

UNDERSTANDING THE RELATIONSHIP BETWEEN SERVICE QUALITY, SERVICE OUTCOMES, AND SATISFACTION IN THE SPA INDUSTRY

Abstract

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Purpose – In a spa setting, customers expect to receive service outcomes (feeling better of well-being) after the service consumption. Service outcomes are important as they can affect customer satisfaction and repeat consumption in the spa industry. However, there is a scarcity of empirical studies to fully understand their relationships with service quality and customer satisfaction in the spa context. This research, therefore, has an objective to investigate the relationships between service quality, service outcomes, and satisfaction in the spa industry by using Thailand setting.

Methodology/Design/Approach – Data were collected from 249 spa customers through a convenience sampling. Path analysis and structural equation modelling analysis (SEM) were used to test the relationship and the structural model.

Findings – The study found positive relationships between service quality, service outcomes, and customer satisfaction. In particular, service outcomes were found to partially mediate the relationship between service quality and satisfaction. Interestingly, the influence of service outcomes (a mediator) on customer satisfaction was greater than service quality alone, suggesting another determinant of customer satisfaction in the spa industry. It was also found that service outcomes had a special feature because they were influenced by service quality, meanwhile, they also affected customer satisfaction.

Originality of the research – This is the first empirical study to fully examine the relationships between service quality, service outcomes, and satisfaction in the spa industry. The study makes a significant contribution to the spa literature by verifying the special characteristics (roles) of service outcomes and their relationship with service quality and customer satisfaction.

Keywords spa, service quality, service outcomes, satisfaction

Research note

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INTRODUCTION

Service outcomes generally refer to what customers expect to receive after the service consumption (Brady & Cronin, 2001). They are important to the service industries because service outcomes are what customers expect and may affect customer satisfaction, repeat consumption, and loyalty (Lagrosen & Logrosen, 2016; Lo et al., 2015; Thipbharos & Sangpikul, 2023). In the spa industry, customers (including tourists) go to spas to experience specific service outcomes such as relaxation, muscle relief or skin beauty (Choi et al., 2015; Sangpikul, 2022). In other words, customers go to spas because they want to have better mental and/or physical well-being (Lagrosen & Logrosen, 2016; Thipbharos & Sangpikul, 2023). If spa customers receive the expected service outcomes either mentally and/or physically, they are more likely to be satisfied with spa services and may return to use the services in the future (loyalty). In contrast, spa customers who do not receive the expected service outcomes may turn to be unsatisfied and may not come back again, thereby affecting the spa business. The service outcomes, therefore, are an important factor for the spa industry because they are closely related to customer satisfaction.

In a spa setting, a review of literature indicates limited knowledge and understanding about spa service outcomes, particularly their relationship with customer satisfaction. This is due to the fact that most spa studies seem to only look at the relationship between service quality and customer satisfaction without considering service outcomes, for example, Cain et al. (2016), Choi et al. (2015), Han et al. (2017), Clemes et al. (2020), Gonzalez and Brea (2005), Löke et al. (2018), Sangpikul (2022), and Vryoni et al. (2017). One of the major reasons for this is that most spa studies seem to examine the relationship between spa service quality and customer satisfaction based on SERVQUAL model, proposed by Parasuraman et al. (1988). The main focus of the SERVQUAL model is on the service processes or how employees and customers interact, but it lacks the component of service outcomes or what customers expect after using the service (Thipbharos & Sangpikul, 2023). In addition, the review of literature shows that most spa studies have not fully explored all dimensions of spa service quality, which should include three structural dimensions, namely, the interaction, physical and outcome dimensions. These three dimensions, proposed by Brady and Cronin (2001), are argued to form a basis of service quality perceptions or constitute a customer's overall perception of the quality of service. In particular, rare effort has fully examined outcome dimension in spa related studies. Consequently, there has been limited knowledge and understanding about spa service outcomes which may be regarded as an under-researched area in the spa literature. This may be another reason why many scholars may fail to include them in the spa service frameworks or examine them in relation to customer satisfaction.

In addition to service quality (SERVQUAL), other studies have identified some factors to be associated with customer satisfaction in the spa setting, for example, perceived value (Choi et al., 2015; Clemes et al., 2020), spa experience (Han et al., 2017), and service outcomes (Thipbharos & Sangpikul, 2023). For perceived value, Choi et al. (2015) indicated that customers' perceived value attributes, for example, functional value (e.g. utilitarian aspects) and wellness value (e.g. well-being aspects), can impact customer satisfaction. In particular, wellness value was more likely to be a more powerful predictor than functional value. Likewise, Clemes et al. (2020) found that overall perceived value of spa services influenced customer satisfaction. In other words, what customers perceived during spa service delivery (e.g. spa program, staff, and service process) contributed to customer satisfaction. For spa experience, Han et al. (2017) indicated that spa experience (e.g. customers' pleasure/emotion) had the impact on customer satisfaction. In regard to service outcomes, Thipbharos and Sangpikul (2023) revealed that spa service outcomes (feeling better of mental/physical well-being) may have a direct impact on customer satisfaction (e.g. I really feel relaxed, then I am satisfied with spa services), the same time, they may be influenced by certain factors such as service quality (e.g. a customer can feel relaxed when a therapist provides professional service). Their study (qualitative method) implies that service outcomes can be considered as a special variable as it may act as an independent or a dependent variable like customer satisfaction. Unfortunately, Thipbharos and Sangpikul's (2023) study (descriptive findings) did not prove or confirm this assumption through the quantitative method.

Further research is necessary to determine other variables that could influence customer satisfaction in a spa setting, as a few variables have been found to have an empirical impact on it. Customer satisfaction is a critical success factor for spa service providers, as it encourages repeat business, loyalty, and word-of-mouth referrals (Gonzalez & Brea, 2005; Löke et al., 2018; Vryoni et al., 2017). Understanding the factors associated with customer satisfaction can significantly contribute to providing better services that meet customer needs and expectations (Löke et al., 2018; Vryoni et al., 2017). Given the above rationale, the present study will make use of Brady and Cronin's (2001) three structural dimensions, in particular the outcome dimension, in order to enhance comprehension of service outcomes in a spa environment. It will fulfil the research gaps by integrating service outcomes into the existing relationship (framework) between service quality (SERVQUAL) and customer satisfaction. According to Thipbharos and Sangpikul (2023), spa service outcomes are argued to be a distinctive variable because it may be influenced by service quality, meanwhile, it may also affect customer satisfaction. Therefore, the current study has the objective to investigate the relationship between service quality (SQ), service outcomes (SO), as a mediating variable, and customer satisfaction (CS) in Thailand's spa industry through a quantitative approach. The findings are expected to advance all previous works in the spa literature, and to help spa practitioners to deliver expected service outcomes to enhance customer satisfaction.

1. LITERATURE REVIEW

Service literature

In the service literature, an early measurement of quality of the service was proposed by Gronroos (1984), who conceptualised quality of the service as a two-dimensional construct: technical and functional quality. Technical quality generally refers to the outcome of service delivery or what customers actually receive from the service, while functional quality can refer to the process of service delivery. Extending Gronroos' model, Parasuraman et al. (1985) developed the concept of service quality based on customer expectations and perceptions. They originally identified ten service dimensions, and later reduced the overlapping dimensions to five dimensions: reliability, assurance, responsiveness, empathy, and tangibles. These five dimensions have become known as SERVQUAL. Each dimension has its sub-dimensions to measure customer expectations and perceptions of the quality of service. In addition to SERVQUAL, Brady and Cronin (2001) later identified three structural dimensions, for measuring the overall quality of the service, which include the interaction, physical, and outcome dimensions. Each of these dimensions has its sub-dimensions that form the basis of service quality perceptions. They argued that the combination of all three dimensions constituted a customer's overall perception of the quality of service.

Service quality

Among the existing service models, SERVQUAL seems to gain wide adoption in various service sectors including the hospitality and tourism industry due to its generic quality assessment tool with the five different dimensions (Lo et al., 2015; Marković et al., 2014; Sangpikul, 2022). Service quality is generally defined as an evaluation of the difference between expectations and performance along the quality dimensions (Parasuraman et al., 1988). Service quality is important for the service industries (including the spa industry) because the firms can maintain their competitive advantages by delivering high service quality (what customers expect) to meet customers' needs (Hu et al., 2009). During the past decades, SERVQUAL has been widely employed to measure service quality by examining expectations and perceived performance levels of different attributes of the service. According to Parasuraman et al. (1988), reliability is associated with employees' ability to perform or deliver the service correctly; assurance refers to the ability of the business to inspire customer trust and confidence; empathy relates to caring and understanding customers' needs; responsiveness refers to willingness to help customers and providing prompt services; and tangible represents physical environment of the firms. For decades, SERVQUAL instrument has been widely employed in service industries, including the spa sector, to measure customer satisfaction from various contexts.

However, when analysing the service components between the five dimensions of SERVQUAL (Parasuraman et al., 1988) and the three structural dimensions (Brady & Cronin, 2001), the similarities and the differences between the two models are noted (Sangpikul, 2023). According to Sangpikul (2023) who identified the conceptual framework of spa service quality, the

similarities are that reliability, responsiveness, assurance, and empathy (SERVQUAL) are the parts of interaction element of Brady and Cronin (2001)'s model while tangible is similar to physical dimension. The difference is that SERVQUAL lacks the outcome component (what customers receive after the service) because it mainly focuses on service process rather than service outcomes (Ali, 2015; Sangpikul, 2023) while the outcome element is an important part of Brady and Cronin (2001)'s model. In this context, the current study will employ Brady and Cronin (2001)'s outcome component to examine the relationship between service quality (SERVQUAL) and customer satisfaction in the spa setting.

Customer satisfaction

A company that delivers high service quality is more likely to generate high customer satisfaction (Clemes et al., 2020; Han et al., 2017). In general, satisfaction is customers' evaluation of a product or service in terms of whether the product or service meets customers' needs and expectations (Zeithaml & Bitner, 2003). In tourism and hospitality research, the result of satisfaction is developed based on the expectancy-disconfirmation theory (Oliver, 1980) which postulates that customers compare the performance of a service against their expectations of that service. If customers receive their expected services, they are likely to be satisfied with the service providers (better performance than expected). In contrast, if the performance is below expectation, this may result in customer dissatisfaction. Various studies have shown a close or strong relationship between customer satisfaction and service quality as many scholars have used SERVQUAL dimensions to study customer satisfaction (Amin et al., 2013; Ali, 2015). For example, Ali (2015) and Priporas et al. (2017) found that service quality had a significant and direct impact on customer satisfaction in the lodging industry. These studies suggest that accommodation providers should offer their services in way that meets customer expectations in order to generate customer satisfaction. Similarly, service quality has been found to impact customer satisfaction in the spa setting, which is explored in the next section.

The relationship between spa service quality and customer satisfaction

In a spa setting, the relationship between spa service quality and customer satisfaction has been intensively examined as presented in table 1. Several scholars have employed the SERVQUAL model to examine the relationship between service quality and customer satisfaction in different contexts to determine how well the performance of spa service providers meet customer needs and expectations such as Cain et al. (2016); Choi et al. (2015); Clemes et al. (2020); Han et al. (2017); Gonzalez and Brea (2005); Löke et al. (2018), and Vryoni et al. (2017). According to these studies, there is a rich body of knowledge for scholars to understand the relationship between service quality and customer satisfaction in the spa literature. Several studies indicated that most of the SERVQUAL dimensions (e.g. reliability, assurance, responsiveness, and empathy) were often found to positively influence customer satisfaction. Tsai et al. (2012), for example, found that assurance and tangible elements affected customer satisfaction. Similarly, Vryoni et al. (2017) indicated that responsiveness, assurance, tangible, empathy were the important factors affecting spa customer satisfaction. However, none of these studies has attempted to further examine other variables such as outcome dimension (e.g. service outcomes) in such a relationship to expand knowledge in this area as shown in table 1.

Table 1: The analysis of spa literature regarding service quality, satisfaction, and service outcomes

Sources	Service quality and satisfaction	Service quality and service outcomes	Service quality, service outcomes, and satisfaction
Gonzalez & Brea (2005)	✓	-	-
Tsai et al. (2012)	✓	-	-
Chieochankitkan & Sukpatch (2014)	✓	-	-
Vryoni et al. (2017)	✓	-	-
Han et al. (2017)	✓	-	-
Albayrak et al. (2017)	✓	-	-
Löke et al. (2018)	✓	-	-
Clemes et al. (2020)	✓	-	-
Lagrosen & Logrosen (2016)	-	✓	-
Thipbharos & Sangpikul (2023)	-	✓	-

Other factors affecting customer satisfaction

In addition to service quality, a review of spa literature indicates a few variables that affect customer satisfaction. These include perceived value (Choi et al., 2015; Clemes et al., 2020), spa experience (Han et al., 2017), and service outcomes (Thipbharos & Sangpikul, 2023). Choi et al. (2015), for example, examined the relationship between perceived value and customer satisfaction. Their study found that a spa program with functional value (e.g. good services, reasonable price) and wellness value (health benefits) significantly contributed to customer satisfaction. Similarly, Clemes et al. (2020) showed that perceived value had a relationship with customer satisfaction. Their study indicated that a spa program with good service, good facilities and reasonable prices could generate high customer satisfaction. In a study of Han et al. (2017), spa experience (e.g. pleasure, positive emotion) had a positive effect on customer satisfaction. In other words, a customer who had an enjoyable experience

was likely to be satisfied with the spa services. This literature review suggests that there are still a few studies that attempt to examine other factors that influence customer satisfaction in the spa sector, thereby affecting knowledge advancement of the spa literature. Next, service outcomes, another variable that is associated with customer satisfaction, will be discussed.

Service outcomes

In the spa industry, service outcomes refer to what customers expect to receive after using spa services, for example, relaxation, muscle relief and skin beauty (Sangpikul, 2023). As mentioned, most spa studies examine only the relationship between service quality (service dimension) and customer satisfaction as shown in table 1. Therefore, the knowledge to understand the roles of service outcomes (outcome dimension) can be considered as an under-researched area in the spa literature; that requires further research. A review of literature found only two studies examining spa service outcomes, which are Lagrosen and Logrosen (2016) and Thipbharos and Sangpikul (2023). In the spa literature, spa service outcomes had not been fully documented or discussed until the study by Lagrosen and Logrosen (2016), who examined the characteristics of spa service outcomes through the qualitative approach. According to their study, spa service outcomes may be classified into two categories: mental and physical outcomes. Mental outcomes are what customers expect to feel better mentally after spa services such as stress relief or relaxation while physical outcomes are what customers expect to feel better physically after the spa services such as muscle relief or skin beauty. Unfortunately, Lagrosen and Logrosen did not further explore other relationships between spa service outcomes and other key variables. Later, there is a more recent study by Thipbharos & Sangpikul (2023) who further examined the roles of spa service outcomes in the spa industry. In their study (interview approach), spa service outcomes were found to be a distinct variable as what customers expect to receive after the services (e.g. relaxation, stress relief, skin beauty) may be depended on certain factors such as therapists' skills, understanding of customer needs, and product quality, meanwhile, service outcomes also have subsequent influences on customer satisfaction (e.g. my relaxation or the improvement of my skin makes me happy). Their study suggests that spa service outcomes are a special variable as it may influence customer satisfaction and can also be influenced by other factors. Given these distinctive characteristics, however, Thipbharos & Sangpikul's study (2023) focused on descriptive findings rather than statistically validated findings. Since spa service outcomes are assumed to be a special variable as earlier addressed, their inclusion in the relationship between service quality and customer satisfaction may lead to a better theoretical understanding between the three important variables.

Hypothesis development

Following the literature review and to extend the findings from past studies (Cain et al., 2016; Choi et al., 2015; Han et al., 2017; Clemes et al., 2020; Gonzalez & Brea, 2005; Löke et al., 2018; Sangpikul, 2022; and Vryoni et al., 2017) including the works of Lagrosen & Logrosen (2016) and Thipbharos & Sangpikul (2023), the present study aims to examine the roles of spa service outcomes in the relationship between service quality and customer satisfaction, particularly a mediating role of spa service outcomes. Based on the theoretical relationship, service quality (SERVQUAL dimensions) has been found to directly impact customer satisfaction (Clemes et al., 2020; Han et al., 2017; Gonzalez & Brea, 2005). However, the inclusion of service outcomes as a mediator between service quality and customer satisfaction remains empirically unexplored (see table 1). This study will integrate services outcomes into the existing framework (model) between service quality and customer satisfaction to provide a theoretical understanding between the three variables and to expand knowledge in the field. Figure 1 shows a proposed framework between the three variables which have not been fully explored in the spa literature, particularly the roles of service outcomes as a mediator. The relationship between service quality and customer satisfaction (SQ → CS), as previously reviewed, provided a theoretical framework for this study (e.g. the delivery of expected spa service quality makes me satisfied with spa services). This is a common path developed on the basis of previous studies (e.g. Choi et al., 2015; Han et al., 2017; Gonzalez & Brea, 2005), while the new relationship (the focus of the study) between service quality and service outcomes (SQ → SO) as well as service outcomes and customer satisfaction (SO → CS) were developed from a preliminary finding (assumption) by Thipbharos & Sangpikul (2023) who argue that service outcomes could be determined by service quality (e.g. the provision of professional spa services may make me feel relaxed), while service outcomes might also impact customer satisfaction (e.g. I feel really relaxed, then I am very satisfied with the spa services). According to the literature, the research hypotheses are proposed as follows:

H1: Service quality has a positive direct impact on customer satisfaction.

H2: Service quality has a positive direct impact on service outcomes, meanwhile, service outcomes (as a mediator) have a positive direct impact on customer satisfaction (H3).

Figure 1: A proposed structural model



2. METHODOLOGY

The questionnaire was used as a research tool and consisted of 3 main sections: service quality, service outcomes, and customer satisfaction. The measurement of service quality was based on SERVQUAL model which is widely used and found to be adequate and suitable for measuring spa services from past studies (Lo et al., 2015; Löke et al., 2018; Sangpikul, 2022; Vryoni et al., 2017). The SERVQUAL model consisted of 5 dimensions (i.e. reliability, responsiveness, assurance, empathy, tangible) and 14 measurement items adapted from previous studies (Choi et al., 2015; Lagrosen & Lagrosen, 2016; Lo et al., 2015; Vryoni et al., 2017). For example, providing prompt services & willingness to help customers referred to responsiveness while customer safety & venue cleanliness referred to assurance, and beautiful decoration & relaxing atmosphere referred to tangible. The measurement of service outcomes was adopted from Thipbharos and Sangpikul (2023) with 2 measurement items (i.e. I feel better with my mental and/or physical well-being after spa service; I am happy of what I receive after spa services either mentally and/or physically). In regard to customer satisfaction, the measurement items were adopted from Choi et al. (2015) with 2 items (i.e. Overall, I am satisfied with the services as I expect; The services are better than what I expect). The questionnaire items were checked for content validity by 2 academics and 2 spa practitioners. They agreed with 14 measurement items to sufficiently measure spa service quality due to their relevance and conciseness but there were some minor revisions regarding the clarity of the statements. A pilot study was later conducted with a sample of 30 respondents. Minor modification was made regarding wording. The Cronbach's alpha was tested for all items with a value of 0.89, above the acceptable value of 0.7 (Schmitt, 1996). Research samples were customers who used day spa services in Thailand during the past six months. Data were collected from those who attended a health and beauty fair held in Bangkok during December 2023 through a convenience sampling. The respondents were asked, with their consent, to indicate the level of their agreement towards the three constructs based on a standard 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5). A total of 249 usable questionnaires were obtained through a 3-day event. The number of questionnaires received was acceptable as the data must be ten times of the parameter (Kline, 1998). Confirmatory factor analysis (CFA) was used to test the measurement model. Path analysis was used to test the relationships between the three constructs, and the proposed structural model was tested by using a structural equation modelling analysis (SEM).

3. FINDINGS AND DISCUSSIONS

For the general information about the respondents, among 249 respondents, the majority were females (62%) with the ages range between 30 – 45 years old. Most of them had a college degree and worked in private companies. Main purposes to visit spas were relaxation and muscle relief. They often visited spas 1-2 times a month. Next the measurement model and the structural model will be presented as shown in table 2 and Figure 2.

For the measurement model, it was tested before the evaluation of the structural equation model. The measurement model explained the relationship between latent constructs (service quality, service outcomes, and customer satisfaction) and indicators (observed variables) (Anderson & Gerbing, 1982). Table 2 presents a confirmatory factor analysis (CFA) which was performed to determine the reliability and validity of the measurement model (Anderson & Gerbing, 1998). Meanwhile, the fit indices indicated an acceptable fit with the data: chi-square = 42.981, df = 24, chi-square/df = 1.791, GFI=0.961, AGFI = 0.928, NFI = 0.953, Std.RMSR = 0.036 (Bagozzi & Yi, 1988; Byrne, 2001).

According to CFA results (table 2), the internal fit indices were composed of factor loading and individual item reliability of all items used in each construct including Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). All factor loadings were greater than a criterion value of 0.4; indicating a good correlation between the items (Hulland, 1999), meanwhile, Cronbach's alpha exceeded 0.6, and indicator (item) reliabilities were higher than 0.4; indicating acceptable threshold reliability (Hulland, 1999). The indicator reliabilities indicate the percent of the variation in the variable explained by the construct that it is supposed to measure (Hair et al., 2013). At the same time, composite reliabilities of the three constructs were higher than the recommended level of 0.70, indicating high internal consistency (Bagozzi & Yi, 1988). Both indicator reliabilities and composite reliabilities are the important measurement to assess the reliability of the construct (Bagozzi & Yi, 1988; Hulland, 1999). Furthermore, the average variance extracted (AVE) for all constructs was greater than the threshold value of 0.50 (Bagozzi & Yi, 1988). Finally, discriminant validity was performed using Fornell-Larcker criterion (Hair et

al., 2013), the square root of AVEs for each construct (SQ=0.785, SO=0.913, CS=0.775) must be greater than inter-items correlation as shown in table 3, thereby meeting the criterion. Therefore, all of the constructs and indicators in this study were acceptable; suggesting that the measurement model fit the data.

Table 2: Results of CFA for measurement model

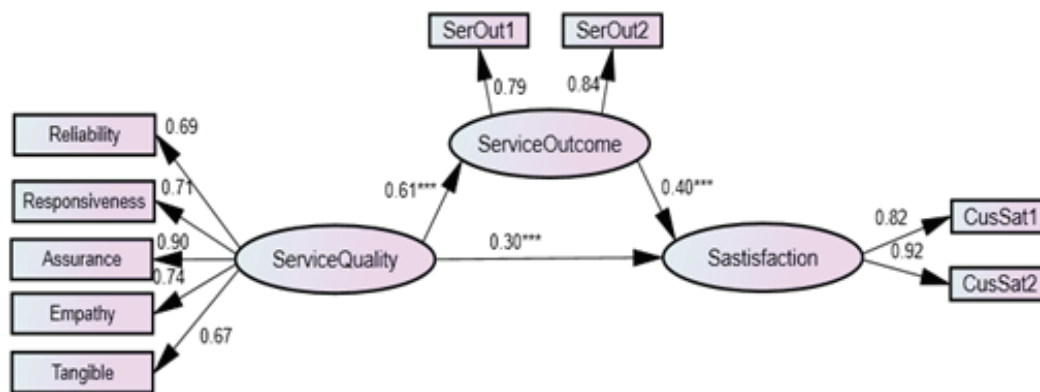
Constructs & items	Standardized loading	Item reliability	Cronbach's alpha	Composite reliability	Average variance extracted
Reliability			0.748	0.905	0.826
Spa employees are knowledgeable about the services they provide customers.	0.894	0.833			
Spa employees provide no service mistake during service delivery.	0.924	0.879			
Responsiveness			0.729	0.893	0.806
Spa employees are always willing to assist customers during service delivery.	0.888	0.762			
Spa employees provide prompt services during service delivery.	0.888	0.677			
Assurance			0.840	0.893	0.676
Spa venues provide clean service rooms and equipment/facilities.	0.829	0.661			
Customers feel safe during service delivery.	0.826	0.610			
Spa employees are experienced in providing services to customers.	0.853	0.682			
Spa employees are polite, friendly and courteous.	0.781	0.687			
Empathy			0.738	0.890	0.802
Spa employees know customer needs by asking customers before and/or during service delivery.	0.900	0.690			
Spa employees are attentive to provide the services as customers expect.	0.890	0.696			
Tangible			0.826	0.919	0.850
Spa venues have clam and relaxing atmosphere.	0.921	0.720			
Spa venues provide comfortable environment (e.g. temperature, lighting, music).	0.923	0.736			
Service outcomes			0.801	0.903	0.823
I feel better with my mental and/or physical well-being after spa services.	0.901	0.705			
I am happy of what I receive after spa services either mentally and/or physically.	0.913	0.728			
Customer satisfaction			0.726	0.829	0.708
Overall, I am satisfied with the services as I expect	0.851	0.731			
The services are better than I expect.	0.831	0.634			

Table 3: **Discriminant Validity Analysis**

	Correlation of the constructs		
	SQ	SO	CS
Service quality (SQ)	0.785		
Service outcome (SO)	0.531	0.913	
Customer satisfaction (CS)	0.210	0.208	0.775

Figure 2 shows the structural model which was conducted to test the proposed hypotheses. The overall fit indices were assessed to check the model fit based on the recommended criteria (Bagozzi & Yi, 1988; Byrne, 2001). The goodness-of-fit indices revealed the adequate fit of the model to the data (chi-square = 31.632, df = 23, chi-square/df = 1.375, GFI = 0.972, AGFI = 0.945, NFI = 0.966, Std.RMSR = 0.0317)

Figure 2: **A final structural model**



(***significant at $p < 0.001$)

According to figure 2, all paths were found to be significant with positive direction ($p < 0.001$). **First**, service quality had a direct impact on customer satisfaction ($\beta = 0.30$), suggesting that the delivery of expected service quality results in customer satisfaction (e.g. good service quality makes me satisfied with spa services). Therefore, H1 was supported. This relationship is a common finding as it is well documented in the spa literature (Cain et al., 2016; Clemes et al., 2020; Han et al., 2017; Gonzalez & Brea, 2005; Löke et al., 2018; Vryoni et al., 2017). **Second**, service quality was found to have a direct impact on service outcomes ($\beta = 0.61$), with high coefficient (H2 was supported). This suggests that, in the real setting, the delivery of expected service quality can result in high service outcomes (e.g. the delivery of personalised service that meets customer expectation can make them feel better or happy with their mental and/or physical well-being). This finding may be supported by Thipbharos and Sangpikul (2023) which indicated that a spa therapist who delivers an individual service (providing the service corresponding to customer needs) was more likely to contribute greater service outcomes than providing the standardised services which treat everyone the same (e.g. I feel really relaxed because a spa therapist understands my needs by giving a light massage pressure as I want). **Third**, service outcomes had a direct impact on customer satisfaction ($\beta = 0.40$), suggesting that when customers are happy with their expected mental and/or physical well-being, they may be more likely to be satisfied with spa services (H3 was supported). This finding also suggests that service outcomes are a mediator between service quality and customer satisfaction based on H2 and H3. This is an interesting relationship because a mediating role of spa service outcomes has not been fully examined in the literature and the findings may be supported by past studies about the reviews of spa services (e.g. Sangpikul, 2022; Smith et al., 2020). For example, Sangpikul (2022) indicated that when spa customers received the expected service outcomes (fully relaxed, better skin beauty), they were more likely to be satisfied with spa services and often posted positive reviews (e.g. happiness, appreciation, recommendation and repeat visit) to express their satisfaction. In addition, it is observed that service outcomes are more strongly related to customer satisfaction ($\beta = 0.40$) than that of service quality ($\beta = 0.30$) because of higher coefficient. This is another key finding that identifies another determinant of customer satisfaction in the spa industry since none of past studies has tested this relationship. This suggests the importance of spa service outcomes to customer satisfaction in the spa context.

Table 3: The effects of structural model

Variables	Customer satisfaction		
	Direct	Indirect	Total
1. Service quality	0.30	0.24	0.54
2. Service outcomes	0.40	-	0.40

Fourth, when analysing the total effects of service quality on customer satisfaction (table 3), it was found that path coefficient between SQ → CS (direct path) was smaller ($\beta = 0.30$) than the indirect path between SQ → SO → CS, with a total effect of 0.54. In other words, service quality had the greatest total effects on customer satisfaction when service outcomes were a mediator, indicating the important existence of service outcomes. This finding may be supported by Thipbharos and Sangpikul (2023) who indicated that although customers received good service quality from spa service providers (e.g. warm welcome, good services, relaxing environment) but if they did not receive the service outcomes as expected, they might not be fully satisfied (or less satisfied) with overall spa services. In contrast, if they received good service quality and the expected service outcomes, they would be more likely to be fully satisfied with spa services. This argument may be evidenced by a study of spa customers' reviews by Sangpikul (2022) who revealed that most spa customers concerned about their expected service outcomes. Many customers might be satisfied with general spa services but if they received poor service outcomes (e.g. not really relaxing as expected, worse muscle pain), they would be unsatisfied and might post negative reviews about spa services. Therefore, this finding suggests that service outcomes play an important role in mediating the relationships between service quality and customer satisfaction. This is a new finding to better understand another important factor which affects customer satisfaction in the spa industry. As a mediator shown in the model (figure 2), it was verified that service outcomes were the dependent variable as they were influenced by service quality, at the same time, they were also the independent variable as they subsequently affected customer satisfaction, thereby reflecting the special characteristics of spa service outcomes.

CONCLUSION

This study has several theoretical and practical implications. **In terms of theoretical implications**, first, the present study has extended a better understanding of the limitations of SERVQUAL dimensions to fully understand the overall spa service quality. According to the findings, service quality was not only the factor that influenced customer satisfaction, but service outcomes also influenced it. Consequently, spa customers not only expect to receive good service quality from spa service providers but also expect to receive the service outcomes as both constructs were found to influence customer satisfaction. This suggests that the evaluation of spa services with SERVQUAL dimensions is not sufficient to provide a comprehensive assessment of spa service quality due to its lack of outcomes element. Given the results of table 3, service quality had the greatest total effects on customer satisfaction when service outcomes were a mediator. This suggests that the delivery of overall spa service quality should encompass both the *service* dimensions (reliability, responsiveness, assurance, empathy, tangible) and the *outcome* dimension to satisfy customer needs and expectations. These findings may help to explain the characteristics of the spa industry that mainly sell 'service experiences' (Lo et al., 2015; Sangpikul, 2022) which include the experiences during the service processes and after the service is completed. Therefore, the current findings help to extend a better understanding of the limitations of SERVQUAL dimensions which is insufficient to fully understand the overall service quality in the spa context. The study has fulfilled the knowledge gaps and extended a better understanding of previous studies that used only SERVQUAL to examine customer satisfaction (e.g. Albayrak et al., 2017; Cain et al., 2016, Chieochankitkan & Sukpatch, 2014; Han et al., 2017; Clemes et al., 2020; Gonzalez & Brea, 2005; Löke et al., 2018; Sangpikul, 2022; Tsai et al., 2012; Vryoni et al., 2017).

Secondly, the present study has extended a better understanding of the three structural dimensions of Brady and Cronin (2001) in the spa setting. Based on the current findings, service outcomes (SO->CS; $\beta = 0.40$) were a more powerful variable than service quality that included interaction and physical elements (SQ->CS; $\beta = 0.30$) in affecting customer satisfaction in the spa setting because of higher coefficient. This may supplement what Brady and Cronin (2001) argue that the importance of each dimension may vary, depending on the industry. In addition, service quality (including interaction and physical) was found to have a relationship with service outcomes (SQ->SO, $\beta = 0.61$). This suggests that the service component and outcome component are not an individual or independent component from each other, but they are interrelated to each other in the spa context, and all contribute to customer satisfaction. The latter finding expands Brady and Cronin's (2001) study in that the three structural dimensions may be interrelated to each other, meanwhile, some of them may influence each other as verified in the present study (i.e. service quality influenced service outcomes). These findings have fulfilled the existing literature and also extend the works of Lagrosen and Logrosen (2016) and Thipbharos and Sangpikul (2023).

Thirdly, the study has identified two significant paths between service quality and service outcomes (SQ → SO) as well as between service outcomes and customer satisfaction (SO → CS), resulting in new paths SQ → SO → CS as shown in figure 2. This suggests an important role of spa service outcomes as a mediator between service quality and customer satisfaction, and implies a special feature of spa service outcomes as they may act either as an independent variable that affects customer satisfaction or a dependent variable that is influenced by service quality. This finding has empirically confirmed and verified the work of Thipbharos and Sangpikul (2023) through the quantitative approach. It may help scholars to thoroughly develop more appropriate frameworks or models when examining spa service quality because service outcomes were found to have similar characteristics like satisfaction (being an independent and dependant variable) as documented in the literature (e.g. Gonzalez & Brea, 2005; Han et al., 2017).

Finally, the current findings may imply that the evaluation of customer satisfaction in the spa setting may have two aspects (elements): service satisfaction and outcome satisfaction. This is because it was found that service quality influenced customer satisfaction (SQ->CS), meanwhile, service outcomes also influenced customer satisfaction (SO->CS). This implies that there two factors affecting customer satisfaction or the overall satisfaction in the spa context. Based on the findings, service satisfaction may refer to customers' evaluation of SERVQUAL's dimensions, while outcome satisfaction may refer to customers' evaluation of service outcomes. This may suggest that spa service providers may not rely solely on service satisfaction to make customers happy and come back but it may rely on outcome satisfaction that may significantly affect overall satisfaction and repeat visits. However, there is a lack of research to address this aspect of customer satisfaction in the spa context. This is an interesting discovery that may provide clues for future studies to use the current findings to further examine these two elements of customer satisfaction in the spa context. Because customer satisfaction is a key variable for the success of the business as it can lead to repeat visits, loyalty, and word-of-mouth referrals (Löke et al., 2018; Vryoni et al., 2017). Finding a more appropriate framework to evaluate the overall customer satisfaction in the spa industry (service satisfaction and outcome satisfaction) may contribute to knowledge advancement in the field.

In terms of practical implications, the current study found that customer satisfaction was not mainly determined by service quality as documented in the literature, but it was also significantly influenced by service outcomes as indicated in the current findings. In other words, a spa treatment delivered by good service quality (e.g. experienced therapists, clean facility, beautiful decoration) may be not the only important factor contributing to customer satisfaction, but the delivery of service outcomes (making customers feel better about their mental and/or physical well-being) also highly contributes to customer satisfaction. This is an important finding for spa practitioners to realise another important factor that can significantly affect or enhance customer satisfaction. Therefore, spa practitioners should pay attention to the delivery of service outcomes as they are what customers actually expect to receive after the service completion. To provide service outcomes, the delivery of high service quality and employee trainings should be emphasised by implementing all dimensions of SERVQUAL during the service delivery (Lo et al., 2015; Sangpikul, 2023). For example, spa therapists should be well trained to be knowledgeable and skilful to provide customers with professional services as well as being courteous and helpful to assist customers when needed. They should be trained to understand customer needs and expectations by providing personalised (individual) services with high standards (high quality) of spa products and facilities (equipment) in a secure, peaceful and relaxing atmosphere. To increase service outcomes, personalised services are focused by training spa therapists to communicate with customers about their needs or expectations before and during the service processes. Customers requesting special care, treatment or service during the service delivery should be attended to increase their mental and/or physical well-being (feeling better after the service). In addition, all services throughout the spa processes should be promptly delivered to customers. The evaluation of customer satisfaction should include the feedback in regard to service satisfaction and outcome satisfaction for the development of better service delivery. Customers (including tourists) who receive the expected service quality as well as service outcomes are anticipated to be highly satisfied with overall spa services, thereby enhancing higher customer satisfaction.

Research limitations and future studies

This study examined only service outcomes (the focus of the study) within the relationships between service quality and customer satisfaction. It may not include other variables in the framework. Future studies may include other key variables to extend the knowledge of spa literature such as spa experience, loyalty and behavioural intention. In addition, the number of respondents may not be large due to the limitation of data collection from spa customers. Future studies may increase the size of the samples and conduct similar investigation to cross-validate what this study has found in order to increase our understanding of spa service outcomes from various settings.

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