



The Effect of Price Promotion Time Limit on Consumer Impulse Buying Through Situational Factors as Intervening Variables

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Abstract. The promotion strategy is one of the strategies that can be used by business people in facing the new normal era after the Covid-19 pandemic, hoping to attract consumers to make purchases of company products. This study aims to determine the effect of price promotion time limit on consumer impulse buying in Jambi City. The sample in this study was 211 respondents. The analytical tool used is SMART Partial Least Square (PLS). Descriptively, the results show that the X variable has an average of 2.86 in the harmful category, Y is 3.02 and Z is 3.24 in the positive category.

Keywords: price promotion time limit · impulse buying · situational factors

1 Introduction

The condition of the Covid-19 pandemic caused the Government to issue a policy limiting economic activities, which significantly impacted people's consumption patterns. As time goes by, people are getting used to the pandemic, and people's economic activities are starting to improve. This is an opportunity for business people to implement various strategies in their product marketing activities. According to BPS data from Jambi Province in 2022, from March 2020 to March 2021, the share of food expenditure decreased, from 52.38 percent to 52.00 percent [1]. This indicates the improvement in the level of community welfare, where the allocation of spending for food is reduced and diverted to meet non-food needs [2].

The COVID-19 pandemic that has occurred for more than 2 (two) years, especially in Indonesia, has forced business people to determine the most appropriate strategy so that business continuity continues. In addition to changing strategies by selling products online, business people carry out promotional strategies, including discounts, coupons, rebates, gifts, sweepstakes, etc. [3]. Price modifications made by business people are the main factors to persuade consumers to make purchases [4]. One point of view on the price, which is part of sales promotion, is to see how giving discounts, specially discounted prices, will increase consumers' willingness to buy [5]. This means, it is undeniable, that marketing communication has a significant role and has an impact

on promotional prices [4]. Promotional prices are one of the most popular promotions because they are more effective and easier to implement [6].

Promotional prices are often carried out on weekends or during certain moments such as the Harbolnas moment. The Indonesian e-commerce association created a celebration known as Harbolnas (national online shopping day), originally held on the 12th of the 12th month (December). However, this program is implemented almost every month on the same day as the month, for example 1–1 (1 January), 2–2 (2 February) and so on. Not only online sales carry out these activities, but offline sales, such as those carried out by Matahari Department Stores, Alfamart, Indomaret others who often provide promotional prices on weekends, Saturdays and Sundays. During the celebration,

Based on initial interviews conducted at Matahari Department Store with marketing managers, the price promotion they do is only on Saturdays and Sundays; the promotions are in the form of discounts, buy two get one free, or by purchasing a blue-marked coupon. Price promotions include shipping discounts, cash vouchers, discounts on specific purchase quantities, and so on. Price promotions continue to develop, because more and more consumers are price-sensitive [7]. [8] observed that the increase in sales in a certain period came from promotional prices; this is also supported by research.

According to [9] about 80% of consumers shop spontaneously at retail. In general, impulse buying is influenced by store attributes, consumer characteristics, situational factors and product features [10, 11]. Impulse buying is a purchase made by consumers suddenly, unplanned, and spontaneously [10]. Situational factors are external factors from the shopping environment when buyers come and make contact stimuli (with products or promotions) that can create unplanned purchases [12].

2 Literature Review

Promotion price [6] refers to reducing the original price of a product or service to achieve the goal of stimulating sales. However, promotional prices do not always apply, only at certain moments or on weekends, meaning that business people make a time limit to apply promotional prices [13]. Time-limited bidding is a form of supply restriction that increases the perception of the unavailability or scarcity of the offer. Time limits serve several practical purposes, such as complying with pricing regulations, limiting financial obligations, discriminating prices and facilitating inventory planning [13]. According to the theory, when a consumer's decision is constrained, as in the case of a time-limited offer, the consumer will be motivated to a higher level to purchase before the offer expires [14].

Impulse buying itself is a purchase made by consumers suddenly, unplanned, and spontaneous [10]. According impulse buying is an episode in which the “consumer experience” arises from a sudden, often strong and intense urge to buy something immediately. Psychological factors that may generate impulse buying include sensation seeking, impulsivity, and self-identity representation [15]. Even though impulse buying is an immediate action, a sudden and spontaneous process, and an emotional response, consumers must first receive the stimulus and then react to the stimulus [16]. Impulse purchases are more common for non-durable goods because these goods have a short life, fast-moving goods, are cheaper to buy in bulk and have little risk. [4].

Situational factors are external factors that come from the shopping environment when buyers come and contact visual stimuli (products or promotions) that can create unplanned purchases [12]. The situation is a collection of all factors that do not follow personal knowledge and stimuli. According to Belk, situational factors include five elements, namely (1) the physical environment, (2) the social environment, (3) time, (4) the shopping task and (5) the previous conditions in which the consumer entered the shopping area and its surroundings or resulted from the process. Shopping nearby [17].

3 Research Methods

The object of this study is the price promotion time limit as the independent variable (X), impulse buying dependent variable (Y) and variable intervening situational factors (Z). Research subjects are consumers who have shopped both online and offline and take advantage of price promotions with time limits set by business people.

The population used in this study based on data from the Jambi City BPS in 2022 is the Jambi City community aged 15 years and over according to the type of activity and gender totaling 466,345 people. The assumption used in determining the population is that they can make their own decisions and even make their purchases at that age. The use of the SMART PLS analysis tool requires a sample size of 200 – 400 respondents [18], and for this study the number of respondents used was at least 200.

The data collection method is purposive sampling with the condition that the respondent has made an impulsive purchase due to the promotional prices offered by business actors online and offline. The scale used is a semantic differential scale, which can be used to develop and compare different profiles of a company, brand or product (Edition, nd). To determine the value or score of the questionnaire using a Likert scale, namely by making changes to data that are qualitative to quantitative. There are 4 (four) levels used to assess the answers given by respondents, namely scores 1 (one) to 4 (four) [19].

Each answer to the questionnaire will be included in a value or weight. The way to calculate the score is to add up all the products of the value of each weight divided by the total number of frequencies which can simply be seen in the formula below:

$$X = \sum \left(\frac{f_i \cdot x_i}{f_i} \right)$$

Where:

X: Average weight

Xi: Weight

Fi: Frequency

After obtaining the results of the average weight, a rating scale is used to determine the factors that cause impulse buying by using the range of scores for each variable, with the following formula:

$$Rs = \frac{m - n}{b}$$

Where:

Rs: Score Range

m: maximum possible score

The score range in this study is based on the opinion of Sudjana (1990) which is based on the use of a Likert scale, as follows:

1.00–1.99: included in the negative category (strongly disagree/very no effect)

2.00–2.99: negative category (disagree/no effect)

3.00–3.99: positive category (agree/influence)

4.00–4.99: positive category (strongly agree/very influential)

Hypothesis testing begins with testing the validity and reliability of the model. Where to see the validity of the construct using Average Variance Extracted (AVE). According to(Hair et al., 2014)AVE value > 0.5 indicates valid research data. While the method used to calculate the reliability coefficient is the alpha Cronbach method, with a value > 0.7. Testing using PLS-SEM follows 2 stages that separate the measurement and structural models (Hair et al., 2014). The first stage tests the reliability and validity, while the second stage includes an assessment of the estimated structural model formed.

The research model used in this study is as in Fig. 1.

From the model above, the research hypothesis is formulated as follows:

- H1: There is a positive and significant direct effect between the price promotion time limit variable on impulse buying
- H2: There is a positive and significant direct effect between the variable price promotion time limit on Situational Factors
- H3: There is a positive and significant direct influence between the variable situational factors on impulse buying
- H4: there is a positive and significant indirect effect between the price promotion time limit variable on impulse buying through situational factors as an intervening variable

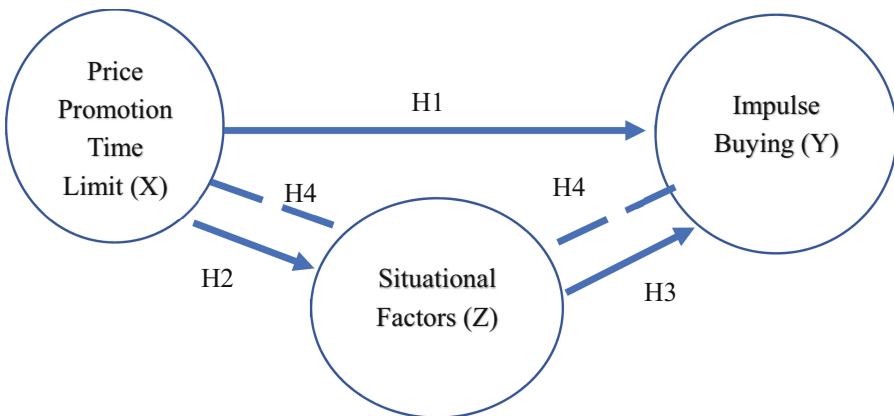


Fig. 1. Research Model

4 Results and Discussion

4.1 Validity and Reliability Test

Validity and reliability testing was carried out during the pre-survey, by distributing questionnaires to 30 respondents. The aim was to determine whether the statement items used were valid and reliable. Validity testing is used to reveal the data appropriately and is also able to provide a detailed description of the data. Testing the validity using the Product Moment correlation test. The results of validity testing can be seen in the following Table 1.

From the data processing results above, it can be seen that there are 3 invalid statements, namely one from the impulse buying variable and two from the situational factors variable. Therefore, the three statement items were eliminated from the questionnaire distributed to respondents in this study. Furthermore, the statement items declared valid will be tested for reliability. Reliability testing uses Cronbach Alpha, to see how far the measurement results can be trusted. The results of the reliability test are shown in the following Table 2:

The table above shows that each statement item used is reliable because the Cronbach Alpha value is 0.898, meaning that each statement item used can be trusted.

The initial sample set in this study is at least 200 people. Online questionnaires were distributed using WhatsApp to respondents who met the criteria, and 211 respondents who filled out the questionnaire.

Table 1. Validity Test

Statement Items	count	rtable	Results
1	0.779	0.374	Valid
2	0.682	0.374	Valid
3	0.807	0.374	Valid
4	0.169	0.374	Invalid
5	0.712	0.374	Valid
6	0.563	0.374	Valid
7	0.674	0.374	Valid
8	0.582	0.374	Valid
8	0.444	0.374	Valid
9	0.197	0.374	Invalid
10	0.485	0.374	Valid
11	0.496	0.374	Valid
12	0.639	0.374	Valid
13	0.336	0.374	Invalid

Source: Data processed, 2022

Table 2. Reliability Test

Coefficient	Interpretation
0.898	Reliable

Source: Data processed, 2022

Tabulation of respondent response data based on respondent characteristics can be used to obtain an overview of the characteristics of the sample who became respondents in this study; the results of tabulation of respondent characteristics data can be seen in the following Table 3:

From the data above, it can be seen that the majority of respondents are women as much as 57.8%; this shows that the decision to shop is still dominated by women, by the theory put forward by Kotler which states that to buy daily necessities, women play a role in the family.. From the majority age range is 15–19 years 57%, income level < Rp. 500.000,- 42.2%, last education is SMA/SMK equivalent 60.7%, student occupation is 62.1% and online shopping is 66.8%, it can be seen that 15–19 years old are still students or students who have limited income and more often choose to shop online because the age range is categorized as Generation Z whose daily life cannot be separated from gadgets or smartphones.

While the tabulation of respondents' response data can be used to obtain an overview of the variables used in this study, which can be seen in the following Table 4.

From the data above, it can be seen that Variable X, namely the Price promotion time limit, has an average of 2.88 with a harmful category (disagree/no effect). This illustrates that the program is not the primary concern of the respondents; this can happen because the program is a routine program carried out by the company every week or every month. In addition, the existence of a promotional time limit causes them not to have enough time to compare prices between one seller and another, especially if it is related to the description of the characteristics of the respondents, the majority of whom are Generation Z whose total income is obtained from their parents.

In the impulse buying variable, it turned out that most respondents made planned purchases, meaning that the time limit promotion program carried out by the company was used as the stage for respondents to evaluate the next purchase. Meanwhile, the situational factor variable has an average of 3.36 which is in the agreed category. The indicator with the highest average is shopping when the mood arises at certain moments. These results show that the dominant factor influencing respondents to shop is situational factors, mainly when the mood arises to shop at certain times.

5 Conclusions

Descriptively, it can be seen that the situational factors variable has an average value that is in the positive category, meaning that impulse buying will appear if the situational factors support such as the mood to shop at certain times, such as promotions on every date that is the same as the month.

Table 3. Respondents' Responses Based on Gender, Age, Education Level Income and frequently used spending methods

No.	Description	Amount(Person)	Percentage(%)	
1.	Type Sex	Man	89	42.2
		Woman	122	57.8
2.	Age	15–19iYear	78	37
		20–24iYear	59	28
		25–29iYear	21	10
		> 30 years	54	25.6
3.	Income	< iRp.i500,000,-	89	42.2
		Rp.i5000.001.-i-iRp.i1.000.000,-	42	19.9
		Rp.i1.000.001,-i-iRp.i1,500,000,-	17	8.1
		> Rp.i15000.001	67	31.8
4.	EducationiFinal	JUNIOR HIGH SCHOOLiEqual	2	0.9
		SMK/SMA Equivalent	128	60.7
		S1	62	29.4
		S2	20	9.5
		S3	3	1.4
5.	Work	Student	1	0.5
		Student	131	62.1
		Contract employees	25	11.8
		TNI / Police	2	0.9
		Businessman	12	5.7
		Private employees	21	10
		Government employees	17	8.1
		Housewife	7	3.3
6.	Shop more often	Offline	101	47.9
		On line	141	66.8

Source: Data processed, 2022

Recommendations.

Business people consider giving price promotion time limits more to price discounts that are seen directly, not in the form of percentages, because consumers can immediately find out how much money they can save.

Table 4. Respondents’ responses to research variables

No.	Statement		Response					mean
			1	2	3	4		
A. Price Promotion Time Limit(X)								
1.	Discounts in the form of rebates make me want to buy without planning	F	14	53	97	47	211	2.84
		Fx	14	106	291	188	599	
2.	Discounts in the form of a percentage of the regular price make me want to buy without planning	F	15	62	86	48	211	2.79
		Fx	15	124	258	192	589	
3.	There is a gift when purchasing above the minimum purchase	F	13	34	112	52	211	2.96
		Fx	13	68	336	208	625	
							2.86	
B. Impulse Buying (Y)								
		Fx	2	46	204	472	724	
1.	Always advised by family, friends or salespeople when going to purchase a product that I did not plan on doing	F	27	59	80	45	211	2.68
		Fx	27	118	240	180	565	
2.	I am constantly reminded when I make a product purchase without being planned by my family, friends or my ability/money	F	20	47	83	61	211	2.88
		Fx	20	94	249	244	607	

(continued)

Table 4. (continued)

No.	Statement	Response						mean
		F						
3.	I made a sudden purchase without being influenced by anyone or anything, but because of a sudden desire that came from myself Average Impulse Buying (Y)	F	11	33	96	71	211	3.08
		Fx	11	66	288	284	649	
								2.88
C.	Situational Factors(Z)							
1.	Have time to shop	F	13	52	89	57	211	3.22
		Fx	13	104	267	228	612	
2.	Shopping because family influences it	F	65	99	36	11	211	2.99
		Fx	65	198	108	44	415	
		Fx	2	30	252	440	724	
3.	Influenced by the environment in which I am (store atmosphere, promotions offered by the seller)	F	53	74	57	27	211	3.25
		Fx	53	148	171	108	480	
4.	Shopping because the mood arises at a particular moment	F	21	45	72	73	211	3.77
		Fx	21	90	216	292	619	
5.	Shop for payment offers	F	40	83	52	36	211	3.58
		Fx	40	166	156	144	506	
		Fx	22	82	246	264	614	
	Average Situational Factors (Z)							3.36
	Total average							3.04

Source: Data processed, 2022

Bibliography

1. BPS. (2022). Jambi city 2022.
2. *Indonesian Statistics*. (2021).
3. Tang, T., & Hao, L. (2017). Research on the Influence of Price Promotion on Consumer Purchase Decisions under Network Environment. 168, 220–224.
4. Haghverdi, F., & Hosseini, SH (2020). The effect of price promotions on impulse buying : the mediating role of service innovation in fast-moving consumer goods The effect of price promotions on impulse buying : the mediating role of service innovation in fast-moving consumer goods Seyed Hasan Hosseini * Fatemeh Haghverdi Zadeh Majid Mohammad Shafiee Ebrahim Hajipour. January. DOI:<https://doi.org/10.1504/IJBIS.2020.10027452>.
5. Chen, SS, Monroe, KB, & Lou, Y. (nd). The Effects of Framing Price Promotion Messages on Consumers' Perceptions and Purchase Intentions. 74(785), 353–372.
6. Zhang, Y., Deng, J., & Xu, Y. (2017). The Effect of Different Price Promotion Ways on Consumers' Purchasing Intention. 1192–1208. <https://doi.org/10.4236/ajibm.2017.710085>.
7. Roll, O., & Pfeiffer, E. (2017). Are your consumer's variety seekers ? The moderating impact on the effectiveness of free gift promotions vs . price discounts. The International Review of Retail, Distribution and Consumer Research, 3969(March), 0. <https://doi.org/10.1080/09593969.2017.1299781>.
8. Maxwell, J., Gilmore, A., & Gallagher, D. (nd). Long-term brand development versus short-term business targets: the impact of price promotions on branded food products. April 2013, 37–41.
9. Wu, I., Chen, K., & Chiu, M. (2016). International Journal of Information Management Defining key drivers of online impulse purchasing : A perspective of both impulse shoppers and system users. 36, 284–286.
10. Abdul, M., & Chowdhury, M. (2021). Analysis of Factors Influencing Impulse Buying Behavior towards e-Tailing Sites. 17(2), 97–126. DOI: <https://doi.org/10.7903/cmr.20457>
11. Raju, KV, Kumar, DP, & Raju, SS (2015). A Comprehensive Review Of Impulse Purchase Process And Various Factors Affecting It. 17(12), 81–107. DOI: <https://doi.org/https://doi.org/10.9790/487X-1712381107>.
12. Kursan, I. (2017). Assessing the situational factors and impulsive buying behavior : Market segmentation approach Assesing the Ssituational Factors and Implusive Buying Behavior : Market Segmentation Approach. May.
13. Hanna, RC, Swain, SD, & Berger, PD (2016). Optimizing time-limited price promotions. Journal of Marketing Analytics, 4(2), 17–32. <https://doi.org/https://doi.org/10.1057/s41270-016-0006-y>.
14. Devlin, J., Ennew, C., Mckechnie, S., Smith, A., Management, B., Iss, V., Devlin, J., Ennew, C., Mckechnie, S., & Smith, A. (2013). Pricing strategy & practice A study of time limited price promotions. DOI: <https://doi.org/10.1108/10610420710763967>.
15. Iyer, GR, Blut, M., Xiao, SH, & Grewal, D. (2020). Impulse buying : a meta-analytic review. 384–404.
16. Huang, R., Hur, S., & Ha, S. (2016). Mapping Consumer Engagement and Brand Impression Management in Instagram: A Decision Tree Approach. lib.dr.iastate.edu. https://lib.dr.iastate.edu/itaa_proceedings/2016/posters/52/.
17. Belk, R. (1975). Situational Variables and Consumer Behavior. 2(December), 157–164.
18. Hair, JF, Ringle, CM, Sarstedt, M., Hair, JF, Ringle, CM, & Sarstedt, M. (2014). PLS-SEM : Indeed a Silver Bullet PLS-SEM : Indeed a Silver Bullet. January 2015, 37–41. DOI: <https://doi.org/10.2753/MTP1069-679190202>
19. Chang, L. (1994). A Psychometric Evaluation of 4-Point and 6-Point Likert-Type Scales in Relation to Reliability and Validity. Applied Psychological Measurement, 18(3), 205–215. DOI: <https://doi.org/10.1177/014662169401800302>.

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