



Research Paper

Food Safety Knowledge, Attitude and Behavior of Employees in Star Grade Hotels: Reference to Western Province of Sri Lanka

R. P.V. Samaradiwakara^{1,*}, K. S. B. Senevirathne², and A. R. M. Manzano³

¹ Faculty of Graduate Studies, University of Kelaniya, Dalugama, Sri Lanka

² Department of Tourism Management, Faculty of Management Studies, Sabaragamuwa University of Sri Lanka, Belihuloya, Sri Lanka

³ School of Arts, Communication and Hospitality, University of Vale do Itajaí, Itajaí, Brazil

* Correspondence: praveensamaradiwakara@gmail.com

Abstract

Food safety is a critical aspect of public health that significantly impacts various sectors, particularly the hospitality industry. Despite the high importance of food safety in the tourism sector, instances of foodborne illnesses continue to occur, posing health risks and threatening the industry's economic contributions. In a quantitative approach, this study investigates the relationships between food safety knowledge, attitude, and behavior among employees in the above three-star hotels in the Western Province of Sri Lanka. Partial least square structural equation modeling (PLS-SEM) was used to examine the measurement and structural models. The study was conducted using the convenient sampling method and data was collected from 51 respondents working in the kitchen departments of above 3-star hotels in Western province, Sri Lanka. The findings reveal a strong positive correlation between attitude and behavior, emphasizing that fostering a positive attitude through training and awareness campaigns can significantly enhance food safety behaviors. Conversely, the relationship between knowledge and behavior is found to be slightly negative and statistically insignificant, suggesting that knowledge alone does not directly influence behavior. However, a moderate positive relationship between attitude and knowledge indicates that a positive attitude can facilitate the acquisition and retention of food safety knowledge. This study contributes to the broader understanding of food safety in the hospitality sector and offers practical recommendations for policy and training interventions to mitigate foodborne illnesses and enhance the reputation and sustainability of hotels.

Keywords: Food safety, Knowledge, Attitude, Behavior, Hotels

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1. Introduction

The topic of food safety is considered highly relevant as it impacts various aspects of society's life, especially health, as stated by the Sri Lanka Ministry of Health, Nutrition & Indigenous Medicine (2017). Food safety refers to processes relating to food processing and handling, as well as food storage, with the purpose of preventing contamination and protecting nutrients that are crucial to sustaining a healthy diet. As highlighted by the WHO (2022), foodborne diseases are prevalent and it is estimated that every year, nearly one in ten people develop foodborne illnesses due to contaminated food sources. Furthermore, data from the WHO shows that there are about 420000 deaths annually due to foodborne diseases. These diseases originate from bacteria, virus, parasites, toxins, chemicals and food contaminants among others (WHO, 2022). The effects of foodborne illnesses are not limited to the physical or individual wellbeing, but they have social and economic implications on the healthcare sector, economy, tourism, and trade worldwide (WHO, 2023). Therefore, the regular check and monitoring of food hygiene practices and policy are crucial. The global food sector tries to improve food chains effectiveness and effectiveness with respect to the policies, standards, guidelines, regulations, and educational programs concerning food safety (King et al., 2017).

Tourism is one of the rapidly developing branches in the world, and it plays a special role in shaping the country's economy (Zsarnoczky et al., 2019; Baser et al., 2016). Characterized by enterprises that are closely connected with the socioeconomic activities of the population through the interaction of people, the tourism sector plays a significant role in satisfying the expectations of individuals for personal attention and higher service quality (Baser et al., 2016). Often the sector is directly involved in the provision of food and beverages and as such has a special role of ensuring that safety measures are strictly followed. Lack of proper food hygiene standards in this sector not only poses a health threat to the citizens and tourists alike but also threatens the income generated from tourism in the country. Wu (2021) noted that compared to the importance of safety or security concerns, travelers rate food safety issues as less important when deciding their itineraries or choosing a travel destination. In addition, Yeung and Yee (2020) also emphasize the significance of food to tourists, stating that issues of food poisoning could have severe consequences and negatively impact the image of their vacations.

Hotels constitute a pivotal component of the tourism industry, exerting considerable influence on the economic framework of a nation (Denysenko & Breus, 2020). Bolton, Meally, Blair, Mcdowell, and Cowan (2008) conducted a seminal study examining the food safety knowledge of head chefs and catering managers, they identified that both businesses and consumers stemming from inadequate hygiene practices within hotel kitchen and food handling departments. Sanlier (2009) emphasizes the importance of hygiene training initiatives targeting food handling staff within hotels as a means to instill hygienic behaviors, attitudes, knowledge, and practices. Continuous assessment of hygiene standards is advocated to ensure ongoing adherence to quality standards. Hardstaff et al. (2018) accentuate the propensity for food handling staff to inadvertently contaminate food products due to deficiencies in fundamental food safety

knowledge, including aspects such as personal hygiene, appropriate cooking techniques, storage temperatures, and cross-contamination prevention. Consequently, bolstering food safety knowledge among food handlers is deemed instrumental in mitigating health risks associated with foodborne illnesses. The food safety knowledge is an important factor to ensure among food handlers that help to reduce the health risk. Lack of information, neglection may lead to poor food safety practices as well as, proper information and knowledge contribution lead to develop the knowledge on food safety and its practices (Jevsnik, 2008). Cortese, Veiros, Feldman, & Cavalli (2016) have done a study to assess the food safety and hygiene practices of vendors using quantitative approach. The authors discuss the continues trainings of vendors help to minimize the lack of food quality and safety through the knowledge. According to the study of Addo-Tham et al. (2020) also states that the knowledge on food safety can be increased by training of food handlers in food safety. And these training programs are used as a strategy to improve the knowledge of food safety. Attitudes toward food safety emerge as a significant determinant in minimizing the occurrence of foodborne illness outbreaks (Sharif & Al-Malki, 2010), with food safety knowledge and attitudes construed as products of educational and experiential learning processes (Tuglo et al., 2021). Soon et al. (2020) characterize food safety attitudes as encompassing beliefs and practices related to sanitation and food safety, emphasizing their significance in promoting sound food handling practices within hospitality establishments.

Food safety remains an important factor considering in hospitality industry especially in the hotel business given the fact that large number of people are served with food at one time or the other (Griffith et al., 2017). Thus, food safety is not just a matter of public health; it also forms an essential part of a hotel's success and sustainability (Fung et al., 2018; Akabanda et al., 2017). Since Sri Lanka is one of the famous tourist destinations, hospitality industry is one of the key sectors that provide significant contribution to the country's economy, therefore, the perception and behaviors of hotel employees in terms of food safety are significantly important (Ranasinghe et al., 2020; Jeon et al., 2015). Food poisoning is a major threat to public health, whereby the problem emanates from the consumption of tainted food products. In Sri Lanka, there have been documented cases of food poisoning in different settings ranging from hotels and food safety knowledge and practices were observed to be lacking. For example, as noted by Young-Powell (2019), there was a case whereby a British woman died of suspected food poisoning while in Sri Lanka. Another reported incident was where twelve people were taken to the hospital due to food poisoning at the Cinnamon Grand Colombo (Gossip Lanka, 2015). Such instances signify the possible consequences of poor food safety policies in the hotels that not only have health impacts but also legal consequences and loss of reputation.

Based on this premise, the current study has a primary objective to assess the food safety knowledge, attitude, and behavior of the employees in hotels in Sri Lanka. While there are many studies that have been conducted in the global hospitality industry and Sri Lanka particularly on food safety practices there is a considerable lack of extensive research done on the knowledge, attitude, and behavior of food safety among the employees in hotels in Sri Lanka.

Previous research has primarily centered on the restaurant and food handlers, while little attention has been given to the hotel staff in Sri Lankan context. Therefore, there is a significant research void with respect to the current status of food safety knowledge, attitudes, and behaviors in the hotel employees in Sri Lanka.

2. Literature Review

The relationship among food safety knowledge, attitude, and behavior has been a critical area of study, especially in the context of the hospitality industry. This literature review explores the food safety knowledge attitude and behavior and highlighting their interconnections. Knowledge is highly valued state in which person is in cognitive contact with reality. Therefore it is a relationship between two sides. One side is the conscious subject, and on the other side is a portion of reality to which the knower is directly or indirectly related (Zagzebski, 2017). Knowledge is reasoning about information and data to actively enable performance, problem solving, and decision-making, learning and teaching (Beckman, 1999). When it comes under the Knowledge Management (KM), it is the formulization of and access to experience, knowledge, and expertise that create new capabilities, enables superior performance, encourages innovation and enhances customer value (Whelton et al., 2003).

Food safety knowledge plays a critical role in safeguarding public health and preventing foodborne illnesses (Garcia, 2020). Odipe et al. (2019) have assessed the environmental sanitation, food safety knowledge, handling practice among food handlers. The authors emphasized a robust understanding of food safety principles and practices among individuals involved in food handling and preparation is essential to mitigate risks associated with food contamination and ensure consumer well-being. Numerous studies have investigated the factors influencing food safety knowledge among different populations. Individual characteristics such as education level, training, and prior experience in food handling have been identified as significant predictors of food safety knowledge (Abbot et al., 2018; Al-Shabib et al., 2017). Additionally, socio-demographic factors such as age, gender, and socio-economic status have been found to influence levels of food safety knowledge (Abbot et al., 2018; Redmond et al., 2016). Furthermore, organizational factors such as workplace culture, management support, and access to resources and training opportunities have been shown to impact food safety knowledge among food handlers (Belet et al., 2019; DiPietro et al., 2017).

Efforts to enhance food safety knowledge encompass a range of educational and training interventions targeted at individuals involved in food handling, including food service workers, consumers, and regulatory personnel. These interventions may include formal food safety training programs, educational campaigns, workshops, and certification courses (Al-Shabib et al., 2017; Belet et al., 2019). According to the study of Jayawardena et al. (2018), the integration of technology-based learning tools and resources, such as online courses and mobile applications, has emerged as a promising approach to disseminating food safety knowledge.

Numerous studies emphasize the significance of adequate knowledge in preventing foodborne illnesses. According to Baser et al. (2016), despite possessing basic hygiene knowledge,

hotel staff often lack critical understanding regarding the cleanliness of work surfaces and proper cooking and storage temperatures. Meer and Misner (2000) found that food safety knowledge has a positive but small effect on food safety behavior, suggesting that knowledge alone may not be sufficient to alter behavior significantly. Martins, Hogg, and Otero (2012) observed in a Portuguese catering company, where food handlers possessed adequate knowledge but often failed to apply it effectively. This discrepancy suggests that knowledge alone is insufficient to ensure safe food handling practices. Notermans et al. (1995) emphasized the importance of identifying critical control points in the Hazard Analysis and Critical Control Points (HACCP) system to enhance food safety through practical application of knowledge.

Attitude towards food safety plays a crucial role in determining behavior (Czernyszewicz, 2023). Positive food safety attitudes among employees have been associated with improved food handling practices, adherence to food safety regulations, and reduced risk of foodborne illness outbreaks (Sun et al., 2019). Attitudes are shaped by personal beliefs, perceived importance of food safety, and the value placed on adhering to safety protocols. Baser et al. (2016) found a significant positive relationship between food safety attitude and behavior, indicating that a positive attitude can enhance the likelihood of practicing safe food handling. Studies by Lim et al. (2016) and Buccheri et al. (2010) also support this finding, showing that a positive attitude towards food safety correlates with better safety practices. Positive attitudes towards food safety practices often correlate with better compliance. Abdul-Mutalib et al. (2012) found that food handlers in Malaysia who had positive attitudes towards food hygiene were more likely to engage in safe food handling practices. Similarly, Ko (2013) reported that restaurant employees' attitudes towards food safety directly affected their adherence to HACCP protocols. The relationship between knowledge and attitude is also noteworthy. Ansari-Lari, Soodbakhsh, and Lakzadeh (2010) discovered a positive correlation between food safety knowledge and attitudes among meat processing workers in Iran. Food safety behavior encompasses the actual practices employed in handling, preparing, and storing food to prevent contamination and foodborne diseases (Yiannas, 2008). Baser et al. (2016) indicate that while knowledge alone does not significantly influence behavior, attitude has a substantial impact. This finding is consistent with research by Abdul-Mutalib et al. (2012) and Griffith and Clayton (2005), who argue that improving food safety behavior requires not just education but also addressing attitudes towards food safety. Roberts et al. (2008) demonstrated that food safety training improved both knowledge and behaviors among restaurant employees, although attitudes played a crucial mediating role. Lim et al. (2016) revealed that while there was a significant relationship between attitudes and behaviors, the connection between knowledge and behaviors was not always significant.

Based on the research, the following hypotheses are formulated:

H₁: Food safety knowledge directly influences food safety behavior.

H₂: Food safety attitude directly influences food safety behavior.

H₃: There is a significant relationship between food safety knowledge and food safety attitude.

3. Methodology

The research adopted deductive research approach, which implies that the research theory is formulated first then arguments are deduced from the analytical theory of the research (Woiceshyn & Deallenbach, 2018). Moreover, it used a quantitative research method to respond to questions that were formulated concerning the knowledge, attitude, and practice of the hotel staff concerning food safety because it collected quantitative data. Quantitative research can be described as a formal and systematic method that is employed in the collection and analysis of data with the aim of establishing relationships and the cause and effect between variables or between one or more factors (Bloomfield & Fisher, 2019). The type of research used in this study was correlation research which is a type of non-experimental research that involves two variables to compare the relationship between them (Rankins et al., 2023). This approach was used to establish the relationship between the variables of knowledge, attitude and behavior towards food safety among the hotel staffs and the potential association between the variables without changing their status.

The present research was carried out on the above mentioned 3 star and above hotels in the Western Province of Sri Lanka. According to SLTDA (2023), there are 154 classified tourist hotels in Sri Lanka and among them 26 are 3 star and above tourist hotels in the Western Province. The reason for focusing on above 3-star hotels particularly in Colombo district is due to close working relationship between the researchers and the province. Besides, the survey revealed that out of all the classified tourist hotels in Sri Lanka, Western Province has the highest number of above 3-star classified tourist hotels, and this make it a suitable region for conducting the study. According to Majid (2018), the study population comprises of people who have certain similar attributes and includes the totality of the target group under research. From the definition above, it is also important to understand that the term ‘population’ is not limited to the number of people; it may also refer to the total number of objects or cases as Walliman (2011) emphasized. In this study, the target population comprises all staff members employed in SLTDA registered above 3-star tourist hotels situated in the Western Province of Sri Lanka. To select a representative sample from the study population, the researchers employed a convenient sampling technique. This method was chosen due to its practicality, allowing researchers to readily access and obtain data from individuals within the population.

The questionnaire design drew inspiration from a previous study conducted in Turkey, structuring it into four main sections. Section A encompassed demographic inquiries to capture respondents' background details. Section A of the questionnaire was structured with multiple-choice questions to gather the information from the respondents. The following sections of the questionnaire utilized the Five-Point Likert scale for data collection. This Likert scale enabled the participants to express their level of response to each statement ranging from strongly agree (score=1) to strongly disagree (score=5). Specifically, respondents were provided with the following options: The Likert scale ranged from 1 for “strongly disagree” to 2 for “disagree”, 3 for “neither agree nor disagree”, 4 for “agree”, and 5 for “strongly agree”. This standardized scale allowed for the quantitative evaluation of the level of agreement / disagreement within participants' knowledge, attitude, and behaviour changes concerning aspects of food safety

within the hotel operation. Section B aimed at evaluating the level of awareness that employees possessed regarding food safety within the hotel setting, and Section C was designed to identify how employees perceived the aspect of food safety measures in the hotel context. Lastly, section D was made up of questions designed to determine employees' behavior in relation to food safety in the hotel environment (Refer to table 1).

Table 1. Operationalization

Variables	Indicators	Questions	Measurement	Source
Knowledge	Purchasing & cooking	KPC1	Five Point Likert Scale	(Baser et al., 2016)
		KPC2		
		KPC3		
		KPC4		
	Hygiene	KH1		
		KH2		
	Preservation	KP1		
		KP2		
Attitude	Purchasing & cooking	APC2	Five Point Likert Scale	
		APC3		
		APC4		
	Hygiene	AH2		
		AH3		
		AH4		
	Preservation	AP1		
Behavior	Purchasing & cooking	BPC1	Five Point Likert Scale	
		BPC2		
		BPC3		
		BPC4		
	Hygiene	BH1		
		BH2		
	Preservation	BP1		
		BP2		
		BP3		
		BP4		

Source: Developed by Author (2024)

The sample units were obtained from the kitchen departments of above 3-star hotels, with each hotel represented by one management-level employee and one non-management-level employee from the food preparation department. The selection of employees in Kitchen department is important because kitchen staff is directly responsible for handling, preparing, and serving food, making them the most relevant group to assess food safety knowledge, attitudes, and behaviors (Lim et al., 2016). Data collection was conducted using an online questionnaire hosted on <https://docs.google.com/forms> and accompanied by the distribution of printed copies

to some participants as well. In accordance with the study's parameters, a total of 26 above 3-star hotels were selected. The questionnaires were administered to 25 management-level employees and 26 non-management-level employees, resulting in a sample size of 51 individuals.

3. Results

The study's sample included employees from above 3-star hotels which are located in the Western Province of Sri Lanka and the demographic characteristics of the sample reflected a clear gender bias with responding male employees amounting to 74. 51% while those of female employees were 23. 53%. Regarding age distribution, respondents were categorized as follows: 13. 73% was in the ≤ 20 age bracket; 25. 49% in the 21-30 age bracket; 33. 33% in the 31-40 age bracket; and 27. 45% in the ≥ 40 age bracket. Analysis of educational attainment revealed that the highest proportion of employees held certificates (35.29%), followed by secondary education (27.45%), diploma qualifications (25.49%), and those with educational levels below secondary education (11.76%). In terms of work experience, 23.53% of employees had less than one year of experience, while 23.53% reported 1-3 years' experience, 25.49% reported 3-5 years' experience, and 27.45% has over 5 years' experience. (Refer to Table 2)

Table 2. Sample Profile

Demographic Characteristics	Category	Score (%)
Gender	Male	74.51
	Female	23.53
Age	≤ 20	13.73
	21- 30	25.49
	31-40	33.33
	$41 \geq$	27.45
Education	Less secondary education (A/L)	11.76
	Secondary education (A/L)	27.45
	Certificate level	35.29
	Diploma	25.49
	Bachelor or above	0.00
Experience	Less than one year	23.53
	1-3 years	23.53
	3-5 years	25.49
	More than 5 years	27.45

Survey Data (2024)

3.1. Measurement Model

Table 3. Results of Measurement Model

		Factor Loading	Composite reliability	AVE	Cronbach's alpha
	Attitude				

AH2	Kitchen should not be entered with clothes and shoes which are worn outside.	0.756	0.87	0.524	0.889
AH3	Canned foods should be stored in racks in their original packages.	0.712			
AH4	The food-contact surfaces should be properly cleaned before preparing food.	0.72			
AP1	Cooked foods should be kept at room temperature until cool.	0.927			
APC2	Hard-boiled eggs which are waited more than two days at room temperature can be used.	0.858			
APC3	Instead of checking the expiration date, tasting is more appropriate.	0.746			
APC4	Frozen foods should be thawed over a radiator or stalls.	0.87			
Behavior					
BH1	I wash my hands thoroughly after every single time that I use the bathroom.	0.722	0.94	0.604	0.940
BH2	I wash my hands thoroughly after touching raw food.	0.715			
BP1	Food stored in any environment can be conveniently consumed.	0.948			
BP2	I think that food prepared at restaurant is healthy.	0.7708			
BP3	I think that food prepared at street is healthy.	0.781			
BP4	I check food by tasting whether it is rotten or not.	0.785			
BPC1	When I prepare the food, I check the pack whether it is durable or not.	0.869			
BPC2	When I buy meat, I check the veterinary control character.	0.917			
BPC3	When cooking, I follow the instructions on the pack.	0.85			
BPC4	When I buy food, I read label information.	0.929			
Knowledge					
KH1	Raw foods and cooked foods should be kept separately.	0.909	0.91	0.569	0.910
KH2	Kitchen should not be entered with clothes and shoes which are worn outside.	0.74			

KP1	Cooked foods should be kept at room temperature until cool.	0.735			
KP2	Street milk, after being boiled for half an hour can be stored in the refrigerator.	0.751			
KPC1	There is no problem in using a cracked or broken eggs.	0.876			
KPC2	Hard-boiled eggs which are waited more than two days at room temperature can be used.	0.896			
KPC3	Instead of checking the expiration date, tasting is more appropriate.	0.772			
KPC4	Frozen foods should be thawed over a radiator or stalls.	0.932			

Source: Developed by Author (2024)

Before testing the hypothesis test for the study, it should be validated to assess the validity and reliability of the data that collected by the questionnaire. In this study partial linear square (PLS) path modeling was conducted to elaborate for the measurement model of the study. PLS is a suitable analysis method for smaller sample sized research (Riou et al., 2016). Here SmartPLS4 was used to analyze the measurement model (Ringle, 2022). The study is conducted with model with three constructs as Attitude, Behavior, and Knowledge. To test the reliability of the studies, generally used the Cronbach's alpha which should be validated for reliability. The significant for the Cronbach's alpha value should be above than 0.7 (Hair et al., 2019). According to the results of the measurement model of the study (Refer to Table 3), Attitude construct is valued for 0.889, Behavior construct for 0.940, and knowledge for 0.910. According to the Singh (2017), the reliability coefficient can be ranged from 0 to 1 which indicating excellent reliability (>0.9), good reliability (0.89-0.80) and acceptable reliability (0.79-0.70). Considering the Singh's ranges, Behavior and Knowledge constructs can be identified as excellent, and the Attitude construct has a good reliability value. Hence, all the constructs can be indicated as reliable to conduct the analysis.

Table 4. Square root of the AVE and correlations matrix

Variable	Attitude	Behavior	Knowledge
<i>Fornell-Larcker criterion</i>			
Attitude	0.724		
Behavior	-0.024	0.777	
Knowledge	0.643	-0.003	0.754
<i>Heterotrait-monotrait ratio (HTMT)</i>			
Attitude			
Behavior	0.220		

Knowledge	0.760	0.128	
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Survey Data (2024)

Validity of the study was evaluated using the convergent validity and discriminant validity. Convergent validity assessment is conducted by assessing the average variance extracted (AVE), which should be greater than 0.5 (Ab-Hamid et al., 20017). Fornell-Larcker test and the Heterotrait-Monotrait Ratio (HTMT) were used to measure the discriminant validity. In view of the convergent validity (Refer to Table 2), all the constructs exceed the 0.5 level by representing 0.524 for attitude, 0.604 for behavior and 0.569 for knowledge. Scenario under the Fornell-Larcker test and the Heterotrait-Monotrait Ratio (HTMT), Fornell-Larcker test assesses discriminant validity by comparing the square root of the Average Variance Extracted (AVE) for each construct with the correlations between that construct and other constructs (Henseler et al., 2015). As displayed in table 4, discriminant validity is supported if the square root of the AVE of each construct is greater than the correlations between that construct and other constructs (Henseler et al., 2015). Heterotrait-Monotrait Ratio (HTMT) compares the correlations between constructs i.e., heterotrait to the average correlations within constructs i. e., monotrait (Franke & Sarstedt, 2019). Typically, HTMT values less than 0.85 are considered evidence of discriminant validity (Yusoff et al., 2020). According to the table 2, the shown values are under 0.85. Furthermore, in general, factor loading should be higher than 0.7 (Shrestha, 2021). otherwise, the factor loadings below the threshold of 0.7 were subsequently diminished.

3.2. Structural Model

After assessing the measurement model, structural model was conducted to identify the static relationship of the constructs of the study. Table 5 and Figure 1 present the results of a structural equation analysis (SEA) conducted to examine the relationships between food safety knowledge, attitude, and behavior among employees in above 3-star hotels within the Western Province, Sri Lanka. Based on the results from the structural equation analysis, the hypotheses were tested.

The path coefficient of 0.833 indicates a strong positive relationship between attitude and behavior regarding food safety among hotel employees. The T statistics value of 5.659 suggests that the coefficient is significantly different from zero (Carlin & Doyle, 2011). Additionally, the P value of 0.000, being less than the conventional significance level of 0.05 (Kock, 2016), provides strong evidence to support the hypothesis that attitude influences behavior in the context of food safety practices among hotel employees. The path coefficient of -0.097 implies a slight negative correlation between knowledge and behavior concerning food safety among hotel employees, albeit not statistically significant. The T statistics value of 0.596 suggests that the coefficient lacks statistical significance, indicating that it does not significantly deviate from zero (Carlin & Doyle, 2011). Furthermore, the P value of 0.551 is above the accepted level of 0.05 (Kock, 2016) to provide sufficient support towards the postulation that knowledge has an effect on behavior within this particular setting. The results denote a moderate positive relationship between attitude and knowledge concerning food safety among hotel employees with a path coefficient of 0.643. This coefficient is statistically significant since a T statistic

of 3.543 (Carlin & Doyle, 2011). In addition, the hypothesis, which postulated that attitude influences the level of knowledge that employees possess concerning food safety practices in hotels, is supported by a statistically significant P-value of 0.023, which is lower than the accepted level of 0.05 (Kock, 2016).

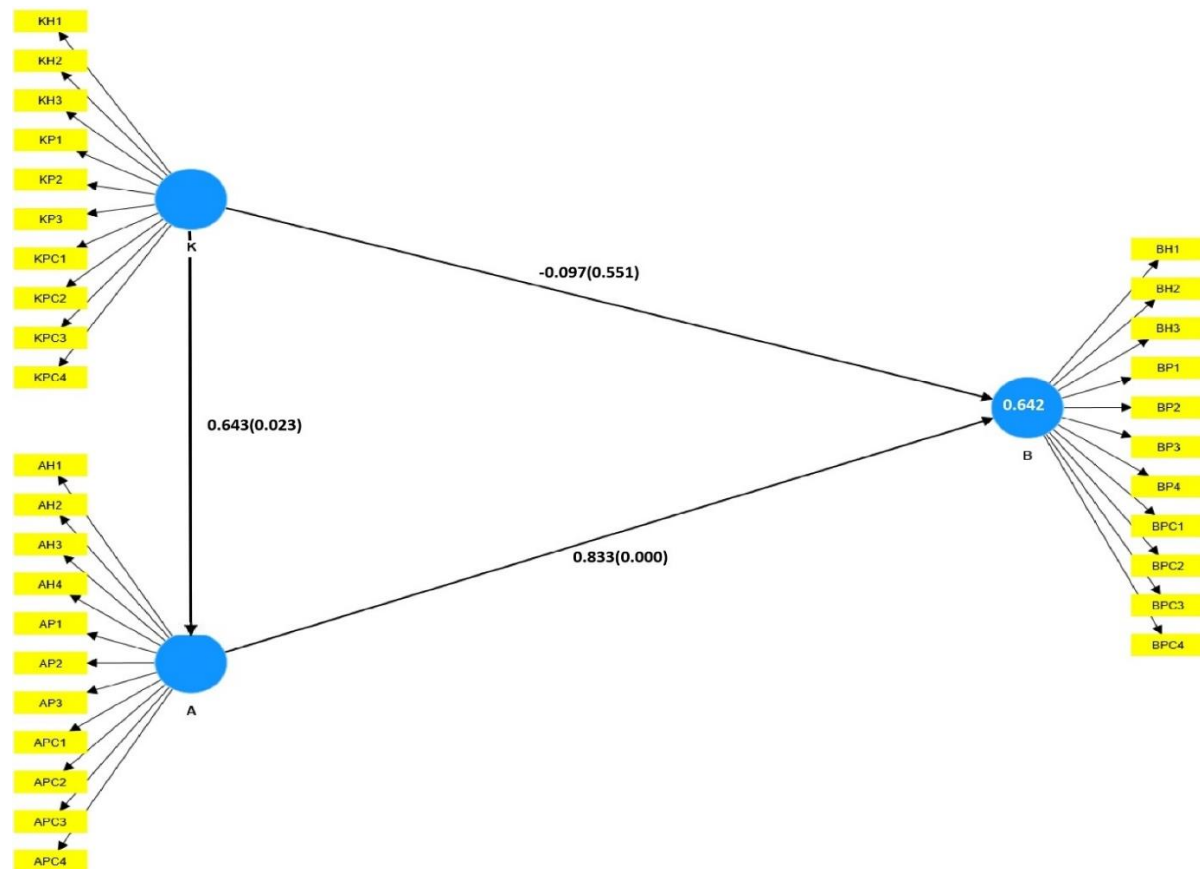


Figure 1. Structure mode

Note: K – knowledge; A – Attitude; B – Behavior

Table 5. Results of Structure Model

	Path Coefficient	T statistics	P values	Hypothesis
Attitude ► Behavior	0.833	5.659	0.000	Supported
Knowledge ► Behavior	-0.097	0.596	0.551	Not supported
Knowledge ► Attitude	0.643	3.543	0.023	Supported

Source: Developed by Author (2024)

4. Discussion

The primary objective of this study was to investigate the relationships between food safety knowledge, attitude, and behavior among employees in above 3-star hotels within the Western

Province, Sri Lanka. The results obtained through structural equation analysis (SEA) offer valuable insights into these associations. A key finding of the study is the strong positive relationship between attitude and behavior regarding food safety practices among hotel employees. The highly significant path coefficient (0.833) and t-statistics value (5.659) indicate that a positive attitude towards food safety is closely linked with desirable food safety behaviors. This finding aligns with previous research highlighting the pivotal role of attitude in shaping behavioral outcomes (Baser et al., 2016; Akabanda et al., 2017). Consequently, fostering a positive attitude through training and awareness campaigns could effectively promote better food safety practices among hotel staff. Contrary to expectations, the results suggest a slightly negative, yet statistically insignificant, correlation between knowledge and behavior concerning food safety. The path coefficient of -0.097 and the insignificant t-statistics value (0.596) and p-value (0.551) fail to provide substantial evidence to support the hypothesis that knowledge influences behavior in this context. This finding contradicts certain previous studies that have demonstrated a positive link between knowledge and behavior (Baser et al., 2016). However, it is consistent with other research that has revealed a knowledge-behavior gap, wherein knowledge alone does not necessarily translate into desired behavioral outcomes (Baser et al., 2016). Further, investigation is warranted to explore the potential mediating or moderating factors that may influence the relationship between knowledge and behavior in the context of food safety practices among hotel employees. Notably, the study uncovered a moderate positive association between attitude and knowledge concerning food safety among hotel employees. The significant path coefficient (0.643) and t-statistics value (3.543) suggest that a positive attitude towards food safety is conducive to acquiring and retaining food safety knowledge. This finding aligns with existing literature that highlights the reciprocal relationship between attitude and knowledge (Chen et al., 2018; Baser et al., 2016).

In this way, hotels may promote positive attitude within their setting and ensure that employees are seeking and implementing food safety knowledge to improve overall food safety. Therefore, the study has highlighted the importance of attitude in determining the behavior as well as the knowledge that the hotel employees have concerning food safety practices. Although it was found that knowledge does not necessarily translate into change in practice, positive attitude seems to be a significant prerequisite for the improvement of desirable food safety practices as well as for knowledge acquisition and retention. The present study has implications for hotel management and food safety training suggesting that while knowledge enhancement is critical, it should be complemented by attitude change strategies to ensure the long-term success of food safety training initiatives.

5. Conclusions

In conclusion, this study attempts to provide valuable information regarding the relationship between food safety knowledge, attitude and behavior through the successful use of Structural Equation Modelling (SEM). The key findings in the study includes this research was able to understand a statistically significant positive relationship between food safety knowledge and food safety attitude as well as the relationship between Food safety attitude and food safety behavior of employees in the kitchen departments of above 3-star hotels in Western province,

Sri Lanka. However, the study was not able to identify a positive relationship between food safety knowledge and food safety behavior of employees in the kitchen departments of above 3-star hotels in Western province, Sri Lanka. This also highlighted that, although knowledge cannot change behavior, the study reveals that a positive attitude constitutes a strong determinant of effective food safety behaviors and the process of gaining and retaining food safety information. Hence, the management of hotel and the policymakers in the Sri Lankan hospitality sector to pay more attention towards the establishment of the training program and the positive attitude towards the implementation of the food safety measures among the hotel staff. It is suggested that such efforts should be accompanied by subsequent evaluations and follow-ups to determine the efficacy of these initiatives in converting positive attitudes into practicable and permanent measures in the context of food safety.

Several limitations that occurred during the implementation of this study. As the data collection relied entirely on self-reported responses from participants from non-management level employees, it was not possible to verify the accuracy of the information provided during the completion of the questionnaire. Another limitation was the challenge of managing the time allocated for conducting the research. This limitation affected the depth and comprehensiveness of the data collection and analysis process.

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