

# Consumers' Purchase Intentions in Ghost Kitchens

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## Abstract

Ghost kitchens have experienced significant growth during the COVID-19 pandemic. Unlike brick-and-mortar restaurants, ghost kitchens are not required to disclose their sanitation scores on ordering websites or mobile apps, leaving consumers unaware of where their food is prepared. As a result, it is unclear how consumers perceive the safety of food prepared by ghost kitchens. This study thus aims to examine consumers' knowledge of food safety, both in general and specific to ghost kitchens, as well as their behavioral intentions toward ghost kitchens. The results of an online survey show that while attitude and subjective norm are positively related to purchase intention, perceived behavioral control is not. Additionally, while consumers' food safety knowledge is negatively related to their attitudes toward ghost kitchens, their knowledge about ghost kitchen-specific food safety is positively related to their attitudes. Furthermore, consumers' subjective norms are positively influenced by social media. These findings provide new insights into the factors affecting consumers' purchase intentions toward ghost kitchens and offer practical implications for ghost kitchen operators.

**Keywords:** ghost kitchen; food safety; social media influence; purchase intention; theory of planned behavior

## Introduction

The restaurant industry has experienced significant changes during the COVID-19 pandemic. With social distancing required post-lockdown, many restaurants had to adjust their business models to stay afloat. As part of the endeavors to compensate for lost revenue due to limited seating and to reassure consumers, safe ordering through drive-thru, curbside pickup, and delivery has gained massive popularity. According to a recent survey by the National Restaurant Association, 60% of U.S. adults and 71% of millennials indicated that they are more likely to order delivery now than they were before the pandemic (Durbin, 2021). The increasing consumer interest in food delivery has consequently led to the tremendous growth of ghost kitchens (i.e., delivery-only food preparation facilities that operates without a physical storefront or dining

area), a budding segment within the restaurant industry. While ghost kitchens accounted for about 10% of the restaurants operated in Grubhub and Seamless in 2015 (Kelso, 2020), the market has expanded rapidly. Valued at around \$43 billion in 2020, the ghost kitchen industry is projected to reach \$71 billion by 2027 (Linder, 2025) and generate up to \$1 trillion in global revenue by 2030 (Beckett, 2020).

Despite their growth, ghost kitchens lack transparency in terms of food preparation and inspection. Unlike brick-and-mortar restaurants, ghost kitchens do not have to disclose their sanitation scores on ordering websites or mobile apps, leaving consumers unaware of where their food is prepared (Minniti, 2022). Using restaurant health inspection scores as an indicator of food safety, prior research found that consumers are more likely to patronize restaurants with higher scores than those with lower ones (Jin & Leslie, 2003). Similarly, consumers tend to associate an open restaurant kitchen with cleanliness, trust, and reassurance of how their food is being prepared (Alonso & O'Neill, 2010), suggesting that it is important for them to know where and how their food is prepared. When such information is unavailable, it is unclear how consumers may perceive ghost kitchens, and how those perceptions may in turn affect their purchase intentions toward ghost kitchens.

Although food safety is a significant concern in the restaurant industry, with one in six Americans getting sick and 3,000 dying each year from contaminated food (GAO, 2025), little research has explored the effect of food safety in ghost kitchens. Given that ghost kitchens are a relatively new concept in the restaurant industry and the ghost kitchen market is on the rise, this present study aims to empirically examine consumers' knowledge of food safety, both in general and specific to ghost kitchens, as well as their behavioral intentions toward ghost kitchens.

## **Literature review**

### *Theory of planned behavior*

The theory of planned behavior (TPB; Ajzen, 1991) has been widely used in the hospitality, leisure, and tourism literature to predict and explain behavior (Ulker-Demirel & Ciftci, 2020). In the TPB model, attitude toward the behavior, subjective norm, and perceived behavioral control are three determinants of an individual's behavioral intention, which in turn predicts the individual's actual behavior. According to Ajzen (1991), attitude refers to how favorably or unfavorably an individual evaluates or appraises a specific behavior; subjective norms refers to the social pressure an individual experiences when his/her important others approve, disapprove, or perform the behavior themselves; perceived behavioral control refers to how easy or difficult it is for an individual to perform the behavior due to his/her past experience and anticipated factors that can facilitate or impede the performance of the behavior. In general, when the attitude is favorable, the subjective norm is supportive, and the perceived

behavioral control is sufficient, the intention to perform the behavior is strong (Ajzen, 2020).

Supporting the TPB, Amoako et al. (2020) found that attitude and knowledge about environmental problems affected the youth's purchasing behavior toward green products. Kim and Hwang (2020) showed that attitude, subjective norm, and perceived behavioral control are all positively related to behavioral intentions of using drone food delivery services when ordering food. Employing a longitudinal study design, Ajzen and Diver (1992) concluded that the TPB is useful for predicting leisure intentions and actual behavior. In contrast, Yuzhanin and Fisher (2016) reviewed 15 studies and concluded that the findings are inconsistent when the TPB is used to predict travelers' intentions to choose a travel destination, suggesting that the determinants of the TPB may not contribute uniformly to behavioral intentions.

Indeed, Ajzen (1991) pointed out that attitude, subjective norm, and perceived behavioral control are conceptually independent predictors of intention and their relative importance in the determination of intention differs depending on behaviors and situations. For instance, George (2004) found that respondents who have positive attitude toward the Internet and have the ability to conduct online shopping actually engaged in online purchasing, whereas respondents' subjective norms about Internet purchasing does not affect the online purchasing behavior. To the best of our knowledge, no study has examined consumers' purchase intentions in ghost kitchens using the TPB.

Ghost kitchens are professional cooking facilitates that produce meals for delivery only, often through third-party delivery companies such as Uber Eats and Grubhub, with no storefront or dine-in option (Kelso, 2020). Compared to a brick-and-mortar restaurant, a ghost kitchen requires less start-up costs and staffing, and offers more flexibility for operators to quickly shift their menus to capitalize on the changing consumer food preferences (Grubhub, 2022).

From a consumer's perspective, while ghost kitchens may offer benefits to individuals (e.g., convenience and a variety of choices) and to society (e.g., reduced food waste and environmental protection), they may also raise concerns for individuals (e.g., low food quality and slow delivery) and for society (e.g., poor working conditions and low pay for workers; Cai et al., 2022). Although Cai et al. (2022) found that customer knowledge of ghost kitchens affects their perceived benefits and risks of ghost kitchens, which in turn affect their trust and behavior toward ghost kitchens, there remains a lack of research examining how customers perceive food safety and how these perceptions shape their attitudes and behavioral intentions toward ghost kitchens.

To fill this gap, drawing upon the TPB, this study hypothesizes that consumers are more likely to purchase from a ghost kitchen when they hold favorable attitudes toward ghost kitchens, perceive that important others tend to purchase from ghost kitchens, and have the ability and means to place an order from a ghost kitchen. That is,

**H1:** Consumers' attitudes toward ghost kitchens are positively related to their purchase intentions.

**H2:** Consumers' subjective norms about ghost kitchens are positively related to their purchase intentions.

**H3:** Consumers' perceived behavioral control over ordering food from ghost kitchens is positively related to their purchase intentions.

### *Food safety and attitude toward ghost kitchens*

The Centers for Disease Control and Prevention (CDC, 2020) estimated that each year 48 million people get sick from foodborne illnesses, with 128,000 hospitalized and 3,000 deaths. Although home-cooked meals can cause foodborne illness, most consumers tend to blame sources outside their own homes (Boo et al., 2000), as illnesses caused by home-cooked meals are less likely to be reported. In fact, the CDC (2020) indicated that 60% of reported foodborne illness cases originated from restaurants. Other studies have also argued that restaurants are among the most frequent sources of foodborne illness outbreaks (Knight et al., 2007; Lynch et al., 2003).

Consumers can get sick from restaurant food while dining out either due to unsanitary food handling by staff or because of unsanitary restaurant environments. The Hazard Analysis Critical Control Point (HACCP) manual showed that both food handlers and consumers were the primary contributors to most foodborne illnesses due to their lack of hygiene awareness and poor sanitation practices (Loken, 1995). Furthermore, since the COVID-19 pandemic started, consumers have become concerned not only about foodborne illness when dining out, but also about contracting COVID-19 while dining.

One recent study found that consumers were more worried about contracting COVID-19 from restaurant food than other types of food in general (Byrd et al., 2021). However, these perceived risks can be reduced through more objective knowledge, which can change attitudes toward food and the intention to order it (Cai et al., 2022). Similarly, some studies have shown that attitudes can be shaped by knowledge related to food consumption (Chi et al., 2021; Masiero et al., 2016; Mellinas et al., 2019).

Since the onset of COVID-19, restaurant takeout and delivery options have become more common than ever before (Anon, 2021). Even prior to the pandemic, online food delivery sales had already increased by 52% (Christopher, 2020), and more than 1,500 ghost kitchens were operating across North America (Danley, 2019). With the rise of ghost kitchens, consumers may develop different attitudes toward them. This attitude can be defined as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6), and it can play an influential role in shaping behavioral intentions (Ajzen, 1991; Chiang & Guo, 2021; Gultek et al., 2006).

While some consumers may view ghost kitchens as beneficial to the local economy by providing new business opportunities for aspiring restaurateurs, as they can enter the market with limited overhead costs (Cai et al., 2022), others may perceive them as advantageous for offering convenient and fast service through unified platforms. Nevertheless, many remain unfamiliar with ghost kitchens, and a majority (72%) still prefer to order from brick-and-mortar restaurants (Anon, 2021).

Due to concerns about COVID-19 and food safety, more people tend to order food from restaurants and have it delivered to their homes. Even after the height of the pandemic, contactless food ordering continues to be a strong consumer preference. In fact, 78% of consumers favor quick and contactless options, a trend further accelerated by the rise of ghost kitchens (Linder, 2025). Customers cite safety, hygiene, speed, and ease of use as key benefits of digital ordering, mobile apps, and contactless payment systems (Manoharan & Ashtikar, 2025). Although ghost kitchens offer these benefits, consumers often have little to no knowledge about how their food is prepared in the facilities fulfilling these orders. Additionally, they lack visual cues regarding the cleanliness of the kitchen or the sanitation practices of the food handlers. While previous studies have explored food safety perceptions in traditional restaurant dining settings or in the context of home-cooked meals, there is limited research on food safety perceptions related to delivery foods, particularly those from ghost kitchens.

The ghost kitchen is a relatively new concept, and there is still uncertainty surrounding it among consumers. Chi et al. (2021) claimed that when uncertainty or perceived risk is high, knowledge plays an essential role in shaping perceptions of the situation. Pieniak et al. (2010) confirmed that knowledge about the food vendor, including food safety information, plays an important role in food consumption decisions. In addition, Lee and Lee (2009) discovered that customers with more objective knowledge are less likely to be affected by negative product cues. Specifically, Cai et al. (2022) found that knowledge can increase the perceived benefits for customers and can help lower the perceived risks associated with ghost kitchens. In their study, they argued that customers who believe they know a lot about ghost kitchens are more likely to focus on the benefits rather than the risks. Moreover, when consumers receive more information about a product or service, their perceived risk decreases (Greatorex & Mitchell, 1988).

Since information or knowledge can play a critical role in the formation of attitudes (Dodd, 1998), customers with more accurate food safety knowledge about ghost kitchens should be less likely to be affected by negative cues and more likely to develop a positive attitude toward them. Therefore, knowledge about a product or service is expected to influence consumers' attitudes toward a specific food service. Based on this reasoning, this present study proposes the following two hypotheses:

**H4a:** Consumers' general food safety knowledge is negatively related to their attitudes toward ghost kitchens.

**H4b:** Consumers' food safety knowledge about ghost kitchens is positively related to their attitudes toward ghost kitchens.

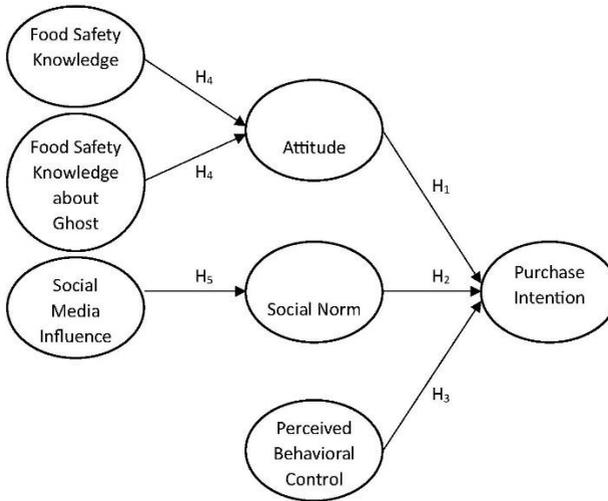
*Social media influence and subjective norm about ghost kitchens*

According to the TPB (Ajzen, 1991), consumers' purchase intentions are influenced by how important others in their lives perceive their purchase behavior. For instance, people are more likely to use sustainable food delivery services when their important others want them to be environmentally friendly (Kim & Hwang, 2020), and managers are more likely to offer food safety training to their employees when their important others expect them to do so (Roberts & Barrett, 2011). Depending on the context, important others can vary. For instance, friends, parents, and university lecturers are influential figures in a student's quality of life (Tavakoly Sany et al., 2023), whereas parents and peers are influential figures in U.S. adolescents' intentions to receive the COVID-19 vaccine (Rogers et al., 2021).

In the case of ghost kitchens, both food ordering and marketing are conducted entirely online. Therefore, the success of ghost kitchens requires a strong online presence, especially in the social media domain (Shoorbajee, 2021). According to Statista (Dixon, 2023), in 2022, there were 320 million social media users in the U.S. (i.e., 90% of the total population), and this number is projected to grow by 22.8 million, or 7.4%, from 2023 to 2028. Although social media was initially created to connect people, organic interactions among peers have played a significant role in promoting knowledge sharing and the dissemination of essential information (Vrontis et al., 2021). By encouraging consumers to emulate their peers, social media interactions can have a direct impact on consumers' buying choices (Wang et al., 2012). While food delivery services were a new concept for many people before COVID-19, peer influence may help ease uncertainty or doubt when they see their peers ordering from ghost kitchens. For instance, social media has been found to enhance consumers' intentions to purchase green products by affecting their subjective norms (Pop et al., 2020; Sun & Wang, 2020). Since consumers tend to consider social media as trustworthy and useful (Rauniar et al., 2014), their subjective norms are likely to be influenced by other social media users' opinions and behaviors, including the consumption of ghost kitchen meals. Thus,

**H5:** Social media influences are positively related to consumers' subjective norms.

Figure 1 presents the conceptual framework and related hypotheses proposed by the current study.

**Figure 1: Conceptual model and hypotheses**

## Methodology

### *Survey instrument*

The data of this study were collected using a three-part online survey questionnaire. Participants were asked to answer a set of questions, with written instructions provided at the beginning of each question. The first part of the questionnaire included a description of ghost kitchens adapted from Cai et al. (2022). The second part comprised measures of core constructs, such as attitude, subjective norm, and perceived behavioral control. The last part contained demographic variables, including age, gender, education, residential area, as well as dine-out and take-out frequencies. *Attitude* was measured using 4 items on a 7-point semantic differential scale (George, 2004), such as “Ordering food from ghost kitchens is a bad/good idea.” *Subjective norm* was measured using 3 items (Kim & Hwang, 2020; Roberts & Barrett, 2011), such as “Most people who are important to me think I should order food from ghost kitchens.” *Perceived behavioral control* was measured using 3 items (George, 2004; Kim & Hwang, 2020), such as “I am confident that if I want, I can order food from ghost kitchens.” *Purchase intention* was measured using 3 items (Roberts & Barrett, 2011), such as “I will try to order food from ghost kitchens.” *Social media influence* was measured using 4 items (Pop et al., 2020), such as “I use social media to search information about ghost kitchens.” A 7-point Likert scale (1 = strongly disagree, 7 = strongly agree) was employed to measure the above constructs. As for *Food safety knowledge*, it was measured using 14 True/False items (FDA, 2022), including “Washing our hands with clean, running water prior to food preparation is enough to remove germs from them.” Meanwhile, *Ghost kitchen knowledge* was measured using 12 True/False items (Cuboh, n.d.;

King, 2022; McIntyre, 2023), including “It is not necessary for ghost kitchen employees to receive food safety training on personal hygiene.”

### Sample and data collection

The sample of this study consist of online users at least 18 years and older living in the U.S. As a pilot study, the survey questionnaire was distributed on Amazon MTurk in February 2025, after receiving institutional review board approval. Based on the responses, the presentation of several measurement items was revised for clarity, and the measure of ghost kitchen knowledge was adjusted to improve internal consistency, as the initial Cronbach’s alpha was below 0.6. The final questionnaire was distributed in April 2025 via Prolific, an online data collection platform, through which a total of 412 responses were collected. After removing responses from the same IP addresses and those from participants who failed either of the two attention check questions embedded in the questionnaire, the final sample consisted of 396 responses.

### Findings

The profile of respondents is shown in Table 1, with demographic information compared to 2024 U.S. Census data. In line with the Census data, 49.2% of the respondents were male, and 50% were female. Twenty-five point five percent of the respondents were in the 50–59 age group, followed by those aged 18–29 (21.21%) and those above 60 (20.2%). The residential distribution of the respondents was similar to the Census data, with the South Atlantic division (24%) being the largest group. Overall, 43.9% of the respondents did not have a bachelor’s degree, 37.9% held a bachelor’s degree, and 18.2% had a degree higher than a bachelor’s. Except for about 12% of the respondents, the remainder frequently dined out or ordered takeout, with 1–2 times and 3–4 times per month being the norm.

**Table 1. Profile of respondents (N = 396)**

Characteristic	n	%*
Gender		
Male	195	49.2 (49.0)
Female	198	50.0 (51.0)
Prefer not to say	3	0.8
Age		
18-29	84	21.21 (20.2)
30-39	74	18.7 (17.7)
40-49	57	14.4 (16.0)
50-59	101	25.5 (15.3)
60+	80	20.2 (30.9)
Education		
Less than a bachelor’s degree	174	43.9
Bachelor’s degree	150	37.9
Higher than a bachelor’s degree	72	18.2
Residential area		

New England	17	4.3 (4.7)
Mid-Atlantic	55	13.9 (12.7)
East North Central	44	11.1 (14.0)
West North Central	20	5.1 (6.4)
South Atlantic	95	24.0 (20.7)
East South Central	25	6.3 (5.8)
West South Central	53	13.4 (12.2)
Mountain	24	6.1 (7.7)
Pacific	63	15.9 (15.9)
Dine out frequency per month		
None	46	11.6
1-2 times	179	45.2
3-4 times	109	27.5
5-6 times	31	7.8
More than 6 times	31	7.8
Take out frequency per month		
None	49	12.4
1-2 times	150	37.9
3-4 times	114	28.8
5-6 times	41	10.4
More than 6 times	42	10.6
<b>*Number in parentheses represent U.S. Census 2024 data</b>		

As shown in Table 2, respondents, on average, held positive attitudes toward ghost kitchens (mean = 5.275) and reported very high perceived behavioral control when purchasing from them (mean = 6.081). In contrast, the mean scores for subjective norm (3.619), purchase intention (3.892), and social media influence (3.559) were all slightly below the neutral midpoint (i.e., 4 = neither agree nor disagree). On average, respondents scored 10.684 out of 14 on food safety knowledge and 8.558 out of 12 on ghost kitchen knowledge. Of the 396 respondents, 10 indicated that they typically did not use social media on a given day, resulting in a sample size of 386 for the social media influence variable instead of 396 for the overall sample. Additionally, all variables had a Cronbach's alpha coefficient value of 0.6 or higher, indicating acceptable internal consistency (Ponterotto & Ruckdeschel, 2007).

**Table 2: Summary statistics**

Variable	Mean	SD	N	Cronbach's alpha	Attitude	Subjective Norm	Behavioral Control	Purchase Intention	Social Media Influence	Food Safety Knowledge
Attitude	5.275	1.530	396	0.905	-					
Subjective Norm	3.619	1.524	396	0.909	0.729***	-				
Perceived behavioral Control	6.081	0.946	396	0.744	0.230***	0.164**	-			
Purchase Intention	3.892	1.843	396	0.977	0.797***	0.739***	0.176***	-		
Social Media Influence	3.559	1.391	386	0.847	0.473***	0.546***	0.161**	0.586***	-	
Food Safety Knowledge	10.684	2.318	396	0.647	0.199***	-0.295***	0.124*	0.299***	0.369***	-
Ghost Kitchen Knowledge	8.558	1.605	396	0.716	0.105*	0.016	0.139**	0.076	-0.002	0.176***

The Pearson correlation coefficients shown in Table 2 suggest that, while attitude and subjective norm were strongly correlated with purchase intention, the correlation between perceived behavioral control and purchase intention was very low. Social media influence and subjective norm were moderately correlated, whereas food safety knowledge and ghost kitchen knowledge showed weak correlations with attitude.

Regression analysis was conducted to test the hypotheses. For Hypotheses 1-3, purchase intention was regressed on attitude (H1), subjective norm (H2), and perceived behavioral control (H3). The results in Table 3 indicated that, while attitude and subjective norm were positively related to purchase intention, perceived behavioral control was not. Therefore, H1 and H2 were supported, whereas H3 was not. To test H4a and H4b, attitude was regressed on food safety knowledge and ghost kitchen knowledge. The results in Table 4 indicated that, while food safety knowledge was negatively related to attitude, ghost kitchen knowledge was positively related to attitude, supporting H4a and H4b. As predicted, social media influence was positively related to subjective norm (Table 5), supporting H5.

**Table 3: The effect of attitude, subjective norm, and perceived behavioral control on purchase intention**

Dependent variable: Purchase intention				
Independent variables	Coef.	Std. Err.	t	P-value
Attitude	0.665	0.050	13.220	0.000
Subjective Norm	0.408	0.050	8.180	0.000
Perceived Behavioral Control	-0.013	0.057	-0.220	0.822
Constant	-1.015	0.354	-2.860	0.004
R2	0.688			
N	396			

**Table 4: The effect of food safety knowledge and ghost kitchen knowledge on attitude**

Dependent variable: Attitude				
Independent variables	Coef.	Std. Err.	t	P-value
Food Safety Knowledge	-0.148	0.033	-4.510	0.000
Ghost Kitchen Knowledge	0.137	0.047	2.900	0.004
Constant	5.680	0.493	11.530	0.000
R2	0.060			
N	396			

**Table 5: The effect of social media influence on subjective norm**

Dependent variable: Subjective Norm				
Independent variables	Coef.	Std. Err.	t	P-value
Social Media Influence	0.601	0.047	12.770	0.000
Constant	1.488	0.180	8.280	0.000
R2	0.298			
N	386			

To verify the robustness of the results, additional analyses were conducted. Given the strong correlation between attitude and subjective norm, a VIF test was performed on the regression model in Table 3 to assess potential multicollinearity. The VIF values ranged from 1.06 to 2.19, indicating that multicollinearity was not a concern in this analysis. Furthermore, the regression analyses presented in Tables 3 to 5 were repeated with controls for age, gender, education, dine-out frequency, and take-out frequency included. The results were qualitatively the same as those reported in Tables 3 to 5, suggesting that the relationships between the independent and dependent variables were robust.

## **Discussion and implications**

Drawing upon the TPB, this study examined consumers' purchase intentions in the context of ghost kitchens, with particular focus on their general and specific knowledge of food safety, as well as the influence of social media. Although ghost kitchens have gained popularity since the pandemic, few studies have explored this emerging business model. As such, this study contributes to the limited body of literature on ghost kitchens by offering several insights into consumer behavior and purchase intentions in this context.

As hypothesized, consumers' attitudes toward ghost kitchens and the subjective norms surrounding them significantly influenced their intentions to purchase, consistent with TPB findings in other contexts. While general food safety knowledge was negatively related to attitude, specific food safety knowledge about ghost kitchens was positively related to attitude. Furthermore, social media was found to positively affect consumers' social norms about ghost kitchens. However, perceived behavioral control did not show a significant relationship with purchase intention.

The results indicated that attitudes toward ghost kitchens was the strongest predictor of purchase intention, highlighting the central role of consumers' evaluations and perceptions in shaping their behavioral intentions. That is, consumers who view ghost kitchens as a novel in-home dining option and feel positively about them are more likely to place an order from these establishments. Similarly, the influence of subjective norms suggests that social expectations and pressures also play a meaningful role. If consumers view ghost kitchens as a new phenomenon and feel comfortable following people who share their ordering experiences on social media, they may also be more inclined to purchase from ghost kitchens. In contrast, while consumers may feel capable of ordering from ghost kitchens, this perceived ease does not necessarily translate into actual purchase intent. Although unexpected, this finding aligns with Ajzen's (1991) assertion that attitude, subjective norm, and perceived behavioral control are conceptually independent determinants of intention and that their effects are behavior- and situation-specific. Since perceived behavioral control was remarkably high in this study (mean = 6.081), it is possible that ordering from ghost kitchens is considered easy and effortless by most consumers, reducing its influence on intention as it becomes a baseline assumption.

Similarly, perceived behavioral control exhibited the least variation among all variables ( $SD = 0.946$ ), which may have limited its predictive power. Other psychological or contextual factors may also shape the role of perceived behavioral control in this context.

Notably, a negative relationship was observed between food safety knowledge and attitudes toward ghost kitchens. Consumers more knowledgeable about food safety might not hold positive attitudes toward ghost kitchens, as they may perceive them as less safe places to order food. Those who scored higher on the food safety knowledge scale may pay more attention to food safety cues when dining out or ordering food. Since they might not be able to obtain such information or cues from ghost kitchens, they are less likely to have a positive attitude toward them.

In contrast, food safety knowledge about ghost kitchens was positively related to attitudes toward them, suggesting that consumers who understand food safety systems for ghost kitchens are more likely to have positive attitudes. This also implies that consumers may develop negative attitudes when they lack sufficient information about food safety in ghost kitchens. By making food safety practices or policies publicly available, such as sharing health inspection scores on websites or mobile apps, ghost kitchen operators could positively influence consumer attitudes. In addition, ghost kitchen operators could address food safety concerns that consumers may have in order to increase both positive attitudes and purchase intentions.

The findings also highlighted a positive relationship between social media influence and subjective norm. Using social media may increase consumers' positive expectations and norms toward ghost kitchens, as those who use social media more frequently might be exposed to more options like ghost kitchens. This emphasizes the indirect influence of digital environments on behavioral intention through perceived social pressure. As consumers become more familiar with the concept of ghost kitchens, their intention to purchase from them may increase.

Overall, this study contributes to a growing body of research on emerging food service models by integrating psychological, informational, and technological variables within a TPB framework. It underscores the importance of not only personal attitudes but also social and informational influences in shaping behavioral intentions in the evolving digital food economy.

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