Factor Affecting E-Marketplace Adoption on MSMEs in Bandung, Indonesia

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Abstract

Despite the COVID-19 pandemic increasing e-marketplace implications for sellers and buyers, only a few MSME players in Pasar Baru Bandung have adopted Etapasbar as their e-marketplace. This study seeks what the most influential factor in adopting an e-marketplace is.
This study was a quantitative cross-sectional study with the Technology-Organization-Environment (TOE) model, refined with the Diffusion of Innovations (DOI) model. Technology Context will be IT Infrastructure; Organization Context will be CEO's Innovativeness; Environment Context will be Government Support and Environmental Uncertainty. DOI model consists of Relative Advantage, Compatibility, Complexity, Trialability, and Observability. A self-completion survey was conducted by 300 MSME players in Pasar Baru Bandung and analyzed by LISREL using SEM techniques.

This study found that the most influential factors were Relative Advantage, Compatibility, Trialability, Government Support, and Environmental Uncertainty. Complexity, Observability, IT Infrastructure, and CEO's Innovativeness were insignificant in this study. It was because MSME players tend to follow others without knowing the essence of adopting e-marketplace itself.

Keywords
E-marketplace, SME players, TOE-DOI Model, SEM and LISREL.

1. Introduction
Micro-Small-Medium Enterprises (MSMEs) play an essential role in Indonesia's economic growth (Hastuti et al., 2020). The Indonesia Central Statistics Agency (2016) reported that MSME absorbs more than 90% of total workers in various business size and account for more than 50% of the total Gross Domestic Product (GDP) in Indonesia every year (TNP2K 2020). MSMEs are very difficult to define. In Indonesia, MSMEs can be seen based on annual turnover and the number of workers (Dhewanto et al. 2019).

There is lots of benefit for an organization to grab its competitive advantage. The COVID-19 pandemic has greatly encouraged MSMEs to adopt new technology (Priyono et al. 2020). Wang et al. (2011) stated that Information and Communication Technologies (ICTs) are essential in innovation's rapid development and deployment. In addition, Ndou et al. (2009) stated that an online shopping platform is a crucial success factor in breaking the boundaries of opportunity connecting electronically with suppliers, customers, and business partners globally. LPEM FEB UI (2020) and Rakhmawati et al. (2021) compared e-commerce and online shopping before and during pandemic situations; the number increased for sellers and buyers.

Pasar Baru Bandung is large-scale retail in Southeast Asia located in the middle of Bandung City (Sumadhinata et al., 2021). The COVID-19 pandemic hit MSME players in Pasar Baru Bandung. Most of the goods and services in traditional markets in Indonesia are produced by MSMEs (Tambunan 2020). Etapasbar is an e-marketplace created by 11 MSME players in Pasar Baru Bandung to recover or even improve from this situation. According to CEO Etapasbar, there are 4600 MSME players in Pasar Baru Bandung, and only 1200 MSME players have adopted Etapasbar. However, establishing a digital marketplace is significant: reduced transaction costs and increased planning and audit capabilities. This benefit is handy for MSME players in developing countries as they are not restricted by global geography and can make a profit in digital markets that were previously unaffordable (Ndou et al. 2009).

There is a lot of acceptance theory for adopting innovative technology. Thus, the author wants to know more about the most influential factors in adopting e-marketplaces during the pandemic situation (February 2022 – April 2022). Humphrey et al. (2003) identified factors that can hinder developing countries from adopting new technology, including entrepreneurs who are less innovative in conducting online markets, lack of infrastructure readiness, awareness, and the need for advanced technology training from entrepreneurs and governments, also environment uncertainty. Senarathna et al. (2018) informed that Technology-Organization-Environment (TOE) serves to expand the Diffusion of Innovation (DOI) model. Furthermore, Amini & Bakri (2015) identified that the TOE-DOI model is very relevant at the organizational level; the innovation decisions are less individualistic, and the DOI model also interprets organizational innovation depending on leadership as well internal and external structures aided by the TOE model. The TOE model consists of three contexts; Technological Context consists of IT Infrastructure, Organizational Context consists of the CEO's Innovativeness, and Environmental Context consists of Government Support and Environmental Uncertainty. The DOI model consists of Relative Advantage, Compatibility, Complexity, Trialability, and Observability.

1. What factors affect e-marketplace adoption in Pasar Baru Bandung with the TOE-DOI model?
2. What are the most influential factors that affect e-marketplace adoption in Pasar Baru Bandung with the TOE-DOI model?

2. Literature Review

Technology-Organization-Environment (TOE) Model

Tornatzky & Fleischer (1990) first introduced the Technology—Organization—Environment (TOE) model, which explained the factors influencing an organization's decision to implement an innovation. Van Huy et al. (2012) stated that the TOE model could be the basis for understanding internal and external forces that can influence the adoption of information technology in MSMEs in developing countries. According to Tornatzky & Fleischer (1990), technological innovation in organizations is caused by three specific factors: technological, organizational, and external environmental factors. The TOE model needs to be reviewed; the following are the disadvantages of the TOE model.

- Awa et al. (2015) stated that the TOE model has a significant obstacle; some constructs in predictors of adoption are assumed to only apply in large organizations rather than MSMEs. Therefore, the TOE model is not enough to explain adoption among MSMEs. There must be additional models.
- Ghobakhloo & Tang (2013) stated that the TOE model has a comprehensive theoretical basis in organizations. However, it does not emphasize individual factors such as employee and manager attributes.

2.1 Diffusion of Innovation (DOI) Model

Rogers (2003) first introduced the Diffusion of Innovation (DOI) model to understand the levels and stages of innovation adoption. According to him, this model is one-way innovation can be communicated through specific channels in particular social systems. This model also explains that individual decisions about innovation are not about action but a process that occurs over time consisting of a series of actions. Rogers (2003) states in his book that there are four crucial elements: innovation, communication channels, time, and social systems. Furthermore, there are five attributes in the adopting level: relative advantage, compatibility, complexity, trialability, and observability. This model is most often cited in the literature on e-commerce adoption in MSMEs (Parker & Castleman 2009) and has been applied by several MSMEs who say that this model affects e-commerce adoption (Poorangi et al., 2013; Van Huy et al., 2012). Following are the disadvantages of the DOI model.

- Lawrence (2010) stated that the DOI model does not adequately understand user behavior to adopt ICT in organizations, especially in MSMEs context.
- Parker & Castleman (2009) stated that the DOI model does not adequately understand the problems and dynamics

3. Methods

This research uses a quantitative approach with a descriptive research type (Silalahi 2019). Purposive sampling involved a population of 1200 MSME players who had used Etapasbar in Pasar Baru Bandung. The Slovin formula determined the sample size obtained a sample of 300 MSME players. Self-completion surveys which developed by N. Al-Qirim (2005); Alshamaila et al. (2013); Ghobakhloo et al., (2011); Lutfi (2020); Ocloo et al. (2020); Ravichandran & Lertwongsatien (2005); Thong & Yap (1995); Yeh et al. (2015) used with 5-point Likert scale with ordinal type as measurement. Data collection was done by distributing questionnaires with Google Form (online) and papers (on-site) for three months. The author emailed 150 MSME players, and CEO Etapasbar gave the data. After

that, while we were waiting for the Google Form, the author spread the questionnaire on-site and got 150 MSME players besides the online participants. The result was analyzed by LISREL verse 8.72 and the Structural Equation Modelling (SEM) technique.

3.1 Hypothesis based on the Technology-Organization-Environment (TOE) Model

IT Infrastructure is the factor that often appears in the technological context (Al-Qirim 2007). Baker (2012) stated that the technology context includes the relevant technology to the company. Wei et al. (2015) stated that technological context with this factor could substantially integrate information strategy. Furthermore, Yeh et al. (2015) stated that IT Infrastructure is not only for the reengineering process but also for long-term value creation for the sustainability of an organization's digitalization. IT Infrastructure was the most decisive influencing factor compared to others (Lesjak & Vehovar 2005). We hypothesized that.

H1a: IT Infrastructure will positively influence E-marketplace Adoption among MSMEs.

N. A. Y. Al-Qirim (2003) stated that organizational factors as one of the factors that can influence technology adoption. Including the characteristics and resources of the company, especially the liaison structure between employees, communication processes, and company size (Baker 2012). CEO's Innovativeness is the factor that often appears in the organizational context (Elghdban et al. 2020). The Chief Executive Officer (CEO) has a powerful impact on small businesses (Thong & Yap 1995). Oliveira & Martins (2010) stated that the CEO understands the importance of IT innovation and the extent to which they can actively participate in IT/IS activities. Furthermore, Ramdani et al. (2013) also agreed that CEO's Innovativeness positively impacts the adoption of technology in MSMEs. We hypothesized that.

H1b: The CEO's Innovativeness will positively influence E-marketplace Adoption among MSMEs.

Baker (2012) stated that the environmental context includes how companies can implement environmental regulations around them. Delone (1981), Gibbs & Kraemer (2004), and Puklavec et al. (2018) state that MSMEs will depend on environmental support for their new technology adoption. The more support from their surrounding environment, the more MSMEs will be motivated to adopt. Government support is also crucial in adopting technology that is very relevant in newly industrialized and developing countries. Furthermore, Papazafeiropoulou & Pouloudi (2000) stated that government support is vital because they will have a helicopter view of e-commerce. We hypothesized that.

H1c: Government Support will positively influence E-marketplace Adoption among MSMEs.

Sharma (2000) stated that organizations that face high Environmental Uncertainty would feel many opportunities to innovate more than others. Puklavec et al. (2018) stated that MSMEs would adopt the technology more if their environment adopted the new technology. Technology adoption in developing countries is challenging because they are better off avoiding risks and tend not to take the initiative to adopt related technologies. We hypothesized that.

H1d: Environmental Uncertainty will positively influence E-marketplace Adoption among MSMEs.

3.1 Hypothesis based on the Diffusion of Innovation (DOI) Model

Relative advantage is the extent to which an innovation is considered better than existing technology (Rogers 2003). Ghobakhloo et al. (2011) stated that these factors drive decisions to adopt a new system. This study, in line with Ahmad et al. (2015), stated that Relative Advantage was a driving factor for adopting e-commerce in Malaysia. We hypothesized that.

H2a: Relative Advantage will positively influence E-marketplace Adoption among MSMEs.

Compatibility is the extent to which an innovation is considered consistent with experience and adopters' needs and in line with existing values (Rogers, 2003). Vijayasarathy (2004) stated that Compatibility could measure how well an innovation fits the value and needs of adopters in online shopping. Furthermore, Effendi et al. (2020) stated that the COVID-19 pandemic made the online-based application very profitable. These factors have a significant positive impact and facilitate MSME players to adopt IT in Indonesia. We hypothesized that.

H2b: Compatibility will positively influence E-marketplace Adoption among MSMEs.

Complexity is the extent to which an innovation is considered challenging to understand and use. For new technology innovation adoption, Complexity plays an essential role for adoption (Rogers 2003). Effendi et al. (2020) found that Complexity positively impacts MSMEs' study towards adoption during the COVID-19 pandemic. Nevertheless, Chong & Olesen (2017) found that Complexity can harm IT adoption in MSMEs. We hypothesized that.

H2c: Complexity will positively influence E-marketplace Adoption among MSMEs.

Trialability is the extent to which an innovation can be tried with limited knowledge. New technology innovation will be faster if it can be tried (Rogers 2003). Ramdani et al. (2013) stated that Trialability was an essential factor for adopting technology by MSMEs. Kendall et al. (2001) stated that these factors have the same impact as Compatibility in MSMEs because Trialability in conducting experiments can help MSMEs decide whether to adopt this system or not. We hypothesized that.

H2d: Trialability will positively influence E-marketplace Adoption among MSMEs.

Observability is the extent to which others can see innovative results, and ideas may be observable but not innovative (Rogers 2003). Ramdani et al. (2013) stated that Observability was an essential factor for adopting technology by MSMEs. In addition, they also said that if MSMEs use ICT, it will tend to be viewed from a profitable side. We hypothesized that.

H2e: Observability will positively influence E-marketplace Adoption among MSMEs.

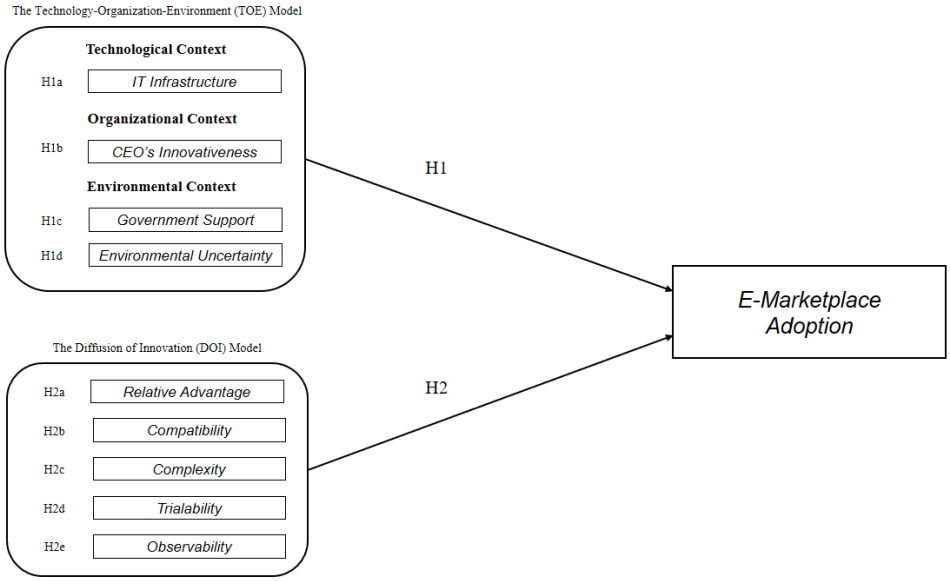

Figure 1. The Proposed Model of e-marketplace adoption behavior.

4. Result

There are three steps to get the result. The first step for the analysis of SEM is the measurement model. Riadi (2018) stated that the value of the standardized loading factor (λ) must be more than 0.5 or 0.7 to determine the validity of tests. Furthermore, Composite Reliability (CR) and Variance Extracted (VE) value must be more than 0.5 and ideally more than 0.7. Table 1 shows the validity and reliability test. It can be concluded that both exogenous and endogenous have good construct validity and reliability test.

The second step will be the structural model, which will test the influence between variables that will be proven in hypothesis testing. The types of matrices used in the SEM technique are covariance matrix and correlation matrix.

Table 2 shows the output of LISREL verse 8.72 for the structural model. The structural model equation is obtained below.

$$EM = (0.481 \times RA) + (0.445 \times CT) - (0.354 \times CX) + (0.536 \times TR) + (0.056 \times OB) + (0.007 \times IT) - (0.054 \times CO) + (0.118 \times GS) + (0.190 \times EU) \quad (1)$$

$$with\ R^2 = 0{,}636\ and\ Error = 0{,}364 \quad (2)$$

Equation (1) explains that the direction for RA, CT, TR, OB, IT, GS, and EU is positive, where the variable increases; the EM variable will be proportional and vice versa. The CX and CO variables have a negative direction where the variable increases; the EM variable will be inversely proportional and vice versa. Equation (2) shows that the total effect of all variables on the EM variable is 0.636, and the error will be 0.364. The t-statistic value will prove the research hypothesis. Riadi (2018) stated that the t-statistic value must be compared with the Z-score obtained at 1.96. This value is set as a critical value for significant testing. Table 2 shows that CX, OB, IT, and CO found insignificant factors. However, RA, CT, TR, GS, and EU found significant factors.

Table 1. Test of Validity and Reliability for both Exogenous and Endogenous Constructs.

Latent Variables	Manifest Variables	Estimate Loading Factor (λ)	Composite Reliability (CR)	Variance Extracted (VE)
Relative Advantage (RA)	RA1	0.687	0.853	0.538
	RA2	0.699		
	RA3	0.829		
	RA4	0.742		
	RA5	0.700		
Compatibility (CT)	CT1	0.763	0.867	0.685
	CT2	0.835		
	CT3	0.881		
Complexity (CX)	CX1	0.838	0.844	0.645
	CX2	0.851		
	CX3	0.713		
Trialability (TR)	TR1	0.833	0.817	0.691
	TR2	0.829		
Observability (OB)	OB1	0.808	0.854	0.668
	OB2	0.969		
	OB3	0.641		
IT Infrastructure (IT)	IT1	0.807	0.880	0.787
	IT2	0.961		
CEO's Innovativeness (CO)	CO1	0.683	0.770	0.528
	CO2	0.763		
	CO3	0.732		
Government Support (GS)	GS1	0.928	0.830	0.711
	GS2	0.749		
	EU1	0.695	0.696	0.535

Environmental Uncertainty (EU)	EU2	0.766		
E-Marketplace Adoption (EM)	EM1	0.777	0.750	0.601
	EM2	0.773		

The most influential factor we can see in (Figure 2 and Figure 3) . Equation (3) shows the direction and indicates that RA, TR, CT, GS, and EU were positive, with the total effect for the most influential factors being 1.113, and the error will be -0.030, shown in Equation (4). Table 3 shows that the most influential factors sorted were RA, TR, CT, GS, and EU.

$$EM = (0.475 \times RA) + (0.367 \times TR) + (0.273 \times CT) + (0.117 \times GS) + (0.150 \times EU) \quad (3)$$

$$with\ R^2 = 1{,}113\ and\ Error = -0.030 \quad (4)$$

Table 2. Structural Model testing with Standardized Value and Hypothesis testing with T-statistic.

Variables			**Standardized Value**	**T-statistic Value**
RA	→	EM	0.481	6.474
CT	→	EM	0.445	3.509
CX	→	EM	-0.354	-1.380
TR	→	EM	0.536	2.744
OB	→	EM	0.056	0.698
IT	→	EM	0.007	0.125
CO	→	EM	-0.054	-0.883
GS	→	EM	0.118	2.845
EU	→	EM	0.190	2.869
OB	→	EM	0.056	0.698
R^2			0.636	
Error			0.364	

Note:

Negative Effect

Insignificant Factors

Table 3. Final Structural Model testing the Most Influential Factors on Adopting E-marketplace.

Variables			**Standardized Value**	**T-statistic Value**
RA	→	EM	0.475	8.649
TR	→	EM	0.367	6.616
CT	→	EM	0.273	5.226
GS	→	EM	0.117	3.202
EU	→	EM	0.150	2.833
R^2			1.113	

Error	-0.030

The final step will be testing of goodness-of-fit. Latan (2012) explains that Goodness-of-Fit (GoF) indicates whether the model is acceptable or vice versa. Furthermore, there are three types of GoF measurements. Absolute Fit indices, Incremental Fit indices, and Parsimony Fit indices. Absolute Fit indices consist of the Goodness-of-Fit Index (GFI), Adjusted Goodness-of-Fit Index (AGFI), Root Mean Square Residual (RMSR), Standardized Root Mean Residual (SRMR), and Root Mean Square Error of Approximation (RMSEA). Incremental Fit indices consist of the Normed Fit Index (NFI), Relative Fit Index (RFI), Non-Normed Fit Index (NNFI), Comparative Fit Index (CFI), and Incremental Fit Index (IFI). Parsimony Fit indices consist of the Parsimonious Normed Fit Index (PNFI) and Parsimonious Goodness-of-Fit Index (PGFI). Table 4 shows the GoF measurements. This value indicates that this model is a Good-Fit.

Table 4. Goodness-of-Fit measurements.

Parameters	Model Value	Threshold Value	Decision
GFI	0,887	GFI > 0.90 (Good Fit) 0.80 < GFI < 0.90 (Marginal Fit)	Marginal Fit
AGFI	0,829	AGFI > 0.89 (Good Fit) 0.80 < AGFI < 0.90 (Marginal Fit)	Marginal Fit
RMSR	0,032	RMSR = 0 (Perfect Fit) The bigger it is, the less this model fit.	Good Fit
SRMR	0,055	SRMR ≤ 0.05 (Good Fit) 0.05 < SRMR < 0.10 (Marginal Fit)	Marginal Fit
RMSEA	0.089	0.05 < RMSEA ≤ 0.08 (Good Fit) 0.08 < RMSEA < 0,10 (Marginal Fit)	Marginal Fit
NFI	0,946	NFI > 0.90 (Good Fit) 0.80 < NFI < 0.90 (Marginal Fit)	Good Fit
RFI	0,928	RFI > 0.90 (Good Fit) 0.80 < RFI < 0.90 (Marginal Fit)	Good Fit
NNFI	0,948	NNFI > 0.97 (Good Fit) 0.80 < NNFI < 0.97 (Marginal Fit)	Marginal Fit
CFI	0,961	CFI > 0.97 (Good Fit) 0.90 ≤ CFI < 0.97 (Marginal Fit)	Marginal Fit
IFI	0,961	IFI > 0.90 (Good Fit) 0.80 < IFI < 0.97 (Marginal Fit)	Good Fit
PNFI	0,709	Compared to the alternatives. PNFI ≤ 0.00 (Bad Fit) The bigger it is, the less this model fit.	Good Fit
PGFI	0,587	Compared to the alternatives. PGFI ≤ 0.00 (Bad Fit) The bigger it is, the less this model fit.	Good Fit

5. Discussion

The technological context was IT infrastructure (IT). We found it positive but insignificant, with a standardized value of 0.007 and a t-statistic value of 0.125. In a study from Subawa & Mimaki (2019), in line with this research, IT variables do not have a good ICT infrastructure, especially in SMEs adopting e-commerce. Despite being sophisticated, employees and CEOs lack skills, knowledge, and innovation is challenging for every business. A study by Wei et al. (2015) contradicted this because big companies can solve their problem by internal IT staff, and these variables were found to be significant. This result indicates that Etapasbar may not have a good IT infrastructure. It would be better for CEO and employees to work together to understand the infrastructure of the e-marketplace by holding training and seminars.

The organizational context was the CEO's Innovativeness (CO) we found negative and insignificant, with a standardized value of -0.054 and a t-statistic value of -0.883. A study from Vidal et al. (2010) stated that CEOs in SMEs have a vital role in training their employees and trusting the technology's superiority to be adopted. Awa et al. (2015) explain that one of the possible obstacles in adopting new technologies is relatively high procurement cost. This research contradicted Oliveira & Martins (2010), Thong et al. (1996), Thong & Yap (1995), and Yap (1989). MSME players who have adopted e-marketplace, it is possible that MSME players have difficulty innovating more in their business processes. Most MSME players and their respective colleagues do not come from the CEO's original idea.

The environmental context will be Government Support (GS) and Environmental Uncertainty (EU). Government Support (GS) found that it was positive and significant, with a standardized value of 0.118 and a t-statistic value of 2,845. Papazafeiropoulou & Pouloudi (2000) stated that GS variables are essential and can see a helicopter view of the development of e-commerce. Furthermore, Tambunan (2008) also stated that GS variables can help exploit the social benefit of competition and entrepreneurship, which are more extraordinary than ever. Irjayanti & Azis (2012) stated that if the Government ignores MSMEs to advance level, they are in a dangerous position in their own country. Environmental Uncertainty (EU) was positive and significant, with a standardized value of 0.190 and a t-statistic value of 2.869. EU variables were carried out as moderating variables (Alkhalil et al. 2017 & Souder et al. 1998).

Meanwhile, EU variables were carried out as independent variables (Agrawal 2015 & Wei et al. 2015). Adoption of Big Data Analytics (BDA) stated that the EU variable had a significant positive effect (Agrawal 2015). This variable describes the high uncertainty in their environment, which causes them to have the opportunity to be more proactive, innovative, and implement an innovative technology more than other companies. Another study on Radio Frequency Identification (RFID) in China stated that the EU variable has a negative effect (Wei et al. 2015). This result happened because the Chinese Government has a transitional process, so environmental regulation is one of the biggest concerns for Chinese companies. There was a lot of effort from the Government to conduct training and seminars in Bandung, but only a few MSME players came. This situation also indicates that Etapasbar has become very precise due to the uncertainty of the rapidly changing environment.

The innovation context from the DOI model was Relative Advantage (RA), Compatibility (CT), Complexity (CX), Trialability (TR), and Observability (OB). Relative Advantage (RA) was found positive and significant with a standardized value of 0.481 and a t-statistic value of 6.474. Ghobakhloo et al. (2011) RA variables play an essential role in adopting a new technological innovation and show a significant positive impact on e-commerce. Furthermore, Premkumar & Roberts (1999) got that RA variables have a positive effect. They stated that this could be done by conducting good training to facilitate technology adoption. Ahmad et al. (2015) also found that RA variables are a driving factor for adopting e-commerce in Malaysia. Compatibility (CT) found that positive and significant, with a standardized value of 0.445 and a t-statistic value of 3.509. This research aligns with Van Huy et al. (2012) because MSMEs will choose their e-commerce according to particular experiences to adjust to the changes, leading to lower resistance to adoption. Not only that, but Effendi et al. (2020) also found the same findings that social media adoption is more manageable than other digital marketing applications. El-Gohary (2012) stated that CT variables would facilitate MSMEs to adopt Information Technology. Complexity (CX) found that it was negative and insignificant, with a standardized value of -0.354 and a t-statistic value of -1.380. This study, in line with Maduku et al. (2016), stated that SMEs in South Africa is possible because SME players in South Africa are less familiar with mobile marketing as an innovative technology to help their business.

Furthermore, Vasseur & Kemp (2015) stated that familiarity with new technology is essential to influence them to adopt it. AL-Shboul (2019) also did not find an insignificant factor. This innovation is considered entirely new for SME players in Jordanian, which has sophisticated mechanisms. Trialability (TR) found that it was positive and significant, with a standardized value of 0.536 and a t-statistic value of 2.744. This study, in line with Alshamaila et al. (2013), found that TR variables have a significant positive effect. They stated that it is beneficial for users to try it before implementing it, which will lead to its adoption. In addition, adopters and who will adopt the technology, the TR variables will help strengthen the SME players' choice of technology to be adopted. Ramdani et al. (2009) also stated that the availability of innovative technology on a trial basis would help SMEs decide whether to adopt it. It will help them to think they can solve the problem before committing to full implementation of the technology. Observability (OB) found that it was positive but insignificant, with a standardized value of 0.056 and a t-statistic value of 0.698. This study, in line with Kendall et al. (2001), stated that OB variables could be insignificant because of how e-marketplaces can develop in specific industries. The emergence of technology changes the nature of

competition and the need to adapt. However, it will not be optional because MSME players cannot be observed until the change occurs. Another possibility might be that these variables are not operationalized adequately. Naturally, OB variables are insignificant because Moore & Bensabat (1991) these variables are very complex, requiring the innovation result to be visible and communicated to others. Meanwhile, innovations are difficult to communicate to others. With that, OB variables need to be separated into two new variables, visibility, and demonstrability, so that the result can be measured separately.

6. Conclusion and Implication

We found that the influential variable was Relative Advantage (RA), Compatibility (CT), Trialability (TR), Government Support (GS), and Environmental Uncertainty (EU). Also, we found that Relative Advantage (RA) plays the most important role because this variable was the highest score in the structural model. MSME players knew that Etapasbar was better than other innovative technology, which also helped the way their business ran. Not only that, but they also already tried these kinds of new innovative technologies that helped them to decide whether to adopt Etapasbar or not. They do not know how to operate the system. Because of that, they cannot inform others about the impact and benefit they got when they adopted Etapasbar. Another fact from the technological and organizational context was also found insignificant. These findings might not have a good ICT infrastructure, especially in the e-marketplace. Furthermore, MSME players or CEOs do not know which innovative technologies they want to adopt. We conclude that MSME players tend to follow others without knowing why they adopt Etapasbar because this is located in their traditional market.

Further socialization regarding Etapasbar is needed for the MSME players who have already adopted Etapasbar. The socialization is not only focused on using e-marketplaces but also made an effort to persuade MSME players to use e-marketplaces (e.g., showing data on increasing turnover when using an e-marketplace, pieces of training, seminars, educating them about the benefits and impact that e-marketplace provides to users). From Etapasbar's manager, they must be prepared the budget for this. Several subjects cannot be involved because they used other competitor apps. Thus, we cannot reach 100% of the population. It is hoped that future studies will be able to reach 4600 MSME players in Pasar Baru Bandung.

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