Establishing Customer Knowledge Through Customer Accounting in Tourism Industry: A Study of Hotel Sector in Malaysia

Majid Abdulhameed Yasir, Amizawati Mohd Amir, Ruhanita Maelah & Amirul Hafiz Mohd Nasir

ABSTRACT

The competitive business landscape surrounding the tourism industry inevitably requires significant attention to be placed on maximising the customer base towards establishing a competitive advantage. In this vein, the use of customer accounting has emerged to be a source of crucial information about the customers, which they could assist the management in decision making, managing, and controlling the operation and in turn improve the organisational performance. Considering that, this study aims to articulate and examine the relationships between customer accounting, customer knowledge, and performance. Based on a survey administered to 112 hotel managers, the practice information was collected and analysed using partial least square (PLS). Findings show that among the four dimensions of Customer Accounting, Customer Profitability Analysis, Valuation of Customer as Assets, and Customer Equity Analysis relate significantly to Customer Knowledge, except for the Lifetime Customer Profitability Analysis. Subsequently, only Customer Profitability Analysis and Valuation of Customer as Assets significantly influenced performance. The finding suggests that the adoption of Customer Accounting consisting of combined data about customers may assist the hotels in making decisions to improve their performance. Given that, this study highlighted an accounting technique, that is, Customer Accounting which should be practised by the operators of Malaysian hotels to allow them to manage their customers better, and which is the determinant toward ensuring business success and sustainability.

Keywords: Customer accounting; customer knowledge; organisational performance.

INTRODUCTION

Tourism is as one of the largest world's largest economic sectors, representing 10.4% of the global 2019's GDP with the expectation to rise at an annual rate of 4% until the year 2028 (World Travel & Tourism Council 2020). Similar progress reported in Malaysia where tourism is the fastest growing service sector equated 30% of the GDP, remained as an essential source of Malaysian foreign exchange earnings. Malaysia indeed strives to be the world's top 10 tourist destination by the year 2020. Among the criteria for promoting a tourist destination is the ability to provide a high standard of accommodation. The hotel sector flourished gaining the expansion of the tourism industry. Thus, building up new well-equipped facilities hotel is among the opportunities taken by the market players. The promising prospect encourages rapid development in Malaysia hotel sector with an increasing supply of hotel rooms. Unexpectedly the pandemic of COVID-19 provides a different business landscape for the industry where viability is now becoming the primary agenda among the hoteliers. The pandemic outbreak has led to the cancellation of Visit Malaysia 2020 as restrictions are placed on the entry of all tourists and foreign visitors into Malaysia. Accordingly, the sector is expecting a loss of RM6.36 billion revenues, with an average of 25% occupancy rate by the end of the year 2020 (The Edge Malaysia 22th June 2020). In order to

survive in the new world, hotel operators need to redesign their activities given long term impact (Ivanov 2020). Hence, they have to be reactive and proactive in coping with the changing environment. Businesses need to leverage on their knowledge management to be resilience and sustainable (Tarrant 2010; Mafabi et al. 2012). With knowledge and experience, business threats can turn into opportunities by designing new strategies to improve organisational competitiveness. Given managing the customer relationship is the propelling stage in this industry, the hotel performance depends considerably on their ability to maintain relationships with their customers and fulfil their expectation effectively and efficiently. With knowledge pertains to the customers' expectations and buying pattern is a means to tackle their business sustainability challenge. Indeed, Tang and Marinova (2020) and also Haider and Kayani (2020) associate the ability to understand customer needs with the opportunity for innovation. The organisation learns, accumulate knowledge and subsequently create capability of organising better ways for business activities.

Customer Knowledge (CK) is the crucial information to enable businesses to plan and execute activities that create value to the customer (Abdavi et al. 2016). CK underlying premise is that the interaction between the firm and the customer is the locus of value creation and value extraction. Hotel managers need to have an in-depth

knowledge of their customers' needs, preferences and be aware of how the services delivered create value along with simulating their retention and loyalty (Grissemann et al. 2013). CK is pertinent in order to strategise the business approach. In the marketing literature, customer relationships management (CRM) is the source of competitive advantage in the tourism industry (Law et al. 2018). The ability to improve hotel performance, however, is subjected to the availability of customer-focused information. Despite customer-centric value emphasised by the hotel, little discussion on the role of customer accounting (CA) which records and reports information pertains to the customers (Khodakarami & Chan 2014). Indeed, empirical evidence on the use of the accounting technique among Malaysian hoteliers remains limited. The availability and accessibility of the customer information are not only for the selling products/services purpose but as a resource to instil knowledge about the customer in driving future business success (Nur Hasanah et al. 2014). The effort in adopting CA describes the quality and determination of the firm in winning the competition. In consideration of that, building on the resource-based theory, this study aims to observe the extent of CA facilitate CK and subsequently enhance organisational performance.

The study offers several contributions to tourism and hospitality literature. First, the study provides evidence on the extent to which CA information facilitate and support CK. It identifies the desirable dimensions of CA perceived to be necessary within the hotel sector, where the hotel seem to place greater emphasis on short term profitability measures of CA as opposed to long-term indicators. Second, the study explores the relevance of CA and CK in determining hotel performance. Finally, the study contributes to the literature by providing a Malaysian perspective on the issue of CA practice. Considering the limited discussion on CA practices in the Malaysian business sector, this study attempts to fill the gap and contribute a meaningful body of CA knowledge from a developing country's perspective. The findings may be an input for hotel operators in creating knowledge. This paper begins with a discussion on the CK, CA, performance concept, and subsequently introduces the hypothesised relationships. The discussion continues with the research method, and finally, the findings are presented and discussed with some comments on the limitations and direction for future research.

LITERATURE REVIEW & HYPOTHESES DEVELOPMENT

CUSTOMER KNOWLEDGE (CK)

In today's economy, knowledge is a critical asset for organisations. Successful organisations have proven to acquire dynamic capability through knowledge (Alavi & Leidner 2001; McEvily et al. 2000). Extending those evidence into the tourism industry, the ability to obtain,

integrate, and adopt knowledge has always been a crucial for hoteliers to design their strategic actions. Indeed, CRM very much viewed CK as the principle that enables firms to innovate and improve sustainable products and services, to attract, develop, and retain customers. A series of empirical studies has signified CK as one of the most substantial organisational capabilities that should be at the foreground of the knowledge management initiative. Researchers (Park & Kim 2003, Salomann et al. 2005, Chen & Su 2006) argue that CK observes customers from several perspectives dimensions and categorises the knowledge into dimensions, namely knowledge about customers, for customers, and from customers. Knowledge about customers provides the understanding with regards to the customers' attitude, preference, needs and perceived value of products and services, along with their expectations and motivation for the purchasing activity. In the tourism and hospitality industry, such knowledge is critical for the likeliness of repeat purchase and identification of explicit cues to substantiate the service quality (Kim et al. 2015). Customer demographics, past transactions, requirements, financial capability, and purchasing activity are among information which determine the businesses' ability in addressing their customers' needs and guide firms to undertake the appropriate decisions and action to service the market.

Conversely, knowledge for customers offers product/services related information to customers and their needs with the intention to support and assist them apprehend about the products and services. Firms also offer information about the suppliers, markets, and products for customers to know about product and services purchase and usage. The idea is that customers should be assisted during their buying cycle to positively influence their perceptions of products and service quality, and most importantly, about the firm. The last dimension is knowledge from customers which is the knowledge that customers have about the products and services. This type of knowledge resides in customers, and therefore, firms should exert more effort into obtaining it more as compared to the former dimensions of CK. This knowledge-gathering process is mainly triggered by customers and involve the transfer of information from customers to the firm using appropriate feedback mechanisms. Knowledge from customers includes the report on customers' products and services usage, along with their propositions, and claims.

CK information comes from internal and external organisation sources. Knowledge for and from customers likely derive from explicit data, and it may be explicit at the knowledge level, depending on the processes of interpretation and use. In contrast, knowledge about customers is partially implicit, which include the customers' experiences and competencies. Undoubtedly customer data does exist in organisations and business processes, but without any new interventions, that information cannot convert into knowledge. To make

sure the usefulness of generated information, the number obtained need to be classified and analysed. CK allows firms to amplify the customer-based information embedded internally and transfer this knowledge into operational activities to improve efficiency and business value acquisition. Therefore, CK is crucial for the hotel sector since implementing it effectively and successfully determine the sustainability of the business, which mostly associated with retaining old customers and attracting new ones, that are rather difficult in the current tourism market condition.

CUSTOMER ACCOUNTING (CA)

CA is a strategic management accounting technique that provides a set of customer-focused measures given customer-orientation strategy. CA calculates, measures, analyses and reports the costing and profitability of a customer (Cooper & Kaplan 1991, Kaplan & Narayanan 2001), customer valuation (Boyce 2000), the profitability of a customer over its lifetime (Pfeifer et al. 2005) and, profitability analysis of customer segments (Libai et al. 2002). CA assess profits, sales and the present value of earnings related to a customer or customer group (Guilding & McManus 2002), together with the financial and non-financial related performance measures (Boyce 2000). Earlier, CA claimed to be mainly a financial number cruncher calculating customers rather than to understand or manage them (Cuganesan 2008, Roslender & Hart 2010). The CA concept has gradually changed thus becoming a more accepted practise as a resource that provides a comprehensive understanding about the customers, their generated value along with the economic significance to the firms and therefore is the source of firm's strategic decision (Khodakarami & Chan 2014; Ng & Wood 2018). The relevance of CA in the hotel setting is supported by numerous researchers (Foster & Gupta 1994; Guilding et al. 2000) who empirically studied CA in the hotel sector. Generally, the findings from these studies indicate the importance given to room service, hotel restaurant meals, and telephone calls, to generate additional revenue after the initial sale of hotel room accommodation. CA encapsulates four different dimensions of customer information, namely Customer Profitability Analysis (CPA), Lifetime Customer Profitability Analysis (LCPA), Valuation of Customer as Assets (VCA), and Customer Equity Analysis (CEA) (Al-Mawali et al. 2012).

CPA is the most comprehensive CA dimension with the applications of activity-based costing framework on customers. CPA is the fundamental concept that links accounting and marketing (Gleaves et al. 2008). The analysis mainly focuses on the costs incurred and revenues obtained from business transactions with customers at all costs associated with service delivery are traced directly to each customer which is the unit of analysis. Getting customers is crucial, but keeping and bringing satisfaction to them is even more crucial. The reason is that customer retention incurs less cost, and therefore, it is more profitable than customer attraction. Moreover, customer retention contributes to the building of business reputation, which eventually lessens the cost of customer acquisition. Acknowledging the 80/20 sales principle where 20% of existing customers contribute 80% of the profit (or revenue), the knowledge about the customer is vital in strategising the marketing approach. The principle emphasises the need to be able to identify the top 20% most profitable customers since they generate a significant proportion (e.g., 80%) of sales (Brynjolfsson et al., 2011; Chee & Gul 2015). A classic example highlighted by Cooper and Kaplan (1991), only after conducting CPA, Kanthal Company, a manufacturer of heating element, realised that only 40% of its customers generated profit. This information is crucial to an organisation as customer relationships are the profits determinant. Therefore, a more accurate prediction of CK requires a more detailed understanding of customer profitability. The revenue generated as well the cost incurred to serve and retain those customers are essential in analysing customer profitability. An extension of CPA, LCPA identifies the customers who bring profits to the organisation on a longer-term basis.

The practice involves the extension of the CPA to integrate the future profitability projected over the lifetime of the customer business relationships. Accordingly, LCPA broadens the field of time analysis to contain past and future years to enhance data input (Foster & Gupta 1994, Lind & Strömsten 2006) by recognising the long-term nature of customer relationship and incorporating the lifetime value of customers. The LCPA related to future revenues and costs are related to a specific customer using an accrual principle. Although LCPA proves that the provision of data and customer information is indispensable in the study of the customer relationship, the application of this technique is somewhat less popular. Next is VCA that views customers as an asset with the potential of generating future revenues. Thus, it motivates firms to increase their number of customer recognising customer value is the critical success factor to sustain in the market. Although the importance of customer value is widely acceptable, research work about customer value is relatively minimal, and no universal definition of this notion exists. Some argue the value depends on customer's assessment on what is taken and what is as an exchange for products or services, while others perceive customer value as the customer's perception of value based on the benefits obtained from products or services against their price. The evaluation of CK helps firms identify customers as assets. It can help firms increase their value because the portfolio of each customer contributes to the economic profit of the firms (Nenonen & Storbacka 2014). Linking customer value to the value of a firm for strategic decision-making is possible (Gupta et al. 2004). Therefore, customer asset management requires firms to make a careful assessment of the expenses and benefits of alternative expenditures

or investments. Over time, this process identifies the optimal allocation of resources to marketing strategies that are directed at market segments or individual customers to obtain better knowledge on the customers. When a firm regards a customer as an asset, there should be a link between the customer and the revenue generated (Berger et al. 2002). VCA is useful to several decisions, such as the acquisition and retention of customers' value-based segmentation, assessment of the effectiveness of marketing programs, evaluation of strategic alliances, and understanding of CK. Linking customer value to the value of a firm for strategic decision-making is possible (Gupta et al. 2004). The fourth dimension, CEA, refers to the usage level of information regarding customer cross-selling, retention, and acquisition (Blattberg et al. 2001). CEA compares what spent on customer acquisition against what spent on customer retention. CEA is also the gross lifetime discount value for all the current and probable customers of the firm (Rust et al. 2004). Since CEA focuses on long-term profitability rather than the annual sales or market share, it represents the lifetime value of the customers during a specified period.

One of the earliest published works in this sector was by Guilding et al. (2000). They elaborated on CPA and CA as assets in reviewing the potential of CA in the hotel sector. In another conceptually established paper on the hotel sector, Quain (1992) outlined the presumptive segment CPA of the hotel. All revenues acquired from the different segments of the hotel, including hotel guests, and actions during the measurement of the profitability segment are essential. Meanwhile, Noone and Griffin (1999) presented the findings of a case study on developing and implementing a segment's CPA in the Irish hotel. Besides that, studies have proved positive effect and widened the role of LCPA (Cooper & Kaplan 1991; Foster & Gupta 1994; Al-Mawali et al. 2012) and customer valuation analysis (Foster et al. 1996; McManus 2013) on business knowledge. The stringent competition in hotel markets yet requires the mastery of interest in their customers, and therefore the information about customers may result in gains and profits to the organisation. Grönroos (2004) underline that the notable characteristics of production and consumption in service organisations are inseparable, and crucial in building relationships with customers. CK is perfect for the hotel sector, primarily when implemented effectively and successfully. Based on the arguments presented, the study posits the following relationships:

H1a: There is a positive relationship between CPA and CK

H1b: There is a positive relationship between LCPC and CK

H1c: There is a positive relationship between VCA and CK

H1d: There is a positive relationship between CEA and CK

ORGANISATIONAL PERFORMANCE (OP)

Possessing a competitive advantage is the critical success factor for competing hotels. Competitiveness is about producing better quality goods and services that are marketed successfully to customers (Tsai et al. 2009), while OP represents the ability to create wellbeing for its customer (Bahar & Kozak 2007). OP indicated the level of efficiency or effectiveness in utilising firm resources and capabilities in establishing firm' organisational competitiveness. Subsequently, those factors lead to better results, financially and non-financially. In light of the economic developments, most businesses are gearing towards competitive advantage. As such, OP includes three particular areas of the outcomes: (1) financial performance (return on assets, return on investment, and profits); (2) market performance (market share, sales); and (3) the stakeholder return (total shareholder return, economic value added). Obviously, OP depends significantly on the firm's business objectives and strategies to stay profitable in the long run (Kaplan & Norton 1996). In the tourism industry, the aspect of competitiveness includes market, product and technology advancement that fulfil customer leisure, wants and need. As a result, a collection of accounting information related to the customers allows a precise estimation of the scope to which strategic, operational, and tactical objectives should be undertaken to ensure good performance (Kuwaiti 2004). Studies have demonstrated that practices of management accounting have a significant positive effect on OP.

Although conformity in the practice of management accounting and control leads to better performance, the approach to capture and measure customer value remains unclear to the practitioners. A possible explanation is that the CA practice in a firm is somewhat unique and may not be replicated by other firms given the different business settings. The expectation is that CA is positively associated with OP. The reason is CPA, which has been included in numerous researches works (Guilding & McManus 2002, Foster & Gupta 1994, Al-Mawali et al. 2012), has been proven to be positive and significant. Although limited empirical evidence on LCPA analysis, studies such as Cadez and Guilding (2008), and Al-Mawali et al (2012) reveal that the usage of customer-based information in the development of customer marketing strategy does promise success. Other researchers (Cooper & Kaplan 1991, Foster & Gupta 1994, Guilding & McManus 2002) also posit similar view emphasising that the establishment of long-term relationship with customers has a positive effect on OP. Similar associations are posited between VCA and CEA on OP as the findings on an empirical study (Al-Mawali et al. 2012) in Malaysia signifies both relationships. VCA which is often referred as the calculation of the current and future value of customers to the company observes the customer impact on OP, and therefore such valuation is expected to have a positive effect on OP (Guilding & McManus 2002). Given that CEA focuses on long-term trend of customer spending pattern, the same relationship is expected between CEA

and OP since hoteliers can quickly determine whether it is gaining or losing competitive edge with respect to the customer base valuation. Based on these arguments, the hypotheses are:

H2a: There is a positive relationship between CPA and OP

H2b: There is a positive relationship between LCPA and OP

H2c: There is a positive relationship between VCA and OP

H2d: There is a positive relationship between CEA and OP

Accordingly, CK allows firms to amplify the knowledge embedded internally and transfer this knowledge into operational activities to improve efficiency and business value acquisition (Rust et al. 2004). CK benefits an organization in four essential ways. First, it deploys knowledge to enhance the competitive position and cost efficiency of firms. Second, it matches the products and services of the firm to customers. Next, it diagnoses the current problems of customers to provide timely and creative solutions. Finally, it identifies the future needs of customers and provides proactive responses (Moon & Gupta 1997; Piercy & Lane 2006). A study in the hotel sector has provided an empirical support that CK improves the business performance (Sin et al. 2006). The

success of CK will be reflected in the forms of financial achievements (e.g. profit growth, cash flow, profitability, operational efficiency, and growth of sales) and also non-financial performance (e.g. customer loyalty, customer retention, and customer satisfaction). Therefore, the following is assumed:

H3: There is a positive relationship between CK and OP.

CK is an important economic capability, and gaining the knowledge has become an important differentiator of competitive advantage. CA, which comprises of CPA. LCPA, VCA and CEA, is the resource in establishing CK. The combination of both CA and CK will allow the creation of superior customer value, hence enhancing OP (Khodakarami & Chan 2014). In other words, CK underlying premise is that the interaction with the customers creates value to the firm (Abdavi et al. 2016). Therefore, the effect on performance, acting through CK, for the CA practise is predicted as follows:

H4a: CK mediates the relationship between CPA and OP.
H4b: CK mediates the relationship between LCP and OP.
H4c: CK mediates the relationship between VCA and OP.
H4d: CK mediates the relationship between CEA and OP.

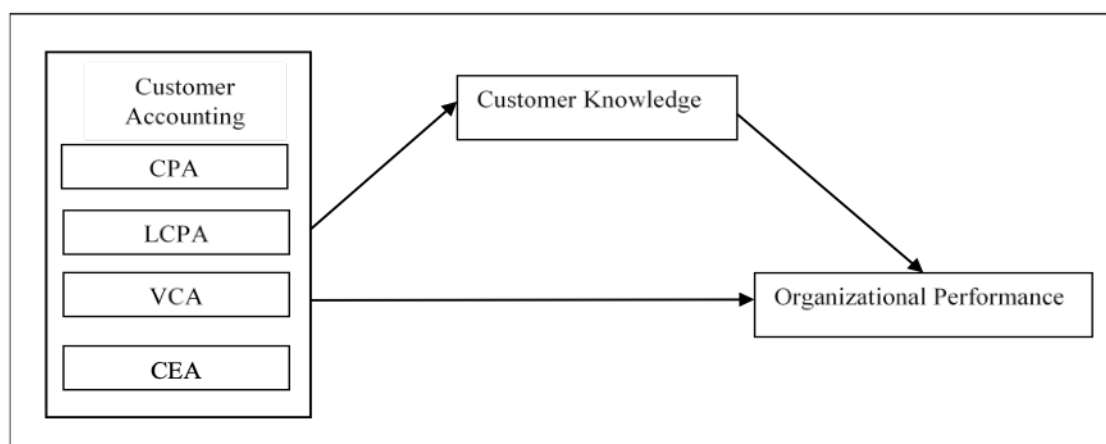Focusing on the experience of hotels in Malaysia, the research framework is as shown in Figure 1.

FIGURE 1. Research Framework

METHODOLOGY

The sampling frame for this study is from 5, 4 and 3-star hotels operating in Malaysia that registered with Malaysian Hotel Association 2016. According to the Malaysia Accommodation Directory list, there were 3132 hotels under these categories. The reason for choosing such a hotel is that organisational size tends to influence the level of adoption of management accounting

practices. The data collected by administering an online questionnaire survey to randomly selected hotel managers considering their knowledge on the management practices in the firms. A total of 112 usable questionnaires received with a response rate of 26.5%. Table 1 provides the detailed profile of responding firms by sector, number of employees and size. The responses were subjected to the usual tests for randomness compared with the total sample, with no discernible differences observed.

TABLE 1. Profile of the Responding Hotels

		Frequency N=112	%
Business Duration	less than 5 years	20	17.9
	6-10	30	26.8
	11-15	21	18.8
	more than 15 years	41	36.6
Employee Tenure	less than 5 years	74	66.1
	5-10	29	25.9
	more than 10 years	9	8.0
Rating	5 star	18	16.1
	4 star	29	25.9
	3 star	65	58.0
Size of Hotel	less than 100 rooms	18	16.1
	100-300	53	47.3
	300-400	32	28.6
	greater than 400	9	8.0
Number of Full Time Employees	less than 100	56	50.0
	100-149	27	24.1
	150-200	13	11.6
	greater than 200	16	14.3

MEASUREMENT OF VARIABLES

CA was measured using a combination of established instruments. The first CA dimension, CPA, was measured using an eight-item-measurement used by Guilding and McManus (2002), Mulhern (1999), and Al-Mawali et al. (2012). The measures were direct customer costs, revenues gained by the hotel through the customers, the profitability of customers; analysis of the significant contributing customers to the profitability of the hotel, analysis of the total profits over the total number of customers, profits gained from the profitable customer that supports the losses gained from other customers, classification of customers (e.g. profitable, break-even, and unprofitable customers), and customer's service cost. The second CA dimension is LCPA's instrument consisted of future potential customer costs, potential revenue, potential profits, future potential service cost of customers, duration of the customer relationship, prediction of the value of future customer transactions, as well as future behaviour of customers (Al-Mawali et al. 2012). While VCA, which was measured using items used by studies such as Al-Mawali et al. (2012), Guilding and McManus (2002), Gupta et al. (2004), and Pfeifer et al. (2005). The measurements items include: a) future cash inflow that gained from a particular customer (e.g., future fees, charge); b) future cash outflow that may be caused by a particular customer (e.g. future expenses); c) future cash inflow that gained from customer groups; d) future cash outflow that may be caused by customer groups; and e) analysis of the vulnerability of future cash flows for each customer. Finally, CEA measured the number of customers acquired, changes in the spending patterns of customers, cost of customer retention (e.g. promotion, advertising costs), future customer needs (e.g. special offers), the trade-off between the costs of acquiring and retaining customers, causes of customer defections. Respondents asked to rate the extent of CA, scale 1 indicated not at all, while 7 indicated use extensively.

CK was measured using a 10-item instrument, which was developed by Liao et al. (2012). Respondents have to indicate on a seven-point Likert-type scale ranging from 1 (poor) to 7 (excellent), the extent of the knowledge pertains to their hotel's customers.

OP was measured using an instrument developed by Patiar and Mia (2009). Items measured are the return on equity (ROE), return on investment (ROI), sales growth rate (SGR), operating profit, customer satisfaction and complaint, market share and success rate of new services. Respondents need to rate their firms' performance relative to their competitors' for the past three years on a seven-point scale. Scale 1 indicated much worse than competitors, while scale 7 indicated much better than

competitors. The Cronbach alpha for all the factors were above 0.80 range, indicating satisfactory internal reliability for the scale.

<div align="center">RESULTS</div>

<div align="center">MEASUREMENT MODEL</div>

Table 2 reflects good convergent reliability because all items loaded to their respective constructs are almost equivalent or exceeded the recommended value of 0.70 (Hair et al. 2014). Discriminant validity assessed using Fornell-Larcker criterion approach by comparing the square root of the AVE values with the latent variable correlations. Notably, the square root of each construct's AVE ought to be greater than its highest correlation with other constructs. Hair et al. (2014) pointed if a particular correlation score is higher than the square root of the AVE, the researcher can decide to eliminate the construct in order to increase the reliability or discriminant validity.

<div align="center">TABLE 2. Psychometric properties of measures using smart PLS</div>

Factor Label	Items	Factor Loadings	Composite Reliability	AVE	Cronbach Alpha
Customer Accounting					
Customer Profitability Analysis (CPA)	Customers' profitability	0.848	0.921	0.595	0.900
	Customers' direct costs	0.816			
	Revenues gained	0.722			
	Major contributing customers	0.710			
	Customers' total profits	0.703			
	Customers' service cost	0.566			
Lifetime Customer Profitability Analysis (LCPA)	Future potential profits by hotel	0.736	0.951	0.765	0.938
	Future potential revenue	0.624			
	Future potential customer costs	0.545			
Valuation of Customer as Assets (VCA)	Future cash outflow from a customer	0.872	0.922	0.798	0.874
	The future cash inflow from customer groups	0.794			
	Future cash inflow from a customer	0.739			
	The future cash outflow customer	0.727			
Customer Equity Analysis (CEA)	Changes in spending patterns	0.826	0.937	0.748	0.915
	No. of customers acquired	0.803			
	Cost of retaining customers	0.796			
	Future customers' needs	0.782			
	A trade-off between acquisition and retention costs	0.629			
	Causes of customers' defections	0.548			
	Customers retention rate	0.509			
Customer Knowledge (CK)	Customer's knowledge about the company's products and services	0.855	0.914	0.681	0.883
	Customers' propositions	0.842			
	Customers' claims	0.843			
	Diversity of products	0.830			
	Customers' learning patterns	0.825			
	Customers' leaning frequency	0.818			
	Contribution to the profit	0.803			
	Customers' complaints	0.791			
	Customers' learning preference	0.774			
	Company's revenue, profit and policy	0.774			

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Organisational Performance (OP)	Operating Profit	0.892	0.936	0.745	0.914
	Return on Equity	0.880			
	Return on Investment	0.878			
	Sales growth rate	0.875			
	Customers' complaints rate	0.859			
	Market Share rate	0.853			
	Customer satisfaction rate	0.818			
	The new service success rate	0.815			

Additionally, Table 3 reveals, the construct's inter-correlations in the model did not override the square root of the AVE for the constructs. The psychometric properties of the instruments hence were acceptable to support the explanation on the structural model.

TABLE 3. Correlation of latent variables and the square root of AVE

CONSTRUCTS	1	2	3	4	5	6
1. CPA	0.771					
2. LCPA	0.678**	0.875				
3. VCA	0.559**	0.759**	0.893			
4. CEA	0.575**	0.755**	0.822**	0.865		
5. CK	0.488**	0.542**	0.520**	0.569**	0.825	
6. OP	0.510**	0.593**	0.610**	0.629**	0.518**	0.863

Bold diagonals represent the average variance extracted while the others represent the squared correlations
** $p < 0.01$ (2 tailed)

HYPOTHESES TESTING

Hypothesis 1 predicted that the CA dimensions might have a direct effect on the CK. All the dimensions except LCPA were supported (refer to Table 4). To a certain extent, the evidence was consistent with past studies (Al-Mawali et al. 2012, McManus 2013), but it did not provide significant support to LCPA. For that reason, H1 partially supported.

TABLE 4. PLS-SEM results for H1

Hypothesis	Relationship	Coefficient	p-value	+/-	Results
H1a	CPA -> CK	0.376	4.035	(+)	Supported
H1b	LCPA -> CK	-0.058	3.563	(-)	Not Supported
H1c	VCA -> CK	0.304	2.120	(+)	Supported
H1d	CEA -> CK	0.348	5.289	(+)	Supported
r^2(CK)			0.354		

Hypothesis 2 observed the direct relationships between CA and OP, whereas hypothesis 3 examined CK and OP relationship. For the second set of hypotheses, only CPA and VCA reported significant positive relationships with OP, while CK has a direct positive relationship with OP (refer to Table 5). Therefore, H3 was supported, while H2 was partially supported.

TABLE 5. PLS-SEM results for H2 and H3

Hypothesis	Relationship	Coefficient	p-value	+/-	Results
H2a	CPA -> OP	0.376	4.035	(+)	Supported
H2b	LCPA -> OP	0.103	3.563	(+)	Not Supported
H2c	VCA -> OP	0.324	1.355	(+)	Supported
H2d	CEA -> OP	0.200	1.778	(+)	Not Supported
H3	CK -> OP	0.324	3.550	(+)	Supported
r^2(OP)			0.444		

In testing the CK mediating effect on the relationships between each CA dimension and OP, the size of VAF (variance accounted for) need to be determined. According to Hair et al. (2014), VAF value of less than 20% indicated no mediation effect, 20% to 80% partial mediation, whereas 80% means full mediation effect. Considering that CPA, VCA and CEA reported significant relationships with CK, and CK was significantly associated with OP, the estimations on the mediating effect are summarised in Table 6.

TABLE 6. VAF Calculation for H4

Hypothesis	Relationship	Indirect effect	Total effect	VAF	Results
H4a	CPA -> CK ->OP	0.122	0.376	0.324	Partially mediate
H4c	VCA -> CK ->OP	0.098	0.324	0.304	Partially mediate
H4d	CEA -> CK ->OP	0.238	0.292	0.815	Fully mediate

CONCLUSION

The four main hypotheses examine the role of CA in establishing CK and subsequently observe the effect on OP. Consistent with the resource-based view perspective, organisational knowledge enables firms to be creative and innovative to remain resilient in the market. Sustaining customer satisfaction and enhancing their values are pertinent even to the Malaysian hotel sector. The situation is explained when the hypothesised relationship between CK and OP is significantly supported. Consistent with prior tourism and hospitality studies, the evidence signifies that good knowledge about the customers enables the hotelier to execute their business strategies that promise better performance. The knowledge on the customers' preferences, dislike and spending pattern is crucial in designing service packages that may attract both retaining and new customers, and subsequently, generate a positive effect on OP. Those are among proactive actions taken by most hoteliers during the present COVID 19 situations where they are offering valuable services to attract to their guests in order to compete in the current economic condition. The evidence thus proves that CK is a strategic organisational capability towards creating competitive business advantage. Given that the related knowledge about the customer is pertinent to decide on the business way forward action, a systematic set of customer-focused information is becoming even more critical. Despite that, the extent of the practice in Malaysia remains unclear. The findings indicate the presence of CA (i.e. CPA, LCPA, VCA and CEA) and signify its role as the resource in establishing strategic knowledge. The finding indicates the significance of each CA dimension on CK. CA encompasses both short-term and long-term measures. Similar with prior findings (Gleaves et al. 2008; Brynjolfsson et al. 2011; Chee & Gul 2015), the short-term orientation measure (i.e. CPA) is widely accepted among the hoteliers and does affect hotel performance positively. Likewise, VCA and CEA report a significant positive effect on CK. Only CPA and VCA prove to have a significant direct relationship with OP, implying the tendency of hotels in Malaysia to rely more on shorter-term measures. The claims strengthen when LCPA sub hypotheses are not supported. Consistent with past evidence, the tendency of Malaysian businesses to rely strongly on short-term accounting measures may explain the insignificance of LCPA and CEA on OP (Mohd Amir 2011). Notwithstanding the insignificant direct effect of CEA on performance, CEA remains importance along with CPA and VCA in establishing CK, and subsequently enhance OP of the hotel sector. The importance of the non-financial and future estimation to Malaysian hoteliers is emerging as the effect of CEA being acknowledged for strategic decision. Given the present market scenarios, eventually, all CA dimensions are becoming equally important to support the business immediate and long term action plan.

However, the results should be interpreted in light of several limitations. First, the study suffered all the limitations inherent in using cross-sectional research design where data are a snapshot of the hotel' practices. A single empirical study, as this, in any case, could not be viewed as conclusive. Hence, the study should be part of

a more extensive empirical longitudinal investigation to enhance the understanding of CA practices among hotels in Malaysia. Nonetheless, the result could be a fruitful input for future study. Second, the questions based on perceptions. Thus, the responses may represent what the subject considers to be the fact rather than what the fact are. The third limitation is the low response rate that limits the statistical power of the results and application of more advanced statistical techniques. Finally, this study adopted an approach of one respondent per hotel. Although the information sought from the respondents is not beyond their knowledge, the inclusion of only a single representative may provide a limited perspective of the issues. Future research could improve the validity of the responses by gaining two or three responses across different functional roles and within the organisational hierarchy. Despite the limitations, the results may be a practical input about the role of CA and CK in tourism and hospitality setting.

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Majeed Abdulhameed Yasir
Fakulti Ekonomi dan Pengurusan
Universiti Kebangsaan Malaysia
43600 UKM Bangi Selangor
MALAYSIA
E-mail:

Amizawati Mohd Amir*
Fakulti Ekonomi dan Pengurusan
Universiti Kebangsaan Malaysia
43600 UKM Bangi Selangor
MALAYSIA
E-mail: amiza@ukm.edu.my

Ruhanita Maelah
Fakulti Ekonomi dan Pengurusan
Universiti Kebangsaan Malaysia
43600 UKM Bangi Selangor
MALAYSIA
E-mail: ruhanita@ukm.edu.my

Amirul Hafiz Mohd Nasir
Fakulti Ekonomi dan Pengurusan
Universiti Kebangsaan Malaysia
43600 UKM Bangi Selangor
MALAYSIA
E-mail: amirul@ukm.edu.my

*Corresponding author