MILLENNIAL EXPERIENCE WITH ONLINE FOOD HOME DELIVERY: A LESSON FROM INDONESIA

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ABSTRACT

Aim/Purpose	To examine millennial satisfaction towards online food delivery services, including e-service quality, food quality, and perceived value as the determinants and behavioral intention as the consequence.
Background	Among the generational cohorts, millennials are a demanding target group for many retailers, including restaurants. Despite many studies examining millennial behavior in the restaurant context, almost no research on millennial attitudes and behavior in the context of online food home delivery service can be found.
Methodology	For this research, 332 millennials completed a self-administered survey in Indonesia. To assess the associations between satisfaction and its determinants and consequences, this study employs Partial Least Square modeling.
Contribution	This research extends existing knowledge of millennial satisfaction toward online food delivery service by highlighting that food quality, e-service quality and perceived value are the main determinants of satisfaction for online

food purchasing among millennials. Further, this study offers support for the spillover theory in the online food home delivery service from millennial perspective.

Findings	This study uncovers the important direct dual influences of e-service quality and food quality on millennial satisfaction with online food delivery services. Further, this study notes that e-service and food quality also have an indirect influence on satisfaction via perceived value. Moreover, satisfied millennial customers are more likely to re-purchase, recommend to others, and re-purchase at an increased price.
Recommendations for Practitioners	For small and medium restaurants, it is suggested that they need to focus solely on their core business of providing food. If they want to offer an e-service, they should develop strategic cooperation with one or more online service providers.
Recommendation for Researchers	Millennials tend to repurchase, recommend, and be willing to pay more in the future extends the existing models that look at the associations among quality, satisfaction and behavioral intention. Thus, in online restaurant purchasing services, both e-service quality and food quality should be included in the future research models.
Impact on Society	This study could help restaurant industries to increase their business performance and, indirectly, impact on society as a whole by providing high quality food, employment opportunities, and tax revenues.
Future Research	Future researchers can reassess the model in different countries and/or with other generation cohorts as well as including other variables such as trust, image, involvement, as well as socio-demographic factors.
Keywords	millennial, satisfaction, online food, home delivery service

INTRODUCTION

Millennials or Generation Y comprise individuals who were born between 1980 to 2000 and have grown up in a digital environment (Tilford, 2018). Their technology tool of choice, often considered a digital representation of their individuality, is their smartphone. With their knowledge and possession of technology, they have constant access to digital media and are able to shop for products and services from local and global providers with ease. Millennials dominate online communities, communicating their opinions via online media, and potentially influencing both producers and consumers in every corner of the online markets (Bilgihan, 2016). Thus, marketers need to improve their understanding of millennial behavior in order to constructively engage these consumers (Nyheim, Xu, Zhang, & Mattila, 2015). More specifically for restaurants offering online delivery services, they should clearly understand how millennials respond to online food services and use this information to create online applications and website portals that will appeal to and impress this important generational group.

Among the generational cohorts of customers, millennials are a demanding target group for many retailers, including restaurants. A *Financial Times* report shows that millennials comprise nearly 25% of the world population (Tilford, 2018). Compared to previous generations, millennials have more disposable personal income, making them the most powerful consumer groups among the generation cohorts (Tilford, 2018). Further, millennials tend to spend a larger portion of their income on food, mostly in the restaurant industry (Nyheim et al., 2015). Thus, it is important that restaurant managers understand millennial shopping behavior in order to successfully attract and keep them as customers. Despite many studies examining millennial behavior in the restaurant context (Jang, Kim, & Bonn, 2011; Nyheim et al., 2015; Taylor & DiPietro, 2018) and many studies on the online restaurant setting

(Li, 2019; Suhartanto, Helmi Ali, Tan, Sjahroeddin, & Kusdibyo, 2019), almost no research on millennial attitudes and behavior in the context of online food delivery can be found. In response to these gaps, the objective of this study is to inspect the causes and outcomes of millennial satisfaction towards online food delivery services. Conducting such a study provides an avenue for restaurateurs to develop more effective strategies to target their millennial market, and offers a foundation for building a more complete understanding of customer satisfaction with online purchasing.

This study was conducted in Indonesia for two reasons. First, the *Statista Food Delivery Report* (2018) shows that the Indonesian market for online home delivery food service was $US968,000,000 and the market was growing rapidly, at approximately 13% per annum. The Indonesian online food delivery market is dominated by local restaurants using online delivery services such as GoFood and Grab-Food, as well as multinational restaurants such as Pizza Hut and McDonalds that have in-house delivery services. Considering its market size and the large number of players, the competition for online food delivery in Indonesia is intense (Yusra & Agus, 2018). Second, although they are the largest online segment, Indonesian millennials are less loyal toward online product and service providers (Utomo, 2019). With these considerations, understanding the millennial satisfaction with online food delivery services is important for survival and success in the Indonesian online food market. The following section discusses satisfaction with restaurant online purchasing as a theoretical basis for conducting this study and developing hypotheses, followed by the research method, data analysis results, and discussion and conclusion.

THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

SATISFACTION WITH RESTAURANT ONLINE PURCHASING

Customer satisfaction is a subjective outcome of any successful marketing activity, linking the process of purchasing and consumption with post-purchase phenomena. Satisfying customers is an important element in marketing as it affects future consumer purchase behavior, profitability, and shareholder value (Nisar & Prabhakar, 2017; Taylor & DiPietro, 2018). However, in the competitive restaurant business environment, having satisfied customers is important not only for business success, but it is also necessary for business survival (Ha & Jang, 2010). Many definitions have been assigned to customer satisfaction, but the most cited in the literature is Oliver's (1999, p. 15), viewed as a consumer's fulfillment response where "fulfillment, and hence a satisfaction judgment, involves at the minimum two stimuli: an outcome and a comparison referent." Oliver's definition suggests that when a product or service performance surpasses customer expectations, customers are satisfied. Recent developments in understanding customer satisfaction across numerous industries acknowledge that customer satisfaction is a multifaceted phenomenon affected by psychological, physiological, and undiscovered dynamics (Suhartanto, Chen, Mohi, & Sosianika, 2018). Online or e-satisfaction broadens conventional satisfaction to include internet technology, both website and online applications, in the mediation of the relationship between customers and firms. Online satisfaction is consumer experience with e-retail as opposed to a traditional retail experience. To summarize, customer satisfaction with online restaurant purchasing is a customer's subjective evaluation of the purchasing restaurant's food via online ordering in relation to their prior experiences, and their resultant emotional state of fulfillment.

The satisfaction concept has been examined broadly in the traditional retailing literature. In online environments, the exploration of customer satisfaction determinants is growing (Pham & Ahammad, 2017). Recently, some researchers (Pee, Jiang, & Klein, 2018; Yeo, Goh, & Rezaei, 2017) have investigated how website attributes influence customer satisfaction with their experience in online shopping. Previous studies have successfully identified various important website factors that are useful in online businesses (Jeon & Jeong, 2017; Pee et al., 2018). Yet, there is no agreement among scholars on how those factors influence customer satisfaction (Nisar & Prabhakar, 2017). Also, past studies have evaluated customer satisfaction with online shopping experience in association with e-service

quality, purchasing behavior, consumer spending, and consumer group buying in various industry contexts, including in restaurants (Chang, Chou, & Lo, 2014; Jeon & Jeong, 2017; Pham & Ahammad, 2017; Suhartanto et al., 2019). This research offers a foundation for building an understanding of customer satisfaction with online purchasing. However, none of the identified studies has been dedicated to identifying the factors that determine millennial satisfaction with online shopping, and none in relation to restaurants. Additionally, past studies have mainly focused on assessing online satisfaction at the pre-purchase and purchase stages without paying much attention to post-consumption attitudes (Pham & Ahammad, 2017).

For online shopping, Hsin and Wang (2011) proposed an "E-service Quality-Value-Satisfaction-Intention" model, contending that the quality of e-service drives both perceived value and satisfaction, while satisfaction directly influences customer behavioral intention. The argument of this proposition is that since e-service quality is a judgment of the attributes of electronic service, then customer perceived value is the result of appraising the service experience. Also, if customer satisfaction is an emotional reaction to the consumption of the product or service, then the e-service quality and perceived value are the determinants of satisfaction. Their proposed model has enjoyed empirical support from other services studies (Jeon & Jeong, 2017; Nisar & Prabhakar, 2017; Pham & Ahammad, 2017), which confirms that e-service quality significantly impacts satisfaction and subsequently significantly affects behavioral intention. However, in the restaurant context, Hsin and Wang's model fails to offer a complete explanation of the determinants of customer satisfaction as their model does not include the product factor. The products, food and beverage in restaurants, are the main reason for customer purchasing; thus, the food is an essential element in influencing customer experience (Han & Hyun, 2017). Nisar and Prabhakar (2017) reported that, to satisfy customers and create a successful online business, both product and service quality should be the focus of e-retailers. In other words, online food customers are exposed not only to e-service, but to the e-purchased product.

E-SERVICE QUALITY AND CUSTOMER SATISFACTION

Electronic service (e-service) is the extent to which a website facilitates efficient and effective shopping, purchasing, and delivery of products and services (Zeithaml, Parasuraman, & Malhotra, 2002). Zeithaml et al.'s definition implies that electronic or e-service quality refers to customers' appraisal of the delivered services that were purchased and possibly tracked and assessed using an electronic device. Early studies showed that e-service quality is only associated with website quality (Parasuraman, Zeithaml, & Malhotra, 2005), but due to the development of online technology, scholars have suggested that e-service quality should include both website service and application service (Pigatto, Machado, Negreti, & Machado, 2017). Customers demand high-level e-quality service when making online purchases (Parasuraman et al., 2005). Thus, delivering high quality websites and online applications is imperative for any business offering their products through the internet, such as a restaurant offering online food delivery service where the interaction between customers occurs online. Jeon and Jeong (2017) maintain that upholding a high quality website and online application is essential to keeping customers, motivating them to visit the website, and securing their continued loyalty. Past studies have paid much attention to the link between a customer's interaction with the firm's web or online application and their subsequent behaviors (Jeon & Jeong, 2017; Pee et al., 2018). Those studies generally conclude that satisfaction with online shopping is shaped by e-service quality.

H1: E-service quality directly and positively influences millennial satisfaction.

FOOD QUALITY AND CUSTOMER SATISFACTION

Food quality is an essential element for a restaurant as it has an important role in influencing customer experience with any restaurant service (Ha & Jang, 2010). Past studies indicate that food quality is a complex concept consisting many attributes (Suhartanto et al., 2019; Sulek & Hensley, 2004). Ha and Jang (2010) have identified food attributes of variety, nutrition, and taste to evaluate customers'

experience and satisfaction with a restaurant. Liu, Lee, and Hung (2017) have used presentation, menu, variety, and size as food quality attributes. In a study of millennial attitudes toward green restaurants, Jang et al. (2011) identified three attributes of food quality, i.e. taste, freshness, and presentation. Considering its importance in influencing customer experience, many studies have assessed food quality in past studies. Liu et al. (2017), for example, claimed that food quality is the main element in dictating customers' restaurant selection. Further, in the hotel restaurant environment, Han and Hyun (2017) considered quality of food to be the main driver of customer intention loyalty. Another study by Sulek and Hensley (2004) confirmed that, compared to the restaurant environment and service quality, food quality has a dominant impact on customer satisfaction with the restaurant. A study conducted by Namkung and Jang (2007) exploring customer behavior in restaurants found that food quality affects satisfaction and propensity to revisit and endorse the restaurant. Thus, improving the quality of product offered will satisfy customers, so it is expected that food quality will influence millennial satisfaction with their online restaurant purchasing experience.

H2: Food quality directly and positively influences millennial satisfaction.

E-SERVICE QUALITY ON FOOD QUALITY

The literature on restaurants reports associations among food quality, service quality, and e-service quality (Kedah, Ismail, Haque, & Ahmed, 2015). However, past studies have not assessed the connection between e-service quality and food quality (Suhartanto et al., 2019). The authors believe that the Spillover Theory (Sirgy, Efraty, Siegel, & Lee, 2001), which proposes that a person's positive or negative experience with one part of their life will influence or 'spill over' into their evaluation of other parts of their life, is a suitable theory to explain the connection between food quality and e-service quality in the online food delivery business context. With reference to this theory, the authors believe that a customer's experiences from one part of their consumption process affects their experiences of another part of the consumption process. Based on the service process model (de Ruyter, Wetzels, Lemmink, & Mattson, 1997), customers are first exposed to the website or online application of the restaurant prior to their ordering, receiving, and consuming the food. Therefore, in online food delivery services, a customer's experience with e-service will influence their perception of the food acquired from the e-service.

H3: E-service quality directly and positively influences food quality assessment.

THE ROLE OF PERCEIVED VALUE

The availability of online information enables customers to compare the benefits and prices of the product and services offered through the internet before making a purchase decision. Therefore, having a high perceived value, a comparison between the benefits and sacrifices to obtain a product is important for online businesses (Pham & Ahammad, 2017). The relationship between customers and e-retailers improves if the product or service is perceived as high value. Past empirical studies have also found an association between both e-service and product quality on customer perceived value (Caruana & Ewing, 2010; Jeon & Jeong, 2017). As the literature strongly indicates the direct impact of perceived value on satisfaction (Caruana & Ewing, 2010; Chang, Wang, & Yang, 2009), the following hypotheses suggest that both food quality and e-service quality influence customer satisfaction via perceived value.

H4: E-service quality indirectly and positively influences millennial satisfaction through perceived value.

H5: Food quality indirectly and positively influences millennial through perceived value.

CUSTOMER SATISFACTION CONSEQUENCES

Behavioral intention or loyalty intention is a consumer's propensity to act in a particular way toward products or services (Yeo et al., 2017). It is widely recognized as the most apparent consequence of customer satisfaction. Behavioral intention signals a person's predictable behavior in the near future related to consuming products or services (Suhartanto et al., 2018). When examined after a purchase, post-purchase behavioral intentions are commonly applied to predict consumers' repurchase, as it is comparatively accurate for envisaging customer future buying behavior. Although behavioral intention has been criticized for lacking actual behavior predictive power (Suhartanto et al., 2018), using this approach allows researchers to uncover the strength of customers' intention from very low to the very strong. Generally, behavioral intention is a relatively precise predictor of customer retention and defection (Suhartanto et al., 2018). Past studies (Pham & Ahammad, 2017; Trivedi & Yadav, 2018) have measured behavioral intention not only by intention to buy but also by other observable behaviors, such as intention to recommend and intention to repurchase even if the price increases. Finally, studies examining millennials agree that satisfaction is a prerequisite of propensity to revisit and endorse the business in the future (Pham & Ahammad, 2017; Taylor & DiPietro, 2018). Therefore, the association between satisfaction and behavioral intention in online restaurant purchasing among millennial is stated as follows.

H6: Customer satisfaction directly and positively influences millennial intention: (a) to repurchase, (b) to recommend, and (c) to pay more.

This conceptual review and the hypotheses discussion lead to the proposed model on customer satisfaction toward online restaurant purchasing, as depicted in Figure 1.
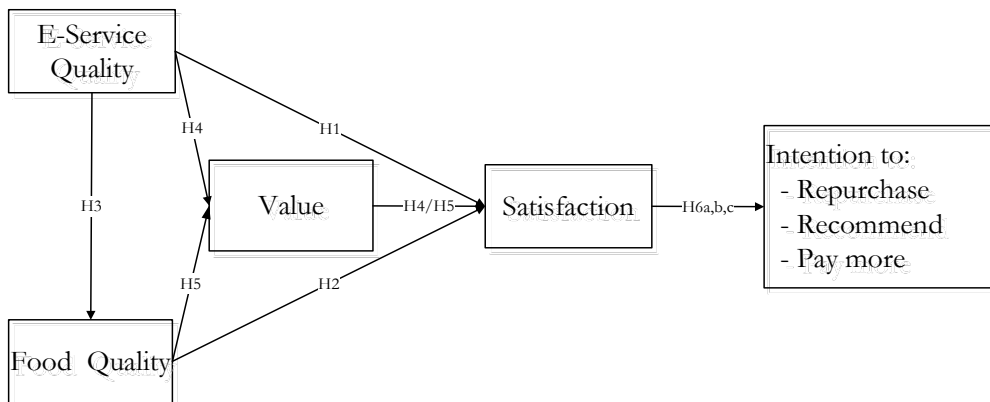

Figure 1. Millennial satisfaction toward online food delivery service model

Figure 1 shows the relationships between satisfaction with online food delivery with its antecedents and consequences. Rooted in behavioral theories, this model proposes that customer satisfaction with online food delivery service is shaped by e-service quality, food quality, and perceived value. However, the effect of e-service quality and food quality on customer satisfaction is not only direct but also indirect through strengthening customer perceived value. Customer behavioral intention to repurchase, recommend, and to pay more is posited to be the consequences of customer satisfaction with online food delivery service.

RESEARCH METHOD

INSTRUMENT DEVELOPMENT

All of the research instruments used in this study have been adopted from the following research. First, this study adopts the E-S-QUAL model of e-service quality (Parasuraman et al., 2005) consisting of privacy, efficiency, system availability, and fulfillment. Second, food quality was measured by

four items: variety, taste, attractiveness, and healthiness (Ha & Jang, 2010; Namkung & Jang, 2007). Third, the measurement of customer perceived value comprises reasonable price, the cost-benefit ratio of the transaction, and overall convenience of website use (Caruana & Ewing, 2010; Hsin & Wang, 2011). Fourth, customer satisfaction was measured by a comparison between experience and expectation and by overall satisfaction (Suhartanto et al., 2018). Fifth, behavioral intention was assessed by intention to repurchase, recommend, and willingness to pay more (Pham & Ahammad, 2017; Yeo et al., 2017). All of these variables were measured using Likert scales (5 points: 1 strongly disagree to 5 strongly agree). To ensure that the questionnaire instructions and questions were well understood, a pre-test was conducted on 20 online restaurant customers. The results of pre-test confirmed that all instructions and questions were clear and well understood. All the survey items under examination in this study are included in the appendix.

SAMPLE AND SAMPLING

The focus of this study is millennial attitudes and behaviors related to their food purchasing experiences via their online devices. The absence of a sampling frame of all millennial online restaurant customers meant that probabilistic sampling was not an option for this study. Thus, convenience sampling was selected to gather the required data. The data for this study was collected in Bandung, Indonesia, using a self-administered questionnaire that was distributed through the Internet. The potential respondents were approached personally in public spaces, such as malls, city squares, and campuses. To reduce the drawbacks associated with a completely convenient sample, a systematic method was employed, where every third person met was invited to participate in the research. Within three months (January to March 2019), 332 complete questionnaires were gathered. This sample size satisfies the requirement of testing a research model using structural equation modelling (Chin, Peterson, & Brown, 2008).

DATA ANALYSIS

In terms of data analysis, a two-stage Structural Equation Modelling (SEM) procedure was employed. The first stage was to appraise model measurement, employing variance-based SEM, i.e. Partial Least Squares (PLS) using SmartPLS 3.0 to assess the reliability and validity of the construct variables. Second, PLS was employed to test the hypotheses by examining the proposed structured model. PLS is a suitable method to analyze the data and examine the latent constructs used in this study. Furthermore, research trends (Chin et al., 2008) suggest that this method has been successfully used by researchers with non-normally distributed data, as is the case in this study. Additionally, PLS was employed due to its ability to comprehensively assess coefficient paths in a complex model (Hair, Hult, Ringle, & Sarstedt, 2017). PLS was also employed to detect collinearity and common method bias. Kock (2015) suggests that the occurrence of a variance inflation factor (VIF) greater than 3.3 is an indication of pathological collinearity and evidence that the model tested could have a common method bias problem. The result of testing the proposed model of this study shows that all of the VIF values are less than 3.3, indicating that collinearity and common method bias are not serious issues in this study.

RESULTS

Online food customers in Indonesia, as well as in many other countries, are dominated by young and female customers (Utomo, 2019). As shown in Table 1, the majority (61%) of the respondents were female and less than 30 years old (97%), and most were either students or employed. Table 1 displays the characteristics of the sample respondents.

Table 1. Respondent characteristics

Variable	Description	Frequency	%
Gender	Male	129	39%
	Female	203	61%
Age	20 - 25	96	29%
	26 - 30	226	68%
	>31	10	3%
Occupation	University student	153	46%
	Worker	106	32%
	Housewife	40	12%
	Others	33	10%
Average purchased	<2 / month	197	59%
	3-5 / month	101	30%
	>5 / month	34	10%

DATA ANALYSIS

To assess the model's measurement and construct validity, this study used factor loading, composite reliability (CR), and average variance extracted (AVE). Table 2 depicts that all the validity indicators were satisfied as all values fall above the recommended cut-off value of 0.6 (factor loading) except for indicator of 'Intention to purchase even if the price increase' (0.594), 0.7 (composite reliability), and 0.5 (AVE) (Chin et al., 2008; Hair et al., 2017).

Hahn, Sparks, Wilkins, and Jin's (2017) e-service quality measurement revealed that using a second-order approach provides a comprehensive understanding of e-service quality. Following their study, e-service quality in this study was treated as a second-order factor, comprising efficiency, fulfillment, privacy, and system. The reliability check of this variable resulted in the factor loading value range from 0,815 to 0.897, with all significant at p<0.01. The AVE value (0.726), CR value (0.914), and Cronbach's Alpha (0.876) of the e-service quality construct were above the suggested levels, indicating that the second-order e-service quality construct is reliable and valid.

Table 2. Loading of the item measurement model, CR, and AVE

Variable/Indicator	Loading	CR	AVE
Efficiency		0.88	0.65
-Easy to find what I need	0.820		
-Informative	0.823		
-Transaction completed quickly	0.803		
-Easy to get anywhere on this site	0.746		
-Simple to use	0.840		
-Well organized	0.800		
Fulfilment		0.92	0.63
-Delivers orders when promised	0.817		
-Delivering time in suitable time frame	0.718		
-Quick delivers an order	0.707		
-Sending the right items	0.836		
-Product in stock	0.769		
-Honest offerings	0.827		
-The accurate promise about delivery	0.862		
Privacy		0.95	0.86
-Protect shopping behavior information	0.923		
-Not share customer personal information	0.940		
-Protect customer credit card information	0.916		

Variable/Indicator	Loading	CR	AVE
System	0.892	0.92	0.65
-Always available	0.809		
-Runs right away	0.847		
-Not crash	0.768		
-Not buffering	0.796		
Food quality	0.884	0.8	0.51
-Variety	0.712		
-Healthiness	0.645		
-Freshness	0.742		
-Presentation	0.768		
-Taste	0.777		
E-Service Quality		0.94	0.79
-Efficiency	0.895		
-System	0.930		
-Privacy	0.855		
-Fulfilment	0.872		
Perceived Value		0.91	0.76
-Offers reasonable price	0.861		
-Value for money	0.869		
-Cost-benefit ratio of transaction	0.886		
Customer Satisfaction		0.96	0.92
-Experience as expected	0.950		
-Overall satisfied	0.956		
Intention to Repurchase		0.78	0.64
-First choice when need food	0.889		
-Intention to know further prior to next purchase	0.694		
Intention to recommend		0.86	0.76
-Intention to recommend friend and family	0.924		
-Intention to write positive review in social media	0.817		
Willingness to pay more		0.69	0.54
-Intention to change other online food service if price increase	0.848		
-Intention to purchase even if the price increase	0.594		

Finally, discriminant validity across all of the variables was inspected using the Heterotrait-Monotrait ratio method, as seen in Table 3.

Table 3. Heterotrait-Monotrait Ratio (HTMT)

Variable	1	2	3	4	5	6
1. Customer satisfaction						
2. E-service quality	0.745					
3. Food quality	0.699	0.792				
4. Perceived value	0.731	0.893	0.791			
5. Intention to repurchase	0.335	0.327	0.418	0.343		
6. Intention to recommend	0.570	0.537	0.580	0.574	0.377	
7. Intention to pay more	0.322	0.311	0.376	0.350	0.323	0.311

HTMT value is the average of the correlations of indicators across constructs measuring different phenomenon relative to the average of the correlations of indicators within the same construct (Henseler, Ringle, & Sarstedt, 2015). If the indicators of two constructs exhibit a value smaller than one, the true value correlation between the two constructs is most likely different from one. Henseler et. al. (2015) suggest that HTMT value less than 0.9 indicates the evidence of sufficient

discriminant validity. As none of the HTMT value in this study has value higher than 0.9 (Table 3) the requirement of discriminant validity among the constructs in this study is satisfied.

STRUCTURAL MODEL

The second stage of the analysis was to gauge the structure of the proposed research model and test the hypotheses. Following Chin et al.'s (2008) recommendation, this study assessed path coefficients using an iterative bootstrapping procedure. To evaluate the fitness of the model, normal fit index (NFI) and standardized root mean square residual (SRMR) were utilized. The data analysis results revealed that SRMR value is 0.075, less than threshold maximum value of 0.08 (Hu & Bentler, 1999) and NFI value of 0.734, less than the threshold minimum value of 0.9 (Hair et al., 2017). Although this result suggests that the model tested is marginally acceptable, this is not a serious issue as the main purpose of assessing the model is for hypothesis testing.

With the model successful in terms of goodness of fit, the hypothesized relationships depicted in the proposed model were assessed. R^2 is a statistical measure that represents the proportion of the variance for a dependent variable that is explained by independent variables (Hair et al., 2017). The results of data analysis disclose that the e-service quality explains 36.6% variance of food quality. Further, both food quality and e-service quality explain 50.2% variance of perceived value, and all satisfaction determinants explain 55.7% variance of satisfaction. Satisfaction explains 12.0% the variance of intention to repurchase, 29.7% variance of intention to recommend and 14.0% variance of intention to pay more. Further, all values of Q^2 are positive, indicating that the evaluation criterion for the cross-validated predictive relevance of the satisfaction model has been satisfied (Hair et al., 2017).

Another criterion for structural model assessment is effect size (f^2) (Hair, Sarstedt, Hopkins, & Kuppelwieser, 2014). This indicator can be used to analyze the contribution of the predictor construct to the value of R^2 of the endogenous construct (Hair et al., 2014). The f^2 value of each variable can be represented as small (0.02), medium (0.15), and large (0.35), and there is no effect if the value is less than 0.02 (Hair et al., 2017). E-service quality and food quality had a small effect size small (0.115) and medium (0.302) respectively on perceived value. Effect size values of 0.124, 0.060, and 0.114, respectively, represent small of e-service quality, food quality, and perceived value on customer satisfaction. Finally, customer satisfaction has an effect size small on intention to repurchase (0.137), large on intention to recommend (0.423), and medium on willingness to pay more (0.163). All of these indicators suggest that the proposed model of millennial satisfaction with online food delivering model is relatively vigorous.

The significance tests for the relationships among the variables tested in this study is portrayed in Table 4. From the t-values column, e-service quality significantly influences satisfaction (β: 0.311) and food quality (β: 0.605); thus, there is support for hypotheses H1 and H3. The influence of food quality on satisfaction is also significant (β: 0.232) providing support for hypothesis H2. The total influences of both food quality and e-service quality on satisfaction through perceived value are also significant (β: 0.677 and β: 0.258), supporting hypotheses H4 and H5. Lastly, the influence of satisfaction on intention to repurchase (β: 0.347), recommend (β: 0.545), and to repurchase even if the price increase (β: 375), are significant; thus hypotheses H6a, H6b, and H6c are also supported.

Table 4. The result of testing hypotheses

Hypothesis/Path	Direct Effect		Indirect Effect (via Value)		Total Effect	
	β	t-value	β	t-value	β	t-value
E-Service Quality => Satisfaction (H₁)	0.311	4.262**	-	-	0.311	4.262**
Food Quality => Satisfaction (H₂)	0.232	3.488**	-	-	0.232	3.488**
E-Service Quality => Food Quality (H3)	0.605	10.87**	-	-	0.605	10.868**
Perceived value => Satisfaction	0.319	4.546**	-	-	0.319	4.546**
E-Service Quality => Value=> Satisfaction (H₄)	0.311	5.413**	0.366	3.774**	0.677	16.037**

Hypothesis/Path	Direct Effect		Indirect Effect (via Value)		Total Effect	
	β	t-value	β	t-value	β	t-value
Food Quality => Value => Satisfaction (H₅)	0.232	3.884**	0.026	2.003*	0.258	4.111**
Satisfaction => Intention to repurchase (H₆ₐ)	0.347	6.294**	-	-	0.347	6.294**
Satisfaction => Intention to recommend (H₆ᵦ)	0.545	10.52**	-	-	0.545	10.517**
Satisfaction => Intention to price (H₆꜀)	0.375	5.551**	-	-	0.375	5.551**

**significant at p<0.01, *significant at p<0.05

The summary of the relationships between variables tested is illustrated in Figure 2.
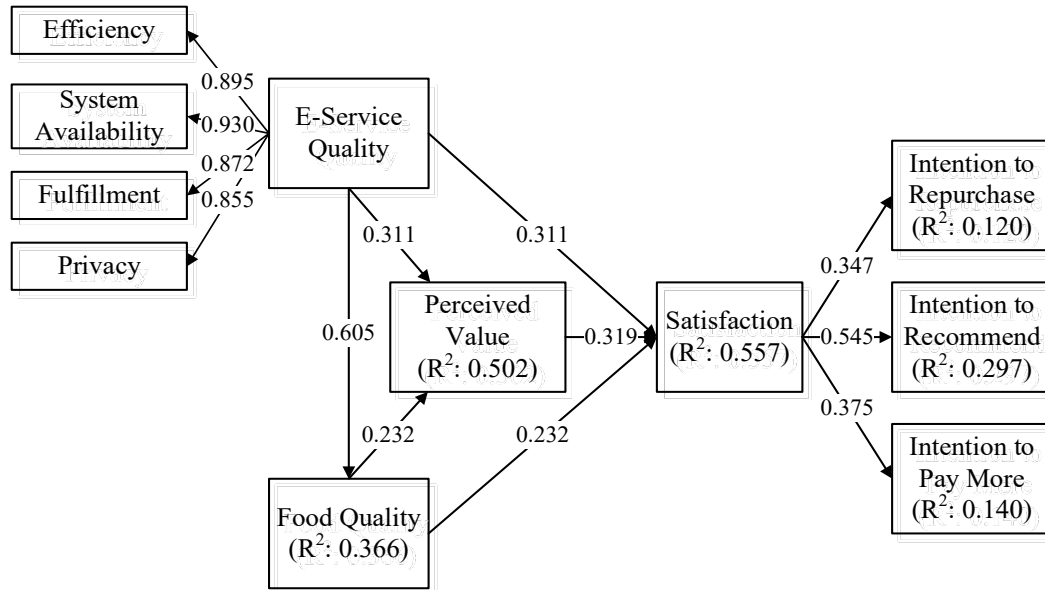

Figure 2. The result of tested model

DISCUSSION AND THEORETICAL IMPLICATION

This study offers important contributions for understanding millennials' satisfaction, especially its antecedents and outcomes with respect to online food purchasing services. This study comprehensively shows that when millennials are purchasing an online food service, both e-service quality and food quality drive perceived value and satisfaction, and when satisfied, they intend to repurchase, recommend and potentially pay more. From a theoretical perspective, the support found for the research model extends existing knowledge (Hsin & Wang, 2011; Nisar & Prabhakar, 2017; Pham & Ahammad, 2017) by highlighting that food quality, e-service quality and perceived value are the main determinants of satisfaction for online food purchasing among millennials. Further, the fact that satisfied millennials tend to repurchase, recommend, and be willing to pay more in the future extends the existing models that look at the associations among quality, satisfaction and behavioral intention (Chang et al., 2009; Kedah et al., 2015; Liu et al., 2017; Pham & Ahammad, 2017). Specifically, in online restaurant purchasing services, both e-service quality and food quality should be included in future models. The findings of this research confirm that a high quality e-service not only influences perceptions of food quality but it leads the millennial customers to higher levels of satisfaction, resulting in their intention not only to repurchase and endorse the restaurant but also to be willing to repurchase even if the price increases.

Besides revealing the importance of e-service quality as satisfaction determinant, this study also highlights food quality as an important source of millennial satisfaction towards online food purchasing.

The importance of both e-service quality and food quality on satisfaction validates past food-related studies (Chang et al., 2014; Namkung & Jang, 2007; Ryu & Han, 2009; Suhartanto et al., 2019), but this study extends that work by finding an additional indirect impact from e-service quality and food quality to customer satisfaction through perceived value. In other words, besides the quality of e-service and food directly influencing millennial satisfaction, it also operates indirectly through strengthening their perceived value. Also, although both e-service and food quality are important determinants, their relative impact on customer satisfaction is unequal. This result differs from Ha and Jang's study (2010) that suggests food quality is the major aspect in determining customer' experience relative to other restaurant aspects. As the overall effect (both direct and indirect) of e-service quality on customer satisfaction is higher than the effect of food quality, this result suggests that in satisfying millennials, the e-service is more important than the food for online food delivery services. Perhaps an explanation of this result is that e-service components, such as privacy, efficiency, system availability, and fulfillment (Parasuraman et al., 2005), are doing more to differentiate the food from other service providers than the food itself for millennial customers.

This study offers a significant finding in explaining the connection between food quality and e-service quality from the perspective of millennial customers. This finding notes that e-service quality significantly affects perceptions of food quality (Suhartanto et al., 2019), in line with the model of service process (de Ruyter et al., 1997). In online food delivery service, a customer's need is food, and the acquiring process begins when the customer searches and orders the food on their connected online device. Thus, customer experience with their chosen online service influences their perception of the quality of the food purchased. This result is consistent with studies involving many restaurants, including fast-food restaurants (Han & Hyun, 2017; Namin, 2017; Ryu & Han, 2009; Suhartanto et al., 2019), that found that how the service is delivered will affect a customer's perception of the food served. Further, this result also supports the notion of the millennial's characteristic of online mindedness (Bilgihan, 2016). Also, the connection between e-service quality and food quality may be explained by spillover theory (Sirgy et al., 2001) in that perceptions of e-service quality "spillover" into perceptions of food quality.

MANAGERIAL IMPLICATION

This study highlights the importance of having high quality e-service and food quality is crucial in satisfying millennials when purchasing online food services. For large restaurants or restaurant chains with abundant resources, or food outlets with existing delivery capability, developing high quality e-services may not represent a difficult challenge (Taylor & DiPietro, 2018). However, the authors believe that creating and managing an online food ordering and delivering system while providing high quality food to other customers, will pose problems for most small and medium restaurants as their resources relatively limited. For these restaurants, it is suggested that they focus solely on their core business of providing food. If they want to offer an e-service, perhaps they should develop strategic cooperation with one or more online food delivery service providers. Collaborating with a delivery service business that has a positive image will assist the small and medium restaurant to offer high e-service quality while satisfying their millennial customers. Tech-savvy food entrepreneurs might be able to capitalize on the relative importance of the e-service by offering online experiences not offered by other online food providers. Perhaps they could offer live-streamed action videos of the cooking and delivering of the food order, complete with interactions with the chef and driver. This type of interaction would not only provide the necessary e-service quality but also provide entertainment for the millennials while they wait for their orders. These types of interactions would help to differentiate the e-service and build stronger relationships with their millennial customers. These types of interactions would help to differentiate the e-service and build stronger relationships with their millennial customers.

CONCLUSION, LIMITATIONS, AND FUTURE RESEARCH

This study highlights the complexity of millennial behavior toward online food delivery services. Their satisfaction with online food services is affected by the performance of the online system, the quality of food delivered, as well as the value offered by the service provider. However, although both e-service quality and food quality are important determinants of millennial satisfaction, the effect of e-service quality on millennial satisfaction with the food delivery service is higher than that of food quality. Further, although this study confirms the link between millennial satisfaction and their behavioral intention, it is suggested that millennial satisfaction has the largest effect on their intention to recommend compared to other behavioral intentions. In short, this study significantly extends our understanding of millennials' satisfaction toward online food delivery services in that a high quality e-service not only influences perceptions of food quality, but it produces millennial satisfaction, which leads to their intention to perform behaviors that marketers would find favorable.

Although offering some important findings, this study has several weaknesses. First, this study uses data gathered from millennials in Indonesia; thus, the findings of this study may not be generalized to other countries and/or generational cohorts. Second, this study examined both in-house and third-party delivery services, so it is difficult to determine whether their satisfaction and potential loyalty are to the delivery service, the food producer, or the combination of the two. Third, in terms of measurement, there are other determinants of satisfaction such as trust, image, involvement, as well as socio-demographic factors that were not examined in this study. Fourth, one of indicators of willingness to pay more, has a factor loading value below the suggested level, indicating that one of the indicators has low statistical validity although it is conceptually sound. Fifth, the online satisfaction model examined in this research assumes a causal relationship between the variables tested. As the data for this study was gathered using a single cross-sectional approach, the cause-effect assumptions in the test results should be considered carefully.

This study offers several avenues for future research. First, to overcome the generalization issue of its finding, future research can reassess the model in different countries and/or with other generational cohorts. Second, to examine whether customer satisfaction and potential loyalty are to the delivery service, the food producer, or both, perhaps in-house and third-party delivery services should be examined separately. Third, future studies could include constructs such as trust, image, involvement, and socio-demographic factors as potential predictors of millennial satisfaction with online food delivery model. Fourth, the low factor loading of willingness to pay more indicator suggests the need for future research to further develop comprehensive indicators of the construct willingness to pay more. Finally, to address the limitations of using a cross-sectional approach, future studies should employ longitudinal designs to examine causality and the dynamics of attitudes and behavior over time.

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APPENDIX: QUESTIONNAIRE

Based on your experience of using the online food home delivery service, please response the following items statements (1 strongly disagree to 5 strongly agree).

E-Service Quality
I felt the online food delivery service .…
(Efficiency)
– was easy to find what I need
– was informative
– can be completed quickly
– was easy to get anywhere on this site
– was simple to use
– was well organized

(Fulfilment)
– delivered orders when promised
– its delivery time was suitable with my time frame
– quickly delivered my order
– sent the right food items
– keep the product in stock
– had honest offerings
– accurately deliver the promise

(Privacy)
– Protected my shopping behavior information
– Not shared my personal information
– Protected my credit card information

(System)
– was always available
– Run right away
– Did not crash
– Was not buffering

Food quality
– The food is consistent
– The food is healthy
– The food is fresh
– The food is well-presented
– The food is tasty

Perceived value
– The service offers reasonable price
– Overall, it is a value for money
– Compared to the price, the service was excellent

Customer satisfaction
– My experience with the service met my expectations.
– Overall, I am satisfied with my experience with the service

Behavioral Intention

Intention to Repurchase
- – The service is my first choice when need food
- – I intend to know further the service prior to next purchase

Intention to recommend
- – I intend to recommend friend and family about the service
- – I am going to write positive review in social media about the service

Willingness to pay more
- – In the future, I will change other online food service*
- – In the future, I will purchase even if the price increase

Demographic characteristic

Gender ☐ Male ☐ Female
Age   ☐ 20-25 ☐ 26-30 ☐ > 31
Occupation   ☐ Student   ☐ Worker   ☐ Housewife ☐ Others
Average purchased ☐ <2/month ☐ 3-5/moth ☐ > 5/month

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