From the above two tables, we can see the major number of responses have come from the age group of 23-40 and are predominantly students or employed professionals.

5.1 Factor Analysis for validity

Convergent validity, composite validity, and discriminant validity are the three ways to determine and validate the model. Convergent validity is verified if two similar constructs correspond; it verifies if the latent variables correspond with the theoretical concepts. Factor loading and Average Variance Extracted are the main criteria.

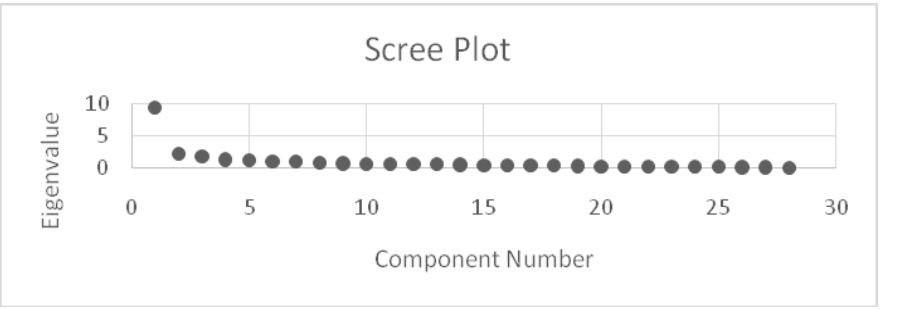
Table 6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.869
Bartlett's Test of Sphericity	Approx. Chi-Square	2694.389
	df	378
	Sig.	0.000

Source: Primary Data

A higher KMO value, closer to 1, shows that the factor analysis may be helpful with the data present. Bartlett's Test of Sphericity depicts if the correlation matrix is an identity matrix or not. The p-value obtained after the investigation is less than 0.05, showing that the variables may be related and create a structure.

Figure 2: Screen Plot



Source: Primary Data

The scree-plot shows that there are exactly seven components above the eigenvalue 1. The factor loadings should be greater than 0.6. Several of the 28 indicator questionnaires have factor loadings less than 0.6. The ones which fulfil the criteria are presented below. The rest which does not fulfil the criteria are subjected to further investigation.

Table 8 shows that Online shopping enjoyment and Impulse buying have an average variance indexing of 0.5. Whereas attitude towards flash sales, Perceived perishability, and Effective duration have Average Variance Extracted (AVE) Values close to 0.5 and are subjected to further analysis. It can be conservatively established that convergent validity is reached. Discriminant validity tests the measurements which are supposed not to be related and ensure that they are unrelated.

Table 8: Average Variance Extracted Values and Composite Reliability

	AVE	CR
Attitude towards flash sales	0.469954	0.839
Perceived perishability	0.48738	0.791678
Perceived scarcity	0.312791	0.639347
Effective duration	0.483819	0.651389
Variety and assortment of products	0.401185	0.666922
Portal preference	0.333132	0.498796
Online shopping enjoyment	0.546704	0.782079
Impulsive buying	0.586409	0.809111

Source: Primary Data

Table 9 reveals that the square root of AVE values is higher and has a significant relationship when compared to the latent variable's correlation.

Table 9: Correlation

	1	2	3	4	5	6	7	8
Attitude towards flash sales	0.685							
Perceived perishability	0.248	0.698						
Perceived scarcity	0.168	0.333	0.559					
Effective duration	0.262	0.360	0.407	0.695				
Variety and assortment of products	0.250	0.245	0.149	0.339	0.633			
Portal preference	0.319	0.329	0.268	0.353	0.317	0.577		
Online shopping enjoyment	0.261	0.300	0.214	0.451	0.531	0.470	0.739	
Impulsive buying	0.165	0.402	0.218	0.312	0.261	0.309	0.353	0.765

** Values in the diagonal are the square root of AVE values*

From Table 10, we find the Heterotrait-Monotrait Ratio to be less than 0.9 (Gold et al., 2001) and indicates discriminant validity achieved. Composite reliability is a measure of internal consistency in scale items. Suitable constructs range above 0.7. indicators such as attitude towards flash sales, perceived perishability, online

shopping enjoyment, and impulsive buying range above 0.7. At the same time, indicators such as perceived scarcity, effective duration and variety, and an assortment of products range close to 0.7 and are subject to further analysis.

Table 10: Heterotrait-Monotrait Ratio

		1	**2**	**3**	**4**	**5**	**6**	**7**
1	Attitude towards flash sales							
2	Perceived perishability	0.474						
3	Perceived scarcity	0.476	0.726					
4	Effective duration	0.783	0.744	0.891				
5	Variety and assortment of products	0.698	0.689	0.788	0.871			
6	Portal preference	0.647	0.538	0.571	0.862	0.712		
7	Online shopping enjoyment	0.598	0.470	0.515	0.691	0.694	0.807	
8	Impulsive buying	0.462	0.510	0.637	0.709	0.576	0.587	0.624

Source: Primary Data

5.2 Path Analysis

As shown in Figure 3, a path model is analyzed using PLS software. The results are presented in Tables 11 and 12. R Square, or the coefficient of determination, is a statistical measure and is part of the regression model. It is used to determine the proportion of variance or the level of influence an independent variable has on a dependent variable.

Table 11: R Square value

	R square
Attitude Towards Flash Sale	0.182
Online Shopping Enjoyment	0.369
Impulse Buying on Flash Sale	0.331

Source: Primary Data

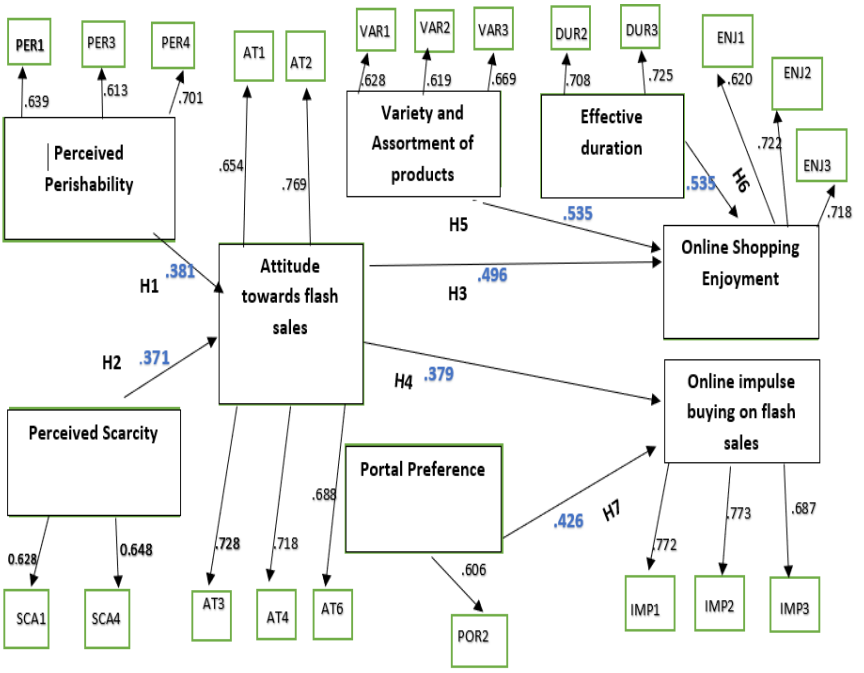


Figure 3: Factor loading for an indicator that fulfils criteria

Table 12: Path Coefficients

	Original sample	T statistics	P values	Decision
Perceived perishability-attitude towards flash sales	0.381	5.766	0.000	H1 accepted
perceived scarcity-attitude towards flash sales	0.371	5.590	0.000	H2 accepted
attitude towards flash sales- online shopping enjoyment	0.496	7.993	0.000	H3 accepted
attitude towards flash sales- online impulse buying	0.379	5.739	0.000	H4 accepted
portal preference- online impulse buying	0.426	6.591	0.000	H6 accepted
variety and assortment of products- online shopping enjoyment	0.535	8.862	0.000	H5 accepted
effective duration-online shopping enjoyment	0.535	8.862	0.000	H7 accepted

Source: Primary Data

From Table 11, it can suggest that the independent variable perceived perishability and perceived scarcity can explain as much as 18.2% of attitudes towards flash sales. Independent variables perceived perishability, perceived scarcity, attitude towards flash sales, variety of products, and effective duration could explain as much as 36.9% of online shopping enjoyment. Independent variable perceived perishability, perceived scarcity, attitude towards flash sales, and portal preference can explain as much as 33.1% of impulse buying on flash sales.

6. Discussion

The research results on 198 E-Commerce users who were aware of flash sales showed a positive effect of perceived scarcity. They perceived perishability on the attitude towards flash sales, and the positive attitude further spills over impulsive buying and online shopping delight. Proving hypotheses H1, H2, H3 and H4 solidify the assumption. The quantitative cap allows the customers to think of the commodity on offer on flash sales as incredibly unique and encourages them to buy quickly. The time limit, which depicts perceived perishability, encourages consumers to buy. Inman et al. (1997) argued that consumers consider the limited time availability as a heuristic cue and associate desirability and value to the product. Proving hypotheses H5, H6 and H7 solidify the assumption of customers seeking better variety and assortment while also looking for an effective duration to make purchases. This solidifies that customers' main obstacle during flash sales is E-Commerce system failures and transaction failures due to high access traffic rates. The research also finds that discounts are the main factors that drive sales during flash sales, yet customers still value promotions, security and E-Commerce website reputation based on past offerings as key to purchase decisions. Sit et al. (2005) further says retail promotion generates excitement and enjoyment due to novelty, surprise elements and entertainment value.

7. Conclusions

The study and its results have demonstrated that perceived perishability and scarcity significantly influence flash sales attitudes. The attitude towards flash sales is also observed to influence the enjoyment received from the purchase largely. This indicates that the customers are more stimulated during flash sales and the sense of satisfaction is greater during flash sales than during regular transactions. There is a requirement to improve the flash sales program setup by making variety and assortment available while also providing effective duration. The study proposes a direct relation between variety and assortments, effective duration, and online shopping enjoyment. A brand like Flipkart has already made strides in this aspect by offering flash sales on different days for different categories. Mobile Bonanza sale and Budget Dhamaka sale from Flipkart, to name a few. Portal preference also rates high on online impulse buying decisions; hence E-Commerce websites have to ensure the company is viewed positively by the customers. The study has its limitations. The study does not examine the influence of demographics on attitude towards flash sales, online impulse buying, and online shopping enjoyment related to flash sales.

References

Agarwal, V. (2015). A study of demographic factors influence on Consumers' impulse purchase behavior. *Clear International Journal of Research in Commerce & Management*, *6*(11). 59-62.

Aggarwal, P., & Vaidyanathan, R. (2003). Eliciting online customers' preferences: Conjoint vs self-explicated attribute-level measurements. *Journal of Marketing Management*, *19*(1-2), 157-177.

Aggarwal, P., Jun, Y. S., & Huh, J. H. (2011). Scarcity messages: A consumer competition perspective. Journal of Advertising, 40(3), 19–30

Agrawal, S., & Sareen, S. A. (2016). Flash sales–the game changer in Indian E-commerce industry. *International Journal of Advance Research and Innovation*, *4*(1), 192-195.

Appel, G., Grewal, L., Hadi, R., & Stephen, A. T. (2019). The future of social media in marketing. *The Journal of Marketing Science* Academy, *48*(1), 79–95. https://doi.org/10.1007/s11747-019-00695-1

Chandon, P., & Wansink, B. (2000). *A convenience-salience framework of stockpiling-induced consumption acceleration*. INSEAD.

Dennis, C., Merrilees, B., Jayawardhena, C., & Wright, L. T. (2009). E-consumer behaviour. *European journal of Marketing*. 43(9/10), 1121-1139

Dilme, F., & Li, F. (2019). Revenue management without commitment: Dynamic pricing and periodic flash sales. *The Review of Economic Studies*, *86*(5), 1999-2034.

D'Silva, B., D'Silva, S., & Bhuptai, R. S. (2010). Behavioral Aspect of Teenagers towards Internet Banking: An Empirical Study. *Indian journal of marketing*, *40*(10), 44-53.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of management information systems*, *18*(1), 185-214.

Hair, J. F., Ringle, C.M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. The Journal of Marketing Theory and Practice, 19(2), 139-152

Hess, R. L. (2008). The impact of firm reputation and failure severity on customers' responses to service failures. *Journal of Services Marketing*, 22(5), 385-398.

Inman, J. J., Peter, A. C., & Raghubir, P. (1997). Framing the Deal: The Role of Restrictions in Accentuating Deal Value. Journal of Consumer Research, 24(1), 68–79

Jeko, I. R. (2018). Merek Smartphone Terlaris Indonesia. *Jakarta: Liputan6 Diambil*, *7*.

Kaaviya R. (2009). Influential Factors on Customers' Purchase Intension During a Flashsale on An E-Commerce Website: A Study in the Indian Context. Repository of Amrita University.

Nanda, A. (2013). Impulse buying of apparels. Clear International Journal of Research in Commerce & Management, 4(2). 170-176.

Rook, D. W., & Fisher, R. J. (1995). Normative influences on impulsive buying behavior. *Journal of consumer research*, *22*(3), 305-313.

Schiffman, Leon G. & Leslie Lazar Kanuk. (2007). "Consumer Behavior". NY: Pearson Prentice Hall

Sinha, I., Chandran, R., & Srinivasan, S. S. (1999). Consumer evaluations of price and promotional restrictions—a public policy perspective. *Journal of Public Policy & Marketing*, *18*(1), 37-51.

Sit, J. & Merrilees, B. (2005). Understanding the experiential consumption of special event entertainment (SEE) at shopping centres: an exploratory study. paper presented at the ANZMAC Conference, Wellington

Sujata, J., Menachem, D., Akshay, P., & Viraj, T. (2017). Impact of Flash Sales on Consumers & E-Commerce Industry in India. In *Annual International Conference on Qualitative & Quantitative Economics Research* (pp. 11-19).

Svenson, O., & Maule, A. J. (Eds.). (1993). *Time pressure and stress in human judgment and decision making*. Springer Science & Business Media.

Zhang, M., Zhang, J., Cheng, T. C. E., & Hua, G. (2018). Why and how do branders sell new products on flash sale platforms? *European Journal of Operational Research*, *270*(1), 337-351.