



# Consumer Adaptation Process on Digital Banking: Evidence from Indonesia

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**Abstract.** The emergence of Indonesia into the 5.0 era requires businesses and public services to understand digital consumer behavior. This study aims to explore and analyze the factors influencing the utilization of Indonesian digital banks, particularly the role of perceived value. Additionally, it investigated how environmental tasks serve as a mediating factor in the adoption process of digital banking services. The sample for this study consisted of banking customers who made transactions through digital banking and were aged between 18 and 50 years. A representative sample was determined by multiplying the number of indicators by five to ten times, according to [25], resulting in a sample size of 140 respondents. Partial Least Squares (PLS) with path analysis was used to analyze the data collected from the sample, which was selected using probability and specific sampling techniques. The findings of the study indicated that the consumer adaptation process was significantly influenced by perceived value, and that there was a notable relationship between these values.

**Keywords:** Perceived Value, Task Environmental, Consumer Adaptation Process, Digital Banking

## 1 Introduction

Indonesia has entered the era of 5.0, where everything is digitally integrated. This era demands that business operators and public services understand digital consumer behavior [1]. Modern consumers are highly connected with digital technology, such as smartphones, social media, and other online platforms [2]. Therefore, companies need to focus on understanding how consumers interact with these technologies. The era of 5.0 is characterized by digital transformation or digitalization [1]. Digitalization refers to the transformative process in which digital technology is utilized to enhance or replace traditional manual or analog methods in executing processes, delivering products, or providing services [3]. Digital transformation in the banking sector is far more comprehensive than merely offering banking services through online and mobile platforms [4]. The banking and financial industry is required to continuously innovate by integrating digital technology with better customer interaction. Technological innovation should be developed in a manner that enhances customer convenience and simplifies access to banking services [5].

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Based on several previous studies [6], general banks need to demonstrate the benefits that customers gain by choosing and using digital banking services instead of conventional banking methods. [7] It was discovered that the volume of digital banking transactions positively influenced a bank's financial performance, highlighting the substantial advantages that come with the adoption and utilization of digital banking [8] It was identified that ease of use, customer satisfaction, quality of customer service, and trust had a positive correlation with customer loyalty in utilizing digital banking services. Meanwhile, [9] asserted that supporting factors for digital banking access play a crucial role in enhancing user satisfaction with these services. Therefore, prior research has offered valuable insights into the key factors that impact the adoption of and user satisfaction with digital banking services.

In general, previous research has explained these factors theoretically, leaving a gap for more in-depth empirical research. Therefore, there is a need to conduct more concrete and data-driven research through a methodology focusing on user interest in digital banking applications [10]. This encompasses factors such as perceived ease of use, perceived benefits, perceived value, and trust in the system, all of which shape customers' intentions to utilize digital banking applications [11]. Therefore, this study seeks to offer a more in-depth understanding of the various factors that influence the public's adoption and utilization of digital banking applications.

## 2 Methods

This research employed a survey style, conducted by distributing questionnaires. It is a quantitative study with hypothesis testing, based on the issues being investigated. Data for this research were collected from related websites, journals, the internet, and reference books. The participants in this study consisted of bank customers who have experienced digital banking services via mobile applications or mobile banking platforms. Probability sampling was employed, providing an equal chance for each element of the population to be selected as a sample. This implies that every individual within the population has an equal chance of being selected as a sample participant [12]. The research sample consisted of banking customers who transacted through digital banking and were aged between 18 and 50 years. A representative sample was determined by multiplying the number of indicators by five to ten times, according to [13], resulting in a sample size of 140 respondents. Validity and reliability tests, including convergent and discriminant validity, are types of tests (Cronbach's Alpha). The analysis was conducted using the Partial Least Squares (PLS) technique. This research used independent variables, mediating variables, and dependent variables. The independent variable (X) in this study was perceived value, using the dimensions of perceived ease of use, perceived trust, and perceived usefulness [14]. The dependent variable (Y) is consumer adaptation, using the dimensions of cultural adaptation, economic adaptation, technology adaptation, and psychological adaptation [15]. The mediating variable (Z) is task environmental, using the dimensions of familiarity and time pressure [16].

### 3 Results and discussion

Validity testing using Discriminant Validity is needed to test each indicator for each variable at that stage. The Average Variance Extracted (AVE) value was used to measure discriminant validity. It is desirable that the AVE value be greater than 0.50, because this shows that the model has good value.

**Table 1.** Average Variance Extracted (AVE) Model Measurement

Variable	Average VarianceExtracted (AVE)	
Consumer Adaptation	0.600	488.738
Perceived Value	0.615	78
Task Environmental	0.599	.000

Source: Author's work

Table 1 demonstrates that all reflective constructs possess Average Variance Extracted (AVE) values exceeding 0.50, signifying both reliability and convergent validity. In addition, each latent variable indicator is stable and able to represent the latent variable accurately. Moreover, the assessment of construct reliability is conducted using two approaches: composite reliability analysis and Cronbach's alpha. Both composite reliability and Cronbach's alpha serve as indicators of construct reliability, with values ranging from 0 to 1. A value of 1 signifies perfect reliability; however, a construct is deemed reliable when the measurement value is at least 0.7 or higher.

**Table 2.** Reliability Test

Variable	Cronbach's Alpha	Composite Reliability	Critical Value	
Consumer Adaptation	0.939	0.947		Reliable
Perceived Value	0.922	0.935	0.7	Reliable
Task Environmental	0.888	0.913		Reliable

Source: Author's work

Table 2 demonstrates that all composite reliability values and Cronbach's Alpha exceed 0.7 for each variable. This indicates that all variables in the study, such as perception, task environment, and consumer adaptation, exhibit strong reliability. After carrying out validity and reliability checks with the results that need to be in accordance with the external model, the next step was to carry out an R-squared check. The R-Square or R2 formula for the dependent construct indicates the underlying error or bias of the independent construct in worsening the dependent construct.

**Table 3.** R-Square Model

Path	R Square
Perceived Value → Consumer Adaptation	0.347
Perceived Value, Task Environmental → Consumer Adaptation	0.751

Source: Author’s work

Table 3 illustrates that the R2 value for the perceived value model with reference to consumer adaptation is equal to 0.3477, which means that perceived value influences consumer adaptation by 34.7%. In addition, the relationship between perceived value and task environment and consumer adaptation can be seen from the R2 value of 0.751, which shows that the relationship between perceived value and task environment and consumer adaptation is 75.1%.

**Table 4.** Path Coefficient Direct Effect

Path	Path Coef- ficient	T Statis- tics	T Statis- tics	Sig.	
Task Environmental on Con- sumer Adaptation	0,289	2.257	1,96	0.012	H <sub>0</sub> re- jected
Perceived Value on Task Envi- ronmental	0,867	50.394	1,96	0.000	H <sub>0</sub> re- jected
Perceived Value on Consumer Adaptation	0,321	1.987	1,96	0.024	H <sub>0</sub> re- jected

Source: Author’s work

The first hypothesis, which proposes that the task environment positively influences consumer adaptation, is supported by a value of 2.257 exceeding the 1.96 threshold and a significance value of 0.012, which falls below the 0.05 significance level. Therefore, H0 is rejected, indicating that the task environment has a positive impact on consumer adaptation. This is reinforced by a positive path coefficient, showing that the task environment positively influences consumer adaptation, which will negatively affect the adaptation of digital banking consumers in Indonesia. To maximize opportunities for improving customer adaptability, organizations providing digital banking must pay attention to the details of elements that subtly influence daily tasks or activities related to the use of digital banking services.

The second hypothesis, which suggests that the perceived value of a product or service has a positive effect on the task environment, is confirmed by a score of 50.394, surpassing the 1.96 threshold. This confirms that the hypothesis is accepted, demonstrating that the perceived value of a product or service has a positive influence on the

task environment. This is because perceived value enhances consumers' perception of the relative benefits of the product or service compared to the costs or expenses required to fully utilize it. Through the positive interaction between perceived value and the task environment, businesses can create conditions that support technology adoption and increase customer satisfaction and loyalty towards digital banking services.

The third hypothesis, which asserts that perceived value positively affects consumer adaptation, is validated by a value of 1.987, exceeding the critical threshold of 1.96. This implies that H0 is rejected, confirming that perceived value positively influences consumer adaptation. This is reinforced by a positive path coefficient, demonstrating that perceived value positively influences consumer adaptation, specifically by highlighting how consumer perceptions can help address barriers to adaptation. Awareness, understanding, and consumer response to the terms they are given to follow can be crucial in creating a culture that supports technology adoption.

**Table 5.** Path Coefficient Indirect Effect

<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>Composite Reliability</b>	<b>Critical Value</b>	
Consumer Adaptation	0.939	0.947		Reliable
Perceived Value	0.922	0.935	0.7	Reliable
Task Environmental	0.888	0.913		Reliable

Source: Author's work

Table 5 above shows that the relationship between perceived value and consumer adaptation is non-linear due to the influence of the task environment. In the proposed relationship, where the task environment acts as a mediating variable, perceived value shows a positive effect on consumer adaptation. This is supported by a t-calculated value of 1.982, which exceeds the threshold of 1.96, indicating that when the task environment is considered, perceived value has a negative correlation with consumer adaptation.

The influence exerted by perceived value on task environmental is quite significant and positively valued. This suggests that as perceived value increases, banking customers who utilize digital banking also develop a stronger perception of the task environment. To ascertain its significance, as it has been presented in Table 5, it is evident that the t-statistic value of 50.394 > T-table 1.96, indicating that perceived value significantly and positively affects task environmental.

This aligns with previous research conducted [16] with a sample of U.S. market consumers. The study found a significant influence of perceived value on task environmental. Perceived value encompasses consumers' perceptions of the relative benefits of products or services compared to the costs or sacrifices required to obtain them. Through the positive interaction between perceived value and task environment, companies can create conditions conducive to technology adoption and increase the consumers' satisfaction and loyalty of towards digital banking services.

The influence exerted by task environmental on consumer adaptation, although relatively small, remains positively valued. This indicates that the higher the influence of task environmental, the higher the consumer adaptation among banking customers who have used digital banking. As shown in Table 5, the t-statistic value of 2.257 exceeds the critical T-table value of 1.96, indicating that the task environment has a significant and positive effect on consumer adaptation.

This is consistent with previous research conducted by [1], with a sample from the U.S. market, which found a significant influence of task environmental on consumer adaptation. Task environmental can be shaped by digital banking services by focusing on elements directly affecting consumers' daily tasks or activities related to the use of these services, enabling digital banking organizations to optimize opportunities for increasing consumer adaptation.

The influence exerted by perceived value on consumer adaptation is significant and positively valued. This indicates that the higher the perceived value, the greater the consumer adaptation among banking customers who have used digital banking. As it is presented in Table 5, the t-statistic value of 1.987 > T-table 1.96, indicating that perceived value significantly and positively affects consumer adaptation.

This aligns with previous research conducted by [12], with a sample of Internet banking consumers in Cambodia, which found a significant influence of perceived value on consumer adaptation. Understanding how perceived value affects consumers can provide valuable insights for service providers to improve factors supporting consumer adaptation. Consumer awareness, understanding, and response to perceived value can be key to creating an environment conducive to technology adoption.

## 4 Conclusion

Perceived value and the task environment significantly impact the consumer adaptation process, suggesting that the ease of using digital banking plays a crucial role in enhancing user adaptation to digital banking applications in Indonesia. For future researchers, those investigating the consumer adaptation variable towards digital banking could delve deeper through interviews, which were not included in this study. Further research is expected to use even larger samples or different subjects, considering that individual characteristics are currently evolving rapidly, and research outcomes may vary if conducted in different locations.

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