

A Study Examining the Customer Service Experience Using the Partial Least Square (PLS) Approach, with a Particular Focus on Personal Interaction Encounters and Customer Involvement

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Abstract: The relationship between academic achievement, student happiness, and the quality of academic services provided by university staff is a critical issue in Malaysian public higher education. This correlation highlights the importance of understanding the factors that influence the interactions between academic staff and students. Knowledge of the variables affecting how academic staff members and service encounters interact is quite important. This study aims to examine the influence of personal interaction encounters and customer involvement on the level of customer service experience provided by academic staff at Malaysian public universities. To gather data from 454 academic faculty members at Malaysian public universities, a self-administered questionnaire was developed. PLS 4.0 was used in this work and proportionate stratified random sampling was utilized. The results showed significant relationships between consumer involvement and personal interaction encounters with customer service experience. By acknowledging and addressing these variables, Malaysian public universities can foster more positive and productive interactions between staff and students or other stakeholders, ultimately improving the academic experience.

Keywords: *Customer service experience, personal interaction encounters, customer involvement, academic staff, Malaysian public universities*

1. Introduction and Background

Malaysia has become a significant player in the global market for international students pursuing higher education. Realizing that this sector can spur economic growth and provide export income, Malaysia is making a concerted effort to become the region's center for higher learning. The 2015-2025 Malaysia Education Blueprint for Higher Education sets an ambitious goal of attracting 250,000 international students by 2025. Despite challenges such as a fluctuating global economy and shifting geopolitical trends, Malaysia has seen an increasing number of international students choosing it as a destination for higher education. This trend allows Malaysia to leverage its strong higher education system to boost international student enrollment. Currently, international students contribute approximately RM 5.9 billion annually to the Malaysian economy, highlighting the significant economic impact of this sector and underscoring the importance of continuing efforts to attract and support international students in the country.

By 2025, Malaysian public universities hope to become internationally accredited as postsecondary educational establishments. Meeting the requirements set forth by the Malaysian Qualifications Agency (MQA), which functions under the Ministry of Education, is essential to achieving this goal. The quality of the product or service, the degree of service rendered and the total satisfaction of the customer are the three essential elements that cannot be compromised. Meeting customer expectations and delivering an exceptional customer service experience are given top priority in both the Quality Assurance (QA) and International Organization for Standardization (ISO) standards. In marketing studies, customer service experience is rarely prioritized in Malaysian public universities. Hence, the purpose of this study is to evaluate the impact of personal interaction encounters and customer involvement on the standard of customer service experience provided by Malaysian public universities.

The services provided by the Academic Affairs Department (AAD) may have modest differences among various public universities or faculties in Malaysia (Amazt & Idris, 2011). The primary duties of the AAD encompass

establishing the academic regulations and protocols of the university, guaranteeing exemplary standards of quality, and providing support to both domestic and international students. The department is responsible for supervising the evaluation of the academic curriculum and related processes and procedures. Furthermore, the AAD is responsible for overseeing the academic progress of the university and establishing and maintaining intellectual partnerships with prestigious international universities as well as neighboring local institutions. For a university to maintain competitiveness in the education market, it must undergo comprehensive quality assessment techniques. Abbas (2020) states that students are actively seeking prestigious educational institutions that may offer them valuable educational experiences and credentials.

During service delivery, the primary interactions occur between the staff and the customers. Therefore, it is contended that the staff's ability to directly engage with clients is vital for generating remarkable and enduring customer service experiences. Pullman and Gross (2004) argue that the successful implementation of experience design, which fosters a collective identity and emotional connection among service providers, staff, and customers, leads to customer satisfaction and customer loyalty. Therefore, businesses must prioritize comprehensive client experience, encompassing not only the products and services provided but also the aspects of personal interaction encounters (Yuan & Wu, 2008).

Extensive studies have focused on investigating the significance of consumer involvement in both service encounters and face-to-face meetings. What motivates customers to engage in activities that deviate from the usual behavior of users or buyers? Izogo, Elom, and Mpinganjira (2020) argue that customer involvement is influenced by attitudinal factors such as satisfaction, brand loyalty, and trust, as well as consumer-based factors such as goals, resources, and value judgments. Studies conducted in digital platforms indicate that customers participate in nontransactional activities with the anticipation of obtaining various advantages, such as acquiring additional knowledge and enhancing their reputation, enjoying social benefits, and receiving financial rewards, including cost savings (Busser & Shulga, 2019). Companies can encourage consumer involvement by offering efficient means of information exchange and communication, as well as by compensating customers for their efforts (Baron & Warnaby, 2011). Brodie et al. (2013) contended that customer involvement can result in consumer loyalty and happiness with the brand and community, as well as empowerment, trust, and dedication towards service providers. The study's backdrop reveals discrepancies in the level of involvement among academic personnel at public institutions in Malaysia and the wide array of services provided by the AAD. According to Brodie et al. (2013), client involvement, which is a psychological process, directly affects the quality of the customer service experience.

The study's emphasis on improving public services—specifically, the in-person customer service experience and consumer involvement—makes it pertinent to the Malaysian setting. The outcomes of this investigation possess the capacity to improve the caliber of services given by the government and public sector. Improved citizen satisfaction and public trust stem from more effective and citizen-focused services delivered through more consumer involvement and human connections. Furthermore, considering how quickly digital technologies are assimilated, it is imperative to understand how technology-enabled customer involvement and human connection are related. The purpose of this research is to help government agencies and companies in Malaysia use technology to enhance customer experiences while maintaining the human element that is usually valued in face-to-face interactions. The study's emphasis on the customer experience, especially in terms of personal interaction and consumer involvement, has the potential to significantly enhance Malaysia's thriving service sector. Acquiring information can lead to improvements in customer happiness, service quality, and business efficiency, all of which can further the economic and social welfare of the country. Based on a review of the literature, using focused service marketing techniques enhances the customer service experience as a whole.

2. Literature Review

Customer Service Experience: This is relevant to various service providers in the public and private sectors, such as businesses, government organizations, and educational institutions. The goal is to attain and maintain high levels of performance (Zeithaml, Bitner, and Gremler, 2010). Public universities in Malaysia and other service organizations have fierce competition from a wide range of universities globally (Knight, 2011). Calma and Dickson-Deane (2020) state that institutional policies primarily focus on improving the student service

experience to enhance the quality of education. Supplementary programs have been created to engage students in active engagement during the teaching and learning process, in addition to typical evaluation criteria including the quality of educational resources, classroom organization, and achievement of learning objectives. These endeavors entail implementing the most efficient strategies, promoting diversity, and fostering inclusiveness. To successfully attract students, a university must provide an educational curriculum that precisely aligns with their specific requirements and preferences (Zeithaml, Bitner, and Gremler, 2010). According to Ramachandran, Chong, and Ismail (2011), the university has been forced to adopt new and innovative methods to efficiently deal with the challenges of society, growing competitiveness, and fast-changing expectations. The field of service marketing has utilized a range of disciplines, including psychology, sociology, economics, and anthropology, to progress and achieve greater levels of success. Consequently, service marketing has shifted towards a customer-centric approach. To maintain a lasting competitive edge, it is crucial to offer clients a broader range of choices, deliver authentic value, and successfully nurture their emotions and loyalty (Lovelock & Wirtz, 2014). According to Lakhali et al. (2020), students who have a favorable encounter with educational and social institutions are more inclined to achieve success in their courses and programs, as well as effectively assimilate socially and academically.

A consumer demonstrates a remarkable commitment to obtaining and utilizing a product or service when they give priority to their customer service experience in a service setting (Ali and Omar, 2014). Based on feedback from many consumers, the variables that improved their mental and physical well-being during their service experiences were receiving personalized attention and being in a luxurious environment (Cetin and Dince, 2014). Businesses in the entertainment industry, such as theme parks, typically place a high priority on customer experience (Zomerdijk & Voss, 2010). A literary analysis reveals that customers consistently encounter a customer experience that exhibits varying levels of quality, which can range from good, negative, to neutral, depending on the service or product they obtain or receive. In essence, every interaction with a service has the possibility for customers to have distinct experiences, regardless of whether the product or service is considered ordinary (Voss & Zomerdijk, 2007).

Personal Interaction Encounter: Various factors, as previously noted, might influence a customer's experience. However, what influence do human or interpersonal relationships have? The impact of different cues, such as the behavioral patterns displayed by doctors during patient interactions, the mannerisms of lawyers, or the stage presence of performers, can greatly influence the decisions made by clients or observers, as well as their confidence, motivation, effectiveness, and satisfaction.

The topic of interpersonal communication has garnered significant scholarly interest in recent years, as evidenced by the investigations carried out by Ying-Jie and Yang (2014) and Guerreiro (2020). Personal contact is considered justified because it is seen as a way to enhance client connections, strengthen an organization's reputation, and support marketing efforts (Wei and Yuan, 2019). The company is striving to enhance customer satisfaction by addressing their specific needs and offering tailored services. The decision is driven by the recognition of the importance of human engagement in delivering value to customers (Nugroho, 2019). A common belief is that physically being present and actively interacting with consumers can enhance their perceived worth and facilitate the transaction of goods or services. Moreover, direct human communication exerts a substantial impact on shaping clients' favorable opinions. Furthermore, it aids in the development and maintenance of a reliable and committed customer base for the company (Chen et al., 2021; Liu et al., 2021; Bai et al., 2022).

Customer loyalty is crucial in today's fiercely competitive market (Hou, 2021). Customer loyalty is determined by the direct relationships that anchors establish with them (Alharbi and Alhider, 2018). Hence, the transmission of information from businesses to customers promotes the dissemination of word-of-mouth and the continuous expansion of the client base (Cao, 2002). Many companies have chosen to prioritize the interpersonal interaction strategy to maintain their competitive advantage, as it offers several benefits (Ding et al., 2020). Many firms are placing great emphasis on interpersonal communication to preserve their competitive edge, acknowledging the diverse benefits it provides (Wang et al., 2021).

Prior studies have investigated the influence of in-person encounters on customer satisfaction. Keng et al. (2007) conducted a study to examine how face-to-face contacts affect the quality of customer service. The

assessment of the experience was conducted by evaluating its efficiency, service excellence, enjoyment, and beauty. The investigation's findings revealed that direct human contact garners substantial approbation and enhances consumer satisfaction. Service staff who exhibit the ability to deliver fast, cost-effective, accessible, and convenient service to consumers improve good interpersonal connections and increase the entire customer experience. In addition, Backstrom and Johansson (2006) found that service workers can create a positive client experience by providing constructive criticism, offering suitable ideas, and efficiently handling complaints. Moreover, according to Locander et al. (2020), providing thorough or attentive services resulted in favorable experiences as staff members made customers feel esteemed or indulged.

These customer-employee interactions and service exchanges occur within the social service industry. The social atmosphere at public colleges' AAD is shaped by customers' evaluations of the staff members' service quality and their interactions with other customers. Research has shown that contented personnel have a positive impact on customer satisfaction. Therefore, the participation of customer service representatives and support personnel is crucial for the success of any service company (Akter, Upal, & Hani, 2008). Hence, it is possible to establish legal incentives that acknowledge the expansion of highly skilled service workers and exceptional customer service. This recognition has the potential to enhance the satisfaction levels of employees who have direct interactions with clients, especially when considering the service personnel of the AAD in Malaysian public institutions (Akter et al., 2008). Thus, in all service businesses, the interactions among individuals are seen as a crucial element that significantly impacts the client service experience. Therefore, it is recommended that there is a significant association between personal interaction encounters and customer service experience.

Customer Involvement: Busser and Shulga (2019) argue that the relationship between a firm or brand and consumer experiences results in a psychological state referred to as customer engagement. Psychological presence, as defined by Kahn (1992), refers to the state of being fully aware and engaged. This phrase is intricately connected to involvement. Psychological presence, as described by Schaufeli et al. (2002), is a state in which individuals are fully engaged in their tasks, utilizing their energies in physical, cognitive, and emotional dimensions. Psychological presence is not limited to a certain thing or time, unlike engagement. This excerpt highlights the differentiation between psychological engagement and physical presence.

To understand a psychological state or disposition, it is crucial to acknowledge the interconnectedness that surrounds the experience (Chandler & Vargo, 2011). Customer engagement can be encouraged through a gratifying interaction with a rental vehicle service representative. Alternatively, a rental car service can be organized through several methods including making a phone call, having a face-to-face connection with a staff member, utilizing a self-service kiosk, or utilizing an online chat platform. Multiple studies examine the factors that contribute to customers engaging in activities that extend beyond just usage or purchasing. Izogo, Elom, and Mpinganjira (2020) propose that consumer engagement is affected by customer-driven elements such as goals, resources, and value judgments, as well as attitudinal components such as satisfaction, brand loyalty, and trust. A study conducted by Busser and Shulga (2019) in online environments found that customers engage in nontransactional activities with the anticipation of gaining benefits such as enhanced knowledge, enhanced reputation, social advantages, and financial rewards such as cost savings. Businesses can improve consumer involvement by implementing effective communication and interaction channels (Baron & Warnaby, 2011) and providing incentives to clients for their contributions (Busser & Shulga, 2019). Locatander et al. (2020) found that consumer involvement leads to empowerment, trust, and dedication towards service providers.

Furthermore, it possesses the capacity to foster customer allegiance and augment satisfaction with the brand and community. The study's backdrop reveals variations in the level of involvement among academic staff at public universities in Malaysia and the wide array of services provided by the AAD. The quality of the customer service experience is governed by the level of customer participation, which is described in this study as a psychological process (Brodie et al., 2013). This study examines the psychological state of consumer engagement that comes from certain interactions. Consumer participation primarily refers to the psychological state that arises when a consumer interacts with a central agent or object in certain service interactions. Moreover, a dynamic and iterative process of service interaction involving multiple tiers of client involvement culminates in the cooperative creation of value. The phrase "customer involvement" is broad and depends on the context as well as the particular ways in which stakeholders display pertinent emotional, cognitive, and

behavioral traits. Furthermore, it is necessary inside a nomological network of service interactions, as mentioned by Locatander et al. (2020). In the end, this study found that varying degrees of consumer involvement are caused by the various situational contexts in which customer interaction occurs. Validating the significant relationship between customer involvement and customer service experience is the goal of this study.

3. Methodology

This study employed a cross-sectional research design and is characterized by its use of quantitative methods. The data was collected by conducting self-administered surveys using Google Forms. The study focuses especially on the academic faculty at public universities in Malaysia as the object of investigation. The data was collected using self-administered surveys that were completed by the participants. The researcher sought the department director's advice due to their inability to directly engage with the respondents. The research equipment was distributed directly to the department heads of the participating institutions on an individual basis. The department head was instructed to distribute the surveys to the academic staff of the faculty members in a random fashion. Each set of questions was accompanied by a cover letter that clearly stated the goals of the study, guaranteed the privacy of the collected data and provided directions for filling out the surveys. The questionnaire items were designed to elicit responses that were not definite or erroneous, and participants were guaranteed secrecy. A total of 472 questionnaires were completed to collect data. After entering the data into SPSS, a total of 18 surveys were excluded from the study because they had insufficient data. A total of 454 surveys were deemed genuine, indicating a reduction from the initial count of 472. Subsequently, the data underwent encoding before its integration into SPSS for error detection and verification of the absence of any missing or inaccurate ratings. The poll encompassed academic personnel from all publicly funded universities in Malaysia.

Surveys were administered in which respondents personally completed the questionnaires. Wakefield and Blodgett (1999) created a framework for assessment known as the personal interaction encounter concept. This construct includes the qualities of being responsive, professional, reliable, attentive, and fostering connections between guests. The Revised Personal Participation Inventory (RPII), consisting of ten items, was employed to evaluate consumer participation. Zaichkowsky founded the RPII in 1987. The researchers applied the Customer Experience Index (CEI) scale, established by Kim et al. (2011), to evaluate the level of customer service quality. The scale underwent a comprehensive examination and validation process to ensure its reliability and validity. The alpha coefficients for benefits, convenience, accessibility, usefulness, and trust all exceeded the threshold of 0.70 on each of the five scales (alpha = 0.95, alpha = 0.81, alpha = 0.87, and alpha = 0.70). The evaluation of all concerns was performed using seven-point Likert-type scales, where a rating of 1 indicated "strongly disagree" and a rating of 7 indicated "strongly agree."

Subsequently, the next phase was validating the reliability of each component. The primary goal is to examine the interrelationships among the many components of each construct or the internal consistency within the constructs themselves. This is especially fascinating because these formations have not been previously examined inside the framework of a public university. The Cronbach alpha coefficient was employed to evaluate the internal consistency. To enhance the reliability of the structure, it is advisable to eliminate components with an alpha value lower than the acceptable threshold of 0.7. A Cronbach alpha of 0.7 signifies a sufficient degree of internal consistency (Pallant, 2020). All of the study constructs demonstrated a Cronbach alpha level higher than 0.7. The study's assumptions were evaluated using SmartPLS 4.0.

4. Findings

The study's conclusions entailed the classification of the participants into eight distinct categories, utilizing SPSS, according to their demographic characteristics. The factors considered include age, gender, marital status, length of work at the institution, teaching experience, educational achievement, monthly salary, and areas of expertise. The study revealed that out of the total number of respondents, 267 individuals, accounting for 58.8%, were female, while 187 respondents, equivalent to 41.2%, were male. The sample consisted of 323 participants, of which 71.2% were married. Furthermore, a total of 127 individuals, including 28% of the sample, fell between the age ranges of 25 to 30. Meanwhile, there are 273 individuals, making up 60.6% of the

total, who are categorized as lecturers. Additionally, there are 106 individuals, representing 23.3% of the total, who are categorized as senior lecturers. Furthermore, a total of 309 individuals, constituting 68.1% of the overall population, possess master's degrees. Out of the whole group of respondents, only thirty individuals, which accounts for around 6.6% of the sample, reported having a monthly income of over RM8000. Nevertheless, 121 participants, constituting 26.7% of the sample, reported that their wages were in the RM3001 to RM4000 range. Moreover, almost 50% of the participants had been employed by their universities for a period ranging from two to nine years. The poll results indicate that the majority of individuals have a basic comprehension of business and management.

Measurement Model Evaluation: The measurement model was assessed using Structural Equation Modeling-Partial Least Squares (SEM-PLS) with Smart PLS 4.0 software (Ringle, Wende & Becker, 2015). The evaluation criteria encompassed factor loading, composite reliability, average extracted variance (AVE), Cronbach's alpha, and discriminant validity. The Heterotrait-Monotrait (HTMT) measure, introduced by Henseler, Ringle, and Sarstedt (2015), was also taken into account.

Internal Consistency Reliability: The initial criterion in the measurement model is the internal consistency reliability criterion, encompassing Cronbach's Alpha and composite reliability. Hair et al. (2014) contend that to establish a satisfactory level of reliability necessary for the investigation, the composite reliability values must surpass 0.70.

Table 1: Internal consistency reliability

Construct	Item	Loading range (>0.70)	Composite Reliability (>0.70)	Cronbach's Alpha (α) (>0.60)
Personal Interaction Encounter	26	0.743 – 0.886	0.965	0.963
Customer Involvement	10	0.758 – 0.867	0.906	0.899
Customers Service Experience	33	0.701 – 0.827	0.968	0.966

Table 1 displays the dependability of internal consistency for different constructions. The construct must possess a composite reliability exceeding 0.70. The Cronbach's Alpha (α) value must exceed 0.60. The quantity of in-person interactions is 26. The range of values for this construct spans from 0.743 to 0.886, with a specific value of 0.965. The personal interaction encounter construct has a value range of 0.743 to 0.886, with a value of 0.965. While the customer involvement construct has a value range of 0.758 to 0.867, with a value of 0.906. The customer service experience construct has a range of 0.701 to 0.827, and its current value is 0.968. The composite dependability values for customer involvement, customer service experience, and personal contact encounter are 0.965, 0.906, and 0.968, respectively, as stated in Table 1. Values falling between 0.70 and 0.90 are deemed strong and good, as per the findings of Nunnally and Bernstein (1994). Moreover, all of the structures exhibited a substantial level of composite reliability.

Convergent Validity: Table 2 displays the composite reliability ratings, which indicate the degree to which the indicators of the construct align with the underlying notion. The values range from 0.906 to 0.968, indicating a clear difference between them. The outcome exceeds the recommended threshold of 0.70, as stated by Hair et al. (2014). Based on the AVE (Average Variance Extracted) values presented in Table 2 for each construct, it can be inferred that the measurement model has convergent validity. The AVE (Average Variance Extracted) varied between 0.586 and 0.662. Table 2 presents the degree to which the measurement model demonstrates convergent validity. The variable should have loadings that exceed 0.70. The composite reliability must be greater than 0.70. The mean value exceeds 0.50. The value of Cronbach's Alpha (α) should exceed 0.60. The range of values for personal interaction encounters is between 0.743 and 0.886. The variable has a value of 0.965. The value assigned to another variable is 0.662. The third variable has a value of 0.963. The range of values for customer involvement is between 0.758 and 0.867. The value assigned to this variable is 0.906. The value of another variable is 0.628. The third variable has a value of 0.899. The range of values for customer service experience is between 0.701 and 0.827. The variable has a value of 0.968. The value assigned to another variable is 0.586. The third variable has a value of 0.966.

Table 2: Convergent validity of measurement model

Construct	Loading range (>0.70)	Composite Reliability (>0.70)	AVE (>0.50)	Cronbach's (α) (>0.60)	Alpha
Personal Interaction Encounter	0.743 – 0.886	0.965	0.662	0.963	
Customer Involvement	0.758 – 0.867	0.906	0.628	0.899	
Customer Service Experience	0.701 – 0.827	0.968	0.586	0.966	

Discriminant Validity: Discriminant validity can be assessed by different techniques, including the Heterotrait-Monotrait (HTMT) Ratio and the Fornell-Larcker (1981) criterion. These methods include evaluating the relationships between many constructs and determining the square root of the Average Variance Extracted (AVE) for each concept. The Heterotrait-Monotrait (HTMT) ratio of correlations, established by Henseler et al. (2015), is a precise and rigorous approach used to assess discriminant validity. It determines if the weight of an item on one structure is larger than the total weight on other structures. HTMT is typically assessed and contrasted against a pre-established threshold as a benchmark for comparison. Gold, Malhotra, and Segars (2001) established that a score of 0.90 is the minimum threshold for indicating a lack of discriminant validity. Consequently, the validity of discrimination has been established and the Heterotrait-Monotrait (HTMT) values as evidenced in Table 3.

Table 3: Heterotrait- Monotrait (HTMT)

	Customer Service Experience	Personal Interaction Encounter	Customer Involvement
Customer Service Experience	0.830		
Personal Interaction Encounter	0.458	0.357	
Customer Involvement			0.793

Table 4: Fornell-Larcker Criterion

	Customer Service Experience	Personal Interaction Encounter	Customer Involvement
Customer Service Experience	0.764		
Personal Interaction Encounter	0.794	0.814	
Customer Involvement	0.441	0.337	0.793

Note: Diagonals (in bold) represent the average variance extracted while the other entries represent the squared correlation.

The Fornell-Larcker criterion evaluation results are presented in Table 4, displaying the square root of the Average Variance Extracted (AVE) on the diagonal and the correlations between the variables in the lower left triangle. The square roots of the average variances extracted (AVEs) for the constructs of customer service experience, customer involvement, and personal interaction encounter are all above 0.50. Therefore, our research fulfills the necessary criteria for the Fornell-Larcker and HTMT ratios, thereby showcasing the distinctiveness of the components. In summary, the assessments conducted in this investigation have shown evidence of both discriminant and convergent validity.

Assessment of Path Coefficients: Path coefficients are employed to assess the empirical soundness of hypotheses and the associations among variables. The significance of the connections between the two courses is illustrated in Table 5. The external determinants of customer involvement and personal interaction encounters significantly impacted the variations in the internal hidden variable of customer service experience, with β values of 0.337 (34%) and 0.441 (44%) correspondingly. The t-values of the parameters reflect the magnitude of the connection they represent; a higher t-value indicates a stronger association. The t-values for each coefficient were derived using the bootstrapping technique, employing a sample size of 5000 (Chin, 2010).

Table 5: Significant Testing Results of the Structural Model Path Coefficients

Structural Path	Path coefficient (β)	t- value	P- value	Decision
Personal Interaction Encounter -> Customer Service Experience	0.337	7.402	0.000	Supported
Customer Involvement -> Customer Service Experience	0.441	10.203	0.000	Supported

* 1.645 - 2.32 ** 2.33 and above *** $p < 0.01$

The crucial findings of the statistical tests done on the path coefficients in the structural model are presented in Table 5. The route coefficient (β) quantifies the correlation between various components inside the model. The word "P-value" denotes the likelihood of obtaining a result that is as extreme as, or more extreme than, the observed data, under the assumption that the null hypothesis is true. In this instance, the customer service experience can be characterized as a personal interaction encounter. The coefficient of the path for this relationship is 0.337, with a t-value of 7.402. The p-value of less than 0.01 indicates that the value of 0.337 is statistically significant. Furthermore, the correlation between customer involvement and customer service experience is highly significant, as indicated by a path coefficient of 0.441 and a t-value of 10.203. The p-value for this association is statistically significant, with a value below 0.01. Both of these hypotheses were accepted and validated with an extremely significant p-value, measuring less than 0.000. To summarize, there is a definite and straightforward connection between how consumers perceive involvement, their interactions including personal contact, and the overall experience of customer service.

Evaluation of the Determination Coefficient (R²): The Determination Coefficient (R²) is calculated by squaring the difference between the actual and predicted values of an endogenous component. This value represents the accuracy of the model in predicting outcomes. Chin (1998) suggested three specific thresholds for evaluating the R² value: 0.19 for a weak correlation, 0.67 for a strong relationship, and 0.33 for a moderate correlation. The R² value of the research model, specifically 68.3% or 0.683, represents the proportion of variability in customer service experiences that can be explained by the model. This result suggests that the model's prediction is at an acceptable level. This indicates that the model in question is significant and has a substantial level of predictive efficacy.

Discussion

According to this study, human contacts have a significant and positive impact on the customer service experience. Additional researchers corroborate these results, asserting that customers' positive engagement and satisfaction are contingent upon meaningful and satisfying encounters with human services (Dzama, 2013). The importance of consumer interaction in promoting positive experiences cannot be ignored (Locander et al., 2020). Furthermore, the outcomes of this investigation are consistent with the discoveries made by Puccinelli et al. (2009). They believe that the quality of a service experience depends on the interpersonal interactions between the customer and the service provider. The establishment of beneficial relationships between employees and customers, which cultivate rapport and enhance employee responsiveness, has a direct impact on customer satisfaction (Locander et al., 2020).

Based on this research, the active involvement of consumers has a significant and positive influence on the level of customer service quality. The findings indicated that academic staff members who demonstrated higher levels of involvement were more likely to witness improvements in customer service. The study demonstrates a direct and favorable association between customer service experience and involvement. This discovery is consistent with the results of a recent investigation carried out by Wanying, Zhounan, Xu, Xiuping, & Ziang (2022), which similarly identified a positive association between consumers' level of involvement and experience value. The study aims to examine how individuals' abilities, goals, and levels of participation impact their viewpoints and approaches to information processing (Wanying et al., 2022). It is essential to emphasize the analysis of customers' cognitive experiences in addition to allocating resources to academic staff to properly manage the customer service encounter in AAD. Moreover, the result corresponds with the conclusions of a study carried out in non-commercial online forums by Zhang (2013). The study revealed that customer involvement had a substantial and favorable impact on both word-of-mouth promotion and the likelihood of recurring usage. Consequently, organizations should prioritize consumer participation, since it

will have a direct influence on clients by enhancing their perception of value and fostering customer loyalty.

5. Conclusion and Recommendations

According to this study, for the AAD to offer exceptional services, it is advised that academic staff members who visit the department actively engage in the process of delivering services. For example, if an academic staff wants to know about a student's status, he or she must provide precise personal details on the student, such as their student number, classes, semester, and other pertinent attributes. Otherwise, the AAD administrative personnel are unable to provide the service that was requested. Highlighting the importance of co-creation value is essential for providing an exceptional customer service experience to academic professionals. The AAD provides a service that enhances value by facilitating the exchange between the academic staff and the AAD. Schiavone, Leone, Sorrentino, and Scaletti (2020) argue that this design has an indirect influence on the process of value co-creation.

The study's findings emphasize the importance of in-person interactions and customer involvement in shaping the views of academic staff members on customer service at the AAD of Malaysian public institutions. The findings provide additional validation of the significance of customer service experience when examined from the perspective of the behavioral model and social learning theory. The service experience marketing method is based on a psychologically strong paradigm that regards customers as emotional and hedonistic individuals whose main goal is to receive outstanding service. Furthermore, the report emphasizes the significance of ongoing professional growth for employees. It is necessary for policies to require regular training programs to enhance the AAD management team's capacity to make educated decisions on technology, human resources, marketing, communication, and strategy. Furthermore, these training sessions should equip AAD staff with up-to-date strategies and resources to effectively assist students. In addition, implementing certification programs and standards for AAD staff helps enhance professionalism and competency.

References

- Abbas, J. (2020). HEISQUAL: A modern approach to measuring service quality in higher education institutions. *Stud. Educ. Evaluat.* 67:100933. doi: 10.1016/j.stueduc.2020.100933
- Akter, M.S., Upal, M., & Hani, U. (2008). Service quality perception and satisfaction: A study over sub-urban public hospitals in Bangladesh. *Journal of Services Research*, 8, 125-146.
- Alharbi, A. H., & Alhider, I. H. (2018). The impact of customer satisfaction and loyalty on e-marketing: Moderating effect of perceived value. *Journal of Marketing and Consumer Research* 46, 70-77.
- Ali, F., & Omar, R. (2014). Determinants of customer experience and resulting satisfaction and revisit intentions: PLS-SEM approach towards Malaysian resort hotels. *Asia-Pacific Journal of Innovation in Hospitality and Tourism*, 3(2), 175-193.
- Amazt, I. H., & Idris, A. R. (2011). Lecturers' satisfaction towards university management and decision-making styles in some Malaysian public universities. *Procedia Social and Behavioral Sciences*, 15(2011), 3957-3970.
- Bäckström, K., & Johansson, U. (2006). Creating and consuming experiences in retail store environments: Comparing retailer and consumer perspectives. *Journal of Retailing and Consumer Services*, 13, 417-430.
- Bai, S., Li, F., & Xie, W. (2022). Green but unpopular? Analysis of purchase intention of heat pump water heaters in China. *Energies* 15:2464. doi: 10.3390/en15072464
- Baron, S., & Warnaby, G. (2011). Individual customer's use and integration of resources: Empirical findings and organizational implications in the context of value co-creation. *Industrial Marketing Management*, 40(2), 211-218.
- Brodie, R. J., Ilic, A., Juric, B., & Hollebeek, L. (2013). Consumer engagement in a virtual brand community: An exploratory analysis. *Journal of Business Research*, 66(1), 105-114.
- Busser, J. A., & Shulga, L.V. (2019). Involvement in consumer-generated advertising: effects of organizational transparency and brand authenticity on loyalty and trust. *International Journal of Contemporary Hospitality Management*, 31(4), 1763-1784.
- Calma, A., & Dickson-Deane, C. (2020). The student is a customer and quality in higher education. *Int. J. Educ. Manag.* 34, 1221-1235. doi: 10.1108/IJEM-03-2019-0093

- Cao, M. (2002). On the interaction between online communication and real-life communication. *J. Yancheng Teachers Coll.* 3, 116–118. doi: 10.3969/j.issn.1003-6873.2002.03.027
- Cetin, G., & Dincer, F. I. (2014). Influence of customer experience on loyalty and word-of-mouth in hospitality operations. *Anatolia: An International Journal of Tourism and Hospitality Research*, 25(2), 181–194.
- Chandler, J. D., & Vargo, S. L. (2011). Contextualization and value-in-context: How context frames exchange. *Marketing Theory*, 11(1), 35-49.
- Chen, H., Zhang, S., Shao, B., Gao, W., & Xu, Y. (2021). How do interpersonal interaction factors affect buyers' purchase intention in live-stream shopping? The mediating effects of swift guanxi. *Internet Res.* 32, 335–361. doi: 10.1108/INTR-05-2020-0252
- Chin, W. W. (2010). How to write up and report PLS analyses. In V. Esposito Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of partial least squares* (pp. 655-685). Berlin, Heidelberg: Springer Berlin Heidelberg. Doi:10.1007/978-3-540-32827-8.
- Ding, Z., Tang, C., & Wei, H. (2020). Research on the development strategy of "E-commerce + live broadcast" Mode under the internet celebrity economy in 2020. *International Conference on E-commerce and Internet Technology (ECIT)*. IEEE.
- Dzama, T. (2013). Service encounters in the fast-food industry of Midlands province. *International Journal of Marketing, Financial Services & Management Research*, 2(5), 171-192.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management Information Systems*, 18(1), 185-214.
- Guerreiro, P. F. (2020). When interpersonal relationships backfire: Understanding the drivers of booking cancellations in hospitality.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2014). *A primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*. Thousand Oaks: Sage.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43, 115–135.
- Hou, F. (2021). Analysis of the development trend of e-commerce live streaming. *Learn. Educat* 9, 194–195. doi: 10.18282/l-e.v9i4.1724
- Izogo, E. E., Elom, M. M., & Mpinganjira, M. (2020). Examining customer willingness to pay more for banking services: the role of employee commitment, customer involvement and customer value. *International Journal of Emerging Markets*, 16(6), 1176-1201. <http://dx.doi.org/10.1108/IJOEM-10-2019-0850>
- Kahn, W. A. (1992). To be Fully There: Psychological Presence at Work. *Human Relations*, 45(4), 321-349.
- Keng, C. J., Huang, T. L., Zheng, L. J., & Hsu, M. K. (2007). Modeling service encounters and customer experiential value in retailing: An empirical investigation of shopping mall customers in Taiwan. *International Journal of Service Industry Management*, 18(4), 349-367.
- Kim, S. H., Cha, J. M., Knutson, B. J., & Beck, J. A. (2011). Development and testing of the Consumer Experience Index (CEI). *Managing Service Quality*, 21(2), 112-132.
- Knight, J. (2011). Education hubs: A fad, a brand, an innovation? *Journal of Studies in International Education*, 15(3), 221-240.
- Lakhal, S., Mukamurera, J., Bédard, M.E., Heilporn, G., & Chauret, M. (2020). Features fostering academic and social integration in blended synchronous courses in graduate programs. *International Journal of Educational Technology in Higher Education*, 17(5), pp.1–22. <https://doi.org/10.1186/s41239-020-0180-z>
- Liu, P., Li, M., Dai, D., & Guo, L. (2021). The effects of social commerce environmental characteristics on customers' purchase intentions: the chain mediating effect of customer-to-customer interaction and customer-perceived value. *Electron. Commer. Res. Appl.* 48:101073. doi: 10.1016/j.elerap.2021.101073
- Locander, J. A., White, A., & Newman, C. L. (2020). Customer responses to frontline employee complaining in retail service environments: the role of perceived impropriety. *Journal of Business Research*, 107, 315-323.
- Locatander, A., Sharma, N., Iyer, P., & Grant, M. (2020). Sustainable marketing strategies for the digital age. *Journal of Marketing Management*, 36(7-8), 643-667.
- Lovelock, C., & Wirtz, J. (2014). *Services Marketing: People, Technology, Strategy* (8th ed.). Pearson Education.
- Nugroho, R. A. (2019). Sustaining Tourists' Revisit Intention Through talk-in-interaction model: A multicultural communication analysis of guest and homestay host. in *Conservation and Promotion of Heritage*

- Tourism. ed. R. Srivastava (IGI Global), 1–34.
- Nunnally, J. C., & Bernstein, I. H. (1994). The assessment of reliability. *Psychometric Theory*, 3(1), 248-292.
- Pallant, J. (2020). *SPSS survival manual - A step-by-step guide to data analysis using SPSS* (7th ed.). McGraw-Hill Education. London: England.
- Puccinelli, N. M., Goodstein, R. C., Grewal, D., Price, R., Raghubir, P., & Stewart, D. (2009). Customer experience management in retailing: Understanding the buying process. *Journal of Retailing*, 85, 15-30.
- Pullman, M. E., & Gross, M. A. (2004). Ability to experience design elements to elicit emotions and loyalty behaviors. *Decision Sciences*, 35(3), 551-578.
- Ramachandran, S. D., Chong, S. C., & Ismail, H. (2011). Organizational Culture: An exploratory study comparing faculties' perspectives within public and private universities in Malaysia. *International Journal of Educational Management*, 25(6), 615-634.
- Ringle, C. M., Wende, S., & Becker, J.M. (2015). SmartPLS 3. SmartPLS GmbH, Boenningstedt. *Journal of Service Science and Management*, 7(2), 114-126.
- Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. (2002). The measurement of engagement and burnout: A two-sample confirmatory factor analytic approach. *Journal of Happiness Studies*, 3(1), 71-92.
- Schiavone, F., Leone, D., Sorrentino, A., & Scaletti, A. (2020). Re-designing the service experience in the value co-creation process: an exploratory study of a healthcare network. *Business Process Management Journal*, 26(4), 889-908. <https://doi.org/10.1108/BPMJ-11-2019-0475>
- Voss, C., & Zomerdijk, L. (2007). *Innovation in experiential services - An empirical view*. In DTI (Ed.). *Innovation in services* (pp. 97-134). London: Department of Trade and Industry.
- Wakefield, K. L., & Blodgett, J. G. (1999). Customer response to intangible and tangible service factors. *Psychology & Marketing*, 16(1), 51-68.
- Wang, M., Sun, L. L., & Hou, J. D. (2021). How emotional interaction affects purchase intention in social commerce: the role of perceived usefulness and product type. *Psychol. Res. Behav. Manag.* 14, 467–481. doi: 10.2147/PRBM.S301286
- Wanying, Z., Zhounan, H., Xu, D., Xiuping, W., & Ziang, Y. (2022). Evaluating the impact of experience value promotes user voice toward social media: Value co-creation perspective. *Front. Psychol.*, 13. <https://doi.org/10.3389/fpsyg.2022.969511>
- Wei, X., & Yuan, Q. (2019). The impact of the interaction between customers in the virtual brand community on brand loyalty. *J. Hubei University Technol.* doi: 10.3969/j.issn.1003-4684.2019.01.023
- Ying-Jie, M. A., & Yang, D. F. (2014). Impact of interpersonal interaction during service encounter on the formation of experience value—based on the moderator of brand value concept. *Econ. Manage. J.* 86–98. doi: 10.19616/j.cnki.bmj.2014.06.011
- Yuan, Y. H. E., & Wu, C. K. (2008). Relationships among experiential marketing, experiential value, and customer satisfaction. *Journal of Hospitality & Tourism Research*, 32(3), 387-410.
- Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2010). *Services marketing strategy*. Wiley International Encyclopedia of Marketing.
- Zhang, Y. (2013). The impact of brand image on consumer behavior: A literature review. *Open Journal of Business and Management*, 1(1), 58-62.
- Zomerdijk, L. G., & Voss, C. A. (2010). Service design for experience-centric services. *Journal of Service Research*, 13(1), 67-82.