

Technology Adoption Of Millennial Generations In Implementation Of Self Ordering Machine In Fast Food Restaurant

Syakieb Arsalan¹, Dini Verdana Latif²

^{1,2}Faculty of Economics and Business, Widyatama University, Bandung

¹syakieb.arsalan@widyatama.ac.id, ²dini.verdana@widyatama.ac.id

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Abstract: The development of technology that is very fast, encourage companies to implement technology that is the latest in the company so that the company's performance increases, especially a lot of consumers who are the generation of the millennial. The millennial generation is a generation that has tech savvy characteristics. One of the ways that is done by the company restaurant fast-food is to implement self-ordering machine. Self ordering machine is an innovation in the company's business process. Innovation that can provide convenience for customers to book menu and perform the payment as an independent. P Application of self-ordering machine for all customers on many generations of residence, may give rise to differences in readiness, because every generation has karakteristik are different. This study aims to determine the readiness to adopt Self Ordering Machine technology in the millennial generation when compared to the X generation. Readiness to adopt technology is based on the Unified Theory of Acceptance and Use of Technology (UTAUT). Results of the study showed that not there are differences in the readiness of the adoption of technology in the generation of millennials and the generation X.

Key words : Self Ordering Machine, Technology, Innovation, Millennial, UTAUT

1. Introduction

Based on the 2020 population census conducted by the Central Statistics Agency, most of Indonesia's population is dominated by young people. The number of millennial generations is 69.38 million people or around 25.87%. This number is a large enough number which is the second largest population. The first rank in the population is generation Z, which reaches 75.49 million people or around 27.94% (Idris, 2021). In addition to the millennial generation, there are other generations such as generation X

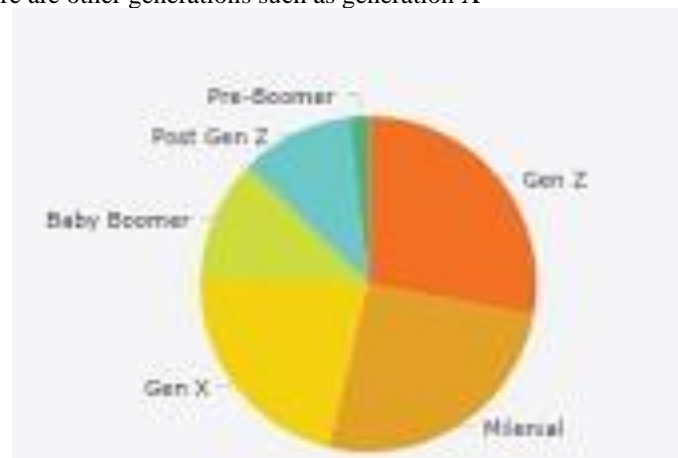


Figure 1. Composition of Indonesia's population (2020)

Source: <https://databoks.katadata.co.id/tags/generasi-millennials>

Generation X is a generation that was born when new information technology was developed, so that this generation needs to adapt first to master technology. Unlike the X generation, one of the characteristics of the millennial generation is Tech-Savvy. Millennials are able to master technology quickly. They have the view that technology is a new social environment and they think that technology can help their work better. Therefore, in almost all fields, technology is used to make life easier (Margianto, 2020; Peng & Chen, 2019).

Likewise in the fast food restaurant business. Fast food restaurants try to take advantage of technology so that customers can order food independently through a device called a self ordering machine. Self ordering machine is a new innovation in the process of ordering food by customers. With the self ordering machine, customers can order food digitally. In addition, customers can customize their orders through a personalized machine display by offering the calorie count of the food to be ordered. Customers can choose foods according to their health conditions (Worldlink Integration Group, 2018).

Innovations made by fast food restaurants in using digital menus will affect company performance. Many studies show that innovation has a positive impact on company performance. Innovation has a positive impact on company profitability and growth. The greater the innovation in the company, the greater the profitability the company will receive. But it is possible that innovation will also have a negative impact if the environment does not support the change. If a company adopts a new innovation, it might be possible for the company to force employees, suppliers and even customers to use it, and sometimes the related parties do not realize the importance of innovation for them, so the party refuses to use the innovation. (Shouyu, 2017). The existence of this rejection resulted in no increase in profits that would be obtained by the company, even though the company had spent a lot of money.

Based on the description above, this study aims to determine the readiness of the millennial generation in adopting self ordering machines at fast food restaurants compared to generation X.

2. Literature review

1.1 Generation X and Millennial Generation

Generation X are those who were born in the 1960s and 1980s. In terms of the use of technology, this generation is the generation that was born at the beginning of the development of information technology. At that time, technology such as personal computers, video games, cable TV and the internet had not yet developed. Generation X needs to adapt to this new technology (Wisnubrata, 2021).

The Millennial Generation is a generation born in the early 1980s and 1990s. There are also those who argue that the millennial generation also includes children born in the early 2000s. Millennial Generation is also known as Generation Y, because the millennial generation comes after Generation X (Main, 2017). Millennials grow together with the development of information technology. Unlike the X generation, the millennial generation is good at socializing and actively uses technology, they have a high dependence on technology (Margianto, 2020).

2.2 Self Ordering Machine Innovation in Fast Food Restaurant

Innovation is a creative process for creating new ideas. Innovation in business includes innovation in products, processes, business concepts and a combination of the three. This new idea has been transformed into a practical reality. Innovation also implies a value system to meet customer needs in an evolving business environment. New ideas must be implemented so that they will produce positive changes (Frey, 2020).

In the restaurant business, today and in the future, customers are generally millennials, who are tech savvy. Therefore fast food restaurants must be able to take advantage of these opportunities. Companies must be able to understand their customers by leveraging digital technology options and analytics, so as to create an attractive future restaurant. One example of digital technology innovation is the use of a Self Ordering Machine at the restaurant (Feinberg, 2016).

Self Ordering Machine is an interactive computer terminal that gives customers access to a variety of information including the availability of types of food to be ordered, menus, queue data, and much more. Generally, the application of a technology requires large costs, therefore before applying the technology, the company must conduct a cost and benefit analysis.

The benefit of self ordering machines for customers is to reduce waiting times. With the self-ordering machine, once an order comes in, the information will immediately be sent to the kitchen. In addition, customers are actively involved in determining the right menu choices according to their needs. Customers can try additional new items that normally cannot be ordered. Self ordering machines can also display a list of ingredients contained in the food menu, substitutions and allow changes to the regular menu (Touch Dynamic, 2019).

2.3 Self Ordering Machine and Company Performance

The implementation of the Self Ordering Machine at fast food restaurants shows an increase in users of around 7% per year. Research conducted by Tilster (2019), shows that as many as 65% of customers say that the frequency of their visits will increase if the restaurant has implemented a self ordering machine. The results also show that as many as 30% of customers prefer them to order through a kiosk compared to ordering through a cashier, because it saves time (Kelso, 2019)

McDonald's CEO Steve Easterbrook, stated that with the self ordering machine, the company received an increase in revenue. The use of self ordering machines makes it easy for customers to choose food by looking at the menus available on the machine, so that customers will feel more comfortable. Customers will freely choose a menu with a larger size or be creative with an existing menu without anyone giving an assessment of the choice. This technology also allows the operator to test if there is a new menu. Operators can quickly find out whether the customer likes the new menu or not. If the product is not liked, then the new menu does not need to be reproduced. Self Ordering machines provide opportunities to improve and change the customer experience (Kelso, 2019).

2.4 Readiness of Generation X and Millennial Customers in implementing Self Ordering Machines

In general, the millennial generation grows along with the development of digital technology, so they will be more adaptable than previous generations. The previous generation was the X generation who were digital immigrants, because this X generation was born in the early stages of the introduction of technology, meaning they had to learn something completely new and foreign. This generation X communication method prefers face-to-face activities when making purchasing and financial decisions (Linnes & Metcalf, 2017), so this generation prefers to stay in touch with the cashier when ordering food.

Unlike the X generation, the millennial generation is smarter in socializing and actively uses technology. Technology acceptance readiness can be seen from various factors based on the theory of the Unified Theory of Acceptance and Use of Technology (UTAUT). The theory states that there are 4 factors that support the readiness of technology adoption, namely, performance expectations (PE), business expectations (EE), social influence (SI), and facilitating conditions (FC).

Performance expectations are important predictive factors for understanding consumer behavior. Technology must be able to give customers confidence that this technology can provide benefits to users. Users can feel more efficient and comfortable when using this technology (Seo, 2020).

Business expectations are customer expectations that technology can be easily used. This means that the use of technology can reduce users' time and effort to get what they want (Seo, 2020).

The social influence element explains that technology adoption can be easier if someone who is considered important, such as family, coworkers, uses it. The use of technology by people who are considered important gives confidence that users will be able to get the same benefits and values as those obtained by other people. Social influence will have an influence on customer behavior. Customers who have no experience with certain products and services usually rely on information from family or colleagues so that in the end these customers can adopt new technology (Seo, 2020).

Facilitating conditions are the degree of personal trust that is organizational and technical infrastructure to support the use of the system. Customers are very concerned about various facilities such as the resources and technology used in implementing the system. The system that is implemented must be able to eliminate the obstacles felt by users. In self ordering machines, facilities that allow customers to adopt a system such as a function to easily access the screen are needed (Seo, 2020).

3. Research method

The research method used in this study is the comparative method, which aims to compare the readiness of adoption of self ordering machines for millennial and generation X consumers. The research was conducted at McDonald's fast food restaurant in Bandung. The research was conducted by distributing questionnaires to consumers during 2019. To determine the readiness to adopt self-ordering machines, this study used the UTAUT theory, which includes:

- Performance expectations
Self ordering machines can provide convenience and provide a sense of comfort in transactions
- Business expectations
Self ordering machines can provide fast and precise service, because it reduces ordering errors.
- Social Influence
Consumers will use self ordering machines if there are recommendations from people around them such as family and colleagues.
- Facilitating conditions

Self ordering machines provide facilities to provide accurate menu descriptions with detailed information, such as the ingredients in food. In addition, these machines provide information on prices, discounts, ways to create new menus.

4. Research results and discussion

This study aims to test whether there is a difference in the adoption of self ordering machines in millennial and non-millennial generations. Tests were carried out using the independent t test, the test results are shown in table 1.

Table 1. Research Results

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Performance Expectancy	Equal variances assumed	3.715	.062	-1.427	36	.162
	Equal variances not assumed			-1.399	29.489	.172
Efort Expectancy	Equal variances assumed	1.262	.269	-1.276	36	.210
	Equal variances not assumed			-1.265	33.805	.214
Social Influence	Equal variances assumed	.005	.945	-1.178	36	.246
	Equal variances not assumed			-1.175	35.143	.248
Facilitating Conditions	Equal variances assumed	.514	.478	-1.278	36	.209
	Equal variances not assumed			-1.269	33.997	.213

The independent t test results show a significance value that exceeds 0.05 for all components studied. These results indicate that there is no difference between the readiness of the millennial generation and the X generation in adopting self ordering machines.

The first component in UTAUT is performance expectations. The results showed that there was no difference in performance expectations between the X generation and the millennial generation. Both generations argue that the use of self ordering machines can provide convenience to their users, because by using these machines customers feel confident of its benefits.

The results also showed that there was no difference in business expectations. Both generation X and millennials argue that self ordering machines can save time in placing food orders and also avoid ordering errors.

In placing orders through self ordering machines, both generations have the same characteristics, namely they pay attention to suggestions and recommendations from people in the surrounding environment such as family and colleagues.

The facilities found in self ordering machines also provide readiness to adopt self ordering machines. Both generations argue that the adoption of this machine is due to adequate facilities such as a menu display that describes complete and accurate food information, as well as price and discount information. Self ordering machines also provide facilities for customers to create new menu creations.

5. Conclusion

The difference in characteristics between generation X and millennial generation will have an impact on technology adoption. Generation X, which is the generation that was born at the beginning of the development of information technology, needs to adapt to these new developments. Unlike the X generation, the millennial generation was born along with the development of information technology, so that this generation has tech savvy characteristics. They can easily master technology.

The use of technology is also carried out in fast food restaurants by developing a technological innovation on how to order food through self ordering machines. Through a self ordering machine, customers can place orders and payments independently. In the readiness to adopt the new technology, there is no significant difference between generation X and millennial generation. Both generations argue that the use of self ordering machines will simplify the ordering process and can provide a sense of comfort because the ordering process takes place quickly and precisely. In addition, these machines provide facilities for customers to create new menus.

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