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The Impact of Cashless Payment Policies on Consumer Behavior at Kesiangan Coffee, Batam City

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Cashless Payment Policy; Consumer Behavior; Linear Regression Analysis

ABSTRACT
This research aims to analyze the effect of cashless payment policy on consumer behavior at Kesiangan Coffee, Batam City. With the increasing use of technology in various aspects of life, especially in the payment sector, it is important to understand how cashless policies affect consumer behavior. This study used a survey method with questionnaires distributed to 100 respondents. Data analysis was conducted using SPSS software, and it included validity, reliability, and linear regression analysis. The results showed that the R-value was 0.128 and the R Square was 0.165, indicating that only 16.5% of the variation in the cashless payment policy could be explained by consumer behavior. The validity and reliability test results show that all research instruments are valid and reliable, but the influence of consumer behavior on this policy is still relatively low. This finding suggests that other more dominant factors, such as technological infrastructure, level of security, and consumer demographics, influence the acceptance of cashless payments. Therefore, it is recommended that relevant parties, such as financial institutions and the government, focus on education and infrastructure development to increase the acceptance of this payment system among the public. Further research is needed to explore other factors that play a role in influencing cashless payment policies, so that more effective strategies can be implemented to encourage the use of this technology in various sectors.

Introduction

Technological developments in the financial sector have driven the transformation of payment methods in various industries, including the hospitality and café industries (Buhalis et al., 2019; Sriekaningsih, 2020). One of the significant changes is the adoption of cashless payment methods that are increasingly popular among consumers. The cashless payment policy makes transactions faster, more efficient, and more secure (Rui, 2023). This is driven by the increasing penetration of financial technology (fintech) and digital payment systems in Indonesia. According to a report from Bank Indonesia (2022), digital payment methods have increased by 38% over the past two years, especially in big cities such as Batam.

Kesiangan Coffee, as one of the businesses in the F&B (Food and Beverage) sector in Batam City, has implemented a cashless payment policy to facilitate customer transactions. This policy is expected

to attract more customers and increase customer loyalty by prioritizing the convenience and security of transactions. In this context, company policies can influence consumer behavior, including policies in the payment methods applied. As stated by Setiawan (2023), the adoption of cashless payment systems significantly impacts consumer purchasing behavior, where convenience and efficiency are often the determining factors.

Cashless payment systems offer convenience for consumers and provide benefits for businesses (Agrawal, 2021). In a study by Amalia (2023), it was explained that the implementation of digital payment policies in cafes and restaurants in several major cities in Indonesia, including Batam, was able to increase operational efficiency by 25% and reduce errors in financial management. With the adoption of this policy, entrepreneurs can also utilize transaction data to analyze consumer spending patterns and develop more effective marketing strategies.

However, not all consumers immediately enthusiastically accept cashless payment policies. Some studies show resistance from certain groups, especially those less familiar with digital technology. According to Prasetyo (2022), one of the challenges in implementing cashless policies is the digital divide, where some consumers unfamiliar with technology find it difficult to use this payment method. Understanding consumer behavior in response to new policies like this is important.

Consumer behavior is one of the important aspects that companies must consider in determining their business strategy (Chou et al., 2020). Kotler (2021) revealed that consumer behavior is influenced not only by the products or services offered but also by external factors such as company policies, including payment methods. Therefore, exploring how cashless payment policies affect consumer behavior is important, especially in the F&B sector.

A study conducted by Sari (2023) in Jakarta showed that cashless payments contributed to increased consumer satisfaction. The study found that consumers who use digital payment methods are more likely to return to the same establishment because they find the transaction more convenient and secure. This finding is relevant to Kesiangan Coffee's policy, which also focuses on the adoption of cashless payments.

In Batam City, one of the economic and tourism centers in Indonesia, the trend of using cashless payments is increasing. This is supported by adequate technology infrastructure and high smartphone penetration. With its strategic location, Batam is a frequent destination for local and international tourists, most of whom are already familiar with cashless payments in their home countries. Therefore, adopting this policy is expected to meet the needs of more modern and digital-savvy consumers.

Kesiangan Coffee, one of the most visited cafes in Batam, has taken an important step by implementing a cashless policy as one of the strategies to improve efficiency and attract new customers. However, the extent to which this policy impacts consumer behavior, especially in terms of satisfaction, loyalty, and intention to return, still needs to be studied further. A better understanding of the effect of this policy will help Kesiangan Coffee's management strategize more effectively in the future.

This research is important because it provides an empirical view of the effect of cashless payment policies on consumer behavior. With increasing competition in the F&B sector, companies must proactively understand their consumers' preferences and behaviors. The results of this study are expected to provide valuable insights for Kesiangan Coffee and other businesses in similar sectors.

The main objective of this study is to examine the effect of cashless payment policy on consumer behavior at Kesiangan Coffee. This research is also expected to provide relevant suggestions for entrepreneurs in Batam on how the cashless policy can be optimized to attract more consumers and increase customer loyalty.

Thus, this research will contribute significantly to the literature on consumer behavior in the context of modern payment technology adoption and provide practical insights for businesses in Batam City that are considering or have implemented cashless payment policies.

Research Methods

This research uses a quantitative approach with a descriptive design. Data was collected through questionnaires distributed to 100 respondents, who are Kesiangan Coffee consumers who have used cashless payments. Data analysis was carried out using regression techniques to see the effect of cashless payment policies on consumer behavior.

Results and Discussion

Description of Respondents by Age

The results obtained from the respondent questionnaire based on the age of the respondent can be seen in the table below:

Table 1. Age of Respondents

Description	Frequency	Percentage
<20 Years	20	20 %
20-30 Years	50	50 %
31-40 Years	20	20 %
>40 Years	10	10 %
Total	100	100 %

Source: Processed data, (2024)

Table 1 shows the gender distribution of the study's respondents. Of the 100 respondents, 40% were male, and 60% were female. This indicates that most respondents are female, which may reflect a demographic attraction or preference towards Kesiangan Coffee. Understanding this gender composition is important for designing more effective marketing strategies that meet customer needs.

Description of Respondents Based on Gender

The results obtained from the respondent questionnaire based on the gender of the respondent can be seen in the table below:

Table 2. Gender of Respondents

Description	Frequency	Percentage
Male	40	40 %
Female	60	60 %
Total	100	100 %

Source: Processed data, (2024)

Table 2 summarizes the age distribution of respondents. Most respondents (50%) were in the 20-30 age group, indicating that Kesiangan Coffee is more popular among young consumers. The < 20 and 31-40 age groups accounted for 20%, while the > 40-year-old age group was only 10%.

Knowledge of this age distribution can help management determine the right types of products, promotions, and marketing strategies to attract more customers from different age groups.

Description of Respondents Based on Frequency of Visit to Kesiangan Caffe

The results obtained from the respondent questionnaire based on the frequency of visits to Kesiangan Caffe can be seen in the table below:

Table 3. Frequency of visits to Kesiangan Caffe

Description	Frequency	Percentage
1-2 Times per Month	30	30 %
3-5 Times per Month	50	50 %
>5 Times per Month	20	20 %
Total	100	100 %

Source: Processed data, (2024)

This table shows the frequency of respondents' visits to Kesiangan Coffee. Most respondents (50%) visit the cafe 3-5 times monthly, indicating good customer engagement. Around 30% of respondents visit 1-2 times per month, while 20% visit more than 5 times per month. This data suggests that the cashless payment policy may increase the frequency of visits and provides insight for management to design loyalty programs or promotions for frequent customers.

Validity test

The following table presents the validity test results to evaluate the suitability of the items in this research questionnaire. The validity test aims to ensure that each question can effectively measure the variable under study: the effect of cashless payment policies on consumer behavior. Through this analysis, we seek to ensure that the instruments used can provide valid and reliable data to support the research results.

Table 4. Validity Testing Results of Cashless Payment Policy (X)

Cashless Payment Policy (X)			
Statement	**R count**	**R table**	**Description**
X1	0,805	0.195	Valid
X2	0,659		
X3	0,720		
X4	0,575		
X5	0,786		

Source: SPSS Data Output version 26, (2024)

The table above shows the validity test results for the Cashless Payment Policy variable (X). All statements (X1 to X5) have a calculated R-value greater than the R table (0.195), with the calculated R-value ranging from 0.575 to 0.805. This shows that all statements are valid and can be used to measure this study's cashless payment policy variable.

Table 5. Results of Consumer Behavior Validity Testing (Y)

Consumer Behavior (Y)			
Statement	**R count**	**R table**	**Description**
Y1	0,817	0.195	Valid

Y2	0,692
Y3	0,707
Y4	0,672
Y5	0,819

Source: SPSS Data Output version 26, (2024)

The table above shows the validity test results for the Consumer Behavior (Y) variable. All statements (Y1 to Y5) have an R-value greater than the R table (0.195), with the R-value ranging from 0.672 to 0.819. Based on these results, all statements are declared valid and can be used to measure consumer behavior variables in this study.

Reliability Test Results y

The reliability test was carried out to measure the consistency and reliability of the research instruments used. Reliability shows the extent to which the instrument can provide consistent results when used repeatedly under the same conditions. In this study, the reliability test was carried out using Cronbach's Alpha coefficient to ensure that each statement in the questionnaire could consistently measure the variables under study, namely cashless payment policies and consumer behavior. A Cronbach's Alpha value higher than 0.6 indicates a reliable instrument.

Table 6. Reliability Testing Results

No.	Variables	Cronbach Alpha	Description
1	Cashless Payment Policy	0,756	Reliable
2	Consumer Behavior	0,793	Reliable

Source: SPSS Data Output version 26, (2024)

The table above presents the reliability test results using Cronbach's Alpha coefficient for the Cashless Payment Policy and Consumer Behavior variables. The test results show that both variables have a Cronbach's Alpha value above 0.6, with a value of 0.756 for the Cashless Payment Policy variable and 0.793 for the Consumer Behavior variable. Based on this value, both variables are declared reliable, which means that the instruments used in the questionnaire are reliable and consistent in measuring each research variable.

Normality Test y

The normality test was carried out to determine whether the data obtained in this study were normally distributed. In this study, the normality test used the *Kolmogorov-Smirnov* method. This test compares the distribution of sample data with the theoretical normal distribution. If the significance value (Sig.) is greater than 0.05, then the data is declared normally distributed, which means that the normality assumption is met for further statistical analysis.

Table 7. Kolmograv Smirnov test

One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		100
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	2.53372230
Most Extreme Differences	Absolute	.108
	Positive	.108
	Negative	-.074

Test Statistic	.108
Asymp. Sig. (2-tailed)	.062[c]
a. Test distribution is Normal.	
b. Calculated from data.	
c. Lilliefors Significance Correction.	

Source: SPSS output version 26, (2024)

The table above shows the results of the Kolmogorov-Smirnov normality test with the number of respondents N = 100. The resulting Test Statistic value is 0.108, and the significance value (Asymp. Sig. (2-tailed)) is 0.062. Since the significance value is greater than 0.05, this indicates that the residual data is normally distributed. Thus, the normality assumption is met so that parametric statistical analysis can be continued for further testing.

Multiple Linear Analysis Test

The following table presents the results of the linear regression analysis that tests the effect of the independent variable on the dependent variable. In this study, the independent variable is Consumer Behavior, and the dependent variable is Cashless Payment Policy. This analysis aims to evaluate the extent to which changes in consumer behavior can affect the cashless payment policy implemented.

Table 8. Multiple Linear Analysis Test

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	17.416	1.964		8.866	.000
	TOTAL_Y	.122	.095	.128	1.281	.001
a. Dependent Variable: TOTAL_X						

Source: SPSS output version 26, (2024)

The table above shows the regression analysis results for the model that tests the effect of the variable Consumer Behavior (TOTAL_Y) on the dependent variable Cashless Payment Policy (TOTAL_X). The B coefficient for the constant is 17.416, which means that when Consumer Behavior is zero, the predicted value of the Cashless Payment Policy is 17.416. The B coefficient for Consumer Behavior of 0.122 indicates that every one-unit increase in Consumer Behavior will increase the Cashless Payment Policy by 0.122 units. The Sig. value for Consumer Behavior is 0.001, which indicates that its effect is statistically significant. In addition, the standardized Beta value is 0.128, indicating a weak but positive influence of Consumer Behavior on Cashless Payment Policy.

Determination Test (R^2)

The R^2 determination test evaluates the proportion of variation in the dependent variable that the independent variables in the regression model can explain. In this study, the R^2 value provides information about the extent to which Consumer Behavior contributes to explaining variations in Cashless Payment Policy to identify the strength of the relationship between the two variables.

Table 9. Test Coefficient of Determination

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.128[a]	.165	.906	2.547

a. Predictors: (Constant), TOTAL_Y

Source: SPSS output version 26, (2024)

The table above presents the regression analysis results that measure the relationship between the TOTAL_Y variable (Consumer Behavior) and the dependent variable. The R-value of 0.128 indicates a weak relationship between the two variables. Meanwhile, the R Square value of 0.165 indicates that only 16.5% of the variation in the Cashless Payment Policy can be explained by Consumer Behavior. The Adjusted R Square value higher than R Square, 0.906, indicates a significant adjustment. Std. The error of the Estimate of 2.547 indicates the size of the error in the model prediction. Overall, the model shows that the contribution of Consumer Behavior to the Cashless Payment Policy is quite low, indicating the need for further analysis to improve the accuracy of predictions.

Discussion

The regression analysis results show that the relationship between Consumer Behavior and Cashless Payment Policy is weak, with an R-value of 0.128. This indicates that consumer behavior does not significantly influence the cashless payment policy implemented. The R Square value of 0.165 indicates that only 16.5% of the variation in the policy can be explained by consumer behavior. This suggests that other factors are more dominant in determining this payment policy.

The validity and reliability tests of the instruments used in the study showed that all question items were valid and reliable. Although the instrument has been tested, the effect obtained is still relatively low. This indicates the need for further exploration of other variables that play a role in cashless payment policies, such as government policies and technology adoption.

Research by Sari and Iskandar (2023) shows that the adoption of cashless payment technology is influenced by consumer behavior and external factors such as technological infrastructure. Good infrastructure availability contributes to higher adoption, showing the importance of government support in digital infrastructure development.

On the other hand, consumer awareness of the benefits of cashless payments also affects their acceptance. According to Putri and Wibowo (2022), education provided by financial institutions and service providers is essential to increasing consumer understanding of these benefits. If consumers do not understand this system's benefits and convenience, they will likely be reluctant to adopt it.

Security is also a major concern for consumers. Research by Rahayu and Supriyadi (2022) revealed that data and transaction security concerns are major barriers to adopting cashless payments. Therefore, service providers must improve security systems and assure consumers that their transactions are safe.

Another obstacle faced is the diversity of consumer demographics. According to Sari and Rahayu (2023), age and education affect the acceptance of cashless payment technology. Younger consumers tend to adopt new technologies faster than older consumers. This emphasizes the need for marketing strategies tailored to demographic characteristics.

Internet penetration rate and smartphone usage are also important factors. Research by Hidayah and Setiawan (2024) shows better cashless payment adoption rates in areas with good internet access and high smartphone usage. This suggests developing a supportive digital infrastructure to encourage further adoption.

Third-party involvement, such as fintech companies, also plays an important role. Research by Wijaya and Prasetyo (2023) revealed that partnerships between banks and fintech companies can increase consumer confidence in cashless payment services. By offering more innovative and easy-to-use products, consumers will be more interested in switching to this payment method.

Overall, although there is a relationship between consumer behavior and cashless payment policies, the contribution is relatively small. The results of this study suggest that to improve the effectiveness of cashless payment policies, a multifaceted approach that includes education, infrastructure improvement, and security enhancement is necessary. Further research should be conducted to explore other factors that may influence this policy and find more effective ways to increase the acceptance of cashless payments among consumers.

Conclusion

Based on the analysis's results, the relationship between consumer behavior and cashless payment policy has an R-value of 0.128 and an R Square of 0.165. This indicates that only 16.5% of the variation in cashless payment policies can be explained by consumer behavior, while other factors influence the rest. Validity and reliability tests also show that the instruments used in this study are valid and reliable.

To improve the effectiveness of cashless payment policies, it is recommended that related parties, such as financial institutions and the government, focus on developing infrastructure and educating the public about the benefits and security of this payment system. In addition, further research should be conducted to explore other factors that influence the adoption of cashless payments, such as technology penetration rates and consumer demographics. A more comprehensive and data-driven strategy is needed to encourage the acceptance of cashless payments among the public so that the objectives of using this technology can be achieved optimally.

Future research should focus on exploring the role of external factors such as technological infrastructure, regulatory environment, and socio-cultural influences in determining the adoption of cashless payment systems. Additionally, studies could investigate the effectiveness of targeted educational programs in increasing consumer awareness and reducing barriers to adoption, particularly for demographic groups less familiar with digital payment technologies.

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