

SUPPORT FOR NATURE-BASED TOURISM DURING THE PANDEMIC: CONSIDERING BOHOL

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INTRODUCTION

In 2020, COVID-19 spread across the world, causing global, national, and local interruptions to society and tourism. Island nations such as the Philippines are especially vulnerable given isolation as well as tourism dependence. As of March 14, 2021, the Philippines have confirmed 631,320 cases, resulting in 12,848 deaths (World Health Organization, 2021). According to WHO, nearly one-tenth of those cases (i.e., 46,776) are found within Central Visayas, which includes the highly tourism-dependent island of Bohol. Government mandates forced many islands and communities into lockdown through the majority of 2020. COVID-19 restrictions resulted in many businesses ceasing normal operations, causing significant economic losses. For residents and communities that are primarily dependent on tourism (like Bohol), resuming tourism is an essential part of their economic recovery. Residents' perceptions and willingness to support nature-based tourism (NBT) are critical for tourism as the Philippines' unique natural landscape draws tourists into numerous rural communities. The tactically located Mactan Cebu International Airport in Lapulapu Cebu facilitates a large volume of tourists to the region (Abocejo, 215). The Bohol's capital city of Tagbilaran hosts the Panglao International Airport (also known as New Bohol International Airport) regional airport, which further connects the island with domestic and international tourists based on statistics from the Cebu Airport statistics from passenger declarations, the number of passengers indicating Bohol was their

destination has more than doubled in two decades from 81,040 in 2001 to 1,581,904 in 2019 (Visitor Arrivals, 2020). The support and revitalization of these businesses will impact the success and sustainability of relaunching the Bohol NBT industry. Using constructs from both the Value-Belief-Norm (VBN) model and the Theory of Planned Behavior (TPB), the proposed study will gauge residents' intentions to support NBT and psychological drivers of this support post-COVID-19.

Global health pandemics have occurred multiple times throughout history. Examples include the Black Death/Bubonic plague (1346-1353), Spanish Influenza (flu) (1918-1920), Severe Acute Respiratory Syndrome (SARS) (2003), Middle East Respiratory Syndrome (MERS)/Middle East Respiratory Syndrome Coronavirus (MERS-CoV) (2012), Ebola (2013), and more recently, the Zika outbreak (2015). Originating in China, COVID-19 has resulted in strict and heavy regional restrictions on tourism travel which has greatly impacted the region, its residents, and businesses. After enduring the year-long global restrictions on travel and peoples' movement across the Asian Pacific region, the tourism industry, both domestic and international, has been significantly impacted. Just in China alone, the pandemic has killed millions of residents and is credited with significantly impacting some tourism sectors in China and heavily injuring others. (Hoque et al. 2020)

The full extent that COVID-19 has had on the Philippines tourism and residents is largely unknown, especially within more rural regions of

the country that are highly dependent on NBT. The island of Bohol is home to multiple NBT attractions, many of which are UNESCO World Heritage Sites. This study will explore residents' perceptions and attitudes of the tourism industry and, ultimately, their intentions to support NBT on the island of Bohol. This study aims to fill this knowledge gap by identifying and predicting residents' intentions support for NBT after the COVID-19 pandemic based on the VBN/TPB models (considering numerous psychological antecedents). This information can help communities, and the Philippines government better understand residents' intentions to support tourism as plans begin to reestablish tourism are underway.

The other gap in knowledge pertains to surmising support for NBT from the residents' perspective. For NBT to be successful and sustainable, the views and opinions of the locals who are typically employed and supported by the industry need to be considered and explored. Though some recent work (Lee & Jan, 2018; Meng, Chua, Ryu, and Han, 2020) has considered the VBN and TPB in tandem to gauge behavioral intentions related to sustainable forms of tourism, such work has centered on tourists' perspectives. Research should be undertaken on the topic from the residents' viewpoints. This study aims to address such a need by focusing on residents of Bohol to determine not only their degree of support for NBT but also the extent to which psychological antecedents (through the VBN and TPB frameworks) contribute to their support. This study will follow a proposed design where the researcher will administer an online digital questionnaire survey (hosted by Qualtrics). In the survey, residents will be asked to respond to numerous multi-item scales corresponding to VBN and TPB constructs shown in Figure 1.

LITERATURE REVIEW

Theoretical background.

This study formulates and tests a model based on established VBN and TPB constructs. Stern et al. (1995) published his seminal work on the VBN model and further validated its measures in subsequent work (Stern, 2000). The VBN, adopted and adapted in countless studies since its inception, examines a causal chain of construct relationships

moving from values → environmental worldview (NEP) → , awareness of consequences (AC) → , ascription of responsibility (AR) → pro-environmental personal norms → behaviors (Stern & Dietz, 1994).

The first construct within the VBN model is comprised of three value dimensions: egoistic, altruistic, and biospheric (Stern & Dietz, 1994). The second construct in the VBN causal chain is ecological/environmental worldview. Since the late 1970s, the 'New Ecological Paradigm' (NEP) scale has been used successfully by many researchers to identify and measure the ecological/environmental worldviews of adults (Dunlap & Van Liere, 1978; Dunlap et al., 2000). Understanding this worldview of an individual allows the researcher to see if the participant views nature/environment as a limited resource or a resource to be subjected to humans as explained by the Dominant Social Paradigm (DSP) (Dunlap & Van Liere, 1978). The NEP was structured and designed to measure participants' views of the environment. Understanding the idea of the human-environment relationship provides insight if they have high or low environmentally protective values.

The third VBN construct is personal Awareness of consequences (AC); this is "when the individual realizes the negative consequences of not conducting pro-environmental behaviors" (Nordfjaern et al., 2019, p. 2383). Ascription of responsibility (AR) is the fourth construct within the VBN model, and it is described as the perceived personal responsibility for the consequence of a choice to be made (Nordfjaern et al., 2019). The fourth construct in Stern's (2000) VBN model is personal norms seen as the results of the previous three constructs, ecological/environmental worldview NEP, AC, and AR. (Chen, 2015). The final construct is behavioral intentions to support NBT.

The Theory of Planned Behavior (TPB) is another framework that explains behavioral intentions (Ajzen, 1991). The framework was initially based on Fishbein and Ajzen's (1975) Theory of Reasoned Action. The core intent of TPB is to explain all behaviors over which people can exert self-control. Core constructs within the model are behavioral intentions, attitudes towards the behavior, subjective norms, normative beliefs, and

perceived behavioral control. The TPB distinguishes between three types of beliefs--behavioral, normative, and control--and between the related constructs of attitude, subjective norm, and perceived behavioral control. (Ajzen, 1991).

This study will adopt three of the five constructs of the TPB. The first construct is the (perceived behavioral control (PBC)); Ajzen added this component to the theory of reasoned action to better predict both the intention and the actual

behavior. The PBC is influenced by the level of the individual ability to perform the behavior in question. (Ajzen, 1991). The second construct is the (subjective norms (SN)); SN is an individual's perception about the particular behavior, which is influenced by the judgment of significant others (Amjad & Wood, 2009). The final two constructs from the TPB are the Negative (NA) and Positive attitudes (PA) about NBT.

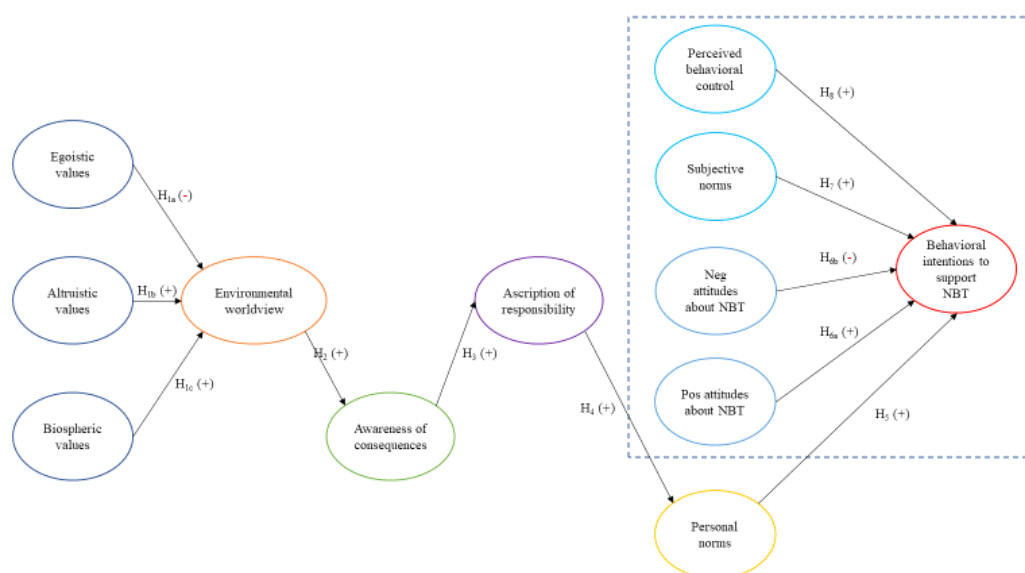


Figure 1: Proposed research model. The four blue ovals inside the dashed box are the TPB constructs

Research merging the VBN and TPB has explained a high degree of variance in individuals' behavioral intentions. Han et al. (2015) revealed that psychological antecedents within both models were significant predictors in explaining tourists' intentions to choose green hotels. More empirical support for the dual use of these two models is shown to be instrumental in identifying the relationship and importance of global climate change as predicted by undergraduate students' beliefs, norms, and pro-environmental behavior intentions using both the VBN and TPB (Yu, 2017)

Conceptual development.

In order to ultimately explain behavioral intentions to support NBT, a research model was formulated by integrating the causal chain of the VBN model with constructs from the TPB into an overarching model (Figure 1). The VBN constructs

adopted into the model are values (i.e., egoistic, altruistic, and biospheric values), ecological/environmental worldviews (NEP), Awareness of consequences, ascription of responsibility, and personal norms. The study also includes constructs from the TPB: perceived behavioral control, subjective norms, positive/negative attitudes about NBT.

PROPOSED RESEARCH METHODS

This study will be undertaken using a survey design. The study population will include Bohol residents who are at least 18 years of age. Multilingual (in English, Tagalog, and Visayan and Cebuano dialects of the Tagalog language) online questionnaires (housed in Qualtrics) will be self-administered in-person using a tablet or phone between June and July of 2022. Participants will

be compensated USD 1. Ideally, between 400 and 500 individuals will complete the questionnaire. In an effort to assess logistical considerations with data collection as well as to determine any potential difficulties participants may have with completing the questionnaire, a pilot test will be conducted among residents in one community at each of the four cardinal points on the island of Bohol to act as a representative sample pool of the residents throughout the rest of the main island of Bohol. The pilot test will consist of 25 surveys in each of the four communities and will be conducted and analyzed for accuracy before the primary data collection is started so that any changes to the survey can be completed.

The researcher will administer the surveys after travel restrictions have been removed during the summer semester of 2022 in communities around popular tourist attractions throughout the main island of Bohol. The questionnaires will include numerous Likert scales measuring each of the constructs proposed in the research model (Figure 1) as well as socioeconomic/sociodemographic variables.

THEORETICAL AND PRACTICAL IMPLICATIONS

This work will test a conceptual model developed from two complementary theoretical frameworks to examine psychological antecedents of residents' behavioral intentions to support NBT. This work will not only give a voice to the residents of Bohol but also aid tourism planners and policymakers in determining how best to proceed forward in managing and planning for NBT in the wake of the COVID-19 pandemic.

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EFFECTS OF CONSUMER INNOVATIVENESS AND PRICE SENSITIVITY ON BEHAVIOURAL INTENTIONS: MODERATING ROLE OF TEMPORAL DISTANCE

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INTRODUCTION

As industries move toward the Fourth Industrial Revolution phase (Industry 4.0), there is an increasing body of research that considers automation technologies as the basis of Industry 4.0 (Ivanov, 2020; Schwab, 2016; Skilton & Hovsepian, 2018). Robotic servers, self-service kiosks, and mobile technology are three types of automation technologies that have been widely studied in the hospitality and tourism literature (Fan et al., 2020; Kim, 2016; Kim & Qu, 2014; Tung & Au, 2018). Since the use of automation technology, especially robotic technology, in the hospitality industry is still in its infancy (Ivanov, 2020), the hotel industry faces various challenges when implementing robotic technology. Applying robotic technology in hotels is costly, and business operators tend to increase the price of their hotel services in order to reach the breakeven point as a result (Oe & Mitsuhashi, 2013). However, these price increases could negatively affect hotels' performance. Price is one of the most important hotel attributes since most hotel customers are price sensitive (Njite & Schaffer, 2017). Previous studies have shown that consumer price sensitivity negatively influences purchase intention, and consumers tend to withhold their purchase intention until the price drops to an acceptable point (Ju & Lee, 2020; Park & Noh, 2012). Therefore, it is predicted that consumer price sensitivity will be a challenge for hotel robotic technology implementation.

Individuals can also have different levels of price sensitivity toward the same products. Consumer innovativeness, a topic widely studied in

the consumer behaviour field, can alleviate the negative effect of certain aspects including price sensitivity on behavioural intentions (Fan et al., 2020; Dai et al., 2015). Therefore, consumer price sensitivity towards robotic hotel service may vary based on the individual consumer's innovativeness level.

Although robotic service is recognized as a future trend of hotel development, the timing of robotic hotel service application remains uncertain. Because of this uncertainty, consumers might hold different opinions on the expected timing of robotic service applications in hotels. Specifically, whether robotic service will become popular and widely used in most hotels in the near future or in the distant future is still up for debate. According to Construal Level Theory (CLT), consumers' preferences or evaluations of an object's are significantly influenced by temporal distance (Trope & Liberman, 2010). This study investigates whether consumer innovativeness and price sensitivity are more or less important for guests expecting robotic service to become popular in the near future than they are for those expecting robotic service to become popular in the distant future.

The purpose of the study is to identify the consumer price sensitivity challenge of robotic hotel service and discover whether consumer innovativeness could weaken the negative effect of consumer price sensitivity or not. Hence, the objectives of this study are to assess (1) the negative effect of consumer innovativeness on consumer price sensitivity, (2) the positive effect of consumer innovativeness on behavioural intention to visit, and (3) the negative effect of price sensitivity on

behavioural intention to visit. In addition, the moderating effect of temporal distance on the above three relationships will be tested.

LITERATURE REVIEW

Innovation diffusion theory (Rogers, 2003) explains consumers' intentions to use robotic hotel service. Rogers (2003) studies the diffusion of innovation from four different aspects: innovation, time, communication channels, and social system. When studying the time aspects, Rogers (2003) defines innovativeness as the tendency to welcome and to adopt new things earlier than most members of a social system. Adopters are categorized into five types based on their tendency to adopt new things: innovators, early adopters, the early majority, the late majority, and laggards (Rogers, 2003). The adopter categorization has been widely used in studies about how different level of innovativeness influence consumers' perception of risks, satisfaction, attitudes, and behavioural intentions (Dedehayir et al., 2017; Guttentag & Smith, 2020; Rogers, 2003; Wejnert, 2002; Yi et al., 2006). The previous literature has justified the following relationships that earlier adopters (individuals who have high innovativeness) tend to have a higher education background, tend to enjoy higher social status, and tend to have a greater tolerance for uncertainties brought on by the new products (Dedehayir et al., 2017; Rogers, 2003; Wejnert, 2002).

The direct and indirect relationship between consumer innovativeness and behavioral intention has been widely studied, and the majority of these studies include one or more mediators between this relationship. Yi, Fiedler, and Park (2006) and Park, Gunn, Lee, and Shim (2015) use innovation characteristics adopted from the Technology Acceptance Model (TAM) and the Unified Technology Acceptance and Utilization Theory (UTAUT) as mediators to test the influence of consumer innovativeness on consumers' behavioural intentions. The mediating roles of consumer satisfaction, price fairness, and overall image of the operation have also been studied in the previous literature (Jin et al., 2016; Kim et al., 2020; Natarajan et al., 2017).

This study focuses on the price related

construct since customers' behaviors intentions are often related to the price of the product (Njite & Schaffer, 2017). However, a previous study conducted in the context of fine dining revealed that there is no significant relationship between consumer innovativeness and price fairness. The study suggests that innovative consumers may be comfortable paying increased purchase prices for high-quality service (Jin et al., 2016). Several studies support the above assumption that instead of considering price fairness, price sensitivity is influenced by consumer innovativeness. A study about determining antecedents of price sensitivity suggests individuals who have higher innovativeness tend to place a premium on the product, which makes them willing to pay more for new products than customers who have lower innovativeness (Ramirez & Goldsmith, 2009). The relationship between innovativeness and price sensitivity has also been justified with research in the fashion shopping and status consumption context (Goldsmith et al., 2005, 2010). The direct relationship between consumer innovativeness and behavioural intention has further been verified in a study of new information technologies and job performance (Yi et al., 2006). The direct relationship between price sensitivity and behavioural intention has been justified in multiple studies. Liang, Choi, and Joppe (2018) claim that consumers' price sensitivity increases customers' repurchase intentions with regard to Airbnb. This relationship is also supported in the context of fashion shopping and hotel cleanliness (Liang et al., 2018; Zemke et al., 2015).

- *H1. There is a negative relationship between consumer innovativeness and price sensitivity.*
- *H2. There is a positive relationship between consumer innovativeness and behavioral intention to use robotic services.*
- *H3. There is a negative relationship between price sensitivity and behavioral intention to use robotic services.*

According to the Construal Level Theory, individuals' perceptions and intentions differ when their psychological distance is different (Trop & Liberman, 2010). Temporal distance is a type of psychological distance (Kim et al., 2018) defined as a subjective experience that something is close

or far away from the self, here, and now (Trope & Liberman, 2010). Temporal distance is studied by asking about the timing of participants' travel plans (e.g. Do you plan to travel in the near future or in the distant future?). The study shows that temporal distance makes a difference in consumers' assessments of hotel attributes (Kim et al., 2018). Though it is predicted that robotic technologies will serve as the basis of future industry development, the rate of implementation of robotic technologies in the hotel industry remains uncertain (Ivanov, 2020). Therefore, temporal distance in the current study context refers to how soon the consumers think robotic technologies will be employed by most hotels (in the near future or in the distant future).

- *H4a. Temporal distance influences the negative relationship between consumer innovativeness and price sensitivity.*
- *H4b. Temporal distance influences the positive relationship between consumer innovativeness and behavioural intention.*
- *H4c. Temporal distance influences the negative relationship between price sensitivity and behavioural intention.*

The theoretical framework involves the three latent constructs with one moderator and six hypotheses. Fig. 1 displays the proposed conceptual model.

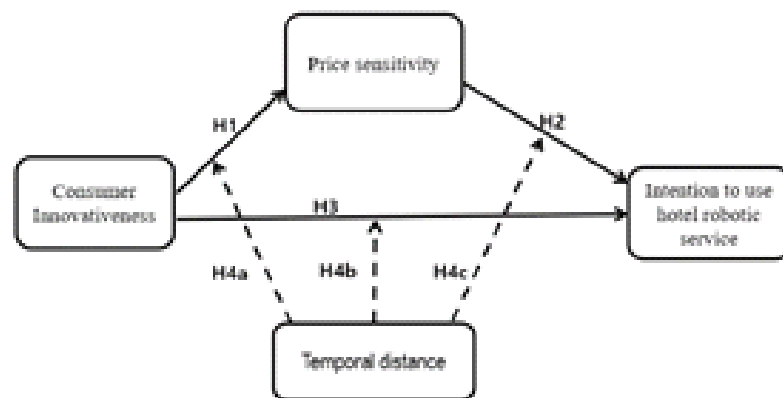


Figure 1. Proposed conceptual model

PROPOSED METHODOLOGY

This study will use a quantitative research method in the format of online surveys. All instruments are adapted from previous literature. To test the moderating role of temporal distance, participants will be separated into two groups by temporal distance (near or distant future). The survey will first ask participants to answer the question, "Do you think robotic technologies will be implemented by most hotels in the next 6 months or in more than 6 months?" (Kim et al., 2018). Consumer innovativeness is assessed with three measurement items (e.g., "I know more about the hotel robotic service before other people do") (Goldsmith & Hofacker, 1991; Jin et al., 2016). Price sensitivity is measured with four items adapted

from Goldsmith et al. (2005) (e.g., "I don't mind paying more to try out robotic hotel service"). Behaviour intention is measured with two items (e.g., "I would like to use robotic hotel service in a future stay") (Kim et al., 2017; Shin, 2009). Measurement items will be modified slightly to fit the context of the study. Data collection will be conducted using Amazon Mechanical Turk, targeting a total of at least 500 valid samples. Correlation and regression analysis will be conducted using IBM SPSS 26.0 to reveal the relationships between constructs and to test the moderating role of temporal distance.

IMPLICATIONS

This study has both theoretical and practical

implications. From a theoretical standpoint, first, the previous literature has shown a strong relationship between consumer innovativeness and perceived product innovativeness (Truong et al., 2017; Zhang et al., 2020). This study could potentially provide insights for future research studies about the relationship between perceived innovativeness and price sensitivity through consumer innovativeness. Second, though previous studies demonstrate that automation technologies are ushering in the Industry 4.0 phase (Ivanov, 2020; Schwab 2016; Skilton & Hovsepian 2018), this study will help to find out if consumers have the same opinion or if they think hotel robotic technology implementation is still far in the future. If the latter is supported, investigating why consumer perceptions of the future availability of automation technology lag behind, and identifying solutions to address this discrepancy, could be an area for future research. Third, this study on hotel robotic service could contribute to the literature by providing a verified framework to test consumer intention towards other technologies used in hotels or in other industries.

With the study's aim of increasing understanding of the potential effects of higher pricing driven by technology adoption, practical implications are also expected. Firstly, as Ramirez and Goldsmith (2009) suggested, price sensitivity shows whether the customer is willing to pay for a premium on the product. This study will reveal whether customers would be willing to pay a premium to stay in hotels outfitted with robotic technologies. The results could give suggestions to hotel management on their pricing strategies. For example, suppose the results support a negative relationship between price sensitivity and intention. In order to retain price-sensitive customers, hotels would need to consider possible solutions such as tiered pricing (e.g. price for stays with and without robotic service). Second, hotel planners could also refer to this study before deciding whether to invest in robotic technologies, as they might not break even by increasing the hotel price if most consumers are revealed to be price sensitive.

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HOW TRUST AND SELF-EFFICACY INFLUENCE FUTURE TRAVEL INTENTIONS? THE MODERATING ROLE OF COMMUNITY TYPES

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INTRODUCTION

The COVID-19 has significantly reshaped the economic, socio-cultural, and political systems all around the globe. The WHO (World Health Organizations) declared COVID-19 as a global pandemic on 12th March 2020. As of now, there are more than 159 M cases reported worldwide, and death counting to 3.3 M (John Hopkins University & Medicine, 2021, Global COVID Cases). Governments and legal authorities undertook various measures worldwide to control the spread of the pandemic. These restrictions and unprecedented crises have made a massive and monumental hit on the global travel, tourism, and hospitality industry. Many of the tourism destinations were closed because of lockdown measures and bans on travel and cancelled bookings, and lack of a supportive environment. In a pandemic, people had taken vacations (domestic or international) with their friends and families, either following or not following the travel guidelines and protocols. From the information sources like social media, newspaper, and television, the travellers belonging to different communities like urban, suburban, and rural areas have mixed responses related to their level of trust while visiting a destination and their self-efficacy to travel. There is no past research that has been explored in this area. So, to address this gap, the current study aims to (1) investigate how the traveller's trust in vaccination and destination and their self-efficacy influences their future travel intentions (2) to identify if there are any moderating effect of community types in the structural relationship among the variables mentioned above.

LITERATURE REVIEW

The federal government, state authorities, policymakers, healthcare sectors, and other support groups must ensure largescale and equitable access to the COVID-19 vaccine. It requires coordinated efforts and well-defined strategies to heighten acceptance and trust among people. Once the public gains trust and confidence in the vaccine, people will be ready to travel (Kim et al., 2021). The concept of "vaccine tourism" also gained popularity, where travellers prefer to visit other states for their vaccine appointment and visit their destinations (Findell & Montes, 2021). The successful acceptance of the COVID-19 vaccine will influence the traveller's future travel intentions and accelerate the travel and tourism industry's recovery stage. Thus, it can be hypothesized that.

- H1. Trust in vaccination significantly influences future travel intentions.

Trust is the individual's willingness and security to depend on other people or other things (Sapientza et al., 2013). It is also a complex neural process that binds diverse representation into a sematic pointer that includes emotions. Destination trust refers to a traveller's willingness to rely on a destination's ability to perform its promised functions (Abubhakar et al., 2017). Due to the changing nature of the tourism and hospitality products and services, destination marketer must ensure promised service during advertisement and promotion. The integrity and transparency of service offerings of a destination result in the trust that tourist develops for such destinations. As trust is the best method to reduce uncertainty and risk perception, travellers are more likely to visit a destination, which is dependable and trustworthy. In this scenario, the destination trust will generate

a more favourable attitude towards the destination and intention to visit the destinations. Thus, it can be hypothesized that.

- H2. Destination trust significantly influences future travel intentions.

Self-efficacy can be interpreted as someone's ability to act rationally in a physical and social environment. It is also defined as an individual's belief in their capabilities to meet the situation demands (Wang & Xu, 2015). It exists when people believe that an environment can facilitate their activities (Ginting, 2016). In the context of travel and tourism, a traveller's self-efficacy can be related to a kind of belief of how well he/she can execute a course of action using his/her capacity (Hallak et al., 2015). It determines the feeling of ease or difficulty in each situation, and it can predict the intention to adopt behaviour in that given circumstance. Thus, it can be hypothesized that.

- H3. Self-efficacy significantly influences future travel intentions.

Exploring the role of community types (Urban community, Suburban community, and Rural community) has been very rarely explored in the field travel, tourism, and hospitality filed. Singgalen et al. (2019), investigated the role of community participation in rural tourism development and found that the community participation in the rural tourism development showed the control society in the tourism planning, implementing, and evaluating the development programs. Past studies also have identified that the travelers' varying levels of attitude and behavior belong to different. In COVID-19, it was visible that there were varying travel intentions between urban, suburban, and rural communities (Anwari et al., 2021). Thus, it can be hypothesized that.

- H4. Community types significantly moderate the relationship between traveler's trust in vaccination and future travel intentions.
- H5. Community types significantly moderate the relationship between traveler's destination trust and future travel intentions.
- H6. Community types significantly moderate the

relationship between traveler's self-efficacy and future travel intentions.

METHODOLOGY

The current study was done among the travellers who had travelled or taken vacation trips since the outbreak of the COVID-19 pandemic in March 2020. To test the hypotheses, a questionnaire was developed based on a comprehensive review of literature, and the measurement items for each construct were adopted and modified to fit the purpose of this study. Qualtrics, an online survey platform, was used for the data collection. Before the actual survey, a pilot study among 50 samples was undertaken to ensure the validity of the survey instruments used in the actual survey. During the data collection, 400 samples were collected, and after removing unwanted and unusable samples, 368 samples have been compiled and analysed using SPSS and IBM Amos.

RESULTS

Out of the 368 samples, 197 samples were males, and 171 were females. The first step is to assess the overall model fit of the measurement model using Confirmatory Factor Analysis (CFA). Each goodness-of-fit indices for our measurement model implied that the model fit well with the data, $\chi^2 (48) = 120.31$, $p < 0.001$, $\chi^2/df = 2.506$, TLI = 0.94, and RMSEA = 0.64 (90% CI: 0.05 – 0.08). Moreover, all constructs have the acceptable score of composite reliability coefficients ranging from 0.80 to 0.84, suggesting internal consistency. Factor loadings of all items ranged from 0.80 to 0.84, and average variance extracted (AVE) of all constructs exceeded the threshold level of 0.50, thus indicating the ensured convergent validity. Moreover, all squared multiple correlation coefficients were lower than all average variance extracted (AVE) of the constructs, which indicated that discriminant validity was achieved in the model.

Table 1. Convergent and discriminant validity

Constructs	Trust in Vaccination	Destination Trust	Self-Efficacy	Travel Intentions
Trust in Vaccination	0.76 ^a			
Destination Trust	0.56 ^b	0.78		
Self-Efficacy	-0.19	-0.04	0.77	
Travel Intentions	0.59	0.72	-0.03	0.78
CR ^c	0.80	0.84	0.82	0.82

^a Average variance extracted (values on the diagonal), ^b Squared multiple correlation, ^c Composite reliability.

Table 2. Results of CFA

Construct/Items (Cronbach's α)	Mean	Standard Deviation	Factor Loadings
Trust in Vaccination ($\alpha = 0.80$)			
Trust in Vaccination 1	3.68	1.08	0.706
Trust in Vaccination 2	3.63	1.07	0.722
Trust in Vaccination 3	3.86	1.05	0.847
Destination Trust ($\alpha = 0.84$)			
Destination Trust 1	3.68	1.22	0.76
Destination Trust 2	3.58	1.06	0.88
Destination Trust 3	3.65	1.19	0.75
Self-Efficacy ($\alpha = 0.81$)			
Self-Efficacy 1	3.62	1.21	0.71
Self-Efficacy 2	3.57	1.15	0.86
Self-Efficacy 3	3.80	1.15	0.75
Travel Intentions ($\alpha = 0.82$)			
Future Travel Intention 1	3.82	1.08	0.84
Future Travel Intention 2	3.88	0.98	0.73
Future Travel Intention 3	3.89	0.94	0.75

χ^2 (48) = 120.31, $p < 0.001$, $\chi^2/df = 2.506$, TLI = 0.95, and RMSEA = 0.64 (90% CI: 0.05 – 0.08).

After assessing the validity of the measurement model, Structural Equation Modelling (SEM) was conducted to analyse the structural model. Each goodness-of-fit indices for our structural model implied that the model fit well with the data, χ^2 (51) = 220.828, $p < 0.001$, $\chi^2/df = 4.33$, CFI = 0.91, TLI = 0.89, and RMSEA = 0.08 (90% CI: 0.07–0.09). The results of structural equation modelling (SEM) analysis with the standardized path coefficient. Results from the SEM analysis showed that the positive impacts of trust in vaccination on travel intentions ($\beta = 0.31$, $p < 0.001$), destination trust on travel intentions ($\beta = 0.60$, $p < 0.001$), and self-efficacy on travel

intentions ($\beta = 0.05$, $p < 0.05$) were all significant, indicating that hypotheses 1, 2, and 3 were supported. Overall, the three variables caused 74.4% variation in travel intentions. The moderating effect of community types on the structural relationship among trust in vaccination, destination trust, self-efficacy, and travel intentions was tested to determine if there were any significant differences among urban, suburban, and rural respondents. Structural equation modelling (SEM) with moderation can assess the significance of relationships between the corresponding latent variables in urban, suburban, and rural communities.

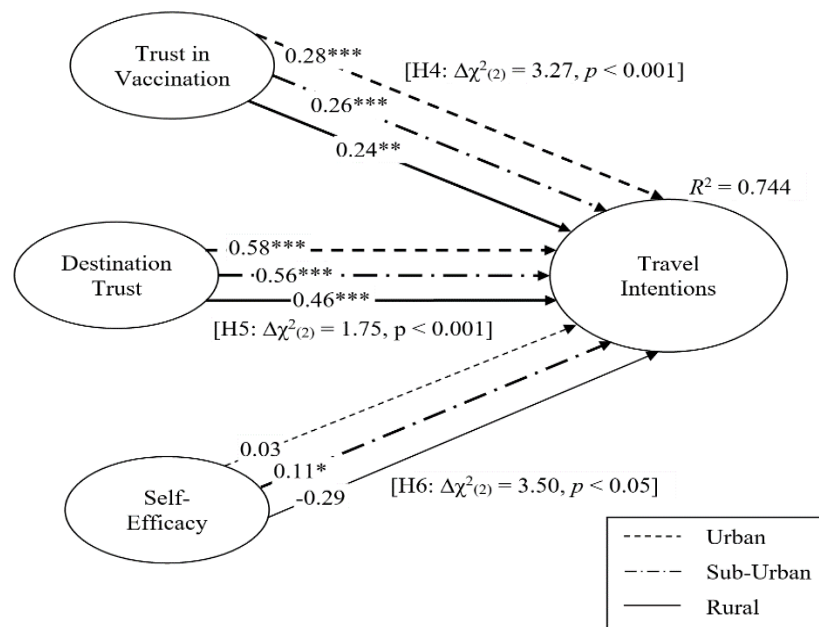


Figure 1. Results of the moderation effects of community types. $\chi^2(153) = 390.71, p < 0.001, \chi^2/df = 2.56, CFI = 0.87, TLI = 0.83, RMSEA = 0.065$ (90% CI: 0.057–0.073). * $p < 0.05$, *** $p < 0.001$.

The results showed that there is a significant difference among communities in the relationship between trust in vaccination and travel intentions ($\Delta\chi^2(1) = 3.27, p < 0.05$) and the relationship between destination trust and travel intentions ($\Delta\chi^2(1) = 3.50, p < 0.05$), supporting hypothesis 4 and 5. However, hypothesis 6 was not supported. More specifically, the relationship between trust in vaccination and travel intentions was stronger for urban respondents ($\beta = 0.28, p < 0.001$) than for sub-urban respondents ($\beta = 0.26, p < 0.001$) and

for rural respondents ($\beta = 0.24, p < 0.001$). Similar results were observed in the relationship between destination trust and travel intentions. Urban respondents had stronger relationship between destination trust and travel intentions ($\beta = 0.58, p < 0.001$) as compared to sub-urban respondents ($\beta = 0.56, p < 0.001$) and rural respondents ($\beta = 0.46, p < 0.001$). However, the relationship between self-efficacy and travel intentions was only significant in case of sub-urban respondents ($\beta = 0.11, p < 0.05$).

Table 3. Test of measurement invariance in urban, sub-urban and rural groups.

	χ^2	df	$\Delta\chi^2$	Δdf	RMSEA (90% CI)	CFI	TLI
Unconstrained	269.27	144			0.05 (0.04 – 0.06)	0.93	0.90
Constrained	273.95	150	4.68	6	0.05 (0.04 – 0.06)	0.93	0.91

DISCUSSIONS

The objective of this study was to investigate how the traveller's trust in vaccination and destination and their self-efficacy influences their future travel intentions and to identify the moderating effect of community types. Overall, the findings align with the existing literature and revealed essential implications for the hospitality and tourism industry. First, the study shows a significant relationship between traveller's trust in

vaccination and destination and their self-efficacy on their future travel intentions. The moderating effect of community types was identified among the relationship between travellers' trust in vaccination and destination with their future travel intentions. This study helps to understand better the traveller's behaviour and their future travel intentions. The trust in vaccination and destinations trust reveals that the travel, tourism, and hospitality industry is already in the recovery phase. People are more convinced by trusting the destinations they

had visited during the pandemic; it can be assumed that more and more people will be ready to travel in the coming months. The moderating effect of the community types reveals that destination marketers need to design specialized marketing strategies based on the targeted communities rather than a common one. It implies the fact that one strategy will not fit all.

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AMID COVID-19: THE IMPACT OF ONLINE FOOD DELIVERY SERVICE ON RESTAURANT FINANCIAL PERFORMANCE AND CUSTOMER'S INTENTION TO USE SUCH SERVICE

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INTRODUCTION

For restaurant customers, excellent food in conjunction with high-quality service and good atmosphere contribute to an excellent overall dining experience (Ryu et al., 2021). In restaurant industry, service has been recognized as one of the effective tools to gain competitive advantage (Voon et al., 2013). When higher quality service presented on customer "touch points", customers gain better perception of the quality. However, COVID-19 caused acute problems in the service industry, especially for restaurants. Customer's touchpoints were eliminated to the maximum extent to avoid the spreading of disease. To survive in the crisis, the most commonly utilized risk strategy in restaurant firms is to shift focus to food delivery service. Customers also utilized this service more than ever as a risk reduction strategy.

Based on this background, research on the competitive advantage of online delivery service for restaurant business amid COVID-19 is urgently needed. Factors that have impact on food delivery sales need to be identified for restaurant's strategic planning. Besides, restaurant firms need to understand customer's intention to use such service amid COVID-19 to maximize sales revenue. The purpose of this study is to provide suggestive survival and sustainable risk strategies for restaurant firms from the effect of COVID-19. To do so, two studies will be conducted: Study 1 is a preliminary study on the impact of online food delivery service on restaurant's financial performance during COVID-19; Study 2 explores the customer's intention to use online food delivery service during COVID-19 under online payment concerns.

LITERATURE REVIEW

Industrial background.

On March 11th, 2020, The World Health Organization (WHO) declared the novel Coronavirus (COVID-19) outbreak a global pandemic (Cucinotta & Vanelli, 2020). Updated in October, 2020, Center of Disease Control (CDC) announced that the disease mainly spreads between people who are in close contact with one another (within 6 feet) through inhaling droplets or small particles produced by infected person. To reduce of COVID-19 transmission, the World Health Organization (WHO) recommended series of self-protection actions such as wearing mask in public, social distancing, self-isolating to avoid direct and indirect contacts among people (Cucinotta & Vanelli, 2020). This happening led hospitality businesses to a tremendous crisis. Restaurants were forced to close, then some of them reopened with reduced seating capacity in corporation with the social distancing policy. Severson and Yaffe-Ballany (2020) estimated that 75 percent of the independent restaurants that have been closed due to COVID-19 would lose their business. Majority of the restaurant shifted to offering online food delivery service for competitive advantage amid the crisis (Kim & Lee, 2020).

Developing competitive advantage can be considered a critical factor for business (Bressler, 2012). In 2007, the fast-food company, Pizza hut, was the first to focus on delivery service which eventually drove company's growth (Daryanto, Nasution, Fadeli, 2020). Its success has validated the competitive advantage of food delivery service for restaurants before COVID-19 (Statista, 2020). Amid COVID-19, the performance of delivery

service sales and its impact on restaurant's overall business performance could be further studied. This leads to the research question for study 1.

- RQ1: How COVID-19 and derivative business restrictions signify sales from food delivery services and financial performance of restaurant firms?
- RQ2: What factors are contributing to the change of food delivery sales amid COVID-19?

Theoretical background.

Theory of Planned Behavior (TPB) is an extension of the theory of reasoned action (TRA). TRA has been criticized by previous researchers, because the model solely concerns with rational, volitional, and systematic behavior (Fishbein & Ajzen, 1975; Chang, 1998). Ajzen (1985, 1991) then incorporated these considerations into the Theory of Planned Behavior (TPB) by adding the non-volitional control-perceived behavior control factor. With this development, intention could be better examined through personal surroundings (Attitude), social surroundings (Subjective norm) and non-volitional determinants (Perceived behavior control). The TPB model has been validated by many researcher: Hansen, Jensen and Solgaard (2004) predicted online grocery buying intention; Kim, Ham, Yang and Choi (2017) analyzed consumers' intention to read menu labels in restaurant; Han and Kim (2010) investigated the hotel customers' decision formation through an extended TPB model; etc.

Amid COVID-19, customers started to take risk reduction strategies to minimize perceived risks (Mitchell & McGoldrick, 1996). According to Sjoberg (2000), perceived risk means individuals' psychological evaluations of probability and consequences. Yildirim & Güler (2020) believed that risk perception is an important determinant of people's willingness to engage in certain behavior. In the context of this paper, the perceived risk refers to customer's evaluation of chance of virus infection when purchase from restaurant in COVID-19. Although the original TPB model has gained much

support, the unique circumstances caused by COVID-19 will be added to the model to understand consumers' online food delivery service comprehensively. Customer's perceived risk of COVID-19 was proven to have significant impact on customer's attitude social influence and perceived behavior control relatively by previous scholars (Kim and Lee, 2020; Choi, Lee and Ok, 2013; Zhao and Bacao, 2020.)

With the technology development associated with online food delivery service, concerns towards online payment when ordering online was brought to researcher's attention. Brown and Muchira (2004) identified three specific privacy concerns that have been identified as being important to customers: Unauthorized secondary use of data, privacy invasion and errors. Among these concerns, errors and invasion of privacy was proved to have significant inverse relationship with online purchase behavior (Brown and Muchira, 2004).

Based on this background, study 2 will expand the TPB model to include more related variables: the perceived risk of COVID-19 and customer's concern of online payment concerns. Conceptual model and hypothesis for study are listed below:

- H₁: Customer's positive attitude towards food delivery service is positively associated with purchase intention for food delivery service.
- H₂: Subjective norm is positively related to purchase intention for food delivery service.
- H₃: Higher perceived behavioral control is positively related to purchase intention for food delivery service.
- H₄: Increased perceived Risk of COVID-19 is positively related to positive attitude towards the purchase of food delivery service.
- H₅: Increased perceived Risk of COVID-19 is positively related to subjective norms.
- H₆: Increased perceived Risk of COVID-19 is positively related to increased perceived behavioral control.
- H₇: Increased perceived Risk of COVID-19 is positively related to food delivery service purchase intention.

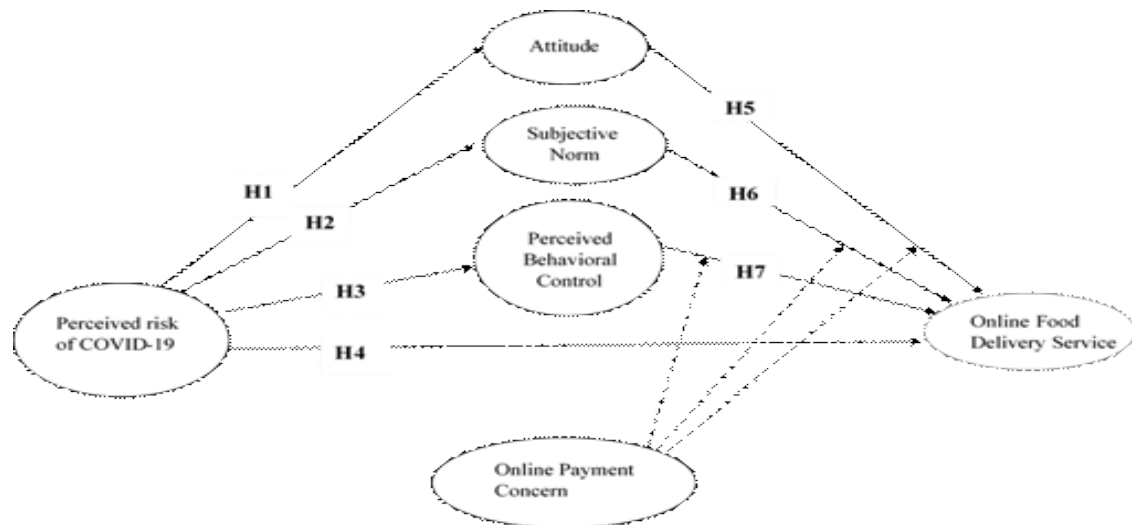


Figure 1. Conceptual Model with Hypothesis

PROPOSED METHODOLOGY

Study 1.

To comprehensively explore potential influential factors that affect impacts of COVID-19 on the restaurant delivery sales, this study will collect the information of restrictive measures that

affect restaurant operations from local government. The information includes shutdown period and economic reopening steps at the regional level. The dummy for COVID-19 and different restaurant attributes were regressed against monthly sales. The formulated model was estimated with fixed-effects analysis.

$$\ln SALES = \beta_0 + \beta_1 PANDEMIC + \beta_2 REGION + \beta_3 RATE + \beta_4 REVIEW + \beta_5 PRICE + \beta_6 DERLIVERY + \beta_7 FEE + \beta_8 MINIMUM_i + \beta_9 BRAND + \varepsilon$$

The average monthly delivery sales of individual operations in 2019 and the first and second quarters of 2020 were collected from Meituan, the largest food delivery service provider in China. To test the influence of business restriction amid COVID-19, this study will include both an area with no business restriction (group 0: Shanghai) and areas with full business restriction (group 1: Hangzhou, and Xian). Dependent variable (SALES) is average monthly sales per restaurant operation. Independent variables include PANDEMIC (0 for 2019, 1 for 2020 (1st quarter)), REGION (1 for cities, where restaurants could not run their business during the shutdown period and 0 for otherwise), RATE (average overall ratings of OCRs per restaurant operation), REVIEW (total number of OCRs per restaurant operation), PRICE (average RMB amount per order), DERLIVERY (average delivery time per restaurant operation), FEE (average delivery fee per restaurant operation), MINIMUM (minimum RMB amount of order for

delivery service per restaurant operation), and BRAND (0 for weak brands, 1 for strong brands).

Study 2.

A quantitative research will be conducted to investigate the customers' purchase intention towards online food delivery service during COVID-19 by integrating the Theory of Planned Behavior (TPB) model. A survey generated through Qualtrics will be distributed to samples. The final survey instrument will include items to examine the respondents' socio-demographics (age, gender, marital status, education level, family size) and their behavior pattern illustrated by 6 included constructs. Table 1 lists the total 27 items describing the constructs. All constructs will be measured on a seven-point Likert scale (1= "strongly disagree", and 7 = "strongly agree"). Simple random sampling methodology will be used to recruit participants. To test the moderator factor of customer's concerns towards online payments, ample will be separated

into two groups based on whether or not they are concerned about online payments.

To test hypotheses, the two step-approach suggested by Anderson and Gerbing (1988) was employed. First, confirmatory factor analysis will be conducted to reduce measurement error resulted

from construct with various indicators. Several fit indices will be used to access the measurement model fit, including chi-square, Root mean square error of approximation (RMSEA), Comparative fit index (CFI), and Non-norm fit index (NNFI).

Table 1. Measurement items

Measurement items	Adapted from
Attitude towards online food delivery service	
Item 1: I think using online food delivery service is useful	Lee, (2009)
Item 2: I am strongly in favor of using online food delivery service	
Item 3: I desire to use online delivery service when I purchase food	
Subjective norm	
Item 1: People who are important to me think I should use online food delivery service	Lee, (2009)
Item 2: People who influence me would think I should use online food delivery service	
Item 3: People whose opinions are valued to me would prefer that I should use online food delivery service	
Perceived behavioral control	
Item 1: I think that I would be well capable of using OFDS to buy food well.	Lee, (2009), Shin & Hancer (2016)
Item 2: I think that using online food delivery service would entirely within my control	
Item 3: I think that I have the resources, knowledge, and ability to use online food delivery service.	
Item 4: I am confident that I could use online food delivery service if I want to	
Item 5: I think it is easy to use online food delivery service	
Item 6: whether I purchase food through online food delivery service is entirely up to me.	
Customer intention to use online food delivery service	
Item 1: I intend to use online food delivery systems in the future	Venkatesh, et al. (2003), Cho, et al. (2019)
Item 2: I will always try to purchase food through online food delivery service	
Item 3: I will recommend to others to use online food delivery service	
Item 4: Online food deliver service would be among my favorite technologies	
COVID-19 perceived risk	
Item 1: I think the perceived possibility of me acquiring COVID-19 is high	Yildirim & Guler (2020)
Item 2: I think the perceived possibility of me acquiring COVID-19 compared to other persons is higher	
Item 3: I think the perceived possibility of dying from COVID-19 is high	
Item 4: I think the perceived possibility of other disease (e.g. diabetes/asthma)	
Item 5: I fear for myself contracting COVID-19	
Item 6: I fear for a family member contracting COVID-19	
Item 7: I fear for COVID-19 emerging a health issue	
Item 8: I fear for COVID-19 occurring in the region	
Concerns towards online payment	
Item 1: I feel concerned about my privacy when paying online	Haddad & Hage (2018)
Item 2: I feel concerned about my financial loss when paying online	
Item 3: I believe that my personal and financial information I provided when I pay is sensitive	

In this study, individual item reliability will be tested through Cronbach's alpha. The suggested cut off point is greater than 0.7. Reliability of the construct or the latent variables will be tested by composite reliability and the average variance extracted (AVE). The assessment by composite reliability and AVE provides the convergent validity of the measurement model. The composite reliability is a measure of scale reliability, it should be equal or greater than 0.70 (Hair et al, 1998). The AVE reflects the amount of variance that is captured by a construct in relation to the amount of variance due to measurement error. An AVE above 0.50 indicates the convergent validity (Fornell & Lacker, 1981). Construct validity mainly includes convergent and discriminant validity (Shuttleworth, 2009). Factor loadings through CFA can illustrate convergent validity. Discriminant validity expounds whether unrelated measurements are unrelated or different. By comparing the square root of AVEs to correlation coefficient among constructs, we can determine if discriminant validity of the constructs are supported.

In the second step, Structural Equation Model (SEM) will be conducted to help holistic relationship among latent factors. Structural model fit indices will be employed to test the proposed hypothesis in conceptual model. In the structural model, the coefficient of each relationship will be measured. To offset flaws of any single index and strictly evaluate the model, multiple indices are considered in this study, including chi-square, RMSEA, CFI, and NNFI.

THEORETICAL AND PRACTICAL IMPLICATIONS

Theoretical Implications.

This paper will use mixed methodologies to validate the importance of online food delivery service. Study 1 utilized regression analysis to prove the positive correlation of online delivery service and restaurant sales amid COVID-19. It provides a solid foundation for the study of customer intention to use online food delivery service. Study 2 integrates the up-to-date topics within Ajzen's (1985) theory of planned behavior, such as the impact of COVID-19 and customer's concern towards online payment. The expanded structural model will predict the relationship between customer's perceived risk of COVID-19, customer's

attitude towards online food delivery service, subjective norms, the perceived behavior control, and customers intention to use online food delivery service. This will not only contribute to the existing literature of customer intention studies on online food delivery service, but also offer a precedent of utilizing mixed methodologies for future researchers.

Practical Implications.

The result of this paper will confirm food delivery service an effective sales diversification strategy for restaurants business to minimize negative impacts of restricted business environment and to survive from the impact of such pandemic disease as COVID-19. Results of the study 1 can provide explanatory factors that explain how COVID-19 affects food delivery sales and how such sales can be affected by operational characteristics amid business restriction. So, restaurant firms should set risk/crisis strategies and maximize the utility of food delivery options as one of main service delivery process permanently. In addition, from results of study 2 restaurant firms and managers will be able to better understand customer's intention towards online food delivery service and impacts of perceived risks and concerns on online payment method, therefore conduct specific and efficient strategic marketing plan to increase better appeal to customers on the online sales platform, which allows restaurant firms to maximize sales revenues from the food delivery.

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CONSUMER'S SUSTAINABLE CONSCIOUSNESS AND COOKING RELATED FACTORS: THE ROLE OF PERCEIVED CONSUMER EFFECTIVENESS

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INTRODUCTION

Currently, the number of people interested in sustainable consumption has increased tremendously, particularly in developed countries (de-Magistris et al., 2012). Since the 1987 publication of *Our Common Future* by the United Nations World Commission on Environment and Development (known as the Brundtland Commission) marked the stabilization of the term “sustainable” as a prominent component of the discourse on the global future (UN, 1987), research on sustainability has emerged as the dominant description (Bansal 2005). Elkington's (1997) triple bottom line approach further emphasized that the three core dimensions of sustainability—environmental quality, social justice and economic prosperity—are closely interlinked. Therefore, requirements of all three dimensions (planet, people, and profit) should, ideally, be met simultaneously (Balderjahn et al., 2013).

Companies increasingly recognize stakeholders' expectations to commit to sustainability, and it has become a prerequisite for firm legitimation (license to operate) and long-term competitiveness (Lubin and Esty 2010). Likewise, consumers are expected to consume sustainably and pave the way for a sustainable development (Caruana and Crane 2008). Thus, a clearly revealed consumer consciousness for sustainable consumption will help motivate and reinforce appropriate activities of companies, as well as impact the activities of political influential role in attaining sustainability goals (Balderjahn et al., 2013).

Although research on sustainable consciousness has been consistently conducted with respect to consumer consumption (Balderjahn et al.,

2013; de Carvalho et al., 2015; Ghvanidze et al., 2016), there has been no study of the relationship between consumption and cooking behaviors. Therefore, this study will investigate the relationship between Consumer's Sustainable Consciousness and Cooking Behavior, and the role of perceived consumer effectiveness.

Purpose & Objectives

This study aims to investigate the role that PCE plays in the relationship between consumers' consciousness of environmental, social and economic food consumption, as well as the cooking confidence, cooking attitudes and cooking behaviours. Specific research objectives are: (1) To identify the causal relationships of PCE on sustainable consciousness (2) To identify the causal relationships of sustainable consciousness on Consumer cooking related factors (3) To analyze the effect of PCE on the impact of sustainable consciousness on cooking related factors.

Literature Review

Sustainable food consciousness

The concept of sustainability in general and food sustainability, in particular, entails many aspects and many interpretations (Aiking & de Poer, 2004). Sustainable food consumption was defined by the Food and Agriculture Organization as “diets protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources” (FAO, 2010). In accordance with the Triple bottom line concept (planet, people, profit) on sustainable development, Balderjahn et al., (2013) presented the consciousness for

sustainable consumption (CSC) scale as an intention to consume in a way that enhances the environmental, social and economic aspects of quality of life. CSC scale consists of consciousness for environment, consciousness for social consumption, and consciousness for economic consumption. (Balderjahn et al., 2013).

Perceived Consumer Effectiveness

Recently, the concept of perceived consumer effectiveness (PCE) has been applied extensively to explain the motivations for environmental behaviour and attitudes. Researchers typically link PCE with social and environmental consciousness (Ghvanidze et al., 2016). Broadly, PCE can be defined as the extent to which the consumer believes that his or her own efforts can make a difference and contribute to solving a social and environmental problems (Ellen et al., 1991; Meijboom & Brom, 2012). If consumers believe that their behaviour will have an impact on the desired outcome, PCE may affect consumer behaviour. Thus, high PCE is needed in order for consumers to translate their positive attitudes into the actual purchase (Vermeir & Verbeke, 2006).

Consumer Cooking Related Factors

Despite the importance of cooking in modern life, little is known about behaviours and perceptions of cooking in the USA (Drewnowski A, 2004); much less is known about this critical intermediate step than is known about either food access or consumption. Available evidence suggests that adults in the USA spend less time cooking now than in the past (Zick and Steven, 2010). Yet, Americans currently report living in households where dinner is cooked on average five nights per week, with over half cooking dinner six or seven times weekly (Virudachalam et al., 2014), and almost half of all food dollars are spent on food consumed at home (US Department of Agriculture, 2014).

Research also suggests that cooking confidence and positive attitudes about cooking are important determinants of cooking behaviour, perhaps even more than specific cooking skills. For example, individuals who report confidence about their cooking are more likely to enjoy cooking, cook a wider variety of foods and experiment with new foods (Wolfson, et., 2016)

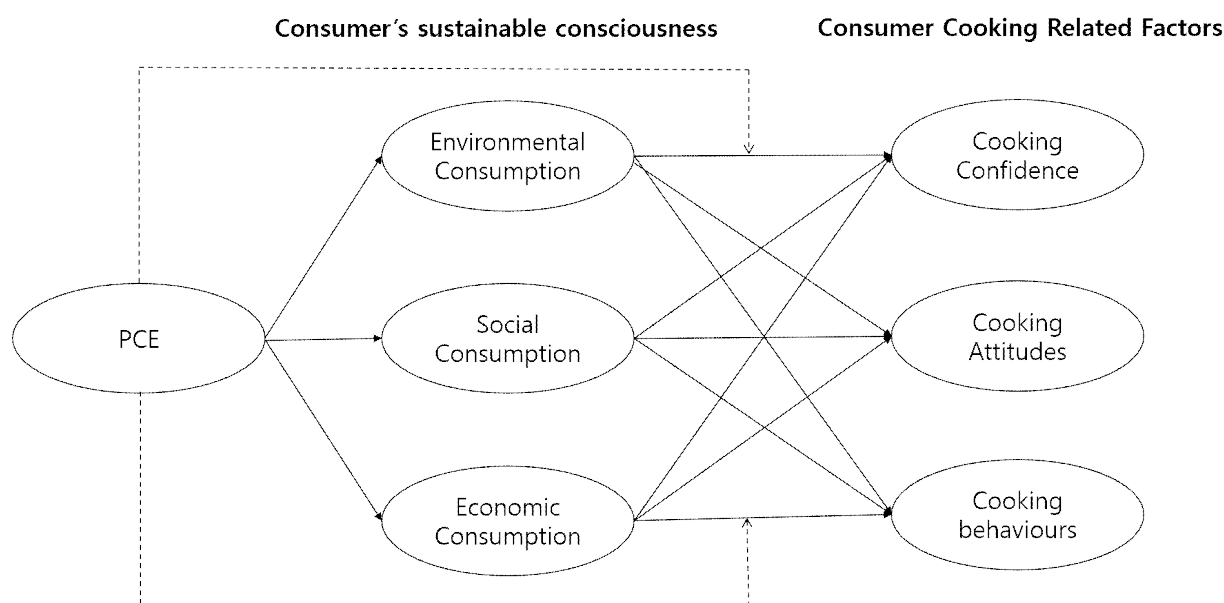


Figure 1. Conceptual Framework PCE

Research Question.

1. To what extent consumers' socio-demographic characteristics predict their perceived consumer effectiveness, environmental consumption, social consumption, economic consumption?
2. To what extent consumers' socio-demographic characteristics can predict the Cooking confidence, cooking attitudes and cooking behaviors?
3. How does PCE moderate the impact of

sustainable consciousness on cooking related factors?

METHOD

Samples

The survey will be conducted through the convenience sampling of 800 adults live in South Korea.

Research Instrument

Based on previous research, a questionnaire will be designed to measure the impact of behavioral factors presented in the conceptual framework of the study (namely, perceived consumer effectiveness, consciousness for environmental consumption, consciousness for Social consumption, and consciousness for Economic consumption) on the cooking confidence, cooking attitudes and cooking behaviors.

In order to test measures, a pilot study will be conducted. The pilot study will be implemented as an online survey to a database of food consumers. Initially, the variance and the deviation will be tested and items with less deviation will be excluded from the factor scales.

Next reliability of the scales and the separation efficiency of the items will be tested respectively.

The final survey will be pre-test among 30 respondents and slight modifications to the survey will be made.

Data Collection

The empirical analysis will be conducted through an online survey.

Data Analysis

Initially, the descriptive statistics for the consumer behavioral factors and the consumer cooking related factors will be performing. Means and standard deviations will be tested first, followed by a principal component analysis with varimax rotation for the items of behavioral factors and the consumer cooking related factors. Regression analysis will then be conducted to investigate the predictors of the behavioral factors and the consumer cooking related factors by demographic variables. In the next step, a series of regression

analysis will be conducted to analyze the moderating role of PCE-first, in the relationship between environmental conscious behaviour and Social conscious behaviour and the Cooking confidence and Cooking Attitudes and Cooking behaviours.

FINDINGS

Expected findings

Consumers' environmental, social, and economic food consumption will affect cooking confidence, culinary attitudes, and culinary behaviors. It is also expected that PCE will affect these relationships.

IMPLICATIONS or CONCLUSION

Implications of the findings to the industry and academia

The finding from this study would provide valuable insights into consumers' preferences for the culinary confidence, culinary attitudes. It has been found that motivation evokes consumers' concerns for the environmental, social, and economic. The result of this study is expected to help create a nutritional public health policy which containing sustainable food consumption and cooking.

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