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Research Article

Importance-Performance Analysis on the Digital Platform Attributes of Food Convenience Store in Indonesia

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ABSTRACT

The development of digital technology has changed many things in consumer behavior, including in shopping for daily necessities. The flexibility and efficiency offered by digital technology have encouraged the two largest retail companies in Indonesia to develop a digital food convenience store platform as a strategy to improve service to their customers. By 2021, the developed food convenience store platform has been used by more than one million customers. However, some customers have complaints against the platforms. It means that there are platform attribute performances that need to be improved. This study aims to analyze the attributes of the digital food convenience store platform that users consider important and contribute significantly to its performance. The number of respondents in this study was 200 users of digital food convenience stores platforms, and the data obtained were analyzed by the Importance Performance Analysis (IPA) method. As a result, there are 18 attributes that are considered extremely important by users: login methods, product diversity, user data security, delivery accuracy, product accuracy, customer service, shopping discount, shipping cost discount, direct delivery service and product compatibility. However, users rated that customer service, shopping discounts, and shipping discounts attribute did not meet their expectations. Overall, the performance of the digital food convenience store platform in Indonesia reached 85.83% of user expectations, so that the digital platform developer needs to concentrate on these three attributes so that the level of performance can be maximized and meet user expectations.

Keywords: Convenience store, Digital platform, Importance-performance analysis, User expectations

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Introduction

In the last decade, national retail companies in Indonesia have transformed their retail system from conventional to an online digital platform (e-retailing). Those are provided to fulfill the consumer's lifestyle in Indonesia, especially for middle-upper class consumers that want flexibility and easiness to buy. Based on the Ministry of Communication and Information data, product sales on social media and e-commerce in 2020 around Rp446.75 trillion. This number increased by 400% from 2017, which amounted to Rp124.9 trillion. It indicates that currently, consumers are more fond of online shopping systems. Those are potential opportunities for business actors to start the digital transformation.

The main characteristic of e-retailing is consumers and buyers communicate through the internet. In this context, there are four keys to achieve efficient e-retailing: determining the target market for e-retailers, understanding the capacity of internet users, winning new customers, and maintaining the trust of customers who have purchased through the digital store platform, especially loyal customers who have purchased on the previous period. In e-retailing, various factors impact customer satisfaction, such as price, quality, speed of delivery, availability of guarantees, availability of transparent information about retailers, existing consumer reviews. These all impact the entire consumer decision-making process: from arrival to the digital store platform, through the product ordering process, and the post-purchase use of products and services [1].

According to research, 89% of consumers will go elsewhere if their first purchase experience on an online site is not up to par [2]. Due to the complexity of using the internet, the poor shopping experience obtained from certain online retailers will result in dissatisfaction and reluctance to shop online. Therefore, it is important to ensure that the developed digital store platform attributes follow their consumers' interests and preferences. It can help e-retailing companies evaluate consumers' important attributes but whose performance is still below expectations.

Methods

To investigate consumer satisfaction of the digital store platform, a consumer survey was undertaken using questionnaire. The survey was done during February- June 2021, while 200 respondents joined the survey. Respondents are consumers who used the digital store platform within a year. Respondents are chosen by purposive sampling technique with confidence level 95% and error level 10%.

The questionnaire are divided into two parts. The first part is socio-demographic information of the respondents, including gender, age, occupation, monthly income and frequency of using the digital platform. The second part is the list of question about consumer's importance and performance score of the digital platform.

According to Kotler & Pfoertsch [3], the quality of services can be determined by five factors, i.e., tangible, empathy, reliability, responsiveness, and assurance. The tangible factor shows attractiveness to the user. Empathy describes caring that tries to understand consumers' wants. Reliable show professionalism, trusted, accuracy, and consistency. Responsiveness describes the quality of services, including complaint handling; assurance is the ability to assure consumers' security and privacy. In addition, Azali et al. [4] found that platform e-marketplace has 11 attributes that influence buying decisions: product search, reputation information, payment method, user data protection, location map, product quality, store search, product prices, ease to operate, product variations, and attractive display. Based on the references, this paper built 18 attributes that are attached to the digital platform of the convenience store can be seen in Table 1.

Survey data were analyzed with the Importance Performance Analysis (IPA) method developed by Martilla and James [5]. There is three-step in the Importance Performance Analysis method as follows:

1. Determine important attributes on the digital store platform
2. Determine importance level and performance level

3. Mapping attributes based on importance dan performance level

The application of Importance Performance Analysis (IPA) method has been used in various field, including food [6,7] and retail [8,9].

Table 1. Attributes on the digital platform of convenience store

No	Factors	Attributes	References
1	Tangible	Unique platform design	Chien et al. [10]
2		Ease of use the platform	Chien et al. [10]
3		Platform operation reliability	Chung & Shin [11]
4		Product compatibility	Končar et al. [1]
5	Empathy	Product diversity	Azali et al. [4]
6		Product categorization	Sellapan & Shanmugam [12]
7		Shopping discount	Azali et al. [4]
8		Shipping cost discount	Chen et al. [13]
9	Reliable	Ease to find the store	Azali et al. [4]
10		Ease to find the product	Azali et al. [4]
11		Price affordability	Chung & Shin [11]
12		Payment method	Azali et al. [4]
13	Responsiveness	Direct delivery service	Sellapan & Shanmugam [12]
14		Delivery accuracy	Sellapan & Shanmugam [12]
15		Product accuracy	Sellapan & Shanmugam [12]
16		Customer service	Kotler et al. [3]
17	Assurance	User data security	Chien et al. [10]
18		Login method	Chien et al. [10]

Results and Discussion

Validity and reliability test of Attributes

The biggest change caused by the appearance of digital platforms is the level of consumer satisfaction that is volatile to the level of performance of digital platforms. Hence, the important attributes need to be identified based on platform user voices. This research used 18 attributes mentioned in Table 1. Furthermore, the validity and reliability of all

attributes are tested with a significant level of 5%. The validity test was carried out to measure the level of validity of the instrument [14]. The reliability test was carried out to measure the level of accuracy of the instrument [15] to describe a particular object, in this case, the level of importance and performance of digital platforms. The results of the validity and reliability tests can be seen in Table 2.

Table 2. Validity and reability test of attributes

No	Attributes	Pearson-Correlation	Cronbach's Alpha
1	Unique platform design	0.731	0.943
2	Ease of use the platform	0.457	0.943
3	Platform operation reliability	0.618	0.943
4	Product compatibility	0.812	0.943
5	Product diversity	0.914	0.943
6	Product categorization	0.627	0.943
7	Shopping discount	0.793	0.943
8	Shipping cost discount	0.648	0.943
9	Ease to find the store	0.720	0.943
10	Ease to find the product	0.429	0.943
11	Price affordability	0.797	0.943
12	payment method	0.819	0.943

No	Attributes	Pearson-Correlation	Cronbach's Alpha
13	Direct delivery service	0.748	0.943
14	delivery accuracy	0.703	0.943
15	product accuracy	0.503	0.943
16	customer service	0.826	0.943
17	user data security	0.794	0.943
18	Login method	0.371	0.943

Based on Table 2, all attributes had a Pearson-correlation value (r) less than 0.36 (r table). Hence, all attributes are declared valid. For the Cronbach's Alpha, all attributes have a value of more than 0.70, meaning all attributes have high reliability [16]. It can be concluded that all attributes are valid and reliable, so it can be used as an instrument to measure the importance and performance of the digital platform of the convenience store which provide food products.

Socio-demographic of the survey sample

The survey was dominated by women (69%) with aged ranged 17-36 years old. They were mostly student who lived in Yogyakarta, Indonesia. They mostly had monthly income around Rp 2-3 billion. The income value is in accordance with the regional minimum wage set by the Yogyakarta Provincial Government, which is Rp 1.7 billion per month. The sample has average frequency of buying with the e-retailing digital platform 1-2 times monthly. The Table 3 provides the detailed information on socio-demographic of the survey sample.

Table 3. Socio-demographic of the survey sample

Characteristic		N	%
Age	17 - 36 year	197	99%
	37 - 56 year	3	2%
Gender	Female	138	69%
	Male	62	31%
Residency	Yogyakarta	161	81%
	Greater Jakarta	14	7%
	West java	6	3%
	Central java	3	2%
	East java	6	3%
Occupation	Outer java	10	5%
	Student	122	61%
	Entrepreneur	22	11%
	Housewife	20	10%
	Employee	36	18%
Purchase frequency	1-2	100	50%
	3 - 4	77	39%
	5 - 6	14	7%
	>6	9	5%
	<Rp1.000.000	20	10%
Monthly income	Rp1.000.000 - Rp2.000.000	33	17%
	Rp2.000.001 - Rp3.000.000	64	32%
	Rp3.000.001 - Rp5.000.000	54	27%
	>Rp5.000.000	29	15%
Monthly spending on online purchasing	<Rp100.000	34	17%
	Rp100.001 - Rp500.000	150	75%

Characteristic	N	%
Rp1.000.001 - Rp1.500.000	15	8%
>Rp1.500.000	1	1%

Importance-Performance Attributes Index

The Importance Performance Analysis (IPA) method mainly displays an index of consumer assessment of the performance of an attribute considered important from a product or service. So, information about the level of conformity with their expectations will be obtained. Readiness and performance indexes were measured using a Likert scale of 1-5. In this study, the IPA method was used to measure the importance and performance of the attributes contained in the digital platform of the convenience store.

Based on Table 3, it is found that ten attributes have an index of importance above the

average (4.38): login methods, product diversity, user data security, delivery accuracy, product accuracy, customer service, shopping discount, shipping cost discount, direct delivery service, and product compatibility attributes. It means that users consider the ten attributes to have a high level of importance (extremely important). However, in terms of performance, three of the ten attributes have a lower than average performance index (3.76): customer service, shopping discounts, and shipping discounts attribute. The Table 4 provides the index of the importance-performance of the attributes.

Table 4. Importance-performance index of attributes

No	Attributes	Importance index	Performance index	Expectation conformity
1	Login method	4.50	4.07	90%
2	Product diversity	4.48	3.80	85%
3	User data security	4.48	4.01	90%
4	Delivery accuracy	4.46	3.86	87%
5	Product accuracy	4.44	3.84	86%
6	Customer service	4.42	3.71	84%
7	Shopping discount	4.41	3.68	84%
8	Shipping cost discount	4.40	3.70	84%
9	Direct delivery service	4.40	3.83	87%
10	Product compatibility	4.39	3.80	87%
11	Platform operation reliability	4.37	3.53	81%
12	Ease to find a store	4.37	3.77	86%
13	Payment method	4.37	3.77	86%
14	Ease to find a product	4.36	3.72	85%
15	Product categorization	4.34	3.82	88%
16	Price affordability	4.28	3.58	84%
17	Ease of use the platform	4.27	3.71	87%
18	Unique platform design	4.20	3.58	85%
Average		4.38	3.76	85.83%

$$\text{Total performance: } (\sum \text{Performance index}) / (\sum \text{Importance index}) \times 100\% \quad (1)$$

From that results, total performance level of the digital platform is calculated by equation (1). The total performance index (3.76) is

divided by the importance index (4.38). Thus, the convenience store's current digital platform can only meet 85.83% of user expectations. So, it can be said that the three attributes currently do not meet users' expectations of the digital platform of the convenience store.

Importance-Performance Attributes Mapping

Importance Performance Mapping can be grouped into four categories: high priority, maintain, low priority, overkill [5]. The grouping of the four categories is based on the value of the importance and performance index, which is processed into a Cartesian diagram as shown in Figure 1. The position of the Y-axis represents the level of importance, and the X-axis represents the level of performance. The intersection of the Y and X axes is at coordinate 4.38 (Y) and 3.76 (X), the average level of interest and performance.

The results of the importance-performance attributes mapping can then be simplified into a table, as shown in Table 5. Each attribute is grouped into one category according to the

mapping results in Figure 1. The first category is the high priority attribute, which is an attribute that is considered extremely important by users, but its performance is still below their expectations. Attributes that are high priority are customer service, shopping discounts, and shipping discounts. It related to the research in fashion apparel retail which service is became consumers importance, while offer and price is in maintain quadrant [9] Another study also found that customer service is highly important for consumer of Lazada and Tokopedia, e-commerce in Indonesia [17]. If developers want to optimize the performance of the digital platform of the convenience store, they need to concentrate on allocating their resources to make improvements to these three attributes.

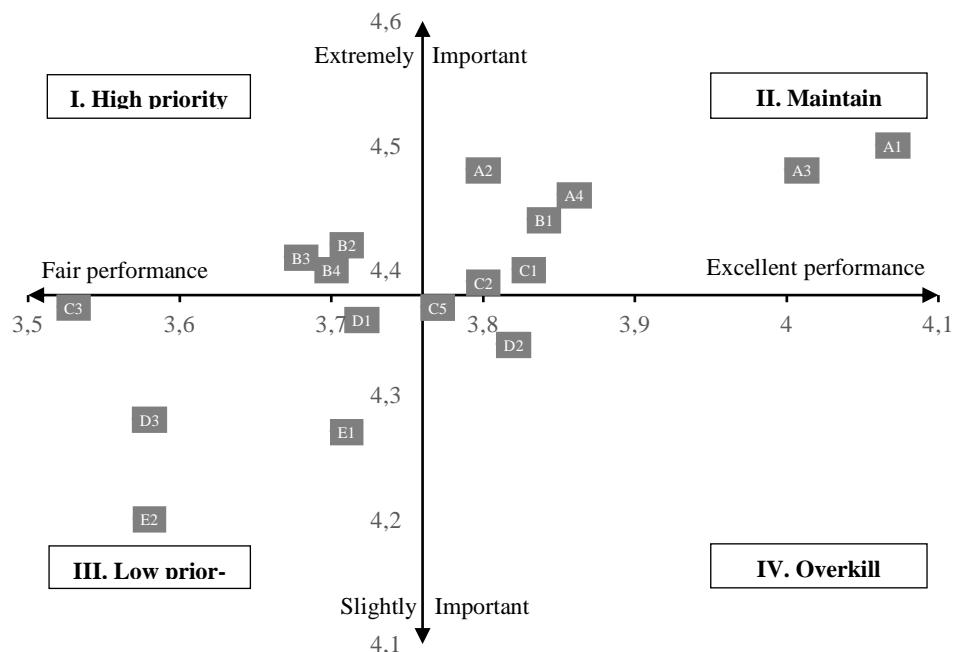


Figure 1. Importance-performance attributes mapping

The next category is maintained attributes, which are considered extremely important by users and have excellent performance. The attributes included in this maintain category are login method, product diversity, user data security, delivery accuracy, product accuracy, direct delivery service, and product compatibility. This results showed differences with another survey on digital platform of e-government service in Japan that people in Japan included user data security in high priority

attributes [18]. However, a study found that accuracy of the product information and delivery service in the e-commerce platform are included in the maintain quadrant in consumers of e-commerce in Indonesia [17].

The third category is the low priority attribute, which is an attribute that is considered slightly important by users with mediocre performance. The attributes included in this category are platform operation reliability, ease of finding a store, ease of finding a product,

price affordability, ease of use, and unique platform design. Even though it is in the low priority category, digital platform developers should still pay attention to these seven attributes to improve users' performance. The ease of used attributes found in maintain groups in e-commerce consumers in Indonesia [17], but it included in highly importance group on the another study in e-commerce website in Indonesia [19].

The fourth category is overkill attribute, an attribute that users consider slightly important

but whose performance is excellent. Attributes included in this category are payment method and product categorization. Product categorization also included in the attributes that should be reduced in e-commerce user survey in Indonesia [17]. However, payment method included in low priority group [17]. Because its performance has been rated as excellent even though it is not considered important by users, digital platform developers should not need to make excessive repairs and spend a lot of resources on these two attributes.

Table 5. Importance-performance attributes category

No	Category	Attributes	
		Code	Name
1	High priority	B2	Customer service
2		B3	Shopping discount
3		B4	Shipping cost discount
4	Maintain	A1	Login method
5		A2	Product diversity
6		A3	User data security
7		A4	Delivery accuracy
8		B1	Product accuracy
9		C1	Direct delivery service
10		C2	Product compatibility
11	Low Priority	C3	Platform operation reliability
12		C4	Ease to find a store
13		D1	Ease to find a product
14		D3	Price affordability
15		E1	Ease of use the platform
16		E2	Unique platform design
17	Overkill	C5	Payment method
18		D2	Product categorization

Conclusion

Users consider eight attributes extremely important: login methods, product diversity, user data security, delivery accuracy, product accuracy, customer service, shopping discount, shipping cost discount, direct delivery service, and product compatibility. However, users rated that customer service, shopping discounts, and shipping discounts did not meet their expectations. Overall, the performance of the digital convenience store platform in Indonesia reached 85.83% of user expectations. The digital platform developer needs to concentrate on these three attributes to maximize performance levels and meet user expectations.

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