Analysis of E-Commerce Adoption for MSMES in the Food and Beverage Sector in Garut Regency

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Abstract

Micro, Small and Medium Enterprises (MSMEs) play a very important role in the national economy, as well as the Go Digital 2024 program launched by the government. The Covid-19 pandemic factor that poses a big challenge for MSMEs to immediately digitize, plus the potential that is expected in the future from digitizing MSMEs.While the government is intensively socializing MSMEs for digitization, MSME actors in the food sector in Garut Regency still feel that they do not have sufficient knowledge and have difficulty understanding the benefits of using e-commerce. This study bridges by integrating the two models to determine the factors that influence MSMEs to adopt e-commerce. To examine the factors that influence the adoption of e-commerce, the study was conducted by collecting data from MSMEs in the food sector in Garut Regency using an online survey. The sample size is 130 MSME respondents who have adopted e-commerce. The data collected were analyzed using structural equation modeling (SEM) and analyzed by LISREL. The results of this study indicate that usage behavior is significantly and positively influenced by Behavioral Intention, E-commerce Knowledge, and Social Influence. In addition, this study shows that behavioral intentions are not significantly influenced by Performance Expectancy, Effort Expectancy, Hedonic Motivation, Price Value, Social Influence, Facilitating Condition, and E-commerce Knowledge. This study is also expected to provide tangible benefits both theoretically and practically in effective e-commerce adoption. Furthermore, the limitations of the study and suggestions for future research will be discussed further in the last section.

Keywords
Micro Small and Medium Enterprises (MSMEs), Go Digital, Covid-19, E-commerce Adoption and LISREL.

1. Introduction
Micro, Small and Medium Enterprises have an important and strategic role in national economic development. MSMEs have also been shown to be unaffected by the crisis. When the crisis hit in the 1997-1998 period, only MSMEs were able to stay strong (Sarwono 2015). During the Covid-19 pandemic, almost all economic sectors were affected, including MSMEs. This pandemic has resulted in disruption of supply and demand as well as supply chains so that the wheels of the economy in the MSME sector have stalled (Humas dan Advokasi Hukum Kementerian Koperasi dan UKM 2020). Facing the challenges of the Covid-19 pandemic so that MSMEs can survive, one of them can be done by digitizing (Antara News 2021).

The survey results from Google and Temasek noted that Indonesia's digital economy in 2025 is projected to be the largest in Southeast Asia with a transaction value of IDR 1,826 trillion. Meanwhile, the results of a Bank Indonesia survey in 2020 recorded the value of digital economic transactions through e-commerce to reach Rp. 253 trillion in 2024 (Berita Satu 2021). One part of digitizing MSMEs is about the adoption of electronic commerce. Electronic commerce refers to the understanding of a study such as according to (Laudon and Traver 2017), "E-commerce is the use of the internet and websites to conduct business transactions.".

By looking at the fact, makes MSME actors need to immediately digitize.In this case, Garut Regency was chosen as the research location. First, MSMEs the food and beverage sector in Garut Regency, as a sector that has good enough potential for further development, is considered appropriate to be the object of this research. Second, Garut Regency has the fifth largest number of MSMEs in West Java Province (Dinas Koperasi dan Usaha Kecil 2021).

Furthermore, the authors conducted a phenomenon test of 18 SMEs in the type of food and beverage business in Garut Regency. The question material presented aims to determine the readiness of MSME actors in the food and beverage sector to adopt e-commerce. From this phenomenon test, 66.7% of company owners do not have good knowledge related to e-commerce. Then, as many as 55.6% of company owners find it difficult to understand or explain the benefits of using e-commerce. Based on the results of the phenomenon test, there is a gap between the government's desire and the condition of the MSME actors in the field. When the government is intensively socializing MSMEs for digitization, MSME actors in the food and beverage sector in Garut Regency still feel they do not have sufficient knowledge and have difficulty understanding the benefits of using e-commerce.

1.1 Objectives

The Extended Unified Theory of Acceptance and Use of Technology (UTAUT2) and Technological Organizational Environmental (TOE) are specifically proposed to clarify the acceptance of the technology used in this study. The constructs in UTAUT2 used in this study are performance expectations (PE), effort expectations (EE), social influence (SI), hedonic motivation (HM), facilitation conditions (FC), price value (PV), behavioral intentions (BI). and usage behavior (UB) is proposed as a direct determinant of SME's intention to adopt e-commerce (Venkatesh et al. 2012). The construct in TOE is used in this study to fill the knowledge gap by investigating the factors that influence the differences in e-commerce knowledge / E-commerce Knowledge (ECK) of MSME actors in e-commerce adoption (Tornatzky and Fleischer 1990). Therefore, the objective of this study is to examine the factors and the most that influence the food and beverage sector (MSMEs) in Garut Regency in adopting e-commerce by integrating the development of UTAUT 2 and TOE construction.

2. Literature Review

The Extended Unified Theory of Acceptance and Use of Technology (UTAUT2) is specifically proposed to clarify technology acceptance from the customer perspective. (Alalwan et al. 2017). UTAUT was validated by Venkatesh et al. (2003) with Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), and Facilitating Condition (FC), Later, UTAUT was extended with three constructs and reintroduced as UTAUT2 (Venkatesh et al. 2012); the three independent constructs/variables that are incorporated are Hedonic Motivation (HM), Price Value (PV), and Habits (HT). According to Venkatesh et al. (2012), two factors: behavioral intention (BI) and facilitation condition (FC) were both identified as major predictors of e-commerce adoption behavior. Behavioral Intention (BI) is the mediating variable, while Use Behavior (UB) acts as the dependent variable.

The TOE framework classifies technology, organization, and environment as three sets of factors that influence organizations to adopt innovation (Baker 2012). The TOE framework has a strong theoretical foundation, strong empirical support, and has been used to study technology adoption for innovation (Oliveira and Martins 2011). Tornatzky and Fleischer's (1990) TOE framework assumes a common set of factors to predict the likelihood of e-commerce adoption (Awa et al. 2015b). The theory states that adoption is influenced by technological developments (Kauffman and Walden 2001); organizational conditions, business, and organizational reconfiguration (Chatterjee et al. 2002); and the industrial environment (Kowtha and Choon 2001).

Venkatesh et al. (2012) proposed UTAUT2 because researchers have shown that this model is robust in predicting technology adoption (Mitzner et al. 2016), as the extension of UTAUT2 is appropriately theorized to explain technology acceptance from a customer perspective (Venkatesh et al. 2012). Furthermore, existing scientific arguments reveal that the core UTAUT variable may not be strong enough to predict the acceptance of new technologies (Kim and Garrison, 2009; Salimon et al. 2021). Therefore, synthesizing the variables in UTAUT2, with selected constructs from the organizational context (based on the TOE model) would be appropriate to predict e-commerce adoption. This study integrates the UTAUT 2 model (Venkatesh et al. 2012) with the chosen construct, namely e-commerce knowledge from the organizational context of TOE (Tornatzky and Fleischer 1990) to explain e-commerce adoption among MSMEs.

With the aim of examining the factors that influence adoption and determine what factors most influence food and beverage MSMEs in adopting e-commerce, the main construction of UTAUT2 is proposed as a direct determinant of the intention to adopt e-commerce for SMEs. Unlike what has been proposed by Venkatesh et al. (2012), this research model does not consider the role of habits. This is becauseto test the role of habit, the perpetrator must have rich experience in using the technology (Alalwan et al. 2017).The hypothesis of this study comes from a technology

adoption model developed by Venkatesh et.al (2012) and Tornatzky and Fleischer (1990). Hypothesis development will be discussed in depth as follows.

1.1 Performance Expectancy (PE)

Performance expectations can be conceptualized as benefits and utility that can be felt by users of the technological innovation (Venkatesh et al. 2003). According to Alalwan et al. (2017) Performance expectations have been noted as one of the most influential drivers of behavioral intention in adopting and using information systems (IS)/information technology (IT). Ho and Ko (2008) which empirically also proves that the use of self-service banking technology is positively related to perceived usefulness. In conclusion, users are more motivated to adopt and use a new technology that is useful for their daily lives (Alalwan et al. 2017; Alalwan et al. 2016; Davis et al. 1989). Therefore, this study articulates the following hypotheses:

H1: Performance Expectancy (PE) positively influences Behavioral Intention (BI).

1.2 Effort Expectancy (EE)

Venkatesh et al. (2003) definesEE as the level of ease of use of a system. Davis et al. (1989) stated that an individual's intention to accept a new system is not only predicted by how much benefit the system is, but also how easy it is to use the system (Alalwan et al. 2018). According to Alalwan et al. (2017) This has been empirically supported in the context of Behavioral Intention by several studies (e.g., Al-Somali et al. 2009; Cheng et al. 2006; Celik 2008; Eriksson et al. 2005; Kesharwani and Bisht 2012). Thus, this study formulates the following hypothesis:

H2: Business Expectation (EE) positively influences Behavioral Intention (BI).

1.3 Social Influence (SI)

Social influence was defined by Venkatesh et al. (2003, p.450) as "the degree to which an individual perceives that influential people suggest implementing a new system". Alalwan et al. (2018) stated that the considerable role of social influences or their similar factorsin increasing Behavioral Intention has been highlighted extensively in previous research (Al-Somali et al. 2009; AbuShanab et al. 2010; Martins et al. 2014; Shih and Fang 2004). Information and advice provided by people around the user can play an important role in increasing awareness and intention towards using the latest technology (Alalwan et al. 2016; Alalwan et al. 2015). Thus, this study formulates the following hypothesis:

H3: Social Influence (SI) positively affects Behavioral Intention (BI).

1.4 Hedonic Motivation (HM)

According to Venkatesh et al. (2012), hedonic motivation is conceptualized as a feeling of pleasure, joy, or pleasure, which is stimulated by the application of technology. Pagani (2004) states this is conceptualized as perceived pleasure, perceived enjoyment (Ernst et al. 2013). Like previous intrinsic motivation research arguments, which showed that individuals' intention to use technology can be increased through their desire to engage in intrinsically motivating activities for the sake of pleasure, comfort, and task accomplishment (Pe-Than et al. 2015; Salimon et al. 2021). This is in line with the opinion of Venkatesh et al. (2012) who revealed that several factors such as playfulness, excitement, and fun are significant determinants of customer acceptance of technology (Brown and Venkatesh 2005; Childers et al. 2002; Van der Heijden Heijden 2004). Hence, the following hypothesis can be formulated:

H4: Hedonic Motivation (HM) positively affects Behavioral Intention (BI).

1.5 Facilitating Conditions (FC)

Facilitating conditions are defined as the extent to which individuals believe that the organizational and technical infrastructure is in place to support the use of the system (Venkatesh et al. 2003). UTAUT2 is proposed in the context of acceptance of e-commerce adoption where a new relationship between facilitation conditions and intentions towards e-commerce adoption is proposed (Venkatesh et al. 2012). In the context of this research, MSME actors can use e-commerce in their business at least with the help of facilities such as devices and internet connections. Every MSME actor certainly has different facility conditions. In accordance with these concepts, this study hypothesizes two relationships:

H5: Facilitating Conditions (FC) positively affect Behavioral Intention (BI).
H6: Facilitating Conditions (FC) positively affect Usage Behavior (UB).

1.6 Price Value (PV)

Price value is conceptualized as "the consumer's cognitive trade-off between the perceived benefits of using technology and the monetary costs of using it" (Venkatesh et al. 2012, p.161). Mallat et al. (2008) and Venkatesh et al. (2012) stated that financial costs are an important role in shaping the willingness of MSME actors to adopt and accept new technologies (Alalwan et al. 2018). Based on the marketing literature, perceived value is usually identified by how the customer cognitively compares how much he must pay rather than the utility and quality achieved (Dodds et al. 1991; Alalwan et al. 2017). According to Venkatesh et al. (2012) quoted from Alalwan et al. (2017), In other words, if the level of positive price value is higher, customers will be more enthusiastic to adopt new technology. This requires that customers use the technology to be considered more profitable and useful than the monetary costs that must be paid. Consequently, this study proposes the following hypotheses:

H7: Price Value (PV) positively affects Behavioral Intention (BI).

1.7 E-commerce Knowledge (ECK)

Knowledge of e-commerce is an important factor determining its acceptance among SME operators and chief executive officers (CEOs) (Ghobakhloo et al. 2011; Salimon et al. 2021), and so is e-commerce. Some evidence suggests that SMEs face significant problems and risks related to computerization due to lack of knowledge about information systems (Igbaria et al. 1995). Chau et al. (2020) argue that SMEs are unlikely to adopt advanced Information Technology (IT) such as e-commerce if their operators do not have the knowledge to operate the system. Nasution et al. (2021) argues that when an organization prioritizes knowledge acquisition and dissemination, the adoption rate of electronic systems will be greater (Salimon et al. 2021). Ramdani et al. (2021) assert that the more CEOs have knowledge about the benefits of digital innovation, the greater their tendency to adopt information systems (Salimon et al. 2021). Therefore, the level of knowledge acquired by CEOs or other SME operators will influence the adoption of information systems (Chau et al. 2020; Ghobakhloo et al. 2011; Salimon et al. 2021). Therefore, we hypothesize that:

H8: Knowledge of e-commerce (ECK) positively affects Behavioral Intention (BI).
H9: Knowledge of e-commerce (ECK) positively affects Usage Behavior (UB).

1.8 Behavioural Intention (BI)

According to Venkatesh et al. (2003 2012), behavioral intention is conceptualized as the degree to which customers tend to use technology. Behavioral intentions have been continuously examined and confirmed as the most powerful determinant of individual behavior during the technology acceptance stream (Ajzen 1985; Venkatesh et al. 2003, 2012; Alalwan et al. 2018). Therefore, this study conceptualizes that behavioral intention is a decisive construct between the main antecedent constructs and the adoption of e-commerce by MSME actors. Consistent with some previous studies, this study also expects a positive relationship between behavioral intention to use and actual use in e-commerce adoption, and proposes the following hypothesis:

H10: Behavioral Intention (BI) positively affects Usage Behavior (UB).

2. Methods

The method used in this study is a quantitative method with a research strategy using online surveys. This study uses a representative sample taken purposively. The population of this research is MSME actors in the food and beverage sector in Garut Regency, Indonesia who have adopted e-commerce. However, the population size for this study is unknown. According to Tabachnick and Fidell (2007, p.123) suggest a formula for calculating the required sample size for which the total population is unknown, namely $N > 50 + 8$ m (where m = number of independent variables). N is the minimum number of a sample. This study has eight independent variables, so it requires at least 114 respondents. Questionnaire questions are given a Likert scale to answer each item on a Likert scale of 1-4, with statements of strongly disagree, disagree, agree, and strongly agree. This is to avoid ambiguous answers.Structural Equation Modeling (SEM) is an analytical technique that will be used in this study, which allows researchers to examine the relationship between complex variables recursively and non-recursively (Ghazali 2014; in Utami 2019). Furthermore, the data will be processed to assist the analysis process using the LISREL 8.50 application software

program. As depicted in Figure 1, this study has eight independent variables, one intervening variable, and one dependent variable. In addition, this study has 10 hypotheses to be tested.

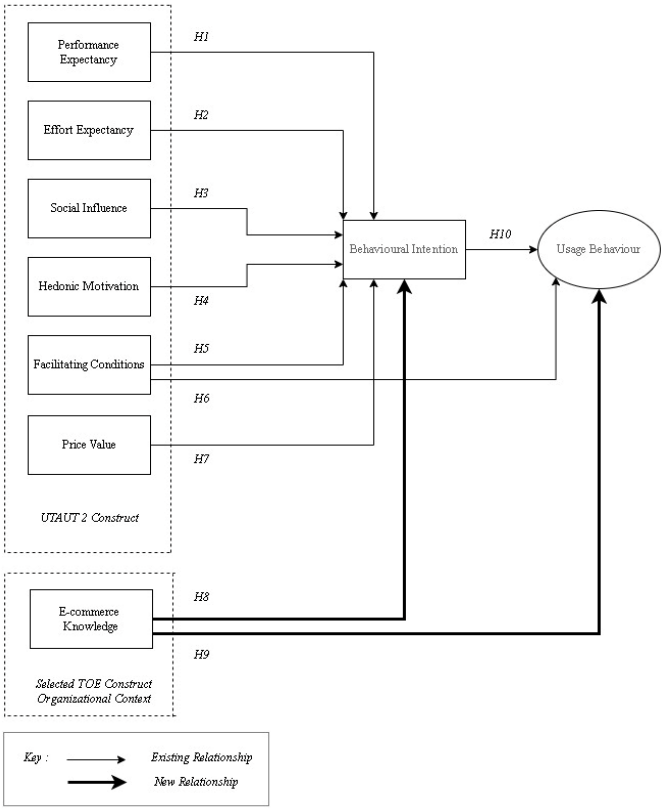

Figure 1. The Proposed Model

3. Data Collection

4.1. Profile and Characteristics of Respondents

A total of 130 SMEs in the food and beverage sector in Garut Regency answered the questionnaire provided. Regarding the age of the respondents, it is known that the age group of 21-30 years is the largest part of the total sample (51.1%). Descriptive statistics also show that the highest education level of respondents (45.9%) is Senior High School or lower. In relation to the type of business of the respondents, the largest of them opened a restaurant or rice stall business. Then for the age of the company, most of them are still under ten years old (79.7%) with the maximum number of employees they have is 10 people (89.5%). of the respondents have an annual turnover of less than Rp. 2 billion (94%). In relation to the e-commerce application used, GoFood is the most widely used e-commerce by food and beverage MSME actors in Garut Regency.

4. Result

5.1 Structural Equation Modeling Analysis

The data that has been obtained is then processed for further analysis in structural equation modeling (SEM). The SEM approach has two stages in general, namely by evaluating the measurement model and then estimating the structural model (Alalwan 2017). All UTAUT2 constructions except habits, then added with the organizational construction of TOE, namely E-commerce Knowledge, became the target of analysis.

5.2 Fitness Model

The main fit index consisting of RMSEA, RMR, SRMR, CFI, and IFI have all been tested to evaluate the fit of the model. As shown in Table 1, the fitness index generated for the e-commerce adoption measurement model is as follows: RMSEA is 0.08187, RMR = 0.03625, SRMR = 0.06416, CFI = 0.8545 and IFI = 0.8582. Therefore, it shows that the modified measurement model has a high degree of conformity with the data (Byrne 2010; Hair et al.

2010). Based on Table 1, it can be concluded that the SEM model has a good ability in terms of matching sample data (good fit).

Table 1. Overall Model Fit Test

Fit Size	Value	Benchmark Value	Model Fit to Data
RMSEA	0,08187	< 0.1	Yes
RMR	0,03625	< 0.1	Yes
SRMR	0,06416	< 0.1	Yes
CFI	0,8545	> 0.8	Yes
IFI	0,8582	> 0.8	Yes

5.3 Reliability and Construct Validity

Existing constructions were tested to ensure reliability with adequate scale using standardized loading factor (SLF), composite reliability (CR), and extracted mean variance (AVE). Good convergent validity is indicated by a high standardized loading factor (SLF). Hair et al. (2010) suggested the SLF value 0.5. Based on statistical results, the highest SLF value (0.907) is for the HM2 indicator, and the lowest value (0.702) is for the UB3 indicator. All indicators are considered to have good SLF values, this shows that good convergent validity has been achieved in terms of SLF size. In addition, in Table 2, the AVE values of latent constructs ranged from 0.536 (FC) to 0.759 (BI) which means all constructs were above the limit value of 0.50 as recommended by Hair et al. (2010). In addition, an AVE of more than 0.5 for each construct indicates satisfactory convergent validity (Fornell and Larcker 1981). Then the CR for all latent constructs as in Table 2 shows that while the highest CR value (0.904) is observed for BI, and the minimum value is indicated by ECK (0.802). These results indicate that all CR values are > 0.7, which means that they have met good convergent validity based on the size of the CR. It can be said that the reliability and construct validity of the measurement model got good results (Table 2).

Table 2. Testing the Validity of Average Variance Extracted (AVE)
and Construct Reliability (CR)

Latent Construct	Average Variance Extracted (AVE)	Construct Reliability (CR)
PE	0,592	0,852
EE	0,686	0,897
SI	0,693	0,87
FC	0,535	0,822
HM	0,707	0,877
PV	0,643	0,843
ECK	0,576	0,802
BI	0,759	0,904
UB	0,591	0,812

5.4 Structural model

To test the structural model, it is necessary to measure the path coefficient between the constructs and the number of variants described in the endogenous construct (R-square) with the exogenous construct (Hair et al. 2017). The results of the structural model fit index mean that the structural model has a sufficient fit for data observations. The result is chi-square significant ($\chi 2 = 648.48$, DF = 369, P = 0.000), the other fit indices were found to be within their threshold values as follows: RMSEA is 0.08187, RMR = 0.03625, SRMR= 0.06416, CFI = 0.8545 and IFI = 0.8582. Based on the calculation of the t value, the significance between variables is calculated. T table with a confidence interval of 5 percent is ±1.96. Then a relationship between variables can be accepted as a hypothesis if the value of t count is higher than t table.

As shown in Figure 2, it is found that the relationship between variables that have a t count value above t table is only the relationship between ECK and UB (t count = 2.0108 > 1.96), BI and UB (t count = 2.3499> 1.96), and SI to UB (t count = 2.3554 > 1.96).As shown in Table 3, the research hypothesis that is in accordance with the research results is only H9 and H10. The rest are either unsuitable or rejected. The most important predictor for BI was PE (T count = 1.7064 < 1.96) although not significant. Meanwhile, the most important predictors for UB are SI (t count = 2.3554 > 1.96), BI (t count = 2.3499 > 1.96), and ECK (t count = 2.0108 > 1.96).

Table 3. The Suitability of The Research Hypothesis with The Research Results

Hypothesis	Results
Hypothesis 1	Unsignificant
Hypothesis 2	Unsignificant
Hypothesis 3	Unsignificant
Hypothesis 4	Unsignificant
Hypothesis 5	Unsignificant
Hypothesis 6	Unsignificant
Hypothesis 7	Unsignificant
Hypothesis 8	Unsignificant
Hypothesis 9	Significant
Hypothesis 10	Significant

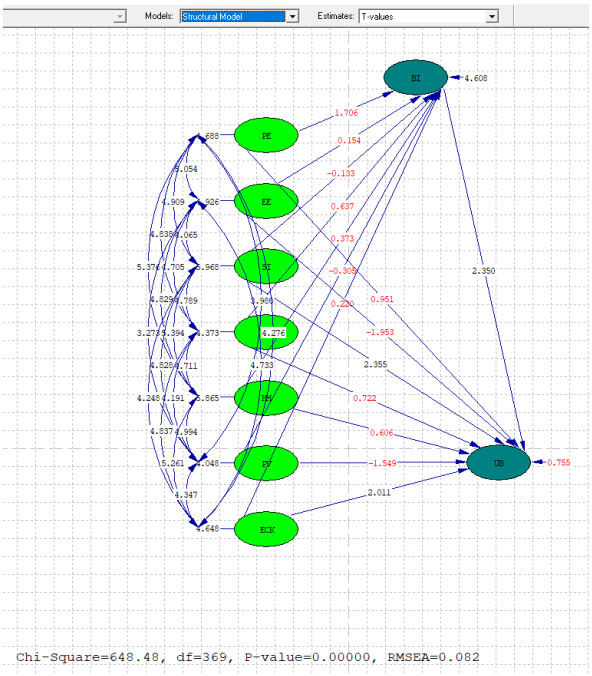

Figure 2. T-statistic Value

5. Discussion

This study aims to examine the behavioral intentions of SMEs in the food and beverage sector in Garut Regency to accept and adopt e-commerce in their business, using the UTAUT2 model combined with an organizational construct from TOE. With limited knowledge, this is something that has not been discussed in Garut in particular. Investigating MSME actors to adopt e-commerce in their business is an important thing, because the success of the

digitization program proposed by the Indonesian government depends on the acceptance of MSME actors to adopt new technology in this case e-commerce (Al-Adwan et al. 2018a).

Based on the statistical results presented, the model examined in the study, such as all the criteria related to the measurement model: model suitability, construct reliability, and validity have been successfully achieved. The result is that Performance Expectancy, Effort Expectancy, Social Influence, Hedonic Motivation, Facilitating Conditions and Knowledge of E-commerce have no significant influence on the Behavioral Intentions of MSME actors to use e-commerce. But for Behavioral Intentions, E-commerce Knowledge has a significant direct impact on Usage Behavior, only Facilitating Conditions have no significant relationship. On the other hand, Social Influence turns out to have a significant direct relationship to Usage Behavior.

The statistical results in this study provide separate results that PE does not have a significant effect on BI for MSME actors to use e-commerce. This means that MSMEs do not really believe that using e-commerce will allow them to achieve an increase in their business performance. This finding is inconsistent with previous studies using the UTAUT2 model (Huang and Kao 2015; Arain et al. 2019; Ahmed and Kabir 2018; Kumar and Bervell 2019; Ameri et al. 2020; Nikolopoulou et al. 2020). This implies that aspects related to usefulness or function (performance expectations) have not been the focus of attention of MSME actors in the food and beverage sector in Garut Regency in formulating their intention to adopt e-commerce.

Empirical results also do not support a significant relationship between EE and BI to adopt e-commerce. This means that MSME actors have not focused their attention on the level of ease or difficulty in using e-commerce. In the previous technology adoption literature, most have argued that an individual's perception of a system's usefulness is strongly influenced by the degree to which the system is easy to use and does not require too much effort (Davis et al. 1989; Eriksson et al. 2005; Alalwan et al. 2017).

The significant influence role between SI and BI is shown by Ameri et al. (2020), Moorthy et al. (2019) and Nikopoulou et al. (2020) but different from the results of this study. This result means that MSME actors do not yet believe that opinions from the closest or influential people can influence them in adopting e-commerce.

Statistical results show the unfavorable effect of FC on BI and on UB for e-commerce adoption. MSME actors do not seem to have paid more attention to the existence of the facilities needed to use e-commerce in their business activities. The facilities needed to support the adoption of e-commerce at least such as devices, internet connections, and secure applications are important aspects needed. This result is inconsistent with other results obtained in previous technology adoption studies (Alalwan et al. 2016; Yu 2012; Zhou et al. 2010; Alalwan et al. 2017).

Next is HM which is not proven to have an impact on BI in this study. It can be concluded that MSME actors do not feel comfortable or pleasant in using e-commerce which allows them to use it more often. This finding is not in line with research by Huang and Kao (2015), Arain et al. (2019), Ahmed and Kabir (2018), Kumar and Bervell (2019), Moorthy et al. (2019), Alalwan et al. (2017) and Nikopoulou et al. (2020).

The statistical results confirm the non-significant path between PV and BI in adopting e-commerce. Therefore, it can be concluded that the issue of price value has not become a separate focus for MSME actors to shape their decisions in adopting or rejecting e-commerce. In other words, if the benefits obtained match or even exceed the price paid, MSME actors are more likely to be motivated to adopt e-commerce, this is in line with the opinion of Venkatesh et al. (2012). Moreover, many respondents are middle-income and consequently more sensitive to price issues (Brown and Venkatesh 2005; Dwivedi and Lal 2007; Jaruwachirathanakul and Fink 2005; Riffai et al. 2012; Sathye 1999; Alalwan et al. 2017).

In addition to the construct from UTAUT2, ECK also does not have a positive and significant effect on IB but has a positive and significant effect on UB as reported by previous studies (Thong and Yap 1995; Salimon et al. 2021) although this study focused on the adoption of m- commerce. The statistical results can be interpreted that when ECK is combined with the UTAUT2 model, ECK has a positive value and influences e-commerce adoption, only the relationship that occurs is only for UB, not with IB. These statistical results also seem to show the fact that when MSME actors have the skills and knowledge about e-commerce, adoption of the latest system or technology can be carried outout more easily. But otherwise, it can hinder adoption. Therefore, if MSME actors understand and know the benefits of e-commerce, it might make them more motivated to adopt e-commerce (Ghobakhloo et al. 2011;

Salimon et al. 2021). This theory is in line with what is happening based on the phenomenon test in this study, that MSME actors in the food and beverage sector in Garut Regency feel that they do not understand and know much about e-commerce which causes e-commerce adoption to be hampered.

BI was the most important predictor for UB in this research model, which was also found by Ameri et al. (2020), Alalwan et al. (2017) and Nikopoulou et al. (2020). This means that SMEs in the food and beverage sector in Garut Regency intend to continue to use e-commerce in their business activities. This is the cumulative result of the previous constructs which ultimately resulted in MSMEs being willing to continue using e-commerce adoption in their business activities.

In addition, the relationship between SI and UB variables is also known to have a significant relationship based on this study. Even the value of t-count obtained exceeds the value of t-count from BI. This is one of the renewals of the UTAUT2 model research that SI has a significant relationship with UB. It can be concluded that the SMEs in the food and beverage sector in Garut Regency feel that social influence is one of the factors that make them adopt e-commerce and use it in their business activities.

The overall results of this study indicate that most of the relationships designed do not have a positive relationship. This is different from previous research on technology adoption, although judging from the model suitability test, construct reliability, and study validity have been achieved. One of the factors that allows this to happen is the number of respondents who are too few when compared to the variables tested for MSME actors.

6. Conclusion and Implication

In this study, performance expectations (PE), business expectations (EE), social influence (SI), hedonic motivation (HM), price values (PV), facilitating conditions (FC) and e-commerce knowledge (ECK) were found not to be a significant predictor of behavioral intention to adopt e-commerce (BI) from SMEs in the food and beverage sector in Garut Regency. Except for facilitating conditions, behavioral intentions (BI), and knowledge of e-commerce (ECK) are supported to be significant factors that predict the actual adoption of e-commerce by SMEs in the food and beverage sector in Garut Regency.

This study shows that the most important predictor for MSME actors in having an intention to use e-commerce (BI) is PE (the strongest) although the statistical results do not get a significant relationship. In addition, the most important predictor for sustainable use of e-commerce (UB) is BI and followed by ECK. Thus, the new model of Venkatesh et al. (2012) UTUAT2 combined with the organizational construct of TOE, namely e-commerce knowledge has been chosen for the conceptual model of this study, although the other variables do not have a significant relationship based on statistical results.

In addition, the results of this study indicate the fact that when MSME actors have good skills and knowledge about e-commerce, adoption of e-commerce can be carried out more easily. But otherwise, it can hinder the adoption itself. This further proves that e-commerce knowledge is a strong predictor of e-commerce adoption by MSME actors in the food and beverage sector in Garut Regency.

With limited knowledge, this study has a contribution in building a conceptual model based on a theoretical basis that fits the needs of reality. This study tries to combine UTAUT2 with one organizational construct from TOE, namely e-commerce knowledge to fill in the gaps or strengthen the predictors that already exist in UTAUT2 in e-commerce adoption. This study also proposes a new causal pathway between ECK→UB and SI→UB.

Based on the results of this study, many limitations and shortcomings can be observed. Some of them are related to determining the minimum number of sample sizes that are too minimal, which are concluded as the cause of the results of the research not in accordance with the hypothesis made. Furthermore, considering that this research is quantitative in nature, the results can be generalized. It is recommended for future studies to conduct research with qualitative and quantitative approaches. Such an approach is expected to produce more comprehensive findings.

From a practical perspective, namely SMEs, the results of this study support the important role of e-commerce knowledge (ECK) as a predictor of e-commerce adoption. The results of this study provide instructions for interested stakeholders, so that MSME actors need to receive training, seminars, and all activities that increase the

understanding and knowledge of MSME actors about e-commerce if e-commerce adoption is something to be achieved.

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