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Flash Sales and the Idea of Scarcity: A Double-edged Sword

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ABSTRACT

Flash sales help online portals to push sales and profits temporarily by creating a false sense of scarcity of the products. However, often an inability to procure a product due to its limited quantity as propagated by flash sales, may influence consumer perceptions and negatively buying behavior. This alteration in behavior could be temporary or permanent and forever affect the brand's reputation in consumer's minds. There has been limited research on how flash sales may lead to negative consumer responses due to their inability to buy products that they need. This paper aims at converging the concept of scarcity with flash sales, and then discuss the possible negative outcome responses by customers when they are unable to get better off a flash sales. The study shows that consumers not only feel dissatisfied when they are unable to get their hands on the product they need but may feel and express anger towards the brand, leading to brand switch and in some cases activism.

Keywords: *Flash Sales; Scarcity Marketing; Limited Quantity Sale; Limited Time Sale; Consumer Response.*

1.0 Introduction

Flash sales have often been seen as an effective promotion strategy that has been used in y online portal o create interest and convert purchases. The scarcity aspect in flash sales ensures that there is a sense of accomplishment in the customers after getting their hands on the product. This sense is known to make the customer feel happy and often helps build a strong relationship with the brand or portal. However, there is a second side of the story, which is about the customers who are unable to acquire the product due to the limited time or limited quantity aspect of the flash sales.

Often, more customers are unable to get the product of their choice than those who are. And just like the acquisition of these flash sales products create a sense of accomplishment, the inability to get these products to fuel sentiments that are not positive. Customers may feel a sense of rejection or anguish which may alter their overall consumer buying behavior for that product category, brand, or portal.

This paper looks at the convergence of the scarcity marketing construct with flash sales to see how insights from scarcity marketing can be applied to flash sales. Further, the paper discusses the impact of flash sales on negative consumer perceptions and intent. It has been widely cited that there is limited research investigating how consumers react when they are unable to obtain items that are advertised using scarcity appeals in terms of limited quantity (Biraglia, Usrey, & Ulqinaku, 2021), and through this research, we attempt to bridge that understanding gap.

2.0 Scarcity Marketing

The use of product scarcity as a technique to improve the market performance of a product is a well-researched topic in marketing and consumer research. While scarcity is an economic problem reflecting a gap between limited resources and unlimited wants or demand, it has a psychological bearing on the consumers too (Shi, Li, & Chumnumpan, 2020). Thus, scarcity of products has often been used by the sellers to influence people's perceptions about a product, its performance, and its usefulness (Shah, Shafir, & Mullainathan, 2015).

To execute this practically, sellers try to create and show a temporary scarcity of products deliberately. This manifested scarcity then helps

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them push the overall demand of the product, which in turn stimulates customer enthusiasm for a limited period. This leads to a spur in the purchase by the consumer and thus higher volume realized for the seller (Mittone & Savadori, 2009).

This deliberate attempt at limiting supply or restricting the environment for purchase is the core of scarcity marketing that stimulates consumer enthusiasm (John et al, 2018; Song et al,. 2017). Deliberate scarcity of a product is known to influence price, sales promotions, product popularity, and purchasing behavior, which, in turn, helps in improving the performance of the product concerned.

Deval et al., (2013); Wright et al., (2013). Shi et al., (2020) consolidated various economic theories to scarcity and mapped them to product marketing. Firstly, scarcity as a marketing tool was explained with the help of commodity theory which suggested that the consumers always look for uniqueness in what they buy (Brock, 1968)). Second, consumers are often trying to avoid conflicts with their surroundings and aim at conforming to what has been laid out as a standard, thus conformity theory as proposed by Jones (1984). Third, scarcity was explained with the help of the consumer's attempt to avoid regret in the future, with the help of regret theory (Loomes & Sugden, 1982). Finally, the choice availability and freedom to choose what and when a customer wants something was explained to discuss the idea of scarcity with the help of reactance theory (Brehm, 1966).

Interaction between these theories helps generated insights about the consumer behavior on the response towards product scarcity and subsequent perception about the product. For example, Shi et al. (2020) argued that the uniqueness of a product or desire to own something unique, and conformity or desire to conform to the set standards are competing consumer needs. Thus the consumer's need to differentiate oneself from others and the need to assimilate oneself with others, while both define their response towards product scarcity, are technically competing for traits (Brewer, 1991). Thus the perception and response to product scarcity work differently in the context of different consumer needs.

In the context of desired uniqueness and conformity, Amaldoss et al. (2005) argued that the consumer's desire for owning a unique product pushes the prices and subsequently profits up. However, the need for conformity by customers pulls the prices and subsequently the profitability down.

The consumer's desire to avoid regret in the future has been explained by Loomes and Sugden (1982) with the choice decision. They argued that product scarcity often requires consumers to choose between buying the product now and risking missing out on the opportunity to own that product. Therefore, those consumers who are inclined to avoid regret in the future shall choose to buy a product now. And this is not necessarily due to the utility but, rather, because of the feat of not being able to purchase it in the future (McKinnon, Smith, & Keith, 1985). Restricted offers on time, product quantity and stock accentuates this behavior where the customer decides out of the fear of missing out on the opportunity to purchase the product in the future (Sterman, 2015).

The behavioral freedom that consumers desire is about the freedom of choice. Consumers would want to have a choice about choosing any product, any time, and any given quantity as a freedom of choice. Scarcity of product, unintentional or deliberate threatens this freedom (Brehm, 1966). Thus, when this freedom is restricted or threatened, it automatically increased the consumer's motivation to obtain it as soon as she can (Clee & Wicklund, 1980; Lessne & Notarantonio, 1988).

3.0 Flash Sales in e-tailing

Flash sales are an emerging e-commerce practice, in which an e-commerce platform offers a product or service at a substantial discount for a limited time (Shi & Chen, 2015). The deep discount is often made to an extent that makes the product appear to be much cheaper than it would be without the flash sale (Martínez-de-Albéniz, Planas, & Nasini, 2020). For e-commerce companies, flash sales are often responsible for the increase in revenue, as fell increased trial of newly launched products due to higher discounts offered to the customers (Joshi & Domb, 2017). Kannan et al. (2016) argued that flash sales are conducted by e-tailers to increase visitors to their main website. This in turn not only increases daily sales for the products that are on flash sales, but also for those products which are not on discounts which will ultimately able to increase the revenue of e-commerce companies (Hertanto, Herman, & Edi, 2020).

Flash sales have been able to make up for the lack of 'thrill' of shopping in the online medium as compared to the physical interaction with products at a shopping mall. These are based on offering customers, featured products, albeit in lower quantities for an extremely limited or restricted time band. Customers may typically get only a few minutes (sometimes seconds!) to complete their purchase before the time or the stock runs out (Cho & Trincia, 2012).

The core of flash sales as a technique to offer attractive prices through deep discounts, but with a limited period was first adopted by the French e-commerce company, Veepee in 2000. The objective however was entirely inventory driven as the supplier wanted to offload excess inventory, without damaging the brand image (Hertanto, Herman, & Edi, 2020).

Specifically, in e-commerce, flash sales have been identified as short-term promotional pressure applied to achieve pre-defined objectives that include promoting, pushing, and distributing goods at a deeply discounted price (Piccoli & Dev, 2012; Sigala, 2013). This definition established flash sales as a sales promotion technique, which is in line with the traditional definition of sales promotion given by the American Marketing Association. Lee and Lee (2012) supported this perspective in their research on electronic distribution channels, as they argued that flash sales are used for time-limited heavy discounts for advancing and adding to the purchase intentions of the products.

Flash sales are conducted for multiple objectives, but the primary objective remains to be commercial, that is to pump up the sale for a particular product in a limited period while building curiosity around it (Agrawal & Sareen, 2016). E-tailers aim at stimulating the fear of missing out (FOMO) among customers that manipulates the purchase intent of customers by creating a sense of urgency for the product and boost customer conversions (Jain, 2017).

Since the duration of flash sales is limited, it is often classified as a sales promotion, which in turn itself is the par to promotion mix (Agrawal & Sareen, 2016). Some of the other reasons for adopting flash sales techniques are to – increase the overall volume of transactions on the e-commerce website, stimulate product sales, especially the newly launched, increase brand awareness about specific brands, and finally to increase sales (Hertanto, Herman, & Edi, 2020).

Another perspective on flash sales is proposed by Najjar (2011), who argued that as customer behaviors and the technological environment around them change, e-commerce websites need to employ innovative offerings like flash sales among others. This was further explored by Adey and Phelan (2015) who too identified flash sales as a source of competitive advantage. However, this definition does not satisfy the criteria laid down for something to be a source of competitive advantage by Day and Wensley (1988). This is because neither flash sales can be sustained over some time (which would then violate the very definition of it is a limited period event), and that it can be easily imitated by the competitors.

Thus, flash sales are more acceptable as a sales promotion technique, than as a source of competitive advantage. However, a temporary competitive advantage due to a flash sale may not be denied. This conclusion is in line with the postulations by a majority of researchers (Zhang, Zhang, Cheng, & Hua, 2018). Further, the elements of flash sales discussed thus far, are also in line with the definition of sales promotion and its elements as firmly established by researchers (Meo e al., 2014, Sinha & Kim, 2012, Soni, 2013).

3.1 Research objectives

The objective of the research paper is to understand the convergences as well as divergences between scarcity marketing and flash sales techniques. Further, we attempted to extract information about the positive and negative outcomes of flash sales, both on consumers, as well as that of the e-commerce companies. We finally discuss the managerial implications of the insights generated during the aforesaid research. Thus following research questions were answered through this research:

- Do scarcity marketing and flash sales as a sales promotion technique converge?
- Do flash sales in any way invoke negative emotions from the customers?
- Should managers use flash sales as a sales promotion technique without considering the potential negative emotions and responses from the customers?

3.2 Research methodology

A systematic review was conducted to identify and analyze 66 research papers were published in business and management journals between 1966 and 2020. The literature was broken into a thematic structure with major themes being – flash sales, scarcity, convergence, and consumer response.

4.0 Result and Discussion

4.1 Convergence of flash sales with scarcity marketing

Flash sale and scarcity marketing converge at more than one point thus leading to an often interchangeable meaning of the two. As for product scarcity as part of scarcity marketing, the sense of scarcity is usually pushed through one of the two limitations – time and quantity (Inman, Peter, & Raghubir, 1997). Both of these limitations are known to have a significant impact on consumer shopping behavior. In the case of time, the ability of a customer to source, process, and make a decision is restricted due to the lack of time for making and executing purchase decisions (Park, Iyer, & Smith, 1989). Svenson and Malule (1993) argued that this behavior is due to the limited time pressure face by the consumers. Similarly, the limited stock created a sense of fear of missing out on a deal, due to a lack of decision making. To avoid the guilt in the future of not being able to take advantage of a scheme, the consumers feel sufficiently motivated to take the buying decision.

Flash sales are conducted for multiple objectives, but the primary objectives remain to be commercial, that is to pump up the sale for a particular product, while also building curiosity and a sense of scarcity around the product (Agrawal & Sareen, 2016). This is in line with the objective and often execution of scarcity marketing. E-tailers aim at stimulating the fear of missing out (FOMO) among customers that manipulates the purchase intent of customers by creating a sense of scarcity of the product and boost the conversions (Jain, 2017).

Further, normally consumers are internally incentivized to make a delayed purchase which benefits them due to the long waiting time. It is because this delay allows them to gather more information about the product, and thus make better-informed decisions. However, the same cannot be said for the customers caught in the buying frenzy zone (Courty & Nasiry, 2016). These customers are buying through flash sales and are often the victim of this buying frenzy. The constant fear of missing a good deal due to a wait-and-see approach will often make them worse off. The earlier discussed, regret theory and conformance theory can explain these behaviors. Both in the case of scarcity marketing and flash sales, the application of the regret theory and conformance theory is applicable as the behavior and marketing stimulus (scarcity) remains the same.

Further scarcity and flash sales both point towards the importance of product quality. Scarcity or limited availability is often assumed to be a sign of poor supply and high demand. But such temporary supply bumps would often make the product high in demand since customers start believing that the product must be of higher quality and that's why it runs off the shelf (Balachander & Stock, 2009). Signaling theory can help explain the link between the customers and product, and it suggested that it scarcity manifested by the brand would make customers believe that the product is of superior quality (Stock & Balachander, 2005) as conspicuous and customized products. Thus flash sales and scarcity marketing converge with each other, in more than one way. This also finds an explanation in the four consumer theories (Shi, Li, & Chumnumpan, 2020) discussed earlier. Thus we can safely assume that there is are multiple inflection points between scarcity marketing and that of flash sales. Thus rules and fundamentals of scarcity marketing can very well be implemented to flash sales, albeit with special consideration and thus the first research question is answered in the affirmative.

4.2 Consumer response to flash sales

There have been extensive studies on the positive effects of flash sales on consumer response. Vanissa et al. (2020) looked at the flash sales methods in conjunction with impulse buying and found out that flash sales positively affect impulse buying by the customers. The products sold during flash sales also experience a heightened value perception which is generated due to the 'scarcity' trait. This is often linked to the reputation of the business and that is why a lot of firms have started using flash sales as a standard marketing strategy. Any kind of product scarcity influences the consumer's perceptions of the product's price which can also help the company secure higher profit through better profitability (Sevilla & Redden, 2014). A sense of scarcity created by flash sales makes consumers feel that the products are special, unique, and valuable (Aggarwal et al., 2011). This in turn, positively influences customer's product evaluation (Eisend, 2008). Gierl and Huettl (2010) have claimed that the positive effects of scarcity messages manifested by flash sales on consumer responses are extended to product desirability (Gierl et al., 2008), and perceived value (Eisend, 2008). Scarcity appeal-induced flash sales have been known to aid in choice desirability and are often used to define a certain elitism (Biraglia et al., 2021).

However, flash sales will always lead to a large number of customers not being able to get their hands on the product they desired. Missing the opportunity of acquiring the desired product may often lead to a negative consumer response. Sevilla and Redden (2014) argued that the inability to acquire the product of their choice may lead consumers to anger towards the company. (Martin, 2002). Robins et al. (2005) in their research showed that customers may experience personality change and often a difference in attitude towards a brand when they are left without the product they desired after the flash sales. In an experiment conducted by Kristofferson et al. (2017), it was found that the customers' behavior changed to an aggressive one when they could not get the desired products, but the aggression was much higher when they didn't expect the product to be scarce. Thus flash sales for products that the customers do not believe are scarce may often lead to anger. These findings were in line with that of the research conducted by Biraglia et al., (2021).

Flash sales lead to a situation for the customers which is similar to the stock out situation. When a customer is unable to acquire a product that is on flash sales, it would lead to dissatisfaction of the customer. This has also been linked to the heightened switching behavior where the customer would not mind switching the store or the brand which is involved in the flash sales (Shugan, 1980). When flash sales result in the non-availability of products that the customers wanted, it gives rise to negative emotions among customers which range from as benign as a disappointment, to an extreme like anger and often activism. Thus, the second research question which aimed at identifying the presence of negative emotion can be concluded in affirmative. Flash sales may lead to a negative emotional response from customers and thus making flash sales a two-edged sword.

As far as the usage of flash sales is concerned, the earlier discussion puts out the challenges that a brand may face with flash sales, along with the known notable advantages. However, neither of the reasons are standard and consistent, and thus it largely depends upon factors like the product category, customer involvement in the products, utility, etc. to elicit a particularly positive or negative response from the customers. So while, the temptation of using flash sales and pushing up the revenue, footfall, website traffic, etc is real, the managers must always weigh in the negative aspects of flash sales that may alter the consumer behavior due to the flash sales outcome. The final research question, that aimed at exploring if flash sales can be used without minding the possibility of a negative outcome, can be answered with the help of the discussion earlier which indicated a series of reasons why flash sales may invoke negative opinions about the brands and store, and thus must be implemented after due consideration, and not with a myopic marketing gain.

5.0 Conclusions

Flash sales have become an important part of the overall marketing strategy and the promotion strategy head. Wide usage of the strategy also means that flash sales have often been used as a me-too strategy where brands and categories are mindlessly adopting the strategy, for seemingly low hanging fruits of higher revenue and profits. However, there is a critical aspect to flash sales. Scarcity. The scarcity which is fundamental to flash sales would ensure that not all customers would be able to get their hands on the product that so dearly wanted.

Often, this is ignored because the objectives of brand awareness and conversion are very well achieved with the flash sales strategy. However, it is important to understand the response of those customers who did not get the product they wanted. In this paper, we discussed the scarcity aspect of flash sales and helped converge the two ideas to draw common learnings. Further, we discussed how customers respond to flash sales, especially when they are unable to get what they wanted to. We found out that negative consumer emotions like dissatisfaction, brand switch, and often anger and despise for the brand are not uncommon consumer emotions when they are met with 'rejection' by the brand, that is when they are unable to buy their choice of the product due to flash sales. Often, management does not look at this aspect of the flash sales, which in some erode brand loyalty or brand resonance that is achieved with a set of customers. Thus an improved understanding of consumer response to flash sales would certainly lead to a better informed managerial decision (Fitzsimons, 2000).

Flash sales are a critical part of a lot of businesses, especially online portals. Thus not only the goals must be kept realistic, but they must also consider the double-edged sword ability of the flash sales (Joshi & Domb, 2017). This shall help in managing the customer expectations in a more empathetic way. For example, the limited quantity offer must also accompany a voucher for the waiting list, or a promise to deliver the item by a given date. To not disappoint the brand loyals, special access and customized coupons must be provided for them to not feel lost out in the frenzy of flash sales. Finally, the use of flash sales must be done judiciously by the brand while completely understanding the dual nature of flash sales, which while on the one hand can push sales temporarily, but on the other hand can invoke negative emotions and response from the customers which may often be long-lasting and permanent.

References

[1] J Aday, K Phelan. Competitive advantage or market saturation: An in-depth comparison of flash-sale sites through content analysis. Journal of Hospitality Marketing and Management (24), 2015, 287-313.

[2] S Agrawal, A Sareen. Flash Sales – The Game Changer in Indian E-Commerce Industry. International Journal of Advanced Research and Innovation, 4(1), 2016, 192-195.

[3] W Amaldoss, S Jain. Pricing of Conspicuous Goods: A Competitive Analysis of Social Effects. Journal of Marketing Research, 42(1), 2005, 30-42.

[4] S Balachander, A Stock. Limited Edition Products: When and When Not to Offer Them. Marketing Science 28(2), 2009, 336-355.

[5] A Biraglia, B Usrey, A Ulqinaku. The downside of scarcity: Scarcity appeals can trigger consumer anger and brand switching intentions downside of scarcity: Scarcity appeals can trigger consumer anger and brand switching intentions. Psychology and Marketing, 4, 2021.

[6] J Brehm. A Theory of Psychological Reactance. New York: Academic Press, 1666.

[7] T Brock. Implications of Commodity Theory for Value Change. In A Greenwald, T Brock, T Ostrom, Psychological foundations of attitudes. New York: Academic Press, 1968.

[8] D Cho, B Trincia. The Future of Retail. Rotman Magazine, 2012, 47-51.

[9] M Clee, R Wicklund. Consumer Behavior and Psychological Reactance. Journal of Consumer Research, 6(4), 1980, 389-405.

[10] P Courty, J Nasiry. Product Launches and Buying Frenzies: A Dynamic Perspective. Production and Operations Management 25(1), 2016, 143-152.

[11] GS Day, R Wensley. Assessing Advantage: A Framework for Diagnosing Competitive Superiority. Journal of Marketing, 52 (5) 1988, 1-20.

[12] M Eisend. Explaining the impact of scarcity appeals in advertising. Journal of Advertising, 37, 2008, 33–40.

[13] Fitzsimons. Consumer response to stockouts. Journal of Consumer Research, 27, 2000, 249–266.

[14] H Gierl, V Huettl. Are scarce products always more attractive? The interaction of different types of scarcity signals with products' suitability for conspicuous consumption. International Journal of Research in Marketing, 27, 2010, 225–235.

[15] AD Hertanto, S Herman, L Edi. Effect Of Flash Sale Method, Product Knowledge And In-Home Shopping Tendency Toward Consumer Online Purchase Decisions. RJOAS: Russian Journal of Agricultural and Socio-Economic Sciences, 6(102), 2020, 96-107.

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

[17] Y Jain. Fear Of Missing Out: Using FOMO and Anti-FOMO in Marketing. Retrieved from Conceptallies: https://conceptallies.com/fear-of-missing-out-anti-fomo-marketing/ 2017.

[18] S Jones. The Economics of Conformism. Oxford, UK: Blackwell, 1984.

[19] S Joshi, M Domb. Impact of Flash Sales on Consumers &E-Commerce Industry in India. 17th Annual International Conference on Qualitative and Quantitative Economics Research,2017.

[20] N Kannan, K Babu, YJ Hu, N Sridhar. Social Media, Flash Sales, and the Maker Movement: An Empirical Analysis. July 25, 2016. https://ssrn.com/abstract=2829855 or http://dx.doi. org/10.2139/ssrn.2829.

[21] K Kristofferson, B McFerran, AC Morales, DW Dahl. The dark side of scarcity promotions: how exposure to limited quantity promotions can induce aggression. Journal of Consumer Research, 43, 2017, 683–706.

[22] I bLee, K Lee. Social shopping promotions from a social merchant’s perspective. Business Horizons (55), 2012, 441-451.

[23] G Lessne, E Notarantonio. The Effect of Limits in Retail Advertisements: A Reactance Theory Perspective. Psychology & Marketing 5(1), 1988, 33-44.

[24] G Loomes, R Sugden. Regret Theory: An Alternative Theory of Rational Choice Under Uncertainty. The Economic Journal, 92(368), 1982, 805-824.

[25] MA Martin. Consumer responses to discontinuance of favorite products: An exploratory study. Advances in Consumer Research, 29, 2002, 249–250.

[26] V Martínez-de-Albéniz, A Planas, S Nasini. Using Clickstream Data to Improve Flash Sales Effectiveness. Production and Operation Management, 29 (11), 2020, 2508-2531.

[27] G McKinnon, M Smith, HH Keith. Hoarding behavior among consumers: Conceptualization and marketing implications. Journal of the Academy of Marketing Science 13(1):, 340-351.

[28] L Mittone, L Savadori. The Scarcity Bias. Applied Psychology 58(3), 2009, 453-468.

[29] LJ Najjar, L. J. (2011). Advances in E-commerce User Interface Design. Symposium on Human Interface 2011, Held as Part of HCI International 2011, July 9-14, 2011 292-300.

[30] C Park, E Iyer, D Smith. The Effects of Situational Factors on In-Store Grocery Shopping Behavior: The Role of Store Environment and Time Available for Shopping. Journal of Consumer Research 15(4), 1989, 422-433.

[31] Piccoli, G., & Dev, C. (2012). Emerging marketing channels in hospitality: A global study of internet-enabled flash sales and private sales. Cornell Hospitality Report (12), 4-19.

[32] J Robbins, J Krueger. Social Projection to Ingroups and Outgroups: A Review and Meta-Analysis. Personality and Social Psychology Review 9(1), 2005, 32-47.

[33] J Sevilla, J Redden. Limited Availability Reduces the Rate of Satiation. Journal of Marketing Research 51(2), 2014, 205 217.

[34] A Shah, E Shafir, S Mullainathan. Scarcity Frames Value. Psychological Science 26(4), 2015, 402-412.

[35] S Shi, M Chen. Would you Snap up the Deal?: A Study of Consumer Behaviour under Flash Sales. International Journal of Market Research, 57(6), 2015, 931-957.

[36] X Shi, F Li, P Chumnumpan. The Use of Product Scarcity in Marketing. European Journal of Marketing, 54(2), 2020, 380-418.

[37] SM Shugan. The Cost of Thinking. Journal of Consumer Research, 7 (9), 1980, 99–111.

[38] M Sigala. A framework for designing and implementing effective online coupons in tourism and hospitality. Journal of Vacation Marketing (19), 2013, 165-180.

[39] JD Sterman. I'm not hoarding, I'm just stocking up before the hoarders get here. Behavioral causes of phantom ordering in supply chains. Journal of Operations Management 39(C), 2015, 6-22.

[40] A Stock, S Balachander. The Making of a Hot Product: A Signaling Explanation of Marketers' Scarcity. Strategy. Management Science 51(8), 2005,1181-1192.

[41] O Svenson, J Maule. Time Pressure and Stress in Human Judgment and Decision Making. New York: Plenum Press, 1993.

[42] D Vannisa, A Fansuri, IM Ambon. The effect of flash sale program on shopping enjoyment and impulse buying on flash sale on C2C E-commerce. International Journal of Scientific and Technology Research, 9(4), 2020, 2534–2539.

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