

JINOUS SADIGHHA

**CUSTOMER VALUE CO-CREATION JOURNEY IN
HOTELS: CUSTOMER PERCEPTION AND
BEHAVIOUR TOWARD VALUE CO-CREATION IN
HOTELS**



UNIVERSITY OF ALGARVE

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BEHAVIOUR TOWARD VALUE CO-CREATION IN
HOTELS**

A thesis submitted in fulfillment of the requirements for the degree of Doctor of
Philosophy in Economic and Management Sciences, Speciality in Management

Research conducted under the supervision of
Professor Patrícia Pinto
Professor Manuela Guerreiro



UNIVERSITY OF ALGARVE
FACULTY OF ECONOMICS

2024

Statement of Work Authorship

I declare to be the author of this work, which is unique and unprecedented. Authors and works consulted are properly cited in the text and are included in the listing of references included.

Jinous Sadighha

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I dedicate this work to

My parents; Minoos and Mehdi,

My siblings, Pooyan, Amirhosein, and Shayan

My family; Mitra, Zoya, Saeid, and Sirous

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ABSTRACT

The present thesis investigates the customer perception and behaviour towards value co-creation by exploring the associations between customer co-creation perception (conducts of service provider's DART activities: dialogue, access, risk assessment, and transparency) and customer participation behaviour (information seeking, information sharing, responsible behaviour, and personal interaction), and the value co-creation process (co-production and value-in-use) and customer citizenship behaviour (feedback, advocacy, helping, tolerance).

The first study of this thesis proposes a conceptual model for stimulating customer participation behaviour by joining the *Equity Theory* with the *Co-Creation Theory*. The results support that customer co-creation perception (hotels' DART activities) drives customer participation behaviour, which subsequently improves the co-production of a desired offering and experiences a personalised value-in-use during consumption.

The second study proposes a conceptual model for customer behaviour in value co-creation by combining *Equity Theory* and *Social Exchange Theory* with the *Co-Creation Theory*. The results show that customer participation behavior is a prerequisite for the co-production of a desired offering and unique experience of value-in-use, which further increases customer citizenship behavior.

The third study proposes a model for reciprocity of value between the hotel and the customer by joining *Equity Theory*, *Social Exchange Theory*, and *Script Theory* with *Co-Creation Theory*. The findings reveal that customer co-creation perception conducting hotel DART evokes customer participation behaviour that boosts value co-creation and enhances customer citizenship behaviour. Moreover, customer participation behaviour is more associated with value co-creation for first-time customers. In turn, customer co-creation perception shows a stronger relationship with value co-creation for repeat customers.

The present thesis advances theoretical knowledge on value co-creation in the hotel sector, considering the interrelation between the service provider's and customers' contributions. It also provides an effective practical mechanism for the hotels to assist them in increasing their benefits from the reciprocity of the value in the competitive market.

Keywords: customer co-creation perception, customer participation behaviour,

customer citizenship behaviour, value co-creation, co-production, value-in-use.

RESUMO

Num mercado global como o que vivemos e conhecemos hoje, as empresas do setor hoteleiro enfrentam uma concorrência feroz no propósito de oferecer valor superior aos clientes. Neste contexto, a participação dos clientes na co-criação de valor é fundamental para apoiar os hotéis na obtenção de uma vantagem competitiva sobre os concorrentes. A participação do cliente é hoje amplamente reconhecida como resultante do maior valor percebido da experiência de interação entre cliente e prestador de serviços. No entanto, até que ponto o prestador de serviços pode efetivamente contribuir para a formação da percepção de co-criação do cliente e assim estimular a sua participação, como é que esta participação influencia o processo de co-criação e se a co-criação de valor traz realmente valor acrescentado para o serviço em virtude de ampliar a participação do cliente, são algumas das questões que ainda necessitam de resposta.

Estas questões indiciam lacunas na investigação no contexto desta temática e, conseqüentemente, foram analisadas e discutidas nesta tese no contexto dos hotéis enquanto empresas constituídas com o fim de prestar serviços de alojamento aos seus clientes. Durante o processo de investigação, as autoras tomaram consciência de que a co-criação enquanto conceito ainda reflete controvérsia, em parte motivada pela discussão a partir de diferentes perspectivas teóricas, como a lógica dominante de serviço (*Service Dominant Logic*), lógica de serviço (*Service Logic*), estrutura de criação de valor interativa, e a lógica dominante de cliente (*Customer Dominant Logic*). Além disso, estudos anteriores propuseram diversas escalas para medir a contribuição do prestador de serviços para a co-criação de valor (nomeadamente, a escala DART que inclui diálogo, acesso, avaliação de risco e transparência), a contribuição do cliente na co-criação de valor (comportamento de co-criação de valor do cliente incluindo as duas dimensões de participação do cliente/comportamento no papel e cidadania do cliente/comportamento extra-papel) e a escala que visa o processo de co-criação de valor, integrando co-produção (*co-production*) e valor-em-uso (*value-in-use*).

Através de uma revisão em formato narrativo do conceito de co-criação de valor no turismo e hotelaria, concluiu-se que, embora muitas lógicas complementares sejam aplicadas individualmente no setor hoteleiro, tais como a teoria da equidade (*Equity Theory*), a teoria da troca social (*Social Exchange Theory*), e a teoria do *script* (*Script Theory*), nenhuma considerada isoladamente conseguiu esclarecer *como* a colaboração entre o prestador de serviços e o cliente pode co-criar valor para ambas as partes.

Assim, o objetivo geral desta tese é compreender as associações entre as

atividades DART iniciadas pelo prestador de serviços, que formam a percepção de co-criação do cliente, e o seu comportamento de participação, necessário para uma co-criação de valor bem-sucedida (busca de informação, partilha de informação, comportamento responsável e interação pessoal), o processo de co-criação de valor (co-produção e valor-em-uso) e comportamento de cidadania do cliente (*feedback*, defesa, ajuda, tolerância), o qual pode retribuir valor extra ao prestador de serviços.

Esta tese está dividida em três estudos que contribuem para criar e propor uma imagem holística e clara do mecanismo que liga as actividades hoteleiras à formação da percepção do cliente, para, por seu turno, estimular o seu comportamento de participação, assim como impulsionar a co-criação de valor e o seu comportamento de cidadania.

O primeiro estudo propõe um modelo conceptual relativo ao comportamento de participação do cliente, que se apoia simultaneamente na teoria da equidade e na teoria da co-criação. Os resultados dos dados recolhidos de turistas do Reino Unido hospedados em hotéis no Algarve, região sul de Portugal, apoiam a conclusão de que a percepção de co-criação do cliente (fruto das actividades DART dos hotéis) impulsiona o seu comportamento de participação, o qual, posteriormente, se manifestou positivamente ligado à co-produção de uma oferta e à experiência de um valor-em-uso personalizado.

O segundo estudo propõe um modelo conceptual para o comportamento do cliente na co-criação de valor, combinando equidade, e teorias de troca social com a teoria da co-criação. Os resultados mostram que o comportamento de participação do cliente é um pré-requisito para uma co-produção bem-sucedida e de uma experiência única de valor-em-uso, também ainda significativamente associado ao comportamento de cidadania do cliente.

E o terceiro estudo propõe um modelo conceptual representando a reciprocidade de valor entre o hotel e o cliente, combinando as teorias de equidade, troca social e *script* com a teoria da co-criação. Os resultados da avaliação deste modelo revelam que a percepção de co-criação do cliente ao realizar actividades DART no hotel suscita um comportamento de participação que aumenta a co-criação de valor e está positivamente relacionado com o comportamento de cidadania do cliente. Além disso, o comportamento de participação e a co-criação de valor são os mecanismos que medeiam a ligação positiva da percepção de co-criação do cliente com o seu comportamento de cidadania. Os resultados indicam também que, para os clientes em primeira viagem, o comportamento de participação tem maior associação com a co-criação de valor. Por sua vez, para os

clientes que repetem o destino, a percepção de co-criação evidencia uma relação mais forte com a co-criação de valor.

A presente tese contribui para a teoria da co-criação de valor no contexto dos hotéis, considerando a inter-relação entre a contribuição do prestador de serviços e a dos clientes, enfatizando a importância das atividades DART na formação da percepção de co-criação do cliente, a qual estimula o seu comportamento de co-criação. Para mais, este trabalho revela que é uma conjunção de teorias que esclarece como a participação do cliente melhora o seu comportamento de cidadania mediante a co-produção de uma oferta a que aspira, ao mesmo tempo que vivencia pessoalmente o valor. Na prática, este trabalho explora e propõe um mecanismo prático eficaz para os hotéis aumentarem os seus benefícios a partir da criação de valor recíproco num ambiente de mercado competitivo.

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LIST OF ABBREVIATIONS

SDL	Service-Dominant Logic
SL	Service Logic
CDL	Customer-Dominant Logic
IVCF	Interactional Value Creation Framework
VCC	Value co-creation
COP	Co-production
VIU	Value-in-use
CVCCB	Customer value co-creation behaviour
CPB	Customer participation behaviour
CCB	Customer citizenship behaviour
DART	Dialogue, Access, Risk assessment and Transparency
CCCP	Customer co-creation perception
HTMT	Heterotrait-Monotrait Ratio
PLS-SEM	Partial least square structural Equation Modelling
CMB	Common method bias
EFA	Exploratory factor analysis
CR	Composite reliability
AVE	Average variance extracted
VIF	Variance inflated factor
SRMR	Standardised root mean square residual
NFI	Normed fit index
USA	United States of America
UK	United Kingdoms

LATIN EXPRESSIONS

e.g. (*exempli gratia*) for example

CHAPTER 1: GENERAL INTRODUCTION

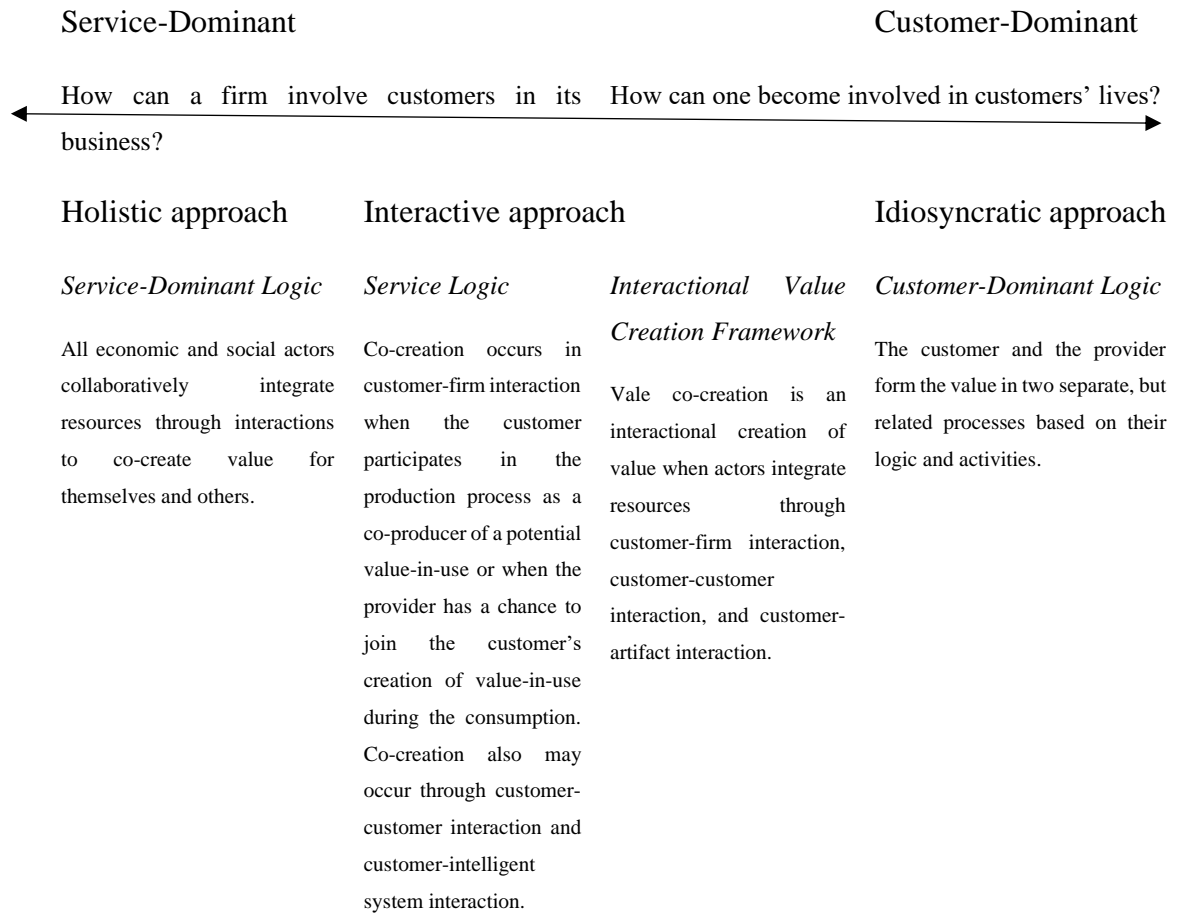
1.1 Introduction to value co-creation

Various authors have discussed value co-creation from different business perspectives, including *Service-Dominant Logic*, *Service Logic*, *Customer-Dominant Logic*, and *Interactional Value Creation Framework*. *Service-Dominant Logic* (Vargo and Lusch, 2008a, 2008b) emphasises how all social and economic actors (e.g., service provider, customer, and partners) integrate their resources, including knowledge and skills, to co-create value for themselves and others (Vargo and Lusch, 2016, 2017). *Service Logic* emphasises that the customer is the co-creator of value, and the service provider facilitates value creation (Grönroos and Voima, 2013). By applying *Service Logic*, value co-creation occurs through dialogical direct interaction between a service provider's and customer's processes (Grönroos, 2011, 2012; Grönroos and Gummerus, 2014).

Contrary to *Service-Dominant Logic* and *Service Logic*, which aim to involve customers in the firms' processes and businesses, *Customer-Dominant Logic* proposes that service providers should become involved with customers' lives by being top of mind, easy to reach, and trusted (Heinonen et al., 2010). Thus, a provider's ability to offer a superior value proposition depends on the provider's understanding of the customer logic, needs and desires and the provider's ability to serve different customers (Heinonen et al., 2013; Medberg and Heinonen, 2014).

According to Prahalad and Ramaswamy (2004b, 2004a), value is a function of human experiences through interaction, and value co-creation is the creation of value by individuals collaboratively. The *Interactional Value Creation Framework* views interaction as a basis for co-creation, experience as the basis for value, and individuals as the centre of co-creation (Ramaswamy, 2011; Ramaswamy & Ozcan, 2018). Figure 1.1 represents the schematic summary of the above marketing perspectives on value co-creation.

Figure 1.1: Schematic summary of the marketing perspectives on value co-creation



Source: adapted from Grönroos (2011, 2012); Grönroos and Ravald (2011); Grönroos and Voima (2013); Grönroos and Gummerus (2014); Heinonen et al. (2010); Heinonen and Strandvik (2015); Lusch et al. (2010); Prahalad and Ramaswamy (2004a, 2004b); Ramaswamy (2011); Ramaswamy and Ozcan (2018); Vargo and Lusch (2004, 2016, 2017) and Voima et al. (2011)

Apart from the conceptual discussion regarding value co-creation, some authors developed scales for value co-creation by considering the role of the service provider, customer, or both parties through the interaction.

1.1.1 DART model

Prahalad and Ramaswamy (2000, 2004b) proposed the DART model as building blocks of value co-creation, including Dialogue, Access, Risk assessment, and Transparency that clarify how the service provider can facilitate the value co-creation

process through interaction. Based on this model, dialogue is beyond spoken conversation with consumers as it brings interactivity, deep engagement, equal communication, and learning for the service provider and customer (Prahalad and Ramaswamy, 2004b, 2004a). Access refers to the customers' access to the company's service information and service process; thus, customers may engage in design, development, price setting, and quality processes across the value network (Prahalad and Ramaswamy, 2004b, 2004a). Risk implies the firm's obligation and managers' responsibilities to inform the consumers of the potential risks of the desired services and products and limitations of firms' knowledge and capability (Prahalad and Ramaswamy, 2004b; Taghizadeh et al., 2016). Finally, transparency refers to the firm's update of its business-related information, such as pricing-related information, that enhances the consumer's willingness to accept the quality of its products and services (Prahalad and Ramaswamy, 2004b, 2000).

Ramaswamy and Ozcan (2016) underpinned that interaction between the service provider and customer is a platform for value co-creation. The DART model is the firm initiative activities in the value co-creation process that diminishes the asymmetry of the conventional information between customers and the firm and turns consumer efforts, skills and knowledge into unique competitive advantages (Taghizadeh et al., 2016).

1.1.2 Customer value co-creation behaviour

While the DART model highlights the firm's initiatives in value co-creation, Yi and Gong (2013) explored customer behaviour in value co-creation. They asked undergraduate and graduate students to recall their most recent experiences with service providers across several industries (e.g., full-service restaurants and travel) and answer questions about their behaviour as customers. Based on this research, customer value co-creation behaviour refers to the customers' behaviour in co-creating value. Customer value co-creation behaviour has two dimensions: customer participation (in-role behaviour) and customer citizenship behaviour (extra-role behaviour). Customer participation behaviour is vital for value co-creation and comprises information seeking, information sharing, responsible behaviour, and personal interaction. For a successful value co-creation, customers seek accurate information about the products or services provided by the firm, share information with employees to ensure that the service meets

their needs, recognise their responsibilities, and cooperate with the employees through friendly and respectful interactions (Roy et al., 2020; Yi and Gong, 2013).

Customer citizenship behaviour is not necessarily required for value co-creation but provides extraordinary value to the service provider. Customer citizenship behaviour has four components: feedback, advocacy, helping, and tolerance. Through citizenship behaviour, customers provide their solicited or unsolicited suggestions to the firm, recommend the business or its brand to others, assist other customers in using the service, and tend to be patient when the service does not meet their expectations (Hsiao et al., 2015; Yi and Gong, 2013).

By applying the scale of customer value co-creation behaviour to segment the market and profile customers, managers can gain helpful information and maximise customer value co-creation behaviour. They may also use the scales to regularly evaluate and reward customer performance to increase customers' willingness to engage in value co-creation behaviour (Yi and Gong, 2013).

1.1.3 Value co-creation

Ranjan and Read (2016) they extracted the two dimensions for the process of value co-creation (VCC), namely, co-production and value-in-use, based on *Service-Dominant Logic* (considering the service provider and the customer as co-creators of value) by reviewing 149 papers. Co-production is controlled by the service provider and consists of knowledge sharing, equity, and interaction. By knowledge sharing, customers share their knowledge, ideas, and creativity to express their needs or share the information they achieved from the previous learning. Equity underpins the firm's willingness to share control with the customer, which evokes the customer's desire to participate in co-creation activities. Interaction refers to the interface that provides opportunities to understand, share, and serve needs and assess and adapt resource commitments (Assiouras et al., 2019; Ranjan & Read, 2016).

The second dimension, value-in-use, comprises experience, personalisation, and relationship. Experience refers to an empathetic, emotional, and memorable interaction between the firm and the customer with intrinsic value when the physical, cognitive, and affective dimensions of the provided products or services link with customers and co-

create value-in-use. Personalisation implies the uniqueness of the actual or perceived use process, and the relationship is revealed in collaboration, engagement, and use of mutual resources and reciprocity (Assiouras et al., 2019; Ranjan and Read, 2016).

In Ranjan and Read's (2016) research, value co-creation measures were validated by collecting data from participants in the USA and India working in general service contexts such as the medical sector, hotel industry, education services, and two co-created brands, *Subway* and *Facebook*. Participants were asked to recall recent interactions with the service providers or brands and answer the questions. The results support the relationship between value co-creation and customer satisfaction.

1.2 Identified gaps in hospitality sector and their importance.

At *Iberostar* chain hotels in Spain González-Mansilla (2019) studied the relationship between customer co-creation perception and customer participation behaviour. Customer co-creation perception is constructed formatively, including the four dimensions of the DART model that are measured reflectively. Customer participation behaviour is a reflective scale, and its measures were adopted from Yi and Gong (2013). The data were analysed using partial least squares structural equation modelling, SmartPLS. This study clarifies that the service provider can facilitate the value co-creation process for its customers by implementing DART activities and increasing their participation. However, the association between customer participation behaviour and the value co-creation process has not been explored.

Assiouras et al. (2019) investigated the association between the value co-creation process, including its two dimensions of co-production and value-in-use, with the willingness to engage in customer citizenship behaviour in the hospitality industry. The participants of this research had visited a lodging facility in Greece or abroad within the three previous months. The measures were adopted from Ranjan and Read (2016) and Yi and Gong (2013) respectively. Data were analysed using partial least squares structural equation modelling, SmartPLS. The results showed that co-production and value-in-use have significant relationships with willingness to engage in citizenship behaviour and customer satisfaction. Still, the relationship between the value co-creation process and customer citizenship behaviour remains to be discovered.

Moreover, several authors called for further studies on how the service provider may stimulate customer participation behaviour through interactive platforms, to what extent customer participation behaviour may impact the value co-creation process, and if implementing value co-creation may reciprocate any benefit to the service provider (Alves et al., 2016; Chathoth et al., 2016; De Larrea and Gregory, 2020; Oertzen et al., 2018). Qiu et al. (2021) also suggested future research to explore the potential impact of customer previous experience on customer-firm interaction, customer participation and value co-creation.

1.3 Research questions

Considering all the above, this study seeks to answer three fundamental questions to develop an integrated framework for customer value co-creation journey in the hotel industry:

1. How may the service provider form customer co-creation perception to stimulate customer participation behaviour and boost value co-creation?
2. How do customer participation behaviour and customer citizenship behaviour as two dimensions of customer value co-creation behaviour contribute to value co-creation?
3. How may the service provider benefit from effectively forming customer co-creation perception, stimulating customer participation behaviour, and boosting value co-creation?

As a result of this concise explanation, the present project is organised and presented within three interrelated studies. Despite their connection, each study represents a separate piece of research with its gaps, aims, literature review, proposed model, and findings. By identifying the implementation of hotel DART activities that effectively form customer co-creation perception that stimulates customer participation behaviour, boosts value co-creation, and reciprocates added value to the hotel, these articles shed light on how the service provider and customer contribute to the value co-creation process and advance the research frontier.

1.4 Research aim and objectives

1.4.1 Overall objective

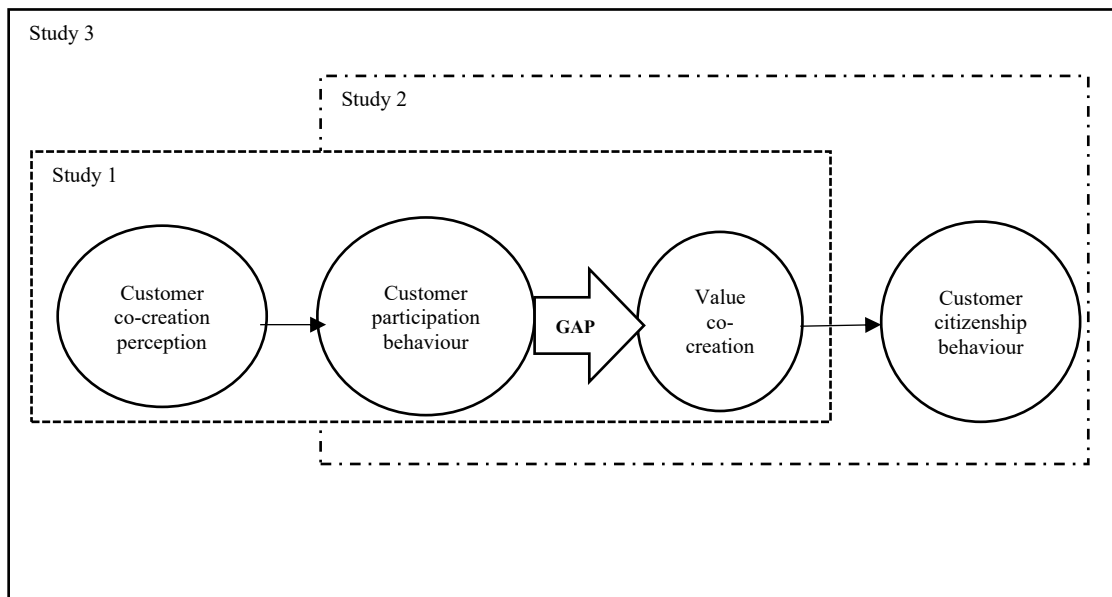
To fill the identified gap, this research explores customer perception and behaviour in hotel value co-creation. Thus, this thesis investigates the associations between customer co-creation perception conducting the DART model, customer value co-creation behaviour (including customer participation behaviour and customer citizenship behaviour), and value co-creation process (including co-production and co-creation) to holistically explore the customer value co-creation journey in the hotels in the Algarve.

1.4.2 Specific objectives

- To explore how implementing hotel DART activities that form customer co-creation perception may stimulate customer participation behaviour, improve co-production of a desired offering, and experience unique value-in-use. (Study 1 proposes a model for facilitating customer participation behaviour with empirical findings).
- To investigate how customer value co-creation behaviour, including customer participation behaviour and customer citizenship behaviour, is associated with the co-production of a desired offering and experiencing unique value-in-use (Study 2 proposes a model for customer behaviour in value co-creation with empirical findings).
- To test if implementing DART activities that form customer co-creation perception may stimulate customer participation behaviour, enhance the value co-creation process, and bring extra value for the hotel in the form of customer citizenship behaviour (Study 3 proposes a model for reciprocity in value co-creation with empirical findings).

Figure 1.2 represents studies 1, 2, and 3 and clarifies how they holistically extend knowledge on customer value co-creation journey in hotels.

Figure 1.2: Schematic summary of the thesis including the three studies



Source: Author's own

1.5 Significance of the study

There are several novelties in this study. Firstly, it emphasises the significance of DART activities in forming customer co-creation perception, which stimulates customer participation behaviour and increases value co-creation as a consequence of highlighting the role of the service provider. This study provides a narrative review of the literature on value co-creation in marketing and hospitality to accomplish this. Furthermore, it ties *Equity Theory* with *Co-Creation Theory* to support DART's important role in forming customer co-creation perception to evoke customer participation behaviour, empower co-production of a desired offering and experience a tailor-made value-in-use.

The second significance refers to distinguishing customer participation behaviour as in-role behaviour and prerequisite of value co-creation from customer citizenship behaviour as extra-role behaviour and a consequence of value co-creation. To support the associations between customer participation behaviour, the two forms of value co-creation process (co-production and value-in-use), and customer citizenship behaviour, the author provides a narrative literature review of customer participation behaviour and customer citizenship behaviour in hospitality sectors that incorporates *Equity Theory*, *Social Exchange Theory*, and *Co-Creation Theory*. Empirical results support a combination of theories that clarify how customer participation improves customer

citizenship behaviour by co-producing a desired offering and experiencing a personalised value-in-use.

Thirdly, this research pinpoints that implementing DART activities, which form customer co-creation perception, stimulate customer participation behaviour, and improve value co-creation process that may reciprocate value to the hotels as customers may increase their citizenship behaviour. Furthermore, this study investigates the moderating effect of customers' previous experiences with hotels. It shows that this factor increases the positive impact of customer participation behaviour on value co-creation for first-time customers as well as customer co-creation perception on value co-creation for repeat customers. Several complementary theories have supported the findings, including *Equity Theory*, *Social Exchange Theory*, and *Script Theory*.

In addition to expanding knowledge on value co-creation, this project will also provide hotels with a management model that can be used to build customer co-creation perception through DART activities, increase customer participation behaviour, strengthen value co-creation, and enhance customer citizenship behaviour, all of which may bring additional value for hotels and other customers.

1.6 Study design

This research is based on a quantitative method, which best suits the study's objectives to explore the associations between customer perception and behaviour in hotel value co-creation. Customer co-creation perception is constructed formatively of its four dimensions (dialogue, access, risk, and transparency), measured reflectively for the hotel (González-Mansilla et al., 2019). In this study, the measured customer co-creation perception is adopted from González-Mansilla (2019). Customer value co-creation behaviour, a reflective-reflective scale with two dimensions of customer participation behaviour and customer citizenship behaviour, was initially proposed and validated by Yi and Gong (2013). Customer participation behaviour (information sharing, information seeking, responsible behaviour, and personal interaction) and customer citizenship behaviour (feedback, advocacy, helping, tolerance) were applied in the hospitality sector by Roy et al. (2020). In this study, the measures of customer participation behaviour and customer citizenship behaviour are adopted from Roy et al. (2020). Value co-creation process as a formative-formative scale, which has two dimensions of co-production

(knowledge, equity, interaction) and value-in-use (experience, personalisation, relationship), was proposed and validated by Ranjan and Read (2016) in general services, including hotels. Assiouras et al. (2019) also applied the value co-creation scale in lodging services in Greece. Therefore, in this study, the author adopted measures for value co-creation from Assiouras et al. (2019).

The structured questionnaire for this study is in English and divided into three sections. The first part of the survey assesses trip characteristics (such as the purpose of the visit, the travel party, and the hotel), then questions about customer co-creation perceptions, customer participation behaviour, value co-creation, and customer citizenship behaviour, followed by a profile of tourists (such as gender, age, marital status, education, and occupation). The five-point Likert scales were used to rate all survey variables (1 = strongly disagree, 5 = strongly agree) instead of a seven-point scale as they provided a more precise appearance for the participant (Dedeoglu et al., 2018; Malhotra and Birks, 2007).

Sun and sand tourists flock to the Algarve region located in south Portugal which is famous for its golden sandy beaches, magnificent golf courses, scenic landscapes, and affordable Mediterranean food. The accommodation sector of the region gained 536,1 million euros of the 698,2 million euros money in 2021 from tourists who travelled to the region from the UK (Turismo do Algarve, 2023). As a result, the survey sample includes international tourists from the UK who stayed in Algarve hotels during the summer of 2022.

Upon obtaining the authorities' permission, the research team conducted the survey at the departure hall of the Faro International Airport in the Algarve. To ensure anonymity, trained research assistants distributed questionnaires explaining the study's purpose to UK tourists. Pilot tests were conducted with 30 tourists from the UK, and a few items were reworded based on their feedback (Perneger et al., 2015). Then, questionnaires were distributed among all passengers in the departure area of the Faro airport who were willing to participate in the survey. Passengers were first asked if they had lodged in a hotel during their stay in the Algarve, and rest assured that all individual data would remain anonymous, confidential, and would not be published. Using 95% confidence intervals and a 4% margin of error, 583 units were required (Cochran, 1963).

A total of 600 questionnaires were distributed, of which 564 were considered valid for the analysis (94%).

The same Likert scale was used to measure all variables, which could have resulted in a common method bias (Podsakoff et al., 2012). To confirm that all items were loaded into a single factor, Harman's (1967) single-factor test was applied in SPSS 28.0.1.0(142) using exploratory factor analysis (EFA) (Roni, 2014). In all three studies, the total explained variances for a single factor were less than 50%, suggesting no negative effects of CMB.

The proposed models for studies 1, 2, and 3 were evaluated using a partial least squares structural equation model (PLS-SEM) (Ringle et al., 2022), as they include formative and reflective second-order constructs (customer co-creation perception, customer participation behaviour, value co-creation, co-production, value-in-use, and customer citizenship behaviour) (Hair et al., 2022). A two-stage approach was applied to assess the proposed models in studies 1 and 2 because each model contains two-layer variables; however, the proposed model in study 3 includes three-layer variables evaluated by the three-stage approach (Hair et al., 2022). The details can be found in chapters 2, 3, and 4 for the study 1, 2, and 3, respectively.

1.7 Research structure

The thesis is divided into five chapters. A concise background to explain the recent theoretical achievements is provided in chapter 1 (introduction), which illustrates the identified gaps, critical questions to be addressed, the research objectives, design, and methodology to test the hypothesis. While theoretically interrelated, the following three chapters present independent research on separate topics with separate objectives and literature reviews that propose three proposed models and include specific findings and contributions.

A comprehensive overview of customer co-creation perception of hotel DART activities, customer participation behaviour, and two dimensions of value co-creation (co-production and value-in-use) is provided in Chapter Two (Study 1). This chapter supports hotels' role in value co-creation by implementing DART activities to provoke customer

participation behaviour and improve co-production and value-in-use. It also confirms customer participation behaviour positively influences co-production and value-in-use through customer co-creation perception. As part of Chapter 3 (Study 2), a theoretical debate is presented on how customer participation behaviour relates to value co-creation versus customer citizenship behaviour, which is the voluntary behaviour of customers. According to this chapter, customer participation behaviour is necessary to increase co-production and value-in-use, which can enhance customer citizenship behaviour. It also provides empirical evidence that the co-production of a desired value and the experience of a unique value-in-use connect customer participation behaviour and citizenship behaviour. This study (Study 3) is an integrated model encompassing studies 1 and 2 to provide a holistic view of hotels' customer value creation journeys. By effectively implementing DART activities to stimulate customer participation and boost value co-creation, the proposed model for reciprocity in value co-creation promises added value to hotels. Using the results of the previous chapters, chapter five concludes the thesis. A summary of the findings and recommendations for applying them is provided in this chapter. In conclusion, this chapter discusses the research's limitations and further research avenues.

1.8 Definitions of key concepts

- **Customer co-creation perception (CCCP)** refers to the perception of the customer about the co-creation process at the hotel and is formed of hotel DART activities, including dialogue, access, risk assessment, and transparency (González-Mansilla et al., 2019; Prahalad & Ramaswamy, 2004a).
- **Value co-creation (VCC):** refers to the process in which the value is co-created collaboratively when actors (e.g., customers and the service provider) integrate resources (e.g., knowledge, skills) to co-create value for themselves and others (Grönroos and Voima, 2013; Ramaswamy and Ozcan, 2018; Vargo and Lusch, 2017). Value co-creation has two dimensions: co-production and value-in-use (Ranjan and Read, 2016).
- **Co-production (COP):** occurs when a customer joins the service provider's process to co-produce a desired offering. COP is formed by three elements, namely, knowledge, equity, and interaction (Assiouras et al., 2019; Ranjan and Read, 2016).

- **Value-in-use (VIU):** occurs when the service provider has an opportunity to facilitate the customer's creation of value during the consumption. It may also occur when customers co-create value through customer-customer interactions. VIU is formed by the three elements: experience, personalisation, and relationship (Assiouras et al., 2019; Ranjan and Read, 2016).
- **Customer value co-creation behaviour (CVCCB) refers to the customer behaviour to co-create value with the service provider or other customers,** which has two dimensions: customer participation behaviour and customer citizenship behaviour (Yi and Gong, 2013).
- **Customer participation behaviour (CPB) refers to customer in-role participation,** which is necessary for successful value co-creation. Customer participation behaviour has four elements: seeking information, sharing information, responsible behaviour, and personal interaction (Roy et al., 2020; Yi and Gong, 2013).
- **Customer citizenship behaviour (CCB) refers to customer extra-role participation,** which is voluntary and may bring extraordinary value to the service provider. Customer citizenship behaviour has four elements: feedback, advocacy, helping, and tolerance (Roy et al., 2020; Yi and Gong, 2013).

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CHAPTER 2: STUDY 1: STIMULATING CUSTOMER PARTICIPATION BEHAVIOUR AND BOOSTING VALUE CO-CREATION IN HOTELS¹

Abstract

Considering the competitive environment of the hospitality industry in delivering superior value to customers, customer participation in value co-creation with the service provider through interaction becomes pivotal. By bonding *Co-Creation Theory* with *Equity Theory*, this study proposes a model for stimulating customer participation behaviour, which includes customer co-creation perception composing DART activities (dialogue, access, risk assessment and transparency), customer participation behaviour, co-production, and value-in-use. The data collected from tourists staying in hotels in Portugal was analysed using partial least squares structural equation modelling (PLS-SEM). The results confirm that customer co-creation perception predicts customer participation behaviour, co-production, and value-in-use. Moreover, customer participation behaviour improves co-production and value-in-use and mediates the associations between customer co-creation perception and co-production/value-in-use. This research contributes to the *Co-Creation Theory* by confirming customer co-creation perception as a driver of customer participation behaviour. It has practical implications for enhancing co-production and value-in-use in hotels.

Keywords: DART activities, Customer co-creation perception, Customer participation behaviour, Value co-creation, Co-production, Value-in-use

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2.1 Introduction

In the service industries, with close interaction with customers and their participation (e.g., providing information about their requirements like having a well-done beef for lunch), providing some services by the service provider is possible (Chathoth et al., 2020, 2016). In the competitive hospitality industry, co-creating a unique experience with the customer, a source of competitive advantage, makes service imitation difficult for the competitors (Chathoth et al., 2013). Thus, it is pivotal to build an interactive platform to recognise customers' needs and offer them opportunities to co-create personalised experiences (Chathoth et al., 2014).

Prahalad and Ramaswamy (2004b, 2004a) proposed that firms implement DART activities (dialogue, access, assessing risk, and transparency) as the critical building blocks of customer-firm interaction to assist customers in creating a unique experience. Vargo and Lusch (2004, 2008a, 2008b) postulated the service-dominant logic in which value is co-created by all actors (e.g., customer, service provider, and other customers) when individuals integrate their resources, such as knowledge, skills, and capabilities with those of others, for the benefit of themselves and others (Vargo and Lusch, 2008a, 2008b). Grönroos and Voima (2013) proposed service logic in which co-creation occurs through interaction when the customer participates in the co-production of a superior offering or when the service provider facilitates the customer's creation of a personalised value-in-use during consumption (Grönroos and Gummerus, 2014).

Based on a literature review, Ranjan and Read (2016) offered a model for value co-creation, which in this study will be addressed by VCC with two elements: co-production and value-in-use, which we will refer to by COP and VIU, respectively. COP implies customer participation in producing the desired offering measured by knowledge sharing, equity, and interaction. In contrast, VIU refers to facilitating the customer's creation of value during consumption, measured by personalisation, experience, and relationship. Yi and Gong (2013) highlighted the prominent role of the customer in co-creating value and defined customer participation behaviour (CPB) as the customer's in-role behaviour necessary for a successful VCC consisting of four dimensions: information seeking, information sharing, responsible behaviour, and personal

interaction.

In the tourism and hospitality sector, VCC is still in its infancy in theory and practice (Campos et al., 2018). Alves et al. (2016) called for further research on how the firm may organise itself to allow VCC. Chathoth et al. (2016) discussed the necessity of forming an interactive platform for customers to partner in co-creating unique experiences. Oertzen et al. (2018) recommended future studies to identify what stimulates customers to participate in VCC. De Larrea and Gregory (2020) called for future research to recognise if CPB signifies VCC. In the hotel context, González-Mansilla et al. (2019) revealed that customer co-creation perception of hotel DART activities, which will be addressed in the present study by CCCP, positively impacted CPB. However, the association between CPB and VCC was not investigated.

Therefore, considering the identified gaps and in response to the previous calls for further research, the objectives of this research are threefold: 1) to assess CCCP as a predictor of CPB, COP, and VIU; 2) to examine CPB as a driver of COP and VIU; and 3) to explore the mediating role of CBP between CCCP and the two dimensions of VCC. Please consider table 1, which represents the variables and their abbreviations used in this study under the methodology section.

By joining *Co-Creation Theory* with *Equity Theory* in hospitality, this study proposes an integrated model for stimulating CPB, including CCCP, CPB, COP, and VIU, clarifying the variables' associations. The present study contributes to the *Co-Creation Theory* by attesting that CCCP is a driver of CPB, COP, and VIU, and CBP is an antecedent of COP and VIU. Additionally, it extends the knowledge by presenting CPB as a mediator that positively links CCCP to COP and VIU. In practice, the proposed model for stimulating CPB as a managerial tool assists hotel managers in driving CPB and boosting COP and VIU.

2.2 Literature review

2.2.1 Value co-creation in marketing and hospitality

In 2004, Vargo and Lusch (2004) underpinned the significance of operant resources (skills, knowledge, and capabilities) and defined service as the process of using one's resources for the benefit of itself and others, which is the basis of exchange

(Vargo et al., 2008; Vargo and Lusch, 2008a). Vargo and Lusch (2008a;2008b) blurred the distinct roles of the firm and customer in the service process and proposed the service-dominant logic in which value is co-created collaboratively by all economic and social actors (e.g., customer, firm, other customers, etc.) who integrate their resources with those of others to achieve individual and social well-being.

Grönroos and Ravald (2011) proposed service logic as an empirical perspective in which value(-in-use) is determined by customers during consumption. They conceptualised three spheres to clarify the value generation process. In the provider sphere, the service provider applies its resources and offers potential VIU to its customers. In the customer sphere, the customer creates VIU individually without the service provider's intervention or co-creates value collectively with other actors (e.g., other customers). And in the joint sphere, the value is co-created through direct interaction when the customer participates in the service provision process (COP) or when the service provider takes advantage of the possible opportunities to support the customer's creation of VIU during consumption (Grönroos and Gummerus, 2014).

In the hospitality industry, the COP versus co-creation concepts form a continuum rather than a dichotomy, which starts with COP driven by the service provider through sporadic firm-customer dialogue (initiated by the firm) where the customer involvement is low, and it ends with co-creation as a customer experience-centric approach through continuous customer-firm dialogue (initiated by the customer) where customer involvement is high (Chathoth et al., 2013). Based on a mapping study, Mohammadi et al. (2021) also identified participation as a prerequisite for co-creation; customer participation corresponds to the highest level of customer freedom and effort.

Based on the above literature, which highlights the significance of interaction and customer participation in co-creating value, in the next section, the author develops the hypotheses to test if CCCP (conducting DART activities as building blocks of interaction) may stimulate CPB and boost VCC.

2.2.2 Representing the constructs.

2.2.2.1 DART model

Prahalad and Ramaswamy (2004b, 2004a) proposed implementing DART

activities consisting of dialogue, access, risk, and transparency as building blocks of interaction for companies to co-create personalised experiences. Dialogue refers to interactivity, which requires the ability and willingness to collaboratively develop a shared solution by considering both parties' interests, allowing equal communication and providing learning opportunities (Prahalad and Ramaswamy, 2004a, 2004b; Albinsson et al., 2016). Access implies giving customers information about the firm's process/services to facilitate their engagement in design, development, and quality processes (Albinsson et al., 2016; Prahalad and Ramaswamy, 2004a). Transparency entails the firm's sharing information (e.g., profit margins) with customers (Prahalad and Ramaswamy, 2004a), and risk assessment necessitates sharing the limitations of the firm's knowledge and capability to provide customers' desired services and informing customers about the potential risk of their participation in co-creation (Prahalad and Ramaswamy, 2004a; Taghizadeh et al., 2016; Albinsson et al., 2016)

2.2.2.2 Customer participation behaviour

Customer participation, as a behavioural construct, refers to the extent to which customers spend time and effort to share information, give suggestions, and get involved in making decisions during service delivery and service co-creation (Chan et al., 2010). Based on a literature review, Yi and Gong (2013) defined CPB as in-role behaviour essential for successful service delivery, e.g., seeking information, sharing information, responsible behaviour, and personal interaction. For a successful VCC, customers seek accurate information about the firm's products/services, share essential information with employees to certify that the service meets their requirements, perform their responsibilities in co-creating value and cooperating with the employees friendly and respectful (Yi and Gong, 2013; Roy et al., 2020).

2.2.2.3 Value co-creation

Ranjan and Read (2016) conducted a literature review and proposed a VCC model with two factors: COP and VIU. COP denotes the customer's participation in the firm's designing, producing, developing, and delivering the offering (Grönroos and Ravald, 2011; Lusch and Vargo, 2006), which has three elements: knowledge sharing, equity, and interaction (Ranjan and Read, 2016; Assiouras et al. 2019). VIU refers to the

customer's creation of a unique value during consumption independently of the firm or jointly with the firm or other customers (Lusch and Vargo, 2006; Grönroos and Voima, 2013;), which is determined by three measures: experience, personalisation, and relationship (Assiouras et al., 2019; Ranjan and Read, 2016).

2.2.3 Developing the hypotheses.

2.2.3.1 Customer co-creation perception as a predictor

Dialogue is essential for sharing and creating knowledge between a company and its customers (Grönroos, 2004). However, a meaningful dialogue requires customer's timely access to persons, processes, and resources, as well as transparent shared information, which allows customers to assess the risk of their participation in value co-create (Albinsson et al., 2016; Prahalad and Ramaswamy, 2004b) and co-develops trust between the parties (Prahalad and Ramaswamy, 2004a; Taghizadeh et al., 2016).

In the hotel industry, González-Mansilla et al. (2019) deployed DART activities to form CCCP about hotel services and co-creation processes to stimulate CPB. The results showed that CCCP strengthened CPB and increased customer perceived value and satisfaction. By applying *Equity Theory* in the hospitality context, Roy et al. (2020) uncovered that customers' perceived fairness of VCC increased customer trust and self-identity with the hotel and enhanced CPB. Based on *Equity Theory*, encounters are perceived as fair when the proportion of outcomes to inputs (e.g. (experiences, effort, money) is comparable with the proportion of other similar encounters (Adams, 1963). Devlin et al. (2014) identified four dimensions of perceived fairness, namely, distributive, procedural, interpersonal, and informational fairness. Distributive fairness refers to the customer's perception of the received outcome (e.g., justifiable benefit in response to the allocated time and effort); procedural fairness implies the fairness perception of the provider's processes (e.g., transparent decision-making, effective resource integration); interpersonal fairness denotes the extent of the dignity received from the provider and, informational fairness includes the adequacy of the provided information. Wang et al. (2019) also discussed that perceived fairness as a cognitive evaluation of co-creation experiences might impact customer behaviour towards co-creation and its outcome. Therefore, this study proposes that CCCP conducting of

DART activities implemented by the hotel is expected to drive CPB:

H1. CCCP has a direct positive relationship with CPB.

Moreover, Lei et al. (2020) showed that customers perceived co-creation experiences with the hotel's employees through Mobile Instant Messaging, which enhanced customers' perceived value of the personalised services. Mobile Instant Messaging as a co-creation platform assisted employees in better understanding the customer contextual needs, leading to co-creating unique services. Additionally, De Larrea and Gregory's (2020) findings on timeshare exchange services uncovered that the interaction between the customers and the service providers (e.g., the timeshare owners and exchange companies) significantly drove the COP of the desired experience. Since DART activities are building blocks of interaction (Prahalad and Ramaswamy, 2004b) and interaction is a prerequisite of VCC (Campos et al., 2018), the author proposes that:

H2: CCCP has a direct positive relationship with COP.

H3: CCCP has a direct positive relationship with VIU.

2.2.3.2 Customer participation behaviour as an antecedent

Wang's (2011) findings supported that CPB decreased the gap between customers' expectations and perceptions of the hotel services and enhanced the hotel service quality. Taheri et al. (2017) asserted that guests' mood monitoring (attention to feeling) and mood repair (ability to adjust their own emotions to feel good) were significantly related to their participation in co-creation, which subsequently enhanced their economic and relational values. Xie et al. (2019) also showed that employees' adaptability (tendency to be concerned about customers' personalised requirements) and guests' participation in the VCC (informing about real needs and giving feedback about the hotel's services) enhanced frontline employees' knowledge about the guests' requirements which increased relational value for both parties. Thus, this study proposes that:

H4: CPB has a direct positive relationship with COP.

H5: CPB has a direct positive relationship with VIU.

2.2.3.3 Customer participation behaviour as a mediator

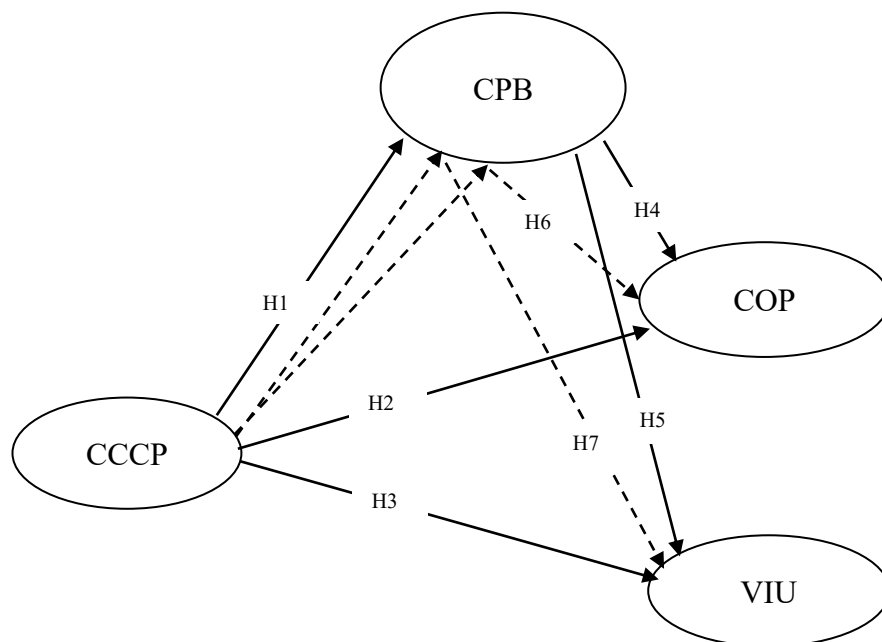
Based on the interviews with hotel managers, Chathoth et al. (2014) recognised that the need for an engagement platform is one of the primary barriers to customer engagement in VCC. Sarmah et al. (2017) also showed that guest-employee interactions through the mobile app in luxury hotels were positively related to their involvement in co-creating new services. However, the authors discussed that guests might not have the will to get involved in the co-creation process if they fail to find a convenient interaction or do not find the benefit of their involvement (e.g., financial rewards, recognition, cash discounts, etc.) more significant than its cost (e.g., effort and time). Therefore, considering the *Equity Theory*, the author expects that CCCP conducting DART activities stimulates CPB and subsequently improves both forms of VCC.

H6: CPB positively mediates the relationship between CCCP and COP.

H7: CPB positively mediates the relationship between CCCP and VIU.

Figure 2.1 represents the proposed model for stimulating CPB and all associations between CCCP, CPB, COP and VIU.

Figure 2.1: Conceptual model for stimulating customer participation behaviour; CCCP: Customer co-creation perception, CPB: Customer participation behaviour, COP: Co-production, VIU: Value-in-use.



2.3 Methodology

2.3.1 Study area and target population

Algarve is a tourist destination in Southern Portugal, famous for its magnificent beaches, Mediterranean climate and gastronomy, historic sites, and golf courses in a relatively low-cost and secure environment. In 2021, from a total profit of 698,2 million euros, 536,1 million euros were gained from the accommodation sector, considering tourists from the UK had the highest contribution (Turismo do Algarve, 2023). Therefore, this study's target population is British tourists who lodged in hotels in the Algarve during the summer of 2022.

2.3.2 Measurement of constructs

Three sections of a structured questionnaire were designed in English to collect the data. The first section's questions assess the visit's characteristics, such as the reason for the stay and travel party. The second section's questions assess the model's constructs: CCCP composing DART activities, CPB, COP, and VIU (variables shown in Table 2.1 and measures presented in appendix 2.1) were all second-order constructs. As explained in the appendix, a five-point Likert scale (1 = strongly disagree and 5 = strongly agree) has been applied to measure the items for all first-order constructs. Tables 2.2 and 2.4 show the lists of items measuring each construct. The final section addresses the tourist's profile, such as gender, age, and marital status. The research team conducted a pilot test with 30 British tourists, with the wording of a few items changed based on their feedback.

Table 2.1: Summary of the constructs, abbreviations, and references

Construct	Dimension	Authors
Co-creation perception (CCP) (formative-reflective)	Dialogue, access, risk, and transparency (Prahalad and Ramaswamy 2004b)	(González-Mansilla et al., 2019)
Customer participation behaviour (CPB) (reflective-reflective)	Information sharing, information seeking, personal interaction, and responsible behaviour (Yi and Gong, 2013)	Roy et al. (2020)
Co-production (COP); (formative-formative)	Knowledge, equity, and interaction (Ranjan and Read, 2016).	(Assiouras et al., 2019)
Value-in-use (VIU); (formative-formative)	Experience, personalisation, and relationship (Ranjan and Read, 2016).	(Assiouras et al., 2019)

2.3.3 Data collection

Data were collected at the International Airport of Faro, the capital city of Algarve, in the summer of 2022 once permission was obtained from the authorities. Research assistants distributed the questionnaires among the available tourists at the airport's departure hall and waiting lounges. On the chosen data collection days, all UK tourists older than 16 who stayed at a hotel during their vacations participated in the survey by fulfilling the questionnaire. For 95% confidence and a 4% marginal error, a minimum sample size of 583 was defined (Cochran, 1963). Of the 600 distributed questionnaires, 561 (93%) were valid for the analysis.

2.3.4 Data Analysis

Since all the proposed model's variables were assessed using the same Likert scale (from 1 to 5), there was a possibility for consistent responses, which may increase the covariances between the variables and cause the common method bias (CMB) (Podsakoff et al., 2012). Therefore, Harman's (1967) single-factor test for CMB was applied using SPSS 28.0.1.0(142). The author performed an exploratory factor analysis (EFA), considering all items loaded into one common factor, as proposed by Roni (2014). The results showed a total explained variance for a single factor of 40.072%, lower than 50%, which asserted that CMB does not negatively affect the dataset.

The empirical model was assessed using partial least squares structural equation modelling (PLS-SEM) with the software SmartPLS version 4.0.8.2 (Ringle et al., 2022). PLS-SEM was considered appropriate to estimate the model, given its complexity, incorporating second-order constructs, either formative or reflective (Hair et al., 2022).

Considering the model, which includes formative and reflective second-order constructs, a two-stage approach was applied to evaluate the measurement model (Hair et al., 2022). The scores for each dimension (first-order construct), composing the second-order latent variables, were obtained during the first stage. To do so, the author ran the PLS-SEM algorithm in a model linking all first-order constructs. In the second stage, the author used the scores obtained for the first-order constructs to indicate the corresponding second-order construct. Once the quality of the measurement model was established in the two stages, the structural model was estimated, and the hypotheses

were tested.

2.4 Results

2.4.1 Sample characteristics

The descriptive findings of our sample showed that 54.8% of the respondents were females and 44.8% were males. Most of the respondents were between 41 and 50 years old (29.2%), married or living with a partner (72%), had higher education (52%), and were employed (73%). In most cases, participants travelled to the Algarve to spend their vacations/holidays (97.7%) with their family members (55.1%) or with partners (34.8%). Moreover, most tourists stayed in 4-star/4-star hotels (90%).

2.4.2 Measurement model assessment: stage 1

Table 2.2 shows the results to assess the reliability and convergent validity of the reflective constructs in stage 1. The factor loadings assess the individual indicators' reliability of the reflective first-order latent variables (Hair et al., 2019), which were higher than the threshold, 0.708, showing more shared variance between each indicator and the corresponding variable than error variance (Carmines and Zeller, 1979). Moreover, the Cronbach alpha and the composite reliability (CR) coefficients surpassed 0.7, which attests to the internal consistency among all indicators corresponding to one construct (Kline, 2005). Regarding the convergent validity, the Average Variance Extracted (AVE) values represent the amount of variance shared between each construct and its indicators, exceeding the 0.5 recommended value (Hair et al., 2019). Moreover, the non-parametric bootstrapping process was applied for 5000 samples, which asserted the significance of each indicator in its corresponding constructs (all bootstrapping $p = 0.00$).

Table 2.2: Results summary for reflective constructs in the first-stage measurement model.

Construct and measures	Loading	Cronbach's alpha	CR	AVE
Dialogue		0.873	0.922	0.798
D1	0.870*			
D2	0.899*			
D3	0.911*			
Access		0.887	0.93	0.815
A1	0.896*			
A2	0.926*			
A3	0.886*			
Risk		0.854	0.911	0.774
R1	0.872*			
R2	0.902*			
R3	0.865*			
Transparency		0.903	0.94	0.838
T1	0.923*			
T2	0.922*			
T3	0.902*			
Information seeking		0.778	0.843	0.642
ISk1	0.773*			
ISk2	0.753*			
ISk3	0.873*			
Information Sharing		0.892	0.925	0.756
ISh1	0.826*			
ISh2	0.891*			
ISh3	0.897*			
ISh4	0.861*			
Responsible behaviour		0.917	0.942	0.801
RB1	0.833*			
RB2	0.920*			
RB3	0.910*			
RB4	0.915*			
Personal interaction		0.954	0.964	0.844
PI1	0.926*			
PI2	0.932*			
PI3	0.937*			
PI4	0.932*			
PI5	0.865*			

Note: *bootstrapping $p < 0.01$.

Table 2.3 represents the discriminant validity, the extent to which each construct represents a unique concept different from the other constructs. As can be observed, the square root of each AVE (in the diagonal) exceeded the correlations between each construct and the other constructs (out of the diagonal), revealing discriminant validity

according to the criterion of Fornell and Larcker (1981). Complementary, the Heterotrait-Monotrait Ratios (HTMT) are all lower than 0.95, and the corresponding bootstrap confidence interval did not include the value of 1, which also attests to discriminant validity (Appendix 2.2) (Henseler et al., 2015). Moreover, the cross-loading values confirmed that each indicator's loading on its corresponding construct outstripped all its loadings on other constructs (Appendix 2.3), establishing discriminant validity as well (Hair et al., 2011).

Table 2.3. Correlations among the formative first-order variables.

C	A	D	ISk	ISh	PI	RB	R	T
A	0.903 ^a							
D	0.792 0.898 ^b	0.893 ^a						
ISk	0.350 0.426	0.416 0.508 ^b	0.801 ^a					
ISh	0.455 0.510	0.485 0.546	0.604 0.734 ^b	0.869 ^a				
PI	0.372 0.404	0.357 0.393	0.142 0.203	0.281 0.303 ^b	0.919 ^a			
RB	0.450 0.499	0.470 0.523	0.496 0.588	0.733 0.804	0.452 0.486 ^b	0.895 ^a		
R	0.765 0.881	0.764 0.885	0.476 0.589	0.542 0.618	0.329 0.362	0.503 0.565 ^b	0.88 ^a	
T	0.760 0.849	0.716 0.805	0.440 0.534	0.521 0.578	0.305 0.329	0.494 0.541	0.831 0.946 ^b	0.916 ^a

Note: C: Construct; D: Dialogue; A: Access; R: Risk; T: Transparency; ISh: Information sharing; RB: Responsible behaviour; ISk: Information seeking; PI: Personal interaction. ^a: Diagonal values show the squared root value of AVE for each latent variable to evaluate the Fornell-Larcker criterion. ^b: HTMT Values.

Table 2.4 shows the assessment of formative variables in the first-stage measurement model. The outcome indicates that most weights are statistically significant for a 5% level (all bootstrapping $p < 0.05$), meaning that all indicators are associated with the corresponding formative latent variables. The corresponding bootstrap confidence intervals support this conclusion because they do not include zero. The exception is the weight related to K3, which is not statistically significant ($p=0.078$). However, its loading (0.720) exceeds 0.708 and is statistically significant, corroborating the maintenance of K3 as an indicator of Knowledge. Moreover, all variance inflation factors (VIFs) are lower than the threshold of 5, meaning multicollinearity is not an issue for the formative items (Hair et al., 2019).

Table 2.4: Results summary for formative constructs in the first-stage measurement model.

Construct and measure	Weight/Loading	VIF
Knowledge		
K1	0.243*	1.784
K2	0.297*	1.885
K3	0.095/ 0.720*	1.823
K4	0.546*	1.946
Equity		
Eq1	0.394*	2.054
Eq2	0.306*	2.496
Eq3	0.247*	3.260
Eq4	0.208*	2.586
Interaction		
I1	0.366*	2.701
I2	0.267*	3.164
I3	0.353*	2.557
I4	0.154*	1.822
Experience		
Exp1	0.622*	1.527
Exp2	0.188*	1.905
Exp3	0.352*	2.081
Personalisation		
P1	0.315*	1.907
P2	0.447*	2.312
P3	0.103**	2.200
P4	0.341*	1.569
Relationship		
Rel1	0.237*	1.539
Rel2	0.409*	2.349
Rel3	0.144**	2.368
Rel4	0.386*	2.485

Note: *p<0.01; **p<0.05

2.4.2 Measurement model assessment: stage 2

The first-order variables are considered reliable and valid because the evaluation criteria have been met for all formative/reflective first-order constructs. Then, their scores were used in the second stage of analysis. The second stage started by testing the measurement model of the second-order variables. In stage 2, only CPB is a reflective construct. As shown in table 2.5, factor loadings are all above the threshold of 0.708, except for personal interaction, whose loading was 0.510. However, we decided to keep it in the model given the content validity of the construct and because the additional quality criteria were met (Hair et al., 2022). Indeed, according to Yi and Gong (2013) and Roy et al. (2020), the indicator of personal interaction is essential in defining the

construct. Moreover, the results for Cronbach alpha (0.760), CR (0.807) and AVE (0.599) confirmed the reliability and convergent validity of CPB (Hair et al., 2019, 2022).

Regarding the second-order formative variables, the outer weights obtained by bootstrapping 5000 sub-samples were all significant except for access on customer perception (0.273); however, its outer loading was above 0.708 and statistically significant. Thus, access was kept in the model for the subsequent analysis since its removal would not significantly improve the model's quality (Hair et al., 2019, 2022). Also, all VIFs were below threshold 5, which asserted no collinearity issues for sub-dimensions of CCCP, COP, and VIU (Hair et al., 2019). Table 5 contains the results of the second-order measurement model.

Table 2.5: Results summary for the second-order measurement model

Construct	Type	Sub-dimension	Loading /weight	VIF
CCCP	Formative	Dialogue	0.182	3.176
		Access	0.051	3.340
		Risk	0.475	3.944
		Transparency	0.373	3.567
COP	Formative	Knowledge	0.290	2.635
		Equity	0.528	3.27
		Interaction	0.266	2.942
VIU	Formative	Experience	0.137	2.432
		Personalisation	0.478	2.939
		Relationship	0.481	2.272
CPB	Reflective	Information seeking	0.756	
		Information sharing	0.891	
		Responsible behaviour	0.877	
		Personal interaction	0.510	

2.4.3 Structural model assessment

To assess the structural model, the coefficient of determination value (R^2) of the endogenous latent variables was examined to determine the exploratory and predictive capability of the model. According to Hair et al. (2011), R^2 of 0.75, 0.50 and 0.25 can be considered high, moderate, and low, respectively. The results revealed that CPB (0.385), COP (0.523) and VIU (0.469) asserted the nearly moderate proportion of variance explained by the predictors of the model. Moreover, the f^2 effect

size of all constructs exceeded the cut-off value of 0.02. At this level, CCCP appears to be the strongest predictor of CPB (0.627), followed by COP (0.399) and VIU (0.292). Moreover, the f^2 of CPB on COP is 0.069, and its effect size on VIU is 0.072. Also, the Stone Geisser's Q^2 values, obtained from the blindfolding routine of Smart PLS 4.0, were positive, which reveals the predictive accuracy of the model's constructs (Q^2 for CPB = 0.377; Q^2 for COP = 0.479; Q^2 for VIU = 0.419). Moreover, the proposed model reports a Standardized Root Mean Square Residual (SRMR) value of 0.091 and a Normed Fit Index (NFI) value of 0.897, which asserts a good model fit (SRMR lower than 0.1 and an NFI of at least 0.9 are desirable according to Hair et al. (2022)).

The one-tailed bootstrapping of 5000 sub-samples for the path coefficients was performed to test the hypotheses. Based on the path coefficient results, all direct effects implied in H1 to H5 were statistically significant, meaning that corresponding hypotheses are supported (Table 2.6). Therefore, CCCP positively impacted CPB, CCCP positively influenced COP and VIU, and CPB positively impacted COP and VIU. The bootstrapping result of the specific indirect effects has been considered to evaluate the mediating role of CPB between CCCP and VCC dimensions, which shows significant p-values for H6 and H7. Therefore, CPB positively mediated the relationship between CCCP and COP. And CPB also positively mediated the relationship between CCCP and VIU.

Table 2.6. Results of the structural model.

Hypotheses	Path coefficient	Support
H1. CCCP -> CPB	0.621*	Yes
H2. CCCP -> COP	0.556*	Yes
H3. CCCP -> VIU	0.502*	Yes
H4. CPB -> COP	0.232*	Yes
H5. CPB -> VIU	0.250*	Yes
Specific indirect hypotheses assessing the mediator		
H6. CCCP -> CPB ->COP	0.144*	Yes
H7. CCCP -> CPB ->VIU	0.155*	Yes
Total effect		
CCCP -> COP	0.700*	Yes
CCCP -> VIU	0.657*	Yes

Note: p= 0.000

2.5 Discussion

The results support that CCCP has the highest positive significant associations with CPB (0.621), COP (0.556), and VIU (0.502), respectively. It also shows that risk is the most crucial dimension (compared to dialogue, access, and transparency) in forming CCCP (0.475), which is aligned with González-Mansilla et al.'s (2019) findings in IBS hotels in Spain. This finding supports the combination of *Equity theory* and *Co-Creation theory*, clarifying how CCCP may stimulate CPB in VCC.

Moreover, CPB shows a stronger association with VIU (0.250) than COP (0.232), which can be supported by the *Co-Creation Theory*, in which the value emerges once the customer uses the firm's offering. The results reveal that equity plays the primary role (0.528 ***) in the COP of the desired service. However, Assiouras et al.'s (2019) findings in lodging facilities in Greece showed interaction as the most crucial factor of COP. The difference between the findings might be explained by considering that participants of this study mostly stayed in high-quality hotels (90 % in 4- and 5-star hotels), which are mostly expected to have well-designed interactive service environments empowered by sufficient and convenient interactions, allowing the employees to recognise the real needs of the guests. Thus, the result supports that maintaining equity during the interaction and appreciating guests' contributions is as necessary as the hotel's contribution during COP, which is crucial.

Regarding the VIU, the results reveal that personalisation (0.478) and relationship (0.481) play outstanding roles in co-creating a unique experience aligned with the findings of Assiouras et al. (2019). Additionally, relationships between parties (e.g., customer, service provider, other customers), which manifest collaboration, reciprocity, and engagement (Ranjan and Read, 2016), may become sources of added value (e.g., a sense of trust) (Grönroos, 2004; Rihova et al., 2015). Although equity, personalisation and relationship were the three dominant dimensions of COP and VIU, the importance of other dimensions should not be underscored as the results may vary based on the study's context.

To summarise, the results demonstrate that CPB directly impacts COP (0.232) and VIU (0.250). Moreover, CCCP, which is formed by implementing the DART activities by the hotel, not only directly impacts COP (0.556) and VIU (0.502) but also indirectly influences COP (0.144) and VIU (0.155) through CPB. Therefore, the total

effect of CCCP on COP and VIU significantly increases to 0.700 and 0.627, respectively.

2.6 Conclusion

This study investigates how hotels may stimulate CPB, boost the COP of desired offerings and enhance the experience of personalised VIU. This survey contributes to the *Co-Creation Theory* in tourism and hospitality by joining it with *Equity Theory* and proposing an integrated model of stimulating CPB, which clarifies the associations between CCCP, CPB, COP, and VIU. The results reveal that CCCP (including dialogue, access, risk assessment and transparency) strongly predicts CPB (information seeking, information sharing, responsible behaviour, and personal interaction), COP and VIU. The findings also attest that CPB directly strengthens COP and VIU and mediates the associations between CCCP and COP/VIU.

2.6.1 Theoretical implications

The present investigation contributes to the *Co-Creation Theory* in the hospitality context by applying the *Equity Theory* to synthesise the stimulation of CPB in the co-creation process. In particular, the author proposes that implementing DART activities, including dialogue, access, risk assessment and transparency by the hospitality service provider as building blocks of interaction, enhances customers' perceived fairness of VCC, which assists them in better assessing the risk (cost/benefit) of their participation in co-creation processes including, COP and VIU. The results, which present risk assessment as the most significant factor that forms CCCP, align with the previous study's results (González-Mansilla et al., 2019) and strongly support applying the *Equity Theory* in a co-creation context.

Additionally, in contrast to the previous research, which failed to validate all four dimensions of CPB (personal interaction was excluded) (González-Mansilla et al., 2019), the results of the present study confirm that personal interaction, information seeking, responsible behaviour and information sharing are four valid dimensions of CPB attesting the theoretical background and the construct establishment initiated by (Yi and Gong, 2013).

Moreover, despite the previous studies that theoretically and empirically asserted the positive relation between CPB and the co-creation outcome such as customer perceived value (González-Mansilla et al., 2019), the present research theoretically discusses and empirically affirms the association between CPB and the two dimensions of the VCC process namely, COP and VIU. The results not only reveal that the CPB in the hotel is an antecedent of the COP and VIU but also ascertain that equity, personalisation, and relationship are the most influential factors in COP regarding a desired offering and experiencing a unique VIU in hotels.

Another contribution of this study is deploying DART activities as building blocks of hotel interaction, directly enhancing COP and VIU. Although several authors have previously suggested service providers implement DART activities and provide an interactive environment for VCC (Prahalad and Ramaswamy, 2004a; Chathoth et al., 2014), to the best knowledge of the author, it has not yet been uncovered in practice in the hospitality context. Thus, the positive associations between CCCP and the two co-creation processes in hotels expand the knowledge of *Co-Creation Theory*.

Previous studies also theoretically suggested that service providers form an interactive environment for VCC and highlighted that customers might not contribute to co-creation if they have not perceived the benefit of their participation more than its cost (e.g., Sarmah et al., 2017); however, exploring the mechanism that links CCCP to COP and VIU still was a void. Thus, this survey contributes to the *Co-Creation Theory* and provides empirical support that CPB mediates the association between CCCP and the two scopes of the VCC process: COP and VIU.

2.6.2 Practical implications

Based on the results, this research recommends that hotel service providers apply the proposed integrated model as a managerial tool to drive CPB, COP, and VIU by effectively forming CCP by conducting DART activities, which allow customers risk assessments of their participation in VCC through dynamic and transparent dialogue with the hotel and having access to required information, process, and people (Prahalad and Ramaswamy, 2004b, 2004a). Some hospitality service providers have the propensity to highlight the benefits of their service rather than the dangers (e.g., informing customers about the possibility of finding a spider in a bungalow before they

complete the reservation instead of updating them about this risk once they have already arrived at the site) that may result in unpleasant experiences (Solakis et al., 2021). Likewise, some hotels utilise Propaganda-like advertisements (e.g., sending a welcoming advertisement to prospective customers to stay in a fully renewed hotel while the hotel is only partially renovated) that may cause a misalignment between the guest expectation and perception of the hotel services leading to value destruction (Wang, 2011; Järvi et al., 2020). In contrast, the present study suggests hotel practitioners share adequate transparent information in their marketing communications with customers regarding the hotel's resources, processes, abilities, and lack of co-creation of the desired services to stimulate their participation and boost VCC.

Implementing DART activities can also significantly increase VCC during the post-pandemic period. Shagirbasha (2022) identified subjective well-being as the most prominent concern of hotel guests during the pandemic, which has changed guests' preferences. Thus, they suggested hotels develop their guest packages, such as meditation or sleep hygiene programs, per the guest preferences changes to appeal to them during the post-pandemic period (Shagirbasha, 2022). Considering the findings of the present investigation, particularly the importance of transparency and risk assessment to drive CPB, the author recommends that hotels periodically update the (prospective) customers (e.g., through the website, emails, and social communities) about the merits and demerits of their services allowing them to assess better the possible risk of their participation in VCC and build trust.

Moreover, the customers' difficulties finding convenient interaction with the service provider might prevent their participation in VCC (Sarmah et al., 2017). Therefore, the present study suggests hotels build an interactive service environment consisting of rich media (e.g., telephone) and lean media (Mobile Instant Messaging), allowing employees and customers to select the best-suited context. For instance, mobile apps may be used by guests on the go, while non-tech-savvy guests may prefer the telephone (Lei et al., 2021).

To enhance VCC, including COP and VIU, the author highlights the prominent roles of equity, personalisation, and relationship based on the findings. According to Assiouras et al. (2019), some customers may consider participating in VCC (e.g., investing money, time, and effort) as exploitation when the hotel's privileges only benefit a few. Thus, this study recommends that hotel managers and service employees

apply a customer-centric perspective, consider the customers' contribution as significant as their own in VCC, recognise each customer's specific needs and maintain reciprocity and engagement in their relationship with the customer. For instance, inviting guests to eat at staff restaurants where management also joins may provide an interactive platform to co-create a unique experience, identify individual guests' requirements, and improve relationships with them (Chathoth et al., 2020).

To co-create "WOW" experiences, employees require a propensity to seek guests-related information, the ability to process the data, empathy to anticipate guests' requirements, passion for solving guests' problems and creativity to think "outside the box" to provide a solution (Chathoth et al., 2020). For example, in direct interaction with the guest, the service employee recognises that he is a runner who has forgotten to pack his shoes. Thus, the hotel can co-create a personalised value by offering a pair (Chathoth et al., 2016). Hence, hotel managers not only need to recruit the right employees with the required personality and attitude but also should provide an interactive platform, flexible processes, and practical training to motivate employees, facilitate their engagement in VCC and assist them in managing the work-related stress and responding to the guests' individual needs (Chathoth et al., 2020).

2.6.3 Limitations and future studies

The collected sample of the present study only represents some issuing markets in the region as it is limited to tourists from the UK. Therefore, generalisation of the obtained results is difficult. Thus, future studies should include other nationalities/seasons to provide a holistic view of the accommodation co-creation experiences. Moreover, the extent of customer interaction and CPB for a successful VCC is context dependent. Therefore, further research in other tourism and hospitality industry sub-sectors may provide in-depth knowledge to uncover to what extent companies implement DART activities to stimulate CPB and enhance VCC.

Future studies may also include other theories, such as *social exchange theory*, to incorporate additional variables, such as customer citizenship behaviour, into the proposed model to simultaneously investigate customer non-voluntary and voluntary behaviour in VCC. (Gong and Yi, 2021; Yi and Gong, 2013) or explore the possible role of trust as a mediator between DART activities and CPB (Pralhad and Ramaswamy,

2004a) or explore the potential impact of previous customer experience as a mediator (González-Mansilla et al., 2019). Lastly, further experimental research is suggested to test the causality among the variables.

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CHAPTER 3: STUDY 2: UNDERSTANDING THE ASSOCIATION BETWEEN CUSTOMER PARTICIPATION BEHAVIOUR AND CUSTOMER CITIZENSHIP BEHAVIOUR IN HOTELS: TESTING CO-PRODUCTION AND VALUE-IN-USE AS MEDIATORS²

Abstract

This study investigates how customer value co-creation behaviour, including customer participation behaviour (CPB) and customer citizenship behaviour (CCB), contributes to co-creation processes, namely, co-production (COP) and value-in-use (VIU) in hotels. It combines the *Co-Creation Theory* with *Equity Theory* and *Social Exchange Theory* to propose a model for customer behaviour toward value co-creation, including CPB, COP, VIU, and CCB. The collected data from tourists staying in hotels in Portugal was analysed using “Partial Least Squares Structural Equation Modeling” (PLS-SEM). Results reveal that CPB predicts COP, VIU, and CCB; COP is positively associated with VIU, and COP and VIU drive CCB and mediate the associations between CPB and CCB. This study contributes to the co-creation theory by supporting the indirect association between CPB and CCB through COP and VIU as co-creation mechanisms. Applying the proposed model as a managerial tool in hotels improves COP, VIU, and CCB.

Keywords: Customer participation behaviour, Customer citizenship behaviour, Value co-creation, Co-production, Value-in-use, hotel

² Manuscript submitted to **Tourism and Hospitality Research**.

3.1 Introduction

Two decades ago, Prahalad and Ramaswamy (2004b, 2004a) presented the customer as a source of the firm's competitive advantage and suggested that companies co-create unique experiences with the customers through interaction to differentiate themselves from rivals. Vargo and Lusch (2004) distinguished services as intangible output from service as the process of using one's resources to benefit other entities. Vargo and Lusch (2008a) proposed the service-dominant logic in marketing, which defines value co-creation as a collaborative process of integrating operant resources (e.g., knowledge, skills, capabilities) by all economic and social actors (e.g., service provider, customer, other customers) through interaction for the benefit of themselves and others. Grönroos and Ravald (2011) proposed service logic and discussed that value co-creation occurs through direct interaction when the customer joins the production process or when the service provider can assist the customer in creating personalised value-in-use during consumption.

Based on a literature review, Ranjan and Read (2016) proposed two forms of value co-creation: co-production (COP) and value-in-use (VIU). COP, which is measured by knowledge, equity, and interaction, refers to the joint creation of a superior offering with the customer when the service provider builds an interactive environment, shares control of the service provision process with customers, and is open to customers' new ideas and suggestions about its products/services (Vargo, 2011; Ranjan and Read, 2016). VIU is measured by experience, personalisation, and relationship, denotes co-creating value with the customer during consumption when the service provider has an opportunity to facilitate the customer's experience of a unique value through interaction or when the customer co-creates value socially with other customers (Grönroos, 2011; Ranjan and Read, 2016).

In the tourism and hospitality industry, several authors identified customer participation as a prerequisite for value co-creation (Mohammadi et al., 2021; Campos et al., 2016). Yi and Gong (2013) proposed a model for customer value co-creation behaviour by identifying customer in-role and extra-role behaviour. Customer participation behaviour (CPB) is defined as in-role behaviour necessary for a successful value co-creation, such as seeking information about the firm and its services, sharing information with the service provider about the needs, executing responsible behaviour,

and maintaining respectful and friendly personal interaction with the service employees (Yi and Gong, 2013). In contrast, customer citizenship behaviour (CCB) denotes voluntary extra-role behaviour, which is not necessarily required for successful service delivery but may bring extraordinary value to the service provider or other customers (Gong and Yi, 2021). CCB includes providing solicited or unsolicited feedback to assist the service provider in enhancing its services in the long run, recommending its services to others, helping other customers in using the services, and having tolerance while facing a service failure (Yi and Gong, 2013)

CPB and CCB have received significant attention in the tourism and hospitality industry. Some scholars considered only CPB. For instance, Gonzales et al. (2019) affirmed that CPB elevated customer perceived value in IBS hotels. In timeshare exchange services, Lelo de Larrea and Gregory (2020) confirmed the positive link between customer-firm interaction and COP but failed to find any significant association between customer participation and COP due to the complex nature of timeshare exchange services; thus, they recommended further studies to test the relationship between customer participation and COP in other sectors of the hospitality industry. Sarmah et al. (2023) revealed that guest innovativeness and trust in hotels improve guest participation behaviour. Sadighha et al. (2024) also showed that customer co-creation perception drives CPB, which subsequently enhances COP and VIU; however, their result was incomplete as they neglected to include CCB in their research.

Some researchers focused only on CCB. For example, Assiouras et al. (2019) revealed that value co-creation is positively linked to guests' willingness to engage in citizenship behaviour while their satisfaction with the services mediates this relationship; however, they have not discussed how CPB may contribute to value co-creation and CCB. Hossain et al. (2020) proved that customer involvement moderates the positive association between customer love and CCB. O'Connor and Assaker (2022) also confirmed that hotel service quality and corporate social responsibility predict hotel reputation through trust and satisfaction, further enhancing CCB.

In the hospitality sector, a few studies that examined CPB and CCB failed to distinguish them clearly or investigate their association (Gong and Yi, 2021). Yen (2023) studied the associations between customer innovativeness, hotel innovativeness, customer brand identification, CPB, and CCB. They asserted that customer and hotel innovativeness positively relates to customer brand identification, an antecedent of CPB

and CCB. Uslu and Tosun (2024) revealed that the more agreeable and extroverted a customer is, the more likely they will interact with the service employee and demonstrate participation and citizenship behaviour. Li et al. (2023) also proved that identity, communal identity, and existential authenticity are triggers of customer psychological ownership, which positively impact CPB and CCB.

According to Gong and Yi (2021), CPB and CCB have different predictors and outcomes as they follow different patterns; thus, there is a great need to differentiate CPB from CCB in sectors such as tourism and hospitality and to introduce a mechanism that may tie them together. Moreover, Lelo de Larrea and Gregory (2020) called for a more comprehensive model to discuss and test the relationship between COP, VIU, and other variables (antecedents and consequences).

To fill the identified gaps in the literature and merge the two streams of research (customer behaviour and co-creation processes), this research aims to clarify how CPB and CCB contribute to COP and VIU and investigate which mechanism may link CPB to CCB. Accordingly, the objectives of this study are fourfold: 1. to assess CPB as a predictor of COP, VIU, and CCB; 2. to examine COP and VIU as drivers of CCB; 3. to evaluate COP as a trigger of VIU; and 4. to explore the mediating role of COP and VIU between CPB and CCB.

By bonding *Co-Creation Theory* as a prominent foundation of this research with *Equity Theory* and *Social Exchange Theory*, which is the novelty of this research, the author proposes a comprehensive model of customer behaviour towards value-co-creation including both dimensions of customer co-creation behaviour (CPB, CCB) and both forms of co-creation process (COP and VIU) which allows a deeper understanding of a nature of the associations between variables (direct/indirect) and the mechanism that may relate them together. The present research contributes to co-creation theory by asserting that CPB drives CCB directly, and COP triggers VIU directly. It also proves CPB is an antecedent of COP/VIU while CCB is their consequence. Moreover, it confirms that COP and VIU as mediators positively link CPB to CCB. In practice, the proposed integrated model assists hotel managers to benefit from CPB in co-producing customers' desired services (particularly by maintaining equity during customer-employee interaction), which enhances customers' experience of personalised value-in-use during consumption, strengthens the customer-hotel relationships and subsequently provides extra value for the hotel by increasing CCB.

3.2 Literature review and developing hypotheses.

3.2.1 Customer participation behaviour as a prerequisite

According to Yi and Gong (2013), CPB includes seeking information about the service provider and its services, which reduces customers' uncertainties about value co-creation, empowers them to control the co-creation environment, and assists them in mastering their role as value co-creators. Customers also share adequate and essential information with the employees about their specific needs to ensure service quality meets their needs; exhibit their responsibilities, such as following employees' directions for a successful value co-creation; and communicate with employees in a friendly and respectful manner to increase engagement in a pleasant service environment (Roy et al., 2020; Yi and Gong, 2013).

In timeshare exchange services, Lelo de Larrea and Gregory (2020) found a significant association between customer-employee interaction and co-production. As Lelo de Larrea and Gregory (2020) discussed, customers (timeshare owners) considered the role of the service provider (exchange company) as intermediaries in this complex sector, where a luxury lodging interval may be exchanged with an equivalent or with an airfare or a cruise. Therefore, customers preferred to book personalised timeshare exchanges with employees' assistance through interaction. In turn, the association between customer participation and co-production was not meaningful, probably because customers did not have enough time or deep knowledge to participate in co-production or did not perceive a high experiential benefit in participation. In the hospitality sector, Wang (2011) attested that collecting information about the service provider and its services from those who experienced them eliminated customer overestimation of services, while customers' sharing of information about the desired services diminished the gap between management perception and customer expectation of services. Customer participation in hotel service design and delivery also reduced the gap between service quality specifications and management perceptions, as it incorporates customers' knowledge, leading to a more satisfying offering that meets customers' needs. Finally, the findings confirmed that the customer's friendly interaction with the employee enhanced the service quality by decreasing the gap between service delivery and service specifications. Furthermore, Koc et al. (2017) have debated that customer participation in the service co-production (e.g., deciding on the best holiday package, being eager to

receive the service, and choosing food from an open buffet) may increase feelings of cognitive, decisional, and behavioural control over the co-creation process. As defined by Averill (1973), cognitive control refers to customers' perception of their ability to obtain information and access processes to predict the situation or complete the task; decisional control implies customers' perception of having choices among different courses of action; and behavioural control denotes customers' perception of what they can do to amend or influence the situation. In restaurant contexts, findings ascertained that decisional control was the most influential type of control that aroused the customers' affective responses (i.e., satisfaction, happiness) toward their participation behaviour (Stevens et al., 2017).

Moreover, Kim and Tang's (2020) findings revealed that CPB, such as informing frontline employees regarding their food allergies or preferred ingredients/cooking style, improved customers' perceived value during consumption. In adventure tourism, Prebensen and Xie (2017) also revealed that tourists' participation during consumption significantly improved tourist perceived value. In the hotel context, Sadighha et al. (2024) also confirmed that CPB enhanced the co-producing of a desired offering and guests' creation of unique value-in-use. According to Ranjan and Read (2016), co-production occurs when the service provider is open to customers' needs and ideas and shares control with them, considering the customer's role equally important. In turn, value-in-use is determined by customers when they experience personalised value during consumption while the service provider facilitates this process. Therefore, the author expects the following hypotheses:

H1: Customer participation behaviour has a direct positive relationship with co-production.

H2: Customer participation behaviour has a direct positive relationship with value-in-use.

The findings from the previous literature also supported that customer participation in value co-creation improved customer loyalty (Chen et al., 2015), while loyalty (e.g., word of mouth) has been categorised as one indicator of advocacy (Gong and Yi, 2021). Furthermore, customers' participation in the service provision may influence their assessment of service failure attributes (such as controllability, stability, and the locus of failure) (Koc et al., 2017). Customers can determine the attributes of a service failure by

asking themselves if the service provider could have prevented it, if it was temporary or likely to recur, and who was to blame. Koc et al.'s (2017) results showed that customers who participated in co-creating value with the hotel were more understanding of the co-creation process and had a softer propensity to complain regarding their experience of a service failure. As Gong and Yi (2021) discussed, CPB also improves customer mastery of how to utilise services; therefore, customers who participate in value co-creation and have considerable experiences with services are more likely to provide valuable feedback/suggestions on how to improve the provider's services or help other customers who experience similar difficulties applying services as they did. Therefore, the author proposes that:

H3: Customer participation behaviour has a direct positive relationship with customer citizenship behaviour.

3.2.2 Customer citizenship behaviour as a consequence

Yi and Gong (2013) defined CCB as voluntary and not necessarily required behaviour for successful service provision and delivery with four dimensions, namely, feedback, advocacy, helping, and tolerance, through which customers may bring added value to the service provider by offering suggestions about the services, recommending the service provider to others, assisting other customers in using services and having tolerance in case of a service failure. Therefore, hotel managers highly appreciate increasing CCB as it provides added benefits once the customers go above and beyond their expected roles (Zoghbi-Manrique-de-Lara et al., 2017).

In hospitality, Assiouras et al. (2022) investigated the association between value co-creation and customers' enjoyment through perceived justice in lodging facilities in Greece. Results showed value co-creation positively correlated with customers' enjoyment through perceived distributive and interactional justice (Assiouras et al., 2022). Moreover, Assiouras et al. (2019) revealed that value co-creation significantly improved customers' willingness to engage in citizenship behaviour through customer satisfaction.

Grounded in *Equity Theory*, customers expect a fair allocation of resources to all parties once they assess value co-creation based on its perceived distributive fairness (costs associated with obtaining a desired outcome, such as effort and time spent on

producing desired offerings or creating personalised experiences), interactional fairness (considering the manner of the service provider such as courtesy and respect) and procedural fairness (assessing the co-creation process and its policy) (Adams, 1963; Devlin et al., 2014). Moreover, based on social exchange theory, when individuals receive benefits or assistance, they feel an obligation to reciprocate it towards others through interaction (Blau, 1964). Since co-producing a desired offering requires role equity between the customer and the service provider, and value-in-use denotes the customer's experiencing a personalised value during consumption, the author proposes that:

H4: Co-production has a direct positive relationship with customer citizenship behaviour.

H5: Value-in-use has a direct positive relationship with customer citizenship behaviour.

Co-production requires the customer's willingness and ability to provide information to the firm about their needs; without it, the quality of the provided services may not meet the customer's desire (Ranjan and Read, 2016; Yi and Gong, 2013). Lelo de Larrea and Gregory (2020) also discussed that co-producing a desired offering with customers may improve customers' experience of personalised value-in-use during consumption, which needs further investigation. As Chathoth et al.'s (2020) findings in hotels showed, guests' personal needs are known only to themselves (preferred pillow type); thus, the initial requests come from the guests, allowing employees to co-create tailor-made experiences that best meet their particular needs. Therefore, to complement Assiouras et al.'s (2022) discussion highlighting that co-production may improve customers' evaluation of their unique experiences, which meets their idiosyncratic needs, this study proposes that:

H6: Co-production has a direct and positive relationship with value-in-use.

3.2.3 Co-production and value-in-use as mediators

Considering previous studies, co-production and value-in-use may mediate the association between CPB and CCB. For example, Tu et al. (2018) unveiled that customers who participated in designing their rooms with the hotel perceived a higher

degree of value co-creation and tended to pay higher prices for their stay, which is a type of citizenship behaviour as it significantly boosted the hotel’s revenue (Gong and Yi, 2021). Hossain et al. (2020) also uncovered that through interaction with the hotel, service employees had opportunities to fulfill customers’ demands by co-creating superior value and tuning hotel services with customers' individual needs. Hence, Hossain et al. (2020) suggested that hotel managers encourage customers to interact with the hotel employees and co-create personalised values to reciprocate extra benefits for the hotel. Thus, the present study postulates the following hypotheses:

H7: Co-production mediates the relationship between CPB and CCB.

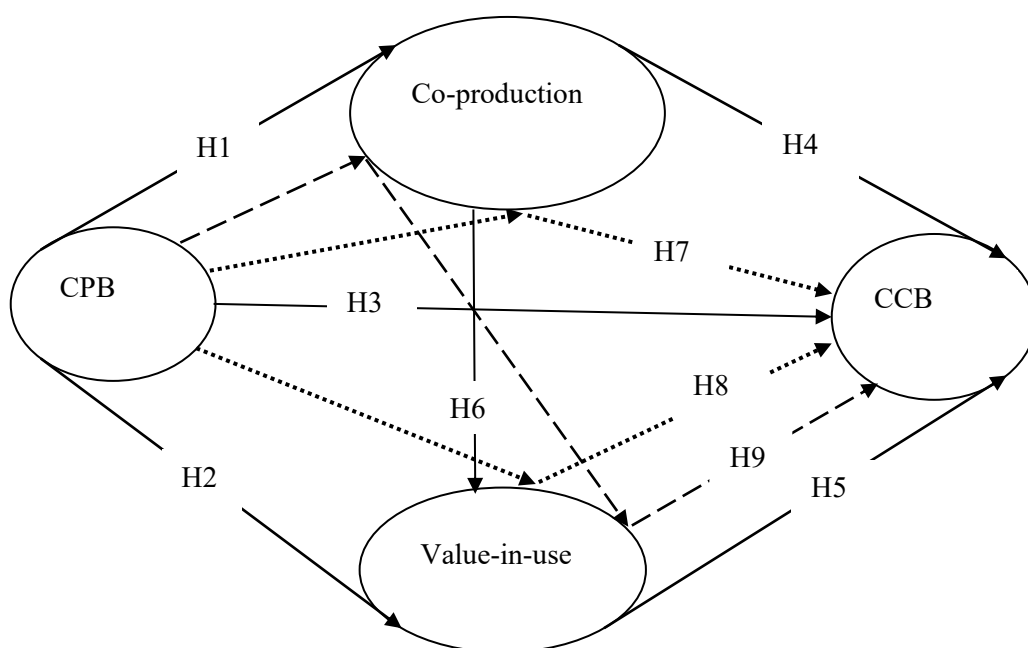
H8: Value-in-use mediates the relationship between CPB and CCB.

Furthermore, since co-production is expected to positively relate to value-in-use (H6), the author proposes that:

H9: The concurrence of co-production and value-in-use mediates the relationship between CPB and CCB.

Figure 3.1 represents the proposed model for customer behaviour in value co-creation.

Figure 3.1: Conceptual model for customer behaviour in value co-creation; CPB: Customer participation behaviour, COP: Co-production, VIU: Value-in-use, CCB: Customer citizenship behaviour



3.3 Methodology

3.3.1 Study area and target population

In southern Portugal, the Algarve region is one of the most attractive destinations due to its 318 km coastline, golden sandy beaches, magnificent landscape, calm sea, and Mediterranean gastronomy. Tourists to the Algarve region are predominately from the UK, totalling 4.3 million tourists, followed by other regions, namely Germany and France (Turismo de Portugal, 2019). In 2023, tourists from the UK stayed nearly 5 million nights in Algarve accommodations (Algarve Sustainable Tourism Observatory, 2023). Therefore, the study's sample consisted of tourists from the UK market visiting Algarve hotels during the summer of 2022.

3.3.2 Constructs measures

Researchers designed an English questionnaire with three sections to conduct the survey. Tourism characteristics (i.e., the reason for staying with the travelling party) are addressed in the first section. The second part assesses CPB, CCB, COP and VIU (measures presented in appendix 3.1). A five-point Likert scale (1 = strongly disagree, 5 = strongly agree) was approved to assess the scales of each construct. At the end of the survey, tourists are asked about their profiles (e.g., age, gender, marital status). Table 3.1 shows the constructs' names, abbreviations, dimensions, and references in the hospitality sector.

Table 3.1: Summary of the constructs, abbreviations, and references

Construct and its structure	Dimension	Applied measures in hotels
Customer participation behaviour (CPB) (reflective-reflective)	Information seeking, information sharing, responsible behaviour, and personal interaction (Yi and Gong, 2013)	(Roy <i>et al.</i> , 2020)
Customer citizenship behaviour (CCB) (reflective-reflective)	Feedback, Advocacy, Helping, and Tolerance (Yi and Gong, 2013)	(Roy <i>et al.</i> , 2020)
Co-production (COP); (formative-formative)	Knowledge, equity, and interaction (Ranjan and Read, 2016)	(Assiouras <i>et al.</i> , 2019)
Value-in-use (VIU); (formative-formative)	Experience, personalisation, and relationship (Ranjan and Read, 2016)	(Assiouras <i>et al.</i> , 2019)

3.3.3 Data collection

Researchers obtained permission from the Faro airport authorities to distribute questionnaires to tourists waiting for a turning flight to the UK to collect data. Those over 18 who stayed at a hotel during their vacation were invited to complete the questionnaire. With a margin of error of 4% and 95% confidence intervals, 583 was the minimum sample size (Cochran, 1963). From the 600 distributed questionnaires, 565 completed questionnaires (94%) were considered valid for the analysis.

3.3.4 Data analysis plan

In this survey, all constructs were measured using the same Likert scale (from 1 to 5); thus, it was possible to face responses' consistency, which increases the covariances between the variables that may result in the "common method bias" (CMB) according to Podsakoff *et al.* (2012). Therefore, the researchers applied Harman's (1967) single-factor test for CMB using SPSS 28.0.1.0(142) by running "exploratory factor analysis" (EFA), including all items loaded into one common factor, as proposed by Roni (2014). The results demonstrated a total explained variance for a single factor of 40.781%, lower than 50%, confirming that CMB has no negative effect on the dataset.

Therefore, the author tested the model using "partial least squares structural equation modelling" (PLS-SEM) with the SmartPLS software version 4.0.8.2 (Ringle *et al.*, 2022). "PLS-SEM has been found appropriate as the complex model incorporates both formative and reflective second-order constructs for nonnormal data (CPB, COP, VIU and CCB) (Hair *et al.*, 2022). A two-stage approach assessed the measurement model (Hair *et al.*, 2022). During the first stage, each dimension's scores (first-order construct), composing the second-order latent variables, were acquired by running the PLS-SEM algorithm for the model in which all first-order constructs (either reflective or formative nature) were connected. In the second stage, the researchers utilised the scores of the first-order constructs obtained to indicate their corresponding second-order constructs. Once the quality of the measurement model was recognised in the two stages, the structural model was assessed, and then the research hypotheses were tested.

3.4 Results

3.4.1 Sample characteristics

In the study sample, 54.90 % were female, and 45.10 % were male. The majority were between 30 and 60 years old (76%) and came from the UK with their families or partners (90.10) for vacation (97.70 %). Most tourists (86.10 %) had a university degree, and 55.20 % were self-employed. Moreover, 90% of the respondents stayed in 4- or 5-star hotels.

3.4.2 Measurement model assessment: stage 1

Table 3.2 shows the reliability and convergent validity results for the reflective constructs in stage 1. All factor loadings, which represent individual indicators' reliability of the reflective first-order latent variables (Hair et al., 2019), were above the threshold of 0.708, affirming more shared variance between each indicator and the corresponding variable than error variance (Carmines and Zeller, 1979). Also, the Cronbach alpha and the composite reliability (CR) coefficients exceeded 0.7, confirming the internal consistency among all indicators relating to one construct (Kline, 2005). Furthermore, the Average Variance Extracted (AVE) values, representing the shared variance between each construct and its indicators, surpass the threshold of 0.5; thus, convergent validity is attained (Hair et al., 2019). To test the significance of each indicator to its corresponding constructs, the non-parametric bootstrapping process was run for 5000 samples successfully (all bootstrapping $p = 0.00$).

Table 3.2: Results summary for reflective constructs in the first-stage measurement model

Construct and items	Loading	Cronbach's alpha	CR	AVE
Information seeking		0.738	0.774	0.653
ISk1	0.773*			
ISk2	0.753*			
ISk3	0.873*			
Information sharing		0.896	0.897	0.763
ISh1	0.826*			
ISh2	0.891*			
ISh3	0.897*			
ISh4	0.861*			
Responsible behaviour		0.924	0.925	0.816
RP1	0.833*			
RB2	0.920*			
RB3	0.910*			
RB4	0.915*			
Personal interaction		0.955	0.955	0.849
PI1	0.926*			
PI2	0.932*			
PI3	0.937*			
PI4	0.932*			
PI5	0.865*			
Feedback		0.775	0.782	0.688
F1	0.815*			
F2	0.847*			
F3	0.827*			
Advocacy		0.915	0.918	0.855
Adv1	0.916*			
Adv2	0.943*			
Adv3	0.915*			
Helping		0.901	0.901	0.771
H1	0.870*			
H3	0.900*			
H4	0.882*			
H5	0.858*			
Tolerance		0.812	0.839	0.729
Tol1	0.751*			
Tol2	0.888*			
Tol3	0.914*			

Note: *bootstrapping $p < 0.000$.

To assess the discriminant validity, denoting the extent to which each construct represents a unique concept different from the other constructs, the square root of each AVE value (in the diagonal) exceeded the correlations between each construct and the other constructs (out of the diagonal) as per results in table 3.3. Therefore, the discriminant validity was achieved based on Fornell and Larcker's (1981) criterion. The

Heterotrait-Monotrait Ratios (HTMT) values were also below the threshold of 0.85, and the corresponding bootstrap confidence interval did not include the value of 1, which asserted the discriminant validity as presented in appendix 3.2 (Henseler et al., 2015). Moreover, the cross-loading values confirmed that each indicator's loading on its corresponding construct outstripped all its loadings on other constructs, according to appendix 3.3, establishing discriminant validity as well (Hair et al., 2011).

Table 3.3: Correlations between variables.

C	Adv	F	H	ISk	ISh	PI	RB	Tol
Adv	0.925 ^a							
F	0.591 0.689 ^b	0.830 ^a						
H	0.490 0.539	0.593 0.713 ^b	0.878 ^a					
ISk	0.350 0.415	0.418 0.542	0.450 0.541 ^b	0.808 ^a				
ISh	0.417 0.457	0.479 0.570	0.436 0.483	0.627 0.756 ^b	0.874 ^a			
PI	0.587 0.624	0.539 0.611	0.280 0.300	0.199 0.240	0.352 0.379 ^b	0.921 ^a		
RB	0.440 0.475	0.437 0.508	0.342 0.372	0.529 0.625	0.755 0.825	0.498 0.532 ^b	0.903 ^a	
Tol	0.467 0.532	0.457 0.577	0.605 0.721	0.333 0.425	0.339 0.391	0.371 0.397	0.351 0.392 ^b	0.854 ^a

Note: ISk: Information seeking; ISh: Information sharing; RB: Responsible behaviour; PI: Personal interaction; F: Feedback; Adv: Advocacy; H: Helping; Tol: Tolerance. ^a Diagonal values refer to the squared root value of AVE for each latent variable to appraise the Fornell-Larcker criterion. ^b HTMT Values.

3.4.3 Measurement model assessment: stage 2

Considering the validity of the first-stage results for all formative/reflective first-order constructs, their scores were used in the second stage to test the measurement model of the second-order reflective variables. As indicated in table 3.5, the loadings of all factors are higher than the threshold of 0.708, except for personal interaction (0.634) corresponding to CPB. However, to improve the content validity of the construct as identified and assessed by Yi and Gong (2013) and Roy et al. (2020) and considering that the other quality criteria were met, this measure has been kept in the model (Hair et al., 2022). Additionally, the results for Cronbach alpha (0.796), CR (0.806) and AVE (0.631) confirmed the reliability and convergent validity of CPB and the values of Cronbach alpha (0.821), CR (0.825), and AVE (0.650) affirmed the reliability and convergent validity of the CCB (Hair et al., 2019, 2022). To assess the discriminant validity between the CPB and CCB, table 3.4 shows that the AVE square root exceeded the correlations between the constructs. Thus, the discriminant validity was confirmed based on Fornell and Larcker's (1981) criterion. Moreover, the Heterotrait-Monotrait

Ratios (HTMT) value is 0.800, below the threshold of 0.85, attesting to the discriminant validity (Henseler et al., 2015).

Regarding the second-order formative variables, the outer weights obtained by bootstrapping 5000 sub-samples were all significant. (Hair et al., 2019, 2022). Also, all VIFs were below threshold 5, attesting to collinearity issues for COP and VIU (Hair et al., 2019). Table 3.5 contains the results of the second-order measurement model and table 3.6. Presents the correlations among the reflective higher-order variables.

Table 3.4: Results summary for formative constructs in the first-stage measurement model.

Constructs and items	Weight	VIF
Knowledge		
K1	0.309***	1.819
K2	0.248***	1.920
K3	0.207**	1.797
K4	0.434***	2.037
Equity		
Eq1	0.365***	2.115
Eq2	0.351***	2.578
Eq3	0.201*	3.218
Eq4	0.233***	2.601
Interaction		
I1	0.366***	2.559
I2	0.267***	2.853
I3	0.353***	2.311
I4	0.154***	1.379
Experience		
Exp1	0.563***	1.540
Exp2	0.320***	1.857
Exp3	0.295***	2.099
Personalisation		
P1	0.345***	1.951
P2	0.301***	2.38
P3	0.142*	2.287
P4	0.428***	1.635
Relationship		
Rel1	0.357***	1.610
Rel2	0.220**	2.384
Rel3	0.214*	2.534
Rel4	0.389***	2.685

Note: *p < 0.05, **p < 0.01, ***p < 0.001

Table 3.5: Results of the second-order measurement model

Construct	Sub-dimension	Loading /weight	Cronbach's alpha	CR	AVE
CPB (Reflective)			0.796	0.806	0.631
	ISk	0.747*			
	ISh	0.881*			
	RB	0.887*			
CCB (Reflective)	PI	0.634*			
			0.821	0.825	0.650
	F	0.830*			
	Adv	0.804*			
	H	0.828*			
	Tol	0.762*			
					VIF
COP (Formative)					
	K	0.203*			2.772
	Eq	0.512*			3.386
	I	0.360*			3.395
VIU (Formative)					
	Exp	0.344*			2.692
	P	0.379*			3.187
	Rel	0.381*			2.331

Note: *p= 0.000; ISk: Information seeking; ISh: Information sharing; RB: Responsible behaviour; PI: Personal interaction; F: Feedback; Adv: Advocacy; H: Helping; Tol: Tolerance; K: Knowledge; Eq: Equity; I: Interaction; Exp: Experience; P: Personalisation; Rel: Relationship

Table 3.6: Correlations among the reflective higher-order variables.

Construct	CCB	CPB
CCB	0.806 ^a	
CPB	0.646 0.800 ^b	0.794 ^a

^a: Diagonal values show the squared root value of AVE for each latent variable to evaluate the Fornell-Larcker criterion. ^b: HTMT Values.

3.4.4 structural model assessment and hypotheses testing

After evaluating the measurement model, data analysis started with the structural model. According to Hair et al. (2011), the coefficient of determination value (R^2) of the endogenous latent variables determines the predictive capability and exploratory of the model that may be considered high (0.75), moderate (0.50), or low (0.25). Based on the results, COP (0.363), VIU (0.721), and CPB (0.595) mainly show moderate to high predictive capability of the model. Moreover, the f^2 effect size of all constructs exceeds the cut-off value of 0.02. At this level, CPB is a robust predictor of COP (0.570), and COP is a strong predictor of VIU (1.250), which subsequently predicts CCB (0.25).

Also, the f^2 of CPB on CCB and VIU are 0.138 and effect 0.052, whereas the f^2 of COP on CCB is 0.097. Additionally, the obtained Stone Geisser's Q^2 values from the blindfolding routine of Smart PLS 4.0 are positive, attesting to the predictive accuracy of the model's constructs (Q^2 for COP = 0.358; Q^2 for VIU = 0.368; Q^2 for CCB = 0.414). Furthermore, the proposed model reports a Standardized Root Mean Square Residual (SRMR) value of 0.068 and a Normed Fit Index (NFI) value of 0.869 supporting a good model fit (SRMR lower than 0.1 and an NFI of 0.9 are desirable according to Hair *et al.* (2022)).

To assess the hypotheses, the one-tailed bootstrapping of 5000 sub-samples was run, and all the direct path coefficient values were confirmed to be statistically significant as per table 3.7; thus, H1, H2, H3, H4, H5 and H6 are supported. Therefore, CPB positively impacts CCB and significantly influences COP and VIU; COP positively affects VIU, and both COP and VIU signified CCB in hotels. To evaluate the mediating role of COP and VIU between CPB and CCB, the bootstrapping result of the specific indirect effects has been studied, which shows significant p values for H7 and H8 and H9. Therefore, COP and VIU positively mediate the relationship between CPB and CCB. In addition, the total effect of CPB on CCB is 0.646, whereas CPB's direct impact on CCB equals 0.306. Thus, the difference of 0.340 is the indirect effects of CPB on CCB through COP and VIU, which supports the importance of understanding the mechanism triggering CCB.

Table 3.7. Results of the structural model.

Direct hypotheses	Path coefficient	Support
H1. CPB -> COP	0.603*	Yes
H2. CPB -> VIU	0.165*	Yes
H3. CPB -> CCB	0.306*	Yes
H4. COP -> VIU	0.739*	Yes
H5. COP -> CCB	0.373*	Yes
H6. VIU -> CCB	0.190**	Yes
Specific indirect hypotheses assessing the mediators		
H7. CPB -> Co-production -> CCB	0.225*	Yes
H8. CPB -> Value-in-use -> CCB	0.030**	Yes
H9. CPB -> Co-production -> Value-in-use -> CCB	0.085**	Yes
Total effect		
CPB -> CCB	0.646*	Yes

Note: *p= 0.000, **p < 0.05

3.5 Discussion

Based on table VII, this study supports that CPB has strong direct associations with COP (H1: $\beta = 0.603$), CCB (H3: $\beta = 0.306$) and VIU (H2: $\beta = 0.165$). This is aligned with the previous study's findings that customers' active participation in VCC improved hotel services quality (Wang, 2011) and assisted service employees to recognise the customers' specific needs (Yi and Gong, 2013), which enhanced customers' perceived value (González-Mansilla et al., 2019) satisfaction and willingness to citizenship behaviour which may fruit in the form of loyalty, positive WOM, higher service quality or service innovation based on the customer's feedback (Assiouras et al., 2019; Gong and Yi, 2021).

Moreover, COP (H5: $\beta = 0.373$) and VIU (H6: $\beta = 0.190$) are positively associated with CCB. COP and VIU also mediate the positive associations between CPB and CCB (H7: $\beta = 0.225$, H8: $\beta = 0.030$ and H9: $\beta = 0.085$). Results in table 3.5 reveal that equity (0.512) is the most crucial element in COP, whereas relationship (0.381) and personalisation (0.379) are the most significant factors in forming VIU. These findings are partially supported by Assiouras et al. (2022), who found interaction, relationship, and personalisation as the most substantial factors of COP and VIU in lodgings facilities. The main difference among the findings regards the importance of equity in forming

COP. Since this study's sample includes tourists from the UK who mostly stayed in 4- and 5-star hotels (90%), most probably they benefited from the outstanding communication skills of the service employees who maintained equity during interaction and better-recognised customers' specific needs.

Table 3.7 shows that COP strongly drives VIU (H4: $\beta = 0.739$) and mediates the positive association between CPB and CCB (H9: $\beta = 0.085$). Therefore, customer participation in co-producing a desired offering and maintaining equity during the COP dramatically enhances the customer experience of a personalised VIU and CCB. These empirical findings significantly strengthen the fundamental premise of the *Co-Creation Theory*, highlighting that the customer is a leading creator of value (Grönroos, 2011; Vargo and Lusch, 2017, 2016) and the source of the firm's competitive advantage (Chathoth et al., 2014; Ramaswamy and Ozcan, 2018). Therefore, customers who express their real needs and participate in the firm's business processes, such as designing, producing, and delivering a desired value proposition, experience something unique, for instance, specialised seafood made up of high-quality local ingredients and improved their relationship with the service provider (Chathoth et al., 2016; Taheri et al., 2017) which may increase their citizenship behaviour (Assiouras et al., 2019).

The total effect results in Table 3.7 reveal that the direct relation between CPB and CCB is 0.306, whereas the total effect of CPB on CCB is 0.646. Therefore, by co-producing a desired offering with the hotel and providing customers with a tailor-made value in use, the impact of CPB on CCB has indirectly increased by 0.340, indicating the significance of co-production and value-in-use as mediators.

3.6 Conclusion

This study investigates how CPB (as an in-role behaviour, which is a prerequisite of co-creation) contributes to the two forms of the co-creation process, namely, COP and VIU, which subsequently boost CCB (as an extra-role and voluntary behaviour). By bonding the *Co-creation Theory* with the *Equity Theory* and *Social Exchange Theory* in tourism and hospitality, this research takes a novel approach and proposes a comprehensive model for customer behaviour towards value co-creation, which better gauges the associations between CPB, COP, VIU, and CCB. The result reveals that CPB (responsible behaviour, information sharing, information seeking, and personal

interaction) enhances CCB (helping, feedback, tolerance, and advocacy), and COP directly improves VIU. It also shows that CPB significantly predicts COP and VIU, and COP and VIU drive CCB, which brings added value to hotels. Additionally, the positive association between CPB and CCB increases meaningfully through COP and VIU, affirming the pivotal roles of the co-creation processes in enhancing CCB and the hotel's extra benefit.

3.6.1 Theoretical implications

The present research has several contributions to the co-creation theory in the hospitality context. Although CPB and CCB have been widely discussed in the tourism and hospitality sector, their distinction and the mediating mechanism that may be associated with them have not yet been addressed (Gong and Yi, 2021). Moreover, previous studies called for further research on the association between COP and VIU (Lelo de Larrea and Gregory, 2020). In response to the identified gaps, this study proposes an integrated model for customer behaviour towards value co-creation, including both dimensions of customer co-creation behaviour (CPB and CCB) and both forms of the co-creation process (COP and VIU). In particular, the main contribution and novelty of this study in the first place is to join *Equity Theory* and *Social Exchange Theory* with the *Co-creation Theory* to explain how customers participate (in-role and extra-role) in co-creation processes (COP and VIU) in hotels.

The empirical results of the present study expand the knowledge about customer behaviour toward co-creation processes as it attests to CPB as a predictor of COP and VIU and confirms CCB as the consequence of COP and VIU. This is a complementary finding to the previous studies showing that CPB allows customers to seek information about service providers' processes and services to better anticipate co-creation outcomes (Koc et al., 2017). Moreover, the empirical results of this research assert that equity is the most critical factor in forming COP. By incorporating customer voices and considering customers' roles as important as the service provider, customers can choose the most desirable option or apply their knowledge and skills to make necessary changes to the proposed offering, leading to experiencing superior value. (Koc et al., 2017; Prebensen and Xie, 2017). Accordingly, based on the *Social Exchange Theory*, customers who perceive fairness/equity in the hotel's allocation of resources, policies,

processes, and employees' manner and experience personalised services reciprocate extra benefits to the hotel as they increase their citizenship behaviour.

Secondly, this research contributes to the theoretical and conceptual understanding of customer value co-creation behaviour as it stipulates the direct positive relationship between its two dimensions: CPB and CCB. Several studies focused on CPB, CCB, or both dimensions to discuss their antecedents and consequences but failed to uncover the association between the two variables (Gong and Yi, 2021). The empirical findings of this research attest to CPB as a determinant of CCB, which is aligned with a previous study showing that CPB changes customer's understanding of the service processes that may improve CCB in hotels, such as increasing loyalty to the hotel or tolerance to service failure (Koc et al., 2017).

Thirdly, this research contributes to the theory and conceptualisation of the two value co-creation processes. The empirical results support the positive association between COP and VIU. By applying quantitative methods, this survey supports previous qualitative findings, revealing that without considering customers as the primary co-creator of value, the service provider may fail to maintain the service quality per the customers' idiosyncratic preferences (Chathoth et al., 2020).

Lastly, this study advances the investigation of the dichotomy of customer behaviour (CPB and CCB) towards co-creation processes. By comparing the direct association between CPB and CCB with the indirect effect between them through COP and VIU, this research provides evidence-based results affirming that although CPB is a predictor of CCB, successful COP/VIU is a mechanism that effectively improves CCB, leading to more extra-ordinary value for the hotels.

3.6.2 Practical implications

The present study proposes a model for customer behaviour towards hotel co-creation processes. The author encourages hotel practitioners to apply this model as a managerial tool to improve co-producing a desired offering by giving voice to customers, enhancing customers' experience by personalising hotel services per customer preferences, advancing customer-hotel relationships, and boosting CCB.

This study recommends building a hotel's interactive service environment with

multiple touchpoints to speed up two-way communication between employees and customers. To co-create value with customers, employees should provide accurate information about hotel services, processes, and policies and inform customers about their responsibilities. For instance, since customer participation played a significant role in co-creating value with the hospitality service provider during the pandemic (Figueroa et al., 2022), hotels updated customers about their food safety and social distancing policies via their websites or by email to facilitate their participation (Shagirbasha, 2022). Customers should also be able to share specific information about their needs. Therefore, hotels may use Mobile apps connecting to guests' membership accounts, accelerating one-on-one interactions between staff and guests, allowing employees to detect guests' preferences, receive prompt feedback, and co-create personalised services (Lei et al., 2021). To enhance COP, guests may also monitor their room preparations by using a feature on the hotel's mobile app (Roy et al., 2020), proceed with mobile check-in (Lei et al., 2019), or share their needs, hobbies, or preferred pillow type with service employees (Roy et al., 2020).

Through customer-employee interaction, hotel practitioners should maintain equity to strengthen the COP of a desired value proposition and improve the customers' experience of a unique VIU. By doing so, they can capture customers' needs and suggestions to improve service personalisation and grow customer relationships. Therefore, the present study suggests that hotel staff spend sufficient time and attention identifying gaps between their offerings and customers' preferences so that additional features can be incorporated to create a more tailored experience (Shulga and Busser, 2020). As Järvi et al. (2020) discussed, a misalignment between a guest's requirement and the service led to value destruction for a guest who had an allergy and paid for a non-smoker's room but received only a smoker's room at check-in time. In contrast, in response to guests' feelings of missing their furry companions, Fairmont Hotels and Resorts offers the convenience of having a resident dog on site (Chathoth et al., 2016).

However, increasing customer participation requires employees' self-efficacy in completing challenging tasks, optimism in achieving success, and resilience in overcoming obstacles; therefore, the author suggests hotels not only apply recruitment tools such as personality tests to select applicants with significant psychological capital but also to empower the employees by providing appropriate training programs (Hsiao et al., 2015).

Regarding CCB, this research advises hotels to promote CCB via social media and online platforms (e.g., hotel websites). For example, the hotel may invite guests to participate in the hotel's event and share their innovative ideas that not only may significantly improve guests' stay experiences but also may encourage them to share their original videos on their social media accounts or on the hotel's social media pages to highlight the hotel's services and site (Roy et al., 2020) and encourage prospective customers to take initial steps to try the hotel services.

3.6.3 Limitations and future studies

First, the present study has limited generalizability because it only includes samples of UK tourists who stayed at hotels in the Algarve during the high season. Accordingly, the author recommends replicating the survey among national and international tourists or other services/hospitality industries in different countries.

Furthermore, this study examined only the relationships between customer value co-creation behaviours (CPB and CCB) and VCC process dimensions (COP and VIU) in a hotel context by combining *Co-Creation Theory* with *Equity Theory* and *Social Exchange Theory*. Future studies may incorporate other variables, such as customer perception, to investigate how the hospitality service provider can stimulate CPB to improve the COP of desired offerings, enhance the customer experience with a personalised VIU, and increase the CCB, also known as guest satisfaction. A potential moderator of customer behaviour in VCC in hotels may also be previous customer experience because customers use their mastering (knowledge, skills, and experiences) to co-create value with the hotel (Prebensen and Xie, 2017; Qiu et al., 2021).

As discussed by Gong and Yi (2021), there are other dimensions of CCB, namely, displays of relationship affiliation (e.g. tangible presentation of a firm by wearing a T-shirt), participating in the firm's activities (e.g. testing a new product), benevolent acts of service facilitation (e.g. altruism towards the firm), creative customer behaviour (providing novel ideas) and customer self-development (improving self-knowledge, skills and abilities) that can be added to the proposed model in future studies.

Lastly, further experimental research is recommended to test the causal relationship among the variables of the proposed model for customer behaviour in VCC.

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CHAPTER 4: STUDY 3: VALUE RECIPROCITY MECHANISM IN HOTELS: TESTING CUSTOMER PARTICIPATION BEHAVIOUR AND VALUE CO-CREATION AS MEDIATORS AND PREVIOUS EXPERIENCE AS A MODERATOR³

Abstract

This study investigates the reciprocity mechanism in value co-creation and clarifies how service providers may effectively trigger customer participation and boost value co-creation to enhance customer citizenship behaviour, which brings extra benefits for service providers. By joining *Equity Theory*, *Social Exchange Theory*, and *Co-Creation Theory*, this research proposes a model for reciprocity mechanism in value co-creation incorporating customer co-creation perception (CCCP) conducting hotel DART activities (dialogue, access, risk assessment, and transparency), customer participation behaviour (CPB) (information seeking, information sharing, responsible behaviour, personal interaction), customer citizenship behaviour (CCB) (feedback, advocacy, helping, tolerance), and value co-creation (VCC) in hotels. It also applies script theory to explore how customers' previous experiences with the hotel may impact the value reciprocity mechanism. The results confirm that CCCP drives CPB, VCC, and CCB. CPB also enhances VCC, consequently boosting CCB. Moreover, CPB and VCC are the reciprocity mechanisms that mediate CCCP to CCB. Findings also reveal that CPB has a more significant impact on VCC for first-time customers. In contrast, CCCP has a more substantial effect on VCC for repeated customers. Therefore, this study contributes to the advancement of co-creation theory by proposing a value reciprocity mechanism, particularly for first-time and repeat customers, and recommends specific empirical implications for practitioners.

Keywords: Customer co-creation perception, Customer participation behaviour, Customer citizenship behaviour, Value co-creation, Hotel

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4.1 Introduction

Co-creation is an interactive process in which the service provider facilitates customers' participation in creating personalised experiences through DART activities (dialogue, access, risk assessment, and transparency) as building blocks of interaction (Pralhad and Ramaswamy, 2004b, 2004a). DART activities provide equal opportunities for the service provider and customers to collaboratively co-create a shared solution (Albinsson et al., 2016). Further, providing transparent information about the service provider's capabilities and limitations in meeting customer's needs, as well as discussing the pros and cons of the desired offering, assist customers in better understanding the risk of co-creation with the service provider (Albinsson et al., 2016; Taghizadeh et al., 2016).

According to Ranjan and Read (2016), value co-creation (VCC) has two forms: co-production and value-in-use. During co-production, the customer is involved in designing, producing, and delivering a desired offering, measured by knowledge, equity, and interaction. By interacting, customers express their specific needs, ideas, and suggestions while the service provider shares information about its services and processes, and both parties co-produce a superior offering (Lusch et al., 2010; Assiouras et al., 2019). Value-in-use refers to the co-creation of value during consumption and comprises three dimensions: experience, personalisation, and relationship (Ranjan and Read, 2016). During consumption, the service provider has opportunities to facilitate the customer's creation of unique value-in-use, which increases customers' attachment and commitment to the firm (Grönroos, 2012; Ramaswamy, 2011).

Yi and Gong (2013) also proposed two dimensions of customer value co-creation behaviour: Customer participation behaviour (CPB) and customer citizenship behaviour (CCB). As an in-role behaviour, CPB manifests itself in four ways: seeking information, sharing information, responsible behaviour, and personal interaction (Yi and Gong, 2013). To co-create value, customers inquire about the firm's services, express their needs and interests to service employees, deploy their tasks and responsibilities, and interact with them respectfully and friendly (Yi et al., 2013; Figueroa et al., 2022). CCB is an extra-role behaviour measured by feedback, advocacy, helping, and tolerance (Yi et al., 2013). A familiar customer with the services may share ideas on how to improve them over time with the service provider, encourage others to use the services, advise

other customers on how to use them, and stay patient when a service failure occurs (Yi et al., 2013; Liu and Jo, 2020).

In the tourism and hospitality industry, interaction and customer participation are prerequisites to co-create value (Campos et al., 2018; Mohammadi et al., 2021). However, voids have been addressed regarding how the service provider may encourage customers to participate in VCC and take extra benefits in return (Liu and Jo, 2020; Gong and Yi, 2021). Several authors recommended building an interactive environment in the highly competitive hospitality industry to increase customer participation in VCC and eliminate the possibility of competitors imitating services (Chathoth et al., 2013; Roy Ghatak, 2020). Carvalho and Alves (2022) also noted that service providers can encourage tourists' attitudes toward VCC by communicating more about the benefits of VCC. Roy et al. (2020) demonstrated that customers perceived the fairness of the hotel's co-creation processes and its services, which improved customer trust and identification with the hotel, subsequently enhancing their participation and citizenship behavior. Gonzales et al., 2019 proposed that hotel DART activities form customer co-creation perception (CCCP). They empirically confirmed that CCCP enhances CPB and perceived value in hotels. Sadighha et al. (2024) also revealed that CCCP stimulates CPB, further strengthening the co-production of a superior offering and the customer's experience of a unique value-in-use during consumption. In addition, Assiouras et al.'s (2019) findings affirmed the positive association between VCC (composing co-production and value-in-use) and customers' willingness to engage in citizenship behaviour in lodging facilities. Therefore, previous studies failed to investigate the associations between hotel DART activities that form CCP, customer co-creation behaviour (CPB and CCB), and VCC (co-production and value-in-use) comprehensively to clarify the associations between the variables and further investigate if CPB and VCC can be the reciprocity mechanisms to transform hotel DART activities into CCB which brings extra benefits for the service provider. Additionally, customer previous experience (e.g., previous stay at the hotel) may influence customer participation to co-create value with the service provider as it may change the customer expectation of the hotel service design (Qiu et al., 2021); thus, customer previous experience may impact the value reciprocity mechanism which needs further investigation.

To fill the identified gaps and respond to the previous calls, the present study aims to converge the three lines of research focusing on the service provider DART

activities as the basis of interactions that form CCP, customer co-creation behaviour (CPB and CCB), and VCC in hotels to clarify the associations between them and propose a value reciprocity mechanism between the service provider and customers. Thus, the objectives of this research are fivefold: 1. to assess CCCP as a driver of CPB, CCB, and VCC; 2. to analyse CPB as antecedents of VCC; 3. to examine VCC as a trigger of CCB; 4. to study the mediating roles of the CPB and VCC between CCCP and CCB; and 5. to assess the previous experience as a moderator on the so-called associations.

Accordingly, this study takes a novel approach to propose an integrated model for the value reciprocity mechanism by joining Co-Creation Theory with *Equity Theory*, *Social Exchange Theory*, and *Script Theory* as supporting logic. It examines the relationships between variables and discusses the mediating roles of CPB and VCC as the reciprocity mechanism and the moderating role of customers' previous experiences on this mechanism. The study contributes to the co-creation theory by showing that implementing DART activities as building blocks of interactions (specifically transparency and risk assessment) that form CCCP assists hotels in encouraging CPB, improving VCC, and benefiting extra from CCB. Although interaction and customer participation are necessities for VCC (Campos et al., 2018), the findings of this research attest that CPB has a more significant impact on VCC for first-time customers than repeat customers, whereas DART activities have a more substantial effect on VCC for repeat customers than first-time customers. This study suggests hotels apply the reciprocity mechanism as a managerial tool and provide precise practical implications for first-time customers versus repeat customers.

4.2 Literature review and hypotheses development

4.2.1 DART activities as a predictor of customer value co-creation behaviour and value co-creation

DART activities were established by Prahalad and Ramaswamy (2004a) as building blocks of interactions to assist the service provider in initiating VCC with customers. In the hospitality context, Chathoth et al. (2014) suggested hospitality service providers appreciate the prominent role of the customer in VCC and provide an interactive platform where customers may share their preferences and requirements. In

the hotel context, Gonzales et al., 2019 asserted that implementing DART activities forms customer perception of co-creation and revealed that CCCP is positively related to CPB and customer perceived value. Sadighha et al., 2024 also showed that CCCP improved CPB in hotels. Based on *Equity Theory*, a perceived fair encounter is one in which the ratio of outcome to input (e.g., experiences to effort, money, or time) is comparable to the ratio of another similar encounter (Adams, 1963). Perceived fairness has four dimensions, including distributive fairness (e.g., justifiable benefits/services in exchange for time and effort), procedural fairness (e.g., the integration of sufficient resources), interpersonal fairness (e.g., the treatment of individuals with respect and dignity), and informational fairness (e.g., adequate information shared) (Devlin et al., 2014). Furthermore, according to the social exchange theory, social behaviour is driven by perceived costs and benefits (Homans, 1961). Thus, an individual who receives benefits is likely to feel obligated to reciprocate benefits (Blau, 1964).

By applying *Equity Theory* and *Social Exchange Theory* in the hospitality context, Roy et al.'s (2020) results showed that the customer's perceived fairness of co-creating value with the hotel not only increased CPB, leading to the customers' well-being but also improved CCB, bringing respect for the hotel. Therefore, implementing DART activities, which forms customer perception of co-creation, manifests the service provider's readiness to initiate co-creation and facilitates the customer's risk (cost/benefit) assessment of VCC (Albinsson et al., 2016) is expected to relate to CPB and CCB.

H1. Customer co-creation perception has a direct positive relationship with customer participation behaviour.

H2. Customer co-creation perception has a direct positive relationship with customer citizenship behavior.

Considering co-creation theory, VCC occurs through interactions between the service provider and customer when the customer is involved in the service provider's production process to co-produce a desired offering or when the service provider gets an opportunity to facilitate the customer's creation of a personalised value-in-use during consumption (Grönroos and Voima, 2013). Interactions allow the service provider to better understand the customer's needs and create unique value (Lei et al., 2020). Solakis et al. (2021) asserted that DART activities as the basis of interactions contribute

positively to customer experience. Sadighha et al. also confirmed that CCCP conducting DART activities enhances the co-production of a superior offering and the co-creation of a unique value-in-use during consumption. Thus, this study proposes that:

H3. Customer co-creation perception has a direct positive relationship with value co-creation.

4.2.2 Customer participation behaviour, value co-creation and customer citizenship behaviour

In the tourism and hospitality industry, several authors recognised customer participation as a requirement for co-creation (Campos et al., 2018; Mohammadi et al., 2021). As Ranjan and Read (2016) explained, the service provider is willing to share control over service design, provision, and delivery with customers to facilitate their participation in co-producing desired services. Kim and Tang (2020) proposed that customers use their behaviour to improve their perceptions of and feelings toward the service provider. The findings revealed that CPB advanced customers' perceived value of the restaurant and its services. In the hotel sector, Sadighha et al., 2024 also asserted that CPB drives the co-production of a favourable value proposition and the customer's experience of a personalised value-in-use during consumption. Considering co-production and value-in-use as two forms of value co-creation, the present study proposes that:

H4: Customer participation behaviour has a direct positive relationship with value co-creation.

Koc et al. (2017) also showed that customer participation in co-creating value with the hotel reduces customers' tendency to complain about a service failure or leave a negative comment. Moreover, CPB improves customer mastery as customers get opportunities to see how others use services; and, once customers become experienced, they may help others who have difficulties in applying services or may provide valuable feedback/suggestions to the service provider on how to improve its services (Yi and Gong, 2013). Chen et al. (2015) also demonstrated that CPB enhanced customer satisfaction and loyalty/recommendation towards the restaurant. Therefore:

H5: Customer participation behaviour has a direct positive relationship with

customer citizenship behaviour.

Furthermore, as this study proposes H1 and H5, the author expects that:

H6: Customer participation behavior mediates the relationship between customer co-creation perception and customer citizenship behavior.

4.2.3 Value co-creation and customer citizenship behaviour

In the hotel industry, Assiouras et al. (2022) revealed that VCC improves customers' enjoyment as they perceive distributive, procedural, and interactional justice during the process of VCC with the hospitality service provider. Additionally, individuals feel indebted to reciprocate the received support/benefit through interaction based on social exchange theory (Blau, 1964); accordingly, Assiouras et al.'s (2019) findings ascertained that VCC increases willingness to perform extra-role behaviour but failed to propose a mechanism that enables the service provider to drive CPB and VCC and bring additional value for the service provider which is the goal of this research. Therefore, this study proposes that:

H7: Value co-creation has a direct positive relationship with customer citizenship behavior.

Similarly, as this research hypothesized H3 and H7, the author expects that:

H8: value co-creation mediates the relationship between customer co-creation perception and customer citizenship behavior.

4.2.4 Customer participation and value co-creation as mediators

In hospitality, Chathoth et al. (2016) discovered that the service provider's initiative to co-create value with customers is to form an interactive platform to raise awareness about the firm's services and identify idiosyncratic customer needs. In Morosan and DeFranco's (2019) study, customers' use of hotel interactive technologies (e.g., website, mobile app) to initiate, continue, and facilitate consumer–firm interactions increased their participation in VCC enhanced customer's intention to use these technologies in the future and encouraged others to do the same. Li et al.'s (2022) findings affirmed that tour operators' orientation through interaction allowed tourists to

explain their requirements, update their knowledge of the services, apply their skills to co-create personalised services and build emotional bonds with the tour operators. In addition, the operator's fairness and respect toward tourists and efforts to meet their needs enhanced tourists' citizenship behaviours. Qiu et al. (2021) showed that perceived alignment between hotel policies and customer interests, service support and quality, and effective employee allocation enhanced customer psychological empowerment (power to choose, understand, and influence the service) and increased CCB. Oklevik et al. (2022) affirmed that DART activities enhanced customer experience. Banik and Rabbanee (2023) also demonstrated that hotel DART activities increased customer loyalty and retention with the hotel by strengthening customer engagement. Therefore, the present study proposes that the basis of interaction (DART) that forms CCCP is positively associated with CCB through CPB and VCC:

H9. The concurrence of customer participation behavior and value co-creation mediate the relationship between customer co-creation perception and customer citizenship behavior.

4.2.5 Previous experience as a moderator

From the co-creation perspective, customers' access to and use of the knowledge and skills form their ability to co-create value (Payne et al., 2008). The script theory proposes that individuals build their scripts from previous service experiences within the service environment (Erasmus et al., 2002). In hotels, customers evaluated their cumulative perceived VCC against their subjective expectations (Helkkula et al., 2012) through interactions with employees before (e.g., booking process), during (e.g., experiencing the value-in-use), and after the stay (e.g., feedback), where hotel misalignment with customers' expectations (based on previous experiences) led to value destruction (Järvi et al., 2020). Eletxigerra et al. (2021) also proposed that although expert tourists with prior experiences, cultural background, or knowledge about the trips perceived lower costs for searching for information than non-expert tourists, they were less in need of seeking information about their trips. Thus:

H10: Customer previous experience moderates the relationship between customer participation behaviour and value co-creation.

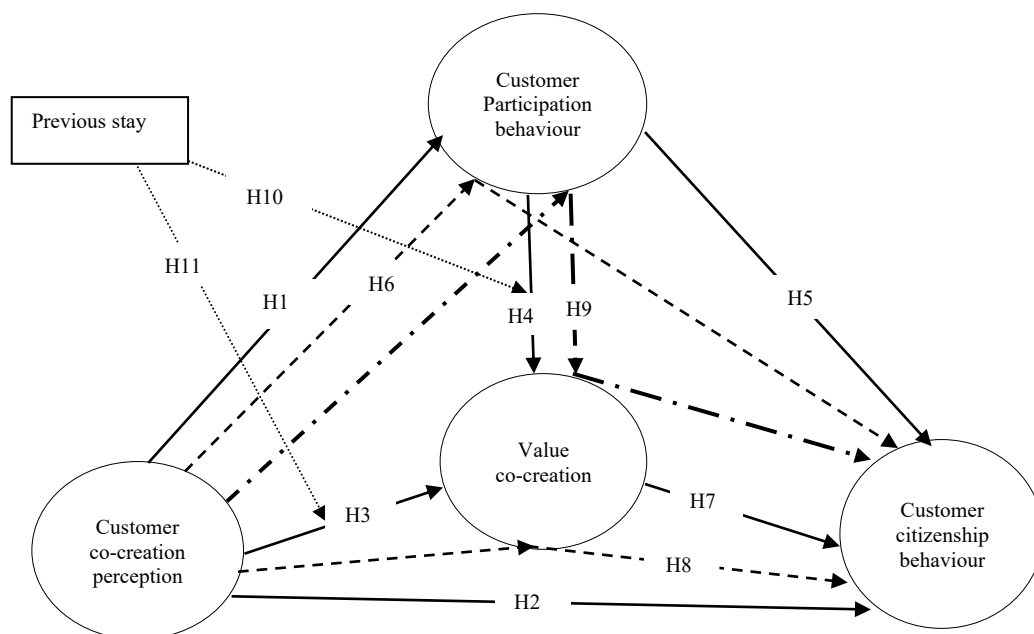
Ka et al. (2017) show that first-time Macau travellers who visited the largest

hotel in Asia but were unfamiliar with Macau's hotel services considered most luxury hotel service attributes to be excitement factors, resulting in relatively easy satisfaction with the quality of the services. In turn, experienced travellers with mastery of the hotel services were less likely to be satisfied with the hotel attributes due to having higher expectations for the hotel services. Thus, hotel DART activities that allow co-creating solutions with customers by addressing their complaints, providing them with access to hotel processes to create unique experiences, guaranteeing the quality of the services, and discussing the cost/benefits of implementing customers' new ideas are expected to play a more significant role in enhancing VCC when customers have previous experience with the hotel.

H11: Customer previous experience moderates the relationship between customer co-creation perception and value co-creation.

Figure 4.1 represents the conceptual model for reciprocity in value co-creation.

Figure 4.1: Conceptual model for reciprocity in value co-creation; CCCP: Customer co-creation perception; VCC: value co-creation; CPB: Customer participation behaviour; CCB: Customer citizenship behaviour



4.3 Methodology

4.3.1 Study area and target population

The Algarve region is a popular Sun & Sand tourist destination in southern Portugal with its golden sandy beaches, magnificent golf courses, scenic landscapes, and

Mediterranean foods at an affordable price. Algarve tourists are predominantly from the United Kingdom, totalling 4.3 million tourists, followed by tourists from Germany and France (Turismo de Portugal, 2019). In 2022, Portugal gained nearly 5 million euros in overnight profits from accommodations occupied by tourists from the UK (Algarve Sustainable Tourism Observatory, 2023). Hence, the survey sample includes tourists from the UK who stayed in the Algarve hotels during the summer of 2022.

4.3.2 Constructs measures

This research's structured questionnaire is divided into three sections in English, presented in appendix 5.1. In the first part, the survey assesses the characteristics of the trip (e.g., the purpose of the visit, travel party, hotel name), then questions assessing CCCP, CPB, VCC and CCB (measures presented in appendix 4.1), followed by profiling of the tourists (e.g., gender, age, marital status, education, and occupation). A five-point Likert scale assessed all survey variables (1 = strongly disagree, 5 = strongly agree). Table 4.1 presents the details and references of the variables in the hospitality sector.

Table 4.1: Summary of the constructs, abbreviations, and references

Construct	Dimension	Applied measures in hospitality
Customer co-creation perception (CCCP) (formative-reflective)	Dialogue, access, risk assessment, and transparency (Ranjan and Read, 2016)	(González-Mansilla et al., 2019)
Customer participation behaviour (CPB) (reflective-reflective)	Information seeking, information sharing, responsible behaviour, and personal interaction (Yi and Gong, 2013)	Roy et al. (2020)
Value co-creation (VCC) (formative-formative-formative)	Knowledge, equity, and interaction, experience, personalisation, relationship (Ranjan and Read, 2016)	(Assiouras et al., 2019)
Customer citizenship behaviour (CCB) (reflective-reflective)	Feedback, advocacy, helping, and tolerance (Yi and Gong, 2013)	(Roy et al., 2020)

4.3.3 Data collection

The survey was conducted at the departure zone at Faro International Airport once the research team obtained the authorities' permission. The study's purpose was

explained to UK tourists, and their anonymity was ensured when trained research assistants distributed questionnaires. This study was not conducted based on random sampling as all passengers in the departure area were invited to participate in this research. A pilot test with 30 tourists from the UK was performed, with a few items reworded based on their feedback. Then, 600 questionnaires were distributed, of which 565 were valid for this study (94.1%).

4.3.4 Data analysis plan

A common method bias (CMB) could have resulted from the identical Likert scale used to measure all variables (Podsakoff et al., 2012). Hence, Harman's (1967) single-factor test for CMB was applied using "exploratory factor analysis" (EFA) in SPSS 28.0.1.0(142) to verify all items loaded into a single factor (Roni, 2014). A total explained variance of 40.559 % was found for a single factor, less than 50%, suggesting no negative effects of CMB.

A partial least squares structural equation model (PLS-SEM) was used to evaluate the proposed model (Ringle et al., 2022), as it includes formative and reflective second-order constructs (CCCP, CPB, VCC, and CCB) (Hair et al., 2022). A three-stage measurement model evaluation was used (Hair et al., 2022). The author first measured the dimensions' scores (first-order variables), which form the second-order latent variables using a PLS-SEM algorithm composing all first-order constructs (reflective or formative nature). Since quality was recognised, the first-order variables' scores were used in the second stage to determine their corresponding second-order variables. Similarly, in the second stage, the author calculated the dimensions' scores (second-order variables) composed of the third-order latent variables using the PLS-SEM algorithm for the model that consists of all second-order constructs (either reflective or formative nature). After the measurement model has been validated, the scores of the second-order variables are used to indicate the third-order variable. The measurement model was qualified in the third step, including second order and third-order latent variables; thus, the structural model was measured to test the research hypothesis.

4.4 Results

4.4.1 Sample characteristics

According to the data analysis, 54.9% of the respondents were female, and 45.1% were male. 29.1% of tourists were 41 to 50, whereas 53.8% were between 31 and 50. All travellers were residents of the UK. There were mainly couples travelling, university graduates, and employed tourists. Additionally, tourists mostly travelled to the Algarve for vacations/holidays (97.7%) and stayed at 4-star hotels (59.5%) while it was their first time staying at the hotel (76.2%). Detailed data characteristics are presented in table 4.2.

Table 4.2. Detailed data characteristics

Variables	Distribution of answers
Gender	Female: 54.90 %; Male: 45.10 %
Age	18–30: 15.80 %; 31–40: 19.90 %; 41-50: 29.10 %; 51–60: 21.30 %; >60: 13.90 %;
Country of origin	UK
Education	University degrees: 55.20 %; Secondary: 41.3 %; Basic: 3.50 %
Marital status	Married/living as a couple: 72.40 %; Single: 22.5 %; Divorced/Widowed: 5.1 %
Occupation	Employed: 73.20 %; Self-employed: 12.90 %; Unemployed/Domestic/Student: 6.50 %; Retired: 7.40 %
Reason of travel	Vacation: 97.70%; Business/Health/Meeting/Study/Visiting relatives: 2.30%
Travel party	Family members: 55.40 %; Partner: 34.70 %; Friends: 9%; Alone/Organized groups/Colleagues: 0.9%
Hotel stars ranking	4Stars: 59.40 %; 5 Stars: 30.60 %; 3 Stars: 10%
Previous stay	76.2 % first stayed; 23.8% with previous experience
Number of visits	98.8 % up to 7 times; 1.2 % more seven times
Duration of stay	68 % up to one week; 42% more than a week

4.4.2 Measurement model assessment: stage 1

In stage 1, table 4.3 displays the reliability and convergent validity of the reflective constructs. The factor loadings were obtained by using the PLS algorithm analysis (Hair et al., 2019). Due to all values exceeding the threshold of 0.708, the results support a more significant share of variance between each indicator and its corresponding variable than error variance (Carmines and Zeller, 1979). The Cronbach alpha and the “composite reliability” (CR) of all indicators corresponding to reflective

constructs also exceeded 0.7, supporting their internal consistency (Kline, 2005). It was also found that the Average Variance Extracted (AVE) values, which measure how much variance is shared between each variable and its measures, were more significant than 0.50 (Hair et al., 2019).

Table 4.3: Results summary for reflective constructs in the first-stage measurement model.

Construct and Item	Mean	Loading	Cronbach's alpha	CR	AVE
Dialogue (D)			0.872	0.873	0.796
D1	3.984	0.870*			
D2	3.807	0.893*			
D3	3.758	0.913*			
Access (A)			0.869	0.872	0.793
A1	3.717	0.882*			
A2	3.867	0.925*			
A3	3.965	0.862*			
Risk (R)			0.825	0.832	0.741
R1	3.832	0.859*			
R2	3.819	0.898*			
R3	3.559	0.824*			
Transparency (T)			0.898	0.899	0.831
T1	3.671	0.917*			
T2	3.745	0.928*			
T3	3.855	0.889*			
Information seeking (ISk)			0.738	0.772	0.653
ISk1	3.391	0.781*			
ISk2	3.857	0.772*			
ISk3	3.767	0.868*			
Information sharing (ISh)			0.896	0.897	0.763
ISh1	3.652	0.827*			
ISh2	3.836	0.898*			
ISh3	3.92	0.898*			
ISh4	3.852	0.870*			
Responsible behaviour (RB)			0.924	0.925	0.816
RB1	3.886	0.846*			
RB2	4.043	0.922*			
RB3	4.069	0.921*			
RB4	4.080	0.922*			
Personal interaction (PI)			0.955	0.955	0.849
PI1	4.411	0.936*			
PI2	4.409	0.940*			
PI3	4.422	0.942*			
PI4	4.425	0.938*			
PI5	4.39	0.847*			
Feedback (F)			0.775	0.783	0.688
F1	3.818	0.816*			
F2	4.155	0.849*			
F3	4.009	0.823*			

Advocacy (Adv)			0.915	0.918	0.855
Adv1	4.182	0.915*			
Adv2	4.117	0.944*			
Adv3	4.068	0.916*			
Helping (H)			0.901	0.902	0.771
H1	3.914	0.871*			
H2	3.872	0.900*			
H3	3.658	0.882*			
H4	3.649	0.858*			
Tolerance (Tol)			0.812	0.836	0.729
Tol1	3.638	0.036*			
Tol2	4.064	0.016*			
Tol3	3.973	0.010*			

*p < .01.

To examine the discriminant validity referring to the extent to which each variable represents a unique concept distinguishing itself from the other constructs, the square root of each AVE (the diagonal value) exceeded the correlations between each variable and the different variables (out of the diagonal value), indicating discriminant validity according to Fornell and Larcker (1981). Further, all Heterotrait-Monotrait Ratios (HTMTs) are lower than 0.95, and the bootstrap confidence interval excludes 1, confirming the discriminant validity in appendices 4.2 and 4.3 (Henseler et al., 2015). Also, the cross-loading values attest that each indicator's loading on its corresponding variable surpassed all its loadings on other variables, confirming discriminant validity (Hair et al., 2011) (Table 4.4).

Table 4.4. Correlations among the reflective first-order variables.

C	A	Adv	D	F	H	ISk	ISh	PI	RB	R	Tol	T
A	0.890 ^a											
Adv	0.590 0.660 ^b	0.925 ^a										
D	0.826 0.948	0.595 0.665 ^b	0.892 ^a									
F	0.448 0.540	0.591 0.689	0.486 0.586 ^b	0.830 ^a								
H	0.402 0.453	0.491 0.539	0.428 0.481 ^b	0.592 0.713	0.878 ^a							
ISk	0.385 0.474	0.350 0.415	0.435 0.533	0.418 0.542	0.450 0.541 ^b	0.808 ^a						
ISh	0.509 0.575	0.417 0.457	0.523 0.588	0.479 0.570	0.436 0.483 ^b	0.627 0.756	0.874 ^a					
PI	0.453 0.495	0.586 0.624	0.448 0.491	0.539 0.611	0.281 0.300	0.199 0.240	0.352 0.379 ^b	0.921 ^a				
RB	0.506 0.563	0.440 0.475	0.514 0.571	0.438 0.508	0.342 0.372	0.529 0.625	0.755 0.825	0.498 0.532 ^b	0.903 ^a			
R	0.761 0.896	0.581 0.666	0.756 0.888	0.547 0.681	0.482 0.559	0.485 0.609	0.542 0.625	0.354 0.392 ^b	0.501 0.569 ^b	0.861 ^a		
Tol	0.326 0.379	0.467 0.532	0.355 0.414	0.457 0.577	0.605 0.721	0.333 0.425	0.339 0.391	0.369 0.397	0.351 0.392 ^b	0.393 0.480 ^b	0.854 ^a	
T	0.763 0.863	0.610 0.671	0.728 0.822	0.578 0.525	0.474 0.525	0.467 0.567	0.543 0.603	0.388 0.418	0.516 0.565	0.818 0.949	0.389 0.456 ^b	0.912 ^a

Note: C: Construct; D: Dialogue; A: Access; R: Risk; T: Transparency; ISk: Information seeking; ISh: Information sharing; RB: Responsible behaviour; PI: Personal interaction, F: Feedback, H: Helping, Adv: Advocacy, Tol: Tolerance. Diagonal values correspond to the squared root value of AVE for each latent variable to assess the Fornell-Larcker criterion. ^aHTMT Values

Table 4.5 shows the assessment of formative constructs. Based on the results, all

weights are statistically significant for a 5% level (all bootstrapping $p < 0.05$). Therefore, all indicators are associated with corresponding formative latent constructs (Hair et al., 2022). All variance inflation factors (VIFs) are also lower than 4.20, thus asserting that the formative constructs do not show multicollinearity (Hair et al., 2019). So, in the first stage, latent variables have attained first-order dimension scores.

Table 4.5: Results summary for formative constructs in the first-stage measurement model.

Construct and measure	Weight/ Loading	VIF
Knowledge (K)		
K1	0.290*	1.819
K2	0.242*	1.920
K3	0.191*	1.797
K4	0.470*	2.037
Equity (Eq)		
Eq1	0.377*	2.115
Eq2	0.351*	2.578
Eq3	0.182*	3.218
Eq4	0.241*	2.601
Interaction (I)		
I1	0.366*	2.559
I2	0.267*	2.853
I3	0.353*	2.311
I4	0.154*	1.379
Experience (Exp)		
Exp1	0.561*	1.540
Exp2	0.313*	1.857
Exp3	0.304*	2.099
Personalisation (P)		
P1	0.326*	1.951
P2	0.336*	2.380
P3	0.144*	2.287
P4	0.406*	1.635
Relationship (Rel)		
Rel1	0.327*	1.610
Rel2	0.262*	2.384
Rel3	0.172*	2.534
Rel4	0.415*	2.685

* $p < .05$.

4.4.3 Measurement model assessment: stage 2

In this step, the author evaluates the measurement model based on the results of the first stage. CPB and CCB are reflective constructs in stage 2. Table 4.6 shows that all factor loadings exceed the threshold of 0.708, except for personal interaction (0.628).

As the other quality criteria were met, personal interaction was also retained in the model to establish the construct's content validity (Hair et al., 2022), as initially defined by Yi and Gong (2013) and applied by Roy et al. (2020). Furthermore, Cronbach alpha and CR values were both above 0.7 (Kline, 2005), and AVE values (0.631 and 0.650) were higher than 0.5, which demonstrated the reliability and convergence validity of CPB and CCB (Hair et al., 2022). Moreover, bootstrapping results for 5,000 samples confirm the significance of each measure on its corresponding variables (P values less than 0.036).

Regarding the second-order formative variables, CCCP, COP, and VIU, bootstrapping 5000 sub-samples yielded significant outer weights except for access to CCCP (P value 0.143). Still, its outer loading was above 0.708 and statistically significant enough to remain in the model (Hair et al., 2022). Furthermore, all VIFs were below threshold 5, indicating no issues with collinearity for the so-called variables (Hair et al., 2019). The VCC score was calculated as the second-stage measurement model assessment was valid. Stage 2 data is presented in tables 4.6 and 4.7.

Table 4.6: Results summary for the second-order measurement model.

Construct	Sub-dimension	Loading /weight	VIF		
CCCP	Dialogue	0.248*			3.617
	Access	0.864/0.079*			3.920
	Risk	0.310*			3.718
	Transparency	0.452*			3.548
COP	Knowledge	0.253*			2.807
	Equity	0.500*			3.430
	Interaction	0.266*			3.398
VIU	Experience	0.327*			2.700
	Personalisation	0.384*			3.210
	Relationship	0.392*			2.340
CPB			Cronbach's alpha	CR	AVE
			0.796	0.809	0.631
	Information seeking	0.749*			
	Information sharing	0.883*			
	Responsible behaviour	0.888*			
CCB	Personal interaction	0.628*			
			0.821	0.827	0.650
	Feedback	0.831*			
	Advocacy	0.809*			
	Helping	0.825*			
	Tolerance	0.757*			

*p < .05

Table 4.7. Correlations among the reflective second-order variables.

Construct	CCB	CPB
CCB	0.806 ^a	
CPB	0.646 0.800 ^b	0.794 ^a

Note: Diagonal values correspond to the squared root value of AVE for each latent variable to assess the Fornell-Larcker criterion. ^bHTMT Values.

4.4.4 Measurement model assessment:stage 3

To assess the measurement model in the third stage, for customer participation and citizenship behaviours, all outer loadings were above 0.708 except for personal interaction (0.631), which was still greater than 0.4; thus, all items were reserved (Hair et al., 2022). Table 4.8 also displays construct reliability (Chronbach alpha and CR greater than 0.7) and validity (AVE less than 0.5). The HTMT value of 0.8 was lower than 0.85, and Fornell-larcker's results confirmed the discriminant validity of the constructs, as discussed in stage 2, table 4.7 (Fornell and Larcker, 1981). In terms of CCCP and VCC, the outer loading weights were significant (for access, the outside loading was above 0.7 and a significant confidence interval (0.819-0.905)) (Hair et al., 2022). As shown in table 4.8, all VIFs were above 5, implying no multicollinearity issue (Hair et al., 2019).

Table 4.8: Results summary for the third-order measurement model.

Construct	Sub-dimension	Loading /weight			
CCCP					VIF
	Dialogue	0.269*			3.617
	Access	0.864/0.063*			3.920
	Risk	0.303*			3.718
	Transparency	0.454*			3.548
VCC	Co-production	0.644*			3.354
	Value-in-use	0.397*			3.354
CPB			Cronbach's alpha	CR	AVE
			0.796	0.807	0.631
	Information seeking	0.748*			
	Information sharing	0.882*			
	Responsible behaviour	0.888*			
CCB	Personal interaction	0.631*			
			0.821	0.827	0.650
	Feedback	0.831*			
	Advocacy	0.809*			
	Helping	0.825*			
	Tolerance	0.757*			

*p < .01.

4.4.5 Structural model assessment and hypotheses testing

Data analysis began by assessing the coefficient of determination (R²) of the endogenous latent variables to verify the exploratory and predictive potential of the model. The R² of 0.75, 0.50, and 0.25 can be classified as high, moderate, and low, respectively, according to Hair et al. (2011). Based on the results obtained, R² for CPB (0.432), VCC (0.562), and CCB (0.614) support a moderate to high prediction capability (Hair et al., 2011). Also, the f² effect size of all variables was higher than the cut-off value of 0.02. The CCCP was a powerful predictor of CPB (0.761) and VCC (0.381), and VCC was a robust predictor of CCB (0.222). Furthermore, the effect size of CCCP on CCB was 0.044, and the f² of CPB was 0.074 and 0.097, respectively. StoneGeisser's Q² value was positive from the blindfolding routine of Smart PLS 4.0, demonstrating the model's predictive accuracy. The empirical model in this study had an SRMR of 0.071 (lower than 0.08 recommended) and a Normed Fit Index (NFI) of 0.882 (higher than 0.9 recommended), which indicated a very good model fit (Hair et al., 2022).

The path analysis was conducted using one-tailed bootstrapping of 5000 subsamples. A significant path coefficient was found for all direct impacts, H1, H2, H3, H4, H5 and H7, based on the path coefficient results in Table 4.9. To examine whether CPB and VCC mediate CCCP and CCB, bootstrapping results of specific indirect effects have been tested, and the bootstrapping result indicates significant P values for H6, H8 and H9. Therefore, CCCP is positively associated with CCB through CPB and VCC. Table 4.9 also shows the results of the mediators.

Table 4.9. Results of the structural model.

Hypotheses	Path coefficient	Support
H1. CCCP -> CPB	0.657*	Yes
H2. CCCP -> CCB	0.203*	Yes
H3. CCCP -> VCC	0.542*	Yes
H4. CPB -> VCC	0.273*	Yes
H5. CPB -> CCB	0.235*	Yes
H7. VCC -> CCB	0.442*	Yes
Specific indirect hypotheses assessing the mediator		
H9. CCCP-> CPB -> VCC -> CCB	0.079*	Yes
H6. CCCP -> CPB -> CCB	0.154*	Yes
H8. CCCP -> VCC -> CCB	0.204*	Yes
Total effect		
CCCP -> CCB	0.676*	Yes

Note: *bootstrapping p < 0.001.

To test whether a previous customer stays moderated the associations established between CCCP, CPB, and VCC (H10 and H11), multi-group analyses were conducted. Results in table 4.10 indicate that first-time customers are more likely to participate in VCC than repeat customers. In turn, hotels' DART activities, which form CCCP, enhanced VCC for repeat customers more than first-time customers.

Table 4.10. Results of the previous experience as a moderator.

Hypotheses	Difference (previousstay0 - previousstay1)	2-tailed (previousstay0 - previousstay1) p-value	vs	Support
H10. CPB -> VCC	0.212	0.022		Yes
H11. CCCP -> VCC	-0.176	0.036		Yes

4.5 Discussion

The present study supports that CCCP has strong direct associations with CPB (H1: $\beta = 0.657$) and that CPB is significantly related to VCC (H4: $\beta = 0.273$). The results reinforce González-Mansilla et al. 's (2019) and Sadighha et al.'s findings (2024), confirming that CCCP strongly correlates with CPB and enhances VCC in hotels. Furthermore, tourists in the Algarve consider transparency and risk to be the more compelling dimensions of CCCP, while sharing information and responsible behaviour are the more significant factors manifesting CPB. This supports Sarmah et al.'s (2017) discussion that customers may not participate in VCC if they do not find its benefits more than the costs. Shagirbasha's (2022) findings also highlighted subjective well-being as the top concern of hotel guests during the pandemic, resulting in a change in guests' preferences. Therefore, sharing transparent information and facilitating customers' risk assessment of their participation in VCC through interaction with the hotel (such as the risk of virus transmission) are critical factors in forming customer perception of VCC and stimulating CPB in VCC.

Moreover, results attest that VCC positively connects to CCB (H7: $\beta = 0.442$), supporting Assiouras et al.'s (2019) findings revealing that VCC positively relates to customers' willingness to execute citizenship behaviour in Greek lodgings. Additionally, the results of the UK tourists in the Algarve indicate that co-production (0.644) more effectively strengthens VCC than value-in-use (0.397). Among the three dimensions of co-production, equity is the most significant. Thus, UK tourists highly appreciate the hotel's openness to their ideas/suggestions/complaints and the employees' understanding of their needs, which predicts their citizenship behaviour.

Regarding the mediator variables, namely CPB and VCC, findings show that the indirect positive impact of CCCP on CCB ($\beta = 0.473$) is nearly double that of its direct impact on CCB (H2: $\beta = 0.203$) (total effect $\beta = 0.676$). CPB and VCC, therefore, significantly improve CCCP's impact on CCB.

Finally, regarding the moderator variable (customer previous experience with the hotel), findings reveal that the CPB of first-time hotel guests has a more substantial relationship with VCC. The results support Chathoth et al.'s (2020) suggestion that hotels should store the customer's preferences and requirements during the first stay to provide personalised service in the future. Furthermore, results indicated that hotel DART activities as a basis of interaction are more notably associated with VCC for repeated customers than first-time customers. Thus, as Chathoth et al. (2020) highlighted, continuous interaction between repeat customers who have experiences with the services and employees is vital as it allows employees to gather additional information about the customers' preferences to tailor unique experiences.

4.5 Conclusion

In response to the previous call for further research on clarifying how the value is reciprocated between the service provider and customers in the hospitality industry (Li et al., 2022), the present study takes initial steps by binding the theory of co-creation with *Equity Theory* and *Social Exchange Theory* to propose an inclusive model for reciprocity mechanism in value co-creation, investigating the links between CCCP (consisting of DART activities, namely, dialogue, access, risk assessment, and transparency), CPB (information sharing, interaction, information seeking and responsible behaviour), VCC (co-production and value-in-use), and CCB (tolerance, helping, advocacy and feedback). Additionally, this study applies script theory to explore if customers' previous experiences with the hotel may impact the proposed reciprocity mechanism. The results show that the hotel's implementation of DART activities, which form CCCP, is positively and directly associated with CPB and indirectly improves it through the reciprocity mechanism (VCC and CCB). Moreover, CPB is more significantly associated with VCC for first-time customers than with repeat customers. In turn, CCCP has a stronger association with VCC for repeat customers than first-time hotel customers.

4.5.1 Theoretical implications

This research has several theoretical contributions to co-creation theory. The first contribution of this study is to propose hotel DART activities as a predictor of customer value co-creation behaviour (CPB and CCB) and VCC (co-production and value-in-use). Previous studies ascertained that DART activities form CCCP, which stimulates CPB, co-production, and value-in-use (González-Mansilla et al., 2019; Sadighha et al., 2024); however, they failed to explore the association between CCCP and CCB. Therefore, by empirically confirming CCCP (conducting DART activities) as a trigger of CCB, this study complements previous research and confirms the direct association between DART and CCB.

The second and main contribution of the present research is proposing a value reciprocity mechanism between the hotel and customers that effectively and indirectly associates CCCP with CCB. By coupling *Equity Theory* with *Co-Creation Theory*, this research suggests that the CCCP of hotel DART activities drives CPB to enhance VCC. As Wang et al. (2019) discussed, establishing a sufficient and continuous dialogue with customers assists service employees in recognising customer preferences. Moreover, through interactions, employees get opportunities to provide accurate and necessary information about the hotel's processes/services to customers, discuss the advantages and disadvantages of customers' desired offerings, and share the hotel's strength or lack of resources in co-creating those services (Prahalad and Ramaswamy, 2004a). Therefore, customers get access to transparent information, people, and hotel processes and may better assess their participation risk in VCC, stimulating CPB and improving co-creation processes (co-production and value-in-use) (Sadighha et al., 2024). Consequently, based on the social exchange theory, customers who co-produced a superior offering and experienced personalised value in use are more willing to reciprocate value to the hotel by executing citizenship behaviour (Assiouras et al., 2019). To complement the previous studies, the empirical findings of this survey ascertain that implementing DART activities by the hotel (particularly transparency and risk assessment) increases CCB through CPB (specifically, sharing information and responsible behaviour) and VCC (with greater emphasis on co-creation by maintaining equity between the hotel and customer) as mediators.

Finally, by applying script theory, this study takes a novel approach and clarifies

how customer's previous experiences with the hotels may impact the value reciprocity mechanism between the hotel and the customer. Previous studies highlighted that both interaction and customer participation are required for VCC (Campos et al., 2018; Mohammadi et al., 2021). The findings of the present studies deepen the knowledge by comparing the significance of interactions and CPB on VCC based on the customer's profile and reveal that CPB is associated more significantly with VCC for first-time customers. In turn, CCCP is more closely related to VCC for repeated customers. Thus, for first-time customers, this study underscores the importance of the service employee's recognition of customers' needs to initiate service provision (Yi and Gong, 2013). For repeated customers, it highlights the significance of an interactive co-creation platform conducting DART activities to enhance VCC and delight customers (Ka et al., 2017).

4.5.2 Practical implications

The present study suggests a model for reciprocity in value co-creation in hotels, which can be applied as a managerial tool to form CCCP by conducting DART activities to effectively stimulate CPB and enhance VCC, which subsequently increases CCB and reciprocates extra benefits for the hotel.

Hotels should implement DART activities before, during, and after the guests' stay to build a comfortable and attractive interaction platform equipped with various communication channels (e.g., online chat, mobile app, direct calls, face-to-face conversations) to facilitate the exchange of information between customers and service employees. Considering the change in customers' perception of well-being and environmental safety after experiencing the pandemic, which is expected to remain a norm in post-covid (Chuah et al., 2022), hotels may provide personalised and more relevant information about the new services, policies, procedures, and standards they have implemented such as robotic services for food delivery and carrying suitcases (Chuah et al., 2022; Yang et al., 2021) to segmented customers (e.g., customers who particularly have severe concerns about COVID-19 virus transmission or are interested in novel service experiences (Zhong et al., 2020)) through marketing emails to facilitate customers' risk assessment and pinpoint the hotels' competency in maintaining a safe environment and reliable services which is likely to increase CCB (Williams et al., 2022; Kim and Baker, 2022).

Moreover, an interactive platform empowers customers to voice their ideas and preferences and increases their control over service requirements by giving them access to people, processes, and transparent information, leading to a more accurate assessment of customers' risk of participating in VCC and a more equitable co-production of a desired offering which enhances customers' experience a tailor-made value-in-use and CCB. For instance, a mobile app can also transform initial value propositions into unique VIUs by gaining profound knowledge of customers' preferences and improving hotel management and marketing programs (Morosan and DeFranco, 2016).

However, uncertainty about the benefits of using different means of communication like mobile apps, concern about the hotel's response to the customers' needs, not receiving timely feedback from the employees, and an inability to realise the customer's actual needs and the difficulty of using new technology might cause value co-destruction (Lei et al., 2021). Therefore, hotels should train their service staff to identify guests' preferred communication channels and respond promptly and respectfully when needed (e.g., direct call to the hotel reception for an urgent request versus using the hotel mobile app for a check-in/check-out). It is also crucial to serve customers with the help of an adequate number of employees for designated tasks who are attentive, friendly, and able to anticipate customers' needs in advance, explain further how hotel services/processes work, and rectify issues promptly (Järvi et al., 2020).

In addition, although previous studies explored the prominent roles of CPB and interaction in VCC, the present study supports that CPB has a more substantial relationship with VCC for first-time versus repeated customers since hotels' databases mostly do not contain sufficient information about the preferences of first-time customers to aid service employees in predicting which services would be best suited to their needs. Accordingly, this study suggests that hotels segment customers based on their previous stay to boost VCC and CCB effectively. In particular, hotels should engage employees with higher adaptivity to guests' needs who can better perceive their expectations from the service (Xie et al., 2019). Furthermore, hotels should record guests' needs and preferences in their historical data from their first visit experience to ensure that guests' expectations of hotel service quality will be met in future stays.

The results of the present study also indicate a higher association between CCCP and VCC regarding repeated customers. As Ka et al. (2017) discussed, repeated

customers likely have higher service quality expectations, making them less likely to be satisfied with employees' performance. Moreover, the most negative experiences might occur when customers are disappointed in the service quality because the service provider neglects to address the problems to achieve the customers' desires (Wu and Gao, 2019). Therefore, this study recommends that hotels not only deploy empathetic, customer-oriented, and proactive employees who can better acknowledge customers' complaints and act by rectifying services but also send them reassurance notes to appreciate their citizenship behaviour (Chathoth et al., 2020; Tung et al., 2017).

4.5.3 Limitations and future studies

As the participants in this study are tourists from the UK staying in hotels in the Algarve during summer, generalising the results is difficult. Future studies may include tourists from other regions of Portugal or different nationalities who come to Portugal annually to understand customers' experiences in Portuguese hotels better. The survey can also be implemented in other countries with different cultures in various tourism and hospitality sub-sectors or other service sectors because the customer expectation of the services and the extent of CPB are context dependent.

Moreover, further research may explore the causal associations between each dimension of hotel DART activities and CPB, VCC, and CCB for different customer profiles (e.g., vacation customers versus business customers) to develop effective strategies to boost VCC and CCB. It is also suggested that future studies categorise the risks (e.g., general risk of participation in VCC, situational risk such as risk of virus transmission to broaden the knowledge on facilitating customer risk assessment to stimulate CPB and improve VCC.

Finally, future research may also investigate how hotel DART activities impact accumulated customer perception from pre- and post-purchase.

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CHAPTER 5: GENERAL CONCLUSION

This thesis attempted to reply to the three research questions that have arisen in section 1.3. To do so, the present thesis associates the three fundamental views towards value co-creation.

The first perspective focuses on the service provider in value co-creation that initiates when Prahalad and Ramaswamy (2004a) suggested that firms should implement DART activities, namely, dialogue, access, risk assessment and transparency, as building blocks of customer interactions to provide opportunities for customer participation in value co-creation. DART activities, as a platform of co-creation, give voice to customers to express their needs and preferences to the service employees and allow the firm to share transparent information about the services, give customers access to the processes and share the risk of participation in co-creating a desired value with them to build trust and maintain the relationship.

The second perspective addresses customer behaviour in value co-creation and was initially identified by Yi and Gong (2013) as customer in-role and extra-role behaviours. In-role behaviour is required for successful value co-creation and is referred to as customer participation behaviour, measured by four elements: information seeking, information sharing, responsible behaviour, and personal interaction. Extra-role or customer citizenship behaviour is not necessarily required for successful service delivery; however, it may add value for the service provider in four ways: feedback, advocacy, helping and tolerance.

The last perspective concerns the value co-creation process, initially identified by Ranjan and Read (2016) and characterised as co-production and value-in-use. Co-production refers to co-designing, co-producing or co-delivery of the desired offering when the customer and the service provider collaborate in the service provider's production process and is measured by knowledge sharing, equity, and interaction. Value-in-use implies the process of consumption when a customer experiences unique value by using the services individually or collectively with other customers. It may also occur when the service provider gets opportunities to facilitate the customer's creation of a personalised value during consumption. Therefore, value-in-use is measured by experience, personalisation, and relationship.

This research was committed to investigating associations between the role of the service provider and customer in value co-creation and examining if value co-creation

might benefit the service provider besides its benefit for the customer. Therefore, the present research explores the relationships between DART activities, which form customer co-creation perception, customer participation behaviour, customer citizenship behaviour, co-production, and value-in-use in hotels in the Algarve, Portugal. Moreover, it studies if customers' previous experiences with the hotels may change the associations between the so-called variables.

Study 1 investigates the associations between customer co-creation perception, customer participation behaviour, co-production, and value-in-use. This study clarifies how the service provider may form customer co-creation perception to stimulate customer participation behaviour and boost value co-creation.

Study 2 investigates the associations between customer participation behaviour, co-production, value-in-use, and customer citizenship behaviour. This study explores how customer participation behaviour and customer citizenship behaviour may connect to the process of value co-creation.

Study 3 investigates the associations between customer co-creation perception, customer participation behaviour, value co-creation and customer citizenship behaviour. It also explores the moderating role of previous stays at the hotel in the relationships between the variables. This study uncovers how the service provider can take advantage of forming customer co-creation perception, stimulating customer participation behaviour, and boosting value co-creation for first-time customers and repeat customers.

5.1 Main conclusion

The results from Study 1 confirm that customer co-creation perception of conducting DART activities is positively related to customer participation behaviour, co-production, and value-in-use. Moreover, customer participation behaviour is a prerequisite for both forms of value co-creation (co-production and value-in-use). The findings also show that customer participation behaviour mediates the relationship between customer co-creation perception and the two forms of value co-creation.

The findings of study 2 support that customer participation behaviour is positively correlated with customer co-creation perception, co-production, and value-in-use. Furthermore, co-production is directly and positively related to value-in-use. In addition, co-production and value-in-use mediate the association between customer participation behaviour and customer citizenship behaviour.

The outcome of study 3, which indeed merges studies 1 and 2 to provide a holistic view of the customer value co-creation journey, shows that customer co-creation perception is significantly related to customer participation behaviour, customer citizenship behaviour and value co-creation (as a third layer variable, which includes co-production and value-in-use). Also, the value of co-creation is positively associated with customer citizenship behaviour. The findings ascertain the mediating role of customer participation behaviour and value co-creation between customer co-creation perception and customer citizenship behaviour. Regarding the moderating role of previous experience with the hotel, results reveal that the correlation between customer participation behaviour and value co-creation is stronger for first-time customers than for repeat customers. However, for the repeat customers, results confirm the more significant association between customer co-creation perception and value co-creation.

5.2 Theoretical contributions

This study contributes to the *Co-creation Theory* by binding it with complementary theories, namely, *Equity Theory*, *Social Exchange Theory*, and *Script Theory*, which extends knowledge on customer value co-creation journey in hotels by answering the three research questions mentioned in section 1.3.

To find out how the service provider may stimulate customer participation behaviour in value co-creation, study 1 proposes model 1 in which customer co-creation perception is a significant driver of customer participation behaviour to improve co-production of a desired offering and experiencing unique value-in-use in hotels. Based on *Equity Theory* (Adams, 1963; Devlin et al., 2014; Roy et al., 2020), when hotels implement DART activities, they help customers to better assess the risk of their participation in co-creating a desired value and find fairness in hotel resource integration (distributive fairness), processes (procedural fairness) and manners (interpersonal fairness) and sharing required information (informational fairness). This is aligned with the findings of study 1 showing that risk assessment and transparency were the most significant factors in forming customer co-creation perception. Another contribution of study 1 is to affirm customer participation behaviour as the antecedent of co-production and value-in-use, which was aligned with its initial theoretical definition and empirical findings in several service sectors by Yi and Gong (2013). And the third contribution of study 1 is to represent customer participation behaviour as the mechanism through which

customer co-creation perception is positively connected with co-production and value-in-use.

Study 2 deepens knowledge of customer behaviour in value co-creation as it discovers how the two forms of customer value co-creation behaviour (customer participation behaviour and customer citizenship behaviour) are associated with the two dimensions of the VCC process (co-production and value-in-use). Study 2 distinguishes customer participation behaviour from customer citizenship behaviour as they have different definitions and follow different paths. It proposes model 2 to represent the links between customer participation behaviour, customer citizenship behaviour, co-production, and value-in-use. The first contribution of study 2 is to reveal that customer participation behaviour is an antecedent of co-production and value-in-use. As previous literature discussed, customers use their behaviour to improve their perceptions of the services/service providers (Bem, 1972; Kim and Tang, 2020). Moreover, customer participation behaviour increases customer control (cognitive, decisional, and behavioural control) over the value co-creation process by giving them access to information, people, and processes (Stevens et al., 2017), allowing them to use their mastery and providing opportunities to make required changes to better adjust the outcome as per their desires when they feel necessary (Prebensen & Xie, 2017). In turn, customers are more likely to co-produce a desired offering, which leads to a more pleasant customer experience. Therefore, the association between customer participation behaviour and value co-creation dimensions has been discussed. The second contribution of study 2 is to confirm that customer citizenship behaviour is the consequence of co-producing a desired offering and experiencing a personalised value-in-use. Based on *Social Exchange Theory*, customers with pleasant service experiences are more likely to feel obliged to reciprocate added value to the hotel by increasing customer citizenship behaviour. The results affirm the positive association of customer participation behaviour with co-production and value-in-use, subsequently increasing customer citizenship behaviour. The third significant contribution of study 2 is to attest that co-production and value-in-use are the mechanisms that mediate customer participation behaviour to customer citizenship behaviour. Thus, the findings validate that *Equity Theory* and *Social Exchange Theory* complement *Co-Creation Theory*, which extends knowledge on customer behaviour towards value co-creation.

Study 3 investigates how the service provider may benefit from customer

perception and behaviour in value co-creation, particularly for first-time and repeat customers. In this study, model 3 represents the reciprocity in value co-creation when the service provider's process merges with the customer's process through interaction to co-create value for both parties (Grönroos, 2012; Ramaswamy and Ozcan, 2018; Vargo and Lusch, 2017). This model explores the associations between customer co-creation perception (consisting of the hotel DART activities as building blocks of interaction), customer participation behaviour, customer citizenship behaviour and the value co-creation process. To do so, study 3 joins *Equity Theory*, *Social Exchange Theory*, and *Script Theory* with *Co-Creation Theory* to explain the mechanism that may stimulate customer participation, boost value co-creation, and improve customer citizenship behaviour, bringing added value for the hotel and other customers. To put it in a nutshell, study 3 not only delivers a holistic view of the customer value co-creation journey in hotels by connecting customer perception and behaviour to the process of value co-creation but also compares the associations between the customer perception, behaviour, and co-creation process (the reciprocity mechanism) for first-time customers versus repeat customers considering the moderating role of previous experience with the hotel. The first contribution of study 3 is to affirm the role of hotels in implementing DART activities (particularly transparency and risk assessment) to form customer co-creation perception and evoke customer participation behaviour (*Equity theory*). The second contribution is to highlight the role of customer participation in enhancing value co-creation, which allows customers to better understand the service provision processes and, in turn, better determine their feelings and perceptions towards the hotel (*Co-Creation Theory*). The third contribution of study 3 is to uncover that customers who may feel control over/access to the service provision/consumption would possibly co-produce a desired outcome and experience a personalised value that may reciprocity of value for the hotel in terms of increasing customer citizenship behaviour (*Social Exchange Theory*) (Assiouras et al., 2019; Blau 1968). Findings show that the customer co-creation process is positively related to customer participation behaviour; customer participation behaviour is positively connected with the value co-creation process, and the value co-creation process is positively associated with customer citizenship behaviour; therefore, they support the combination of the so-called theories. The fourth contribution is to affirm that customer participation behaviour and the process of value co-creation are the value reciprocity mechanisms mediating customer co-creation perception with customer citizenship behaviour.

Additionally, study 3 expands knowledge by bonding the *Co-Creation Theory* with *Script Theory* (Erasmus et al., 2002, Järvi et al., 2020) to explain the role of previous stay at the hotel as a moderator since customers build their scripts from last service experiences within the service environment (Erasmus et al., 2002, Järvi et al., 2020). The findings ascertain that customer participation behaviour has a more significant association with the value co-creation process for first-time customers as they are unfamiliar with the hotel services. In turn, customer co-creation perception has a stronger relationship with the value co-creation process for repeat customers, which might be because they are not easily satisfied unless the service performance meets their needs and expectations.

Overall, this project delves into co-creation in hotels by combining *Equity Theory*, *Social Exchange Theory*, and *Script Theory* to explore the associations between the hotel DART activities with customer perception, behaviour, and the process of value co-creation. The findings reveal the associations between the variables and the mediating role of previous experience, which supports the application of all so-called theories and assists academia and practitioners in profoundly understanding the reciprocity of value between customers and hotels.

5.3 Practical implications

This research proposed a model for reciprocity in value co-creation in hotels, which can be used as a managerial tool for practitioners to form customer co-creation perception by effectively implementing DART activities to stimulate customer participation behaviour and enhance value co-creation process, which further improves customer citizenship behaviour which may bring extra benefits for the hotel and other customers.

By implementing DART activities, hotels can create an interactive platform of value co-creation. That should include various communication channels, such as online chat, mobile apps, calls, or direct conversation to accelerate the exchange of information between customers and staff regarding the hotel services, processes, and the customers' desired offerings. These initiatives would allow them to assess the risk of their participation in the value co-creation process, inform them about the extent of their control over the process and improve their understanding of the services, processes,

advantages/disadvantages and strengths/limitations of hotels to co-produce desired offerings (Järvi et al., 2020; Shagirbasha, 2022).

During the interaction, maintaining equity and giving voice to the customers is vital to recognise their real needs, ideas or feedback. This allows the staff to better facilitate customers' creation of unique value and improve hotel service quality. The means of communication selected by the staff should be based on the customer's preference (either using a mobile app for tech-savvy customers or a direct call for those who are not convenient with the app) and the context (if the customer is looking for prompt respond by call or if call might be disturbing and customer prefers to us online chat on the go) (Lei et al., 2021).

Moreover, staff should be trained to observe and recognise the customers' requirements and be attentive and friendly when providing specialised services by having empathy towards them. This means being adaptive to their needs/feedback and being able to rectify the services to meet their needs (personalised services) and improve customer relationships. (Assiouras et al., 2019, 2022; Chathoth et al., 2020).

Hotels also should provide a platform to connect employees at encounters with the management and with other staff (Lei et al., 2021). Employee encounters should be encouraged to recognise the guests' needs, especially first-time stay guests, and be able to save their preferences on this platform to have a clear history of the customers' interests. So, on future visits, hotels can proactively provide "WOW" experiences (Chathoth et al., 2020). Regarding the repeated customers, since they have higher service quality expectations and previous experiences with the hotel (Ka et al., 2017), paying attention to their ideas, feedback, and suggestions to improve the service quality and performance must be the priority of the service employees. Therefore, recording customers' suggestions and complaints on the platform so that staff and management can both be notified to take the necessary decisions/actions to align the service provision processes or policies is highly recommended.

Overall, this thesis advises that customers who have a positive co-creation perception of hotel DART activities would likely participate more in the co-production of desired offerings and experience personalised value during the consumption that not only makes them pleased but also would increase their citizenship behaviour, which may reciprocate extra value to hotels and other customers. It also enlightens that customers

who have positive co-creation perception of hotel DART activities would likely participate more in the co-production of desired offerings and experience personalised value during the consumption that not only makes them pleased but also would increase their citizenship behaviour, which may reciprocate extra value to hotels and other customers.

5.4 Limitations and future studies

Most of Portugal's international tourists come from the UK, and the Algarve is one of the most popular tourist destinations in the country (Turismo do Algarve, 2023). Still, the sample collected in this study does not represent all issued markets for the region. Therefore, generalising the results obtained is difficult. Future studies should include other nationalities and seasons to provide a holistic view of accommodation co-creation experiences.

Furthermore, context determines how much customer interaction and customer participation behaviour is required for a successful value co-creation and to what extent it may increase customer citizenship behaviour. Therefore, further research in other tourism and hospitality sub-sectors may provide an in-depth understanding of the extent to which service providers implement DART activities to effectively enhance customer co-creation perception to, in turn, improve customer participation behaviour and value co-creation and ultimately reciprocate extra value in the form of customer citizenship behaviour.

Moreover, further research may explore the associations between each dimension of hotel DART activities to form customer co-creation perceptions for various customer profiles. This may stimulate customer participation behaviour, boost value co-creation and benefit from increasing customer citizenship behaviour (Prahalad and Ramaswamy, 2004a).

According to Gong and Yi (2021), customer citizenship behaviour has other dimensions. Thus, future studies may extend the proposed model by adding new dimensions. Additionally, the mediating roles of credibility trust and benevolence trust between DART activities and value co-creation (Bove et al., 2000; Aljarah, 2020) and the moderating effects of the purpose of travel, frequency of stays, and previous experiences with other hotels may also be explored (Tu et al., 2018; Järvi et al., 2020).

Finally, the author recommends future experimental studies to test the causal relationships among the variables of the proposed model.

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Appendices

Appendix 2.1: Scales and measures, study 1

Co-creation perception (CCP)

- D1. This hotel communicated with and listened to guests to improve its service.
- D2. This hotel used multiple communication channels (employees, websites, social networks, etc.) to share and exchange ideas with guests about its services.
- D3. This hotel facilitated the communication of ideas and suggestions of guests about the services.
- A1. This hotel allowed guests to personalise the services they wished to receive.
- A2. Guests had numerous service options to adapt to their needs.
- A3. It was easy to receive information about the hotel's services, when, where, and how guests wished to receive them.
- R1. This hotel offered comprehensible information that allowed guests to assess the advantages and disadvantages of the services.
- R2. This hotel offered many possibilities for guests to present complaints regarding any problems that might arise during the service.
- R3. This hotel repeatedly urged guests to familiarise themselves with the possible risks of using the services (fire prevention, slips in the swimming pool, wet floors, no glass in wet zones).
- T1. This hotel provided transparent information for guests to assess and improve its services.
- T2. Guests had access to all the information that could be used to improve the services.
- T3. This hotel offered public and transparent information regarding the prices associated with the various services.
-

Customer participation behaviour (CPB)

- ISk1. I asked others for information on what services this hotel offers.
- ISk2. I searched for information on where this hotel and its services are located.
- ISk3. I paid attention to how others behave to use this hotel and its services well.
- ISh1. I clearly explained what I wanted the employees of this hotel to do.
- ISh2. I gave the proper information to the employees of this hotel.
- ISh3. I provided the necessary information so that the employees of this hotel could perform their duties.
- ISh4. I answered all the service-related questions of the employees of this hotel.
- RB1. I performed all the tasks that were required.
- RB2. I adequately completed all the expected behaviours.
- RB3. I fulfilled my responsibilities to this hotel.
- RB4. I followed the directives and/or orders of the employees of this hotel.
- PI1. I was friendly to the employees of this hotel.
- PI2. I was kind to the employees of this hotel.
- PI3. I was polite to the employees of this hotel.
- PI4. I was courteous to the employees of this hotel.
- PI5. I didn't act rudely to the employees of this hotel.
-

Co-production (COP)

K1. This hotel was open to my ideas and suggestions about its existing services or the development of new services.

K2. This hotel provided sufficient illustrations and information to me regarding the services.

K3. I could willingly spare time and effort to share my ideas and suggestions with this hotel to help it further improve its products/services and processes.

K4. This hotel provided me a suitable environment and opportunities to offer suggestions and ideas.

Eq1. This hotel had easy access to information about my preferences.

Eq2. The guest experience at this hotel was aligned with my requirements (i.e., the way I wish them to be).

Eq3. This hotel considered my role as important as its own in the guest experience.

Eq4. We shared an equal role in determining the outcome of the guest experience.

I1. During the guest experience, I could conveniently express my specific requirements.

I2. This hotel conveyed to its guests the relevant information related to the guest experience.

I3. This hotel allowed sufficient interaction with its guests.

I4. To get the maximum benefit from the services of this hotel, I had to play a proactive role during my interaction (i.e., I had to apply my skills, knowledge, time, etc.).

Value-in-use (VIU)

Exp1. It was a memorable experience for me that lasted for quite a while.

Exp2. Depending upon the nature of my participation, my experiences in the process might be different from those of other guests.

Exp3. It was possible for a guest to improve the experience by experimenting with and trying new things.

P1. The benefit, value, or fun of the services of this hotel depended on the guest and the usage condition.

P2. This hotel tried to serve the individual needs of each of its guests.

P3. Depending on their taste, choice, or knowledge, different guests involved themselves differently in the services of this hotel.

P4. This hotel provided an overall good experience.

Rel1. The hotel's extended facilitation was necessary for guests to enjoy the hotel services fully.

Rel2. I felt an attachment or relationship with this hotel.

Rel3. There is usually a group, a community, or a network of guests who are fans of this hotel.

Rel4. This hotel is renowned because its guests usually spread the positive word about it on their social networks.

Appendix 2.2: HTMT confidence intervals, stage 1, study 1

	Original sample (O)	Sample mean (M)	5.00%	95.00%
D -> A	0.898	0.899	0.869	0.928
ISk -> A	0.426	0.427	0.334	0.518
ISk -> D	0.508	0.508	0.423	0.592
ISh -> A	0.510	0.511	0.434	0.585
ISh -> D	0.546	0.547	0.482	0.611
ISh -> ISk	0.734	0.735	0.664	0.803
PI -> A	0.404	0.403	0.327	0.481
PI -> D	0.393	0.393	0.326	0.461
PI -> ISk	0.203	0.207	0.148	0.258
PI -> ISh	0.303	0.303	0.229	0.376
RB -> A	0.499	0.499	0.421	0.577
RB -> D	0.523	0.524	0.456	0.591
RB -> ISk	0.588	0.588	0.506	0.670
RB -> ISh	0.804	0.803	0.761	0.847
RB -> PI	0.486	0.486	0.402	0.569
R -> A	0.881	0.881	0.846	0.917
R -> D	0.885	0.885	0.850	0.921
R -> ISk	0.589	0.590	0.511	0.666
R -> ISh	0.618	0.619	0.552	0.685
R -> PI	0.362	0.361	0.289	0.436
R -> RB	0.565	0.566	0.495	0.636
T -> A	0.849	0.849	0.811	0.887
T -> D	0.805	0.805	0.762	0.847
T -> ISk	0.534	0.535	0.459	0.609
T -> ISh	0.578	0.578	0.515	0.641
T -> PI	0.329	0.328	0.256	0.401
T -> RB	0.541	0.541	0.471	0.611
T -> R	0.946	0.946	0.919	0.973

Appendix 2.3: Cross loading, stage 1, study 1

	A	D	Eq	Exp	ISk	ISh	I	K	PI	P	Rel	RB	R	T
A1	0.896	0.711	0.488	0.391	0.307	0.409	0.482	0.442	0.287	0.455	0.443	0.391	0.670	0.677
A2	0.926	0.724	0.552	0.427	0.322	0.411	0.525	0.475	0.339	0.499	0.473	0.396	0.692	0.686
A3	0.886	0.710	0.467	0.379	0.320	0.412	0.432	0.443	0.383	0.450	0.416	0.434	0.710	0.696
D1	0.656	0.870	0.451	0.328	0.329	0.402	0.396	0.393	0.374	0.442	0.399	0.415	0.654	0.599
D2	0.718	0.899	0.521	0.424	0.377	0.425	0.470	0.473	0.278	0.461	0.500	0.402	0.677	0.637
D3	0.744	0.911	0.508	0.412	0.404	0.471	0.486	0.489	0.312	0.479	0.473	0.443	0.715	0.680
Eq1	0.463	0.478	0.877	0.582	0.398	0.495	0.723	0.774	0.202	0.620	0.637	0.376	0.571	0.550
Eq2	0.520	0.491	0.867	0.58	0.314	0.461	0.654	0.587	0.361	0.63	0.617	0.415	0.526	0.547
Eq3	0.497	0.490	0.874	0.604	0.392	0.459	0.688	0.585	0.287	0.616	0.639	0.385	0.523	0.508
Eq4	0.446	0.451	0.830	0.571	0.414	0.423	0.718	0.616	0.187	0.559	0.633	0.324	0.509	0.503
Exp1	0.434	0.408	0.620	0.915	0.311	0.391	0.654	0.466	0.358	0.653	0.562	0.409	0.446	0.415
Exp2	0.292	0.306	0.481	0.738	0.323	0.332	0.558	0.454	0.149	0.579	0.506	0.261	0.356	0.351
Exp3	0.335	0.356	0.565	0.829	0.355	0.358	0.616	0.540	0.171	0.683	0.564	0.303	0.409	0.402
ISk1	0.205	0.268	0.304	0.216	0.773	0.436	0.256	0.338	-0.047	0.213	0.289	0.283	0.330	0.304
ISk2	0.280	0.312	0.260	0.262	0.753	0.420	0.246	0.229	0.173	0.281	0.242	0.392	0.331	0.334
ISk3	0.339	0.400	0.447	0.398	0.873	0.570	0.407	0.414	0.187	0.412	0.384	0.488	0.459	0.406
ISh1	0.382	0.427	0.461	0.342	0.577	0.826	0.449	0.429	0.155	0.390	0.372	0.501	0.473	0.471
ISh2	0.361	0.376	0.429	0.381	0.517	0.891	0.379	0.339	0.235	0.376	0.333	0.636	0.430	0.412
ISh3	0.420	0.430	0.493	0.396	0.474	0.897	0.437	0.402	0.317	0.455	0.388	0.691	0.472	0.441
ISh4	0.412	0.449	0.481	0.380	0.530	0.861	0.449	0.429	0.266	0.434	0.403	0.714	0.504	0.482
I1	0.496	0.458	0.748	0.628	0.404	0.477	0.901	0.692	0.214	0.648	0.617	0.396	0.539	0.537
I2	0.482	0.455	0.728	0.636	0.353	0.429	0.900	0.648	0.232	0.653	0.625	0.402	0.527	0.523
I3	0.475	0.445	0.702	0.682	0.304	0.437	0.891	0.595	0.321	0.635	0.582	0.443	0.489	0.487
I4	0.351	0.397	0.574	0.576	0.285	0.337	0.751	0.577	0.136	0.523	0.529	0.302	0.401	0.419
K1	0.341	0.37	0.533	0.410	0.389	0.367	0.517	0.776	0.005	0.474	0.537	0.254	0.445	0.444
K2	0.491	0.434	0.647	0.474	0.287	0.384	0.601	0.815	0.228	0.549	0.497	0.358	0.493	0.501
K3	0.343	0.340	0.524	0.428	0.355	0.311	0.537	0.720	0.117	0.456	0.433	0.278	0.446	0.449
K4	0.442	0.469	0.707	0.521	0.380	0.420	0.677	0.917	0.134	0.558	0.595	0.323	0.572	0.571
PI1	0.375	0.369	0.289	0.300	0.159	0.273	0.269	0.178	0.926	0.361	0.217	0.441	0.349	0.303
PI2	0.343	0.335	0.285	0.272	0.148	0.254	0.238	0.139	0.932	0.337	0.206	0.416	0.315	0.272
PI3	0.320	0.307	0.264	0.275	0.119	0.236	0.241	0.122	0.937	0.344	0.211	0.403	0.273	0.271
PI4	0.321	0.309	0.273	0.280	0.094	0.240	0.254	0.119	0.932	0.338	0.230	0.408	0.266	0.266
PI5	0.347	0.317	0.266	0.299	0.128	0.288	0.257	0.142	0.865	0.350	0.220	0.405	0.304	0.287
P1	0.334	0.357	0.563	0.693	0.360	0.378	0.612	0.559	0.184	0.792	0.543	0.336	0.420	0.403
P2	0.473	0.492	0.646	0.664	0.351	0.432	0.659	0.571	0.302	0.907	0.649	0.428	0.537	0.520
P3	0.408	0.407	0.534	0.600	0.336	0.352	0.576	0.507	0.249	0.775	0.586	0.363	0.417	0.425
P4	0.470	0.415	0.542	0.525	0.255	0.381	0.498	0.418	0.464	0.778	0.581	0.443	0.447	0.437
Rel1	0.363	0.366	0.53	0.486	0.317	0.293	0.500	0.465	0.241	0.642	0.732	0.324	0.406	0.418
Rel2	0.444	0.460	0.655	0.542	0.298	0.389	0.629	0.577	0.211	0.63	0.901	0.341	0.493	0.521
Rel3	0.345	0.364	0.595	0.53	0.334	0.355	0.548	0.541	0.131	0.515	0.805	0.264	0.410	0.432
Rel4	0.455	0.485	0.649	0.597	0.380	0.396	0.584	0.571	0.191	0.612	0.888	0.325	0.536	0.501
RB1	0.404	0.444	0.429	0.372	0.490	0.733	0.459	0.388	0.299	0.421	0.386	0.833	0.476	0.473
RB2	0.400	0.413	0.401	0.383	0.424	0.654	0.423	0.308	0.426	0.448	0.344	0.920	0.458	0.445
RB3	0.386	0.387	0.354	0.343	0.424	0.604	0.360	0.303	0.456	0.423	0.286	0.910	0.408	0.407
RB4	0.418	0.432	0.373	0.364	0.427	0.618	0.374	0.319	0.447	0.442	0.332	0.915	0.451	0.435
R1	0.752	0.724	0.522	0.403	0.404	0.453	0.484	0.500	0.311	0.449	0.477	0.462	0.872	0.705

R2	0.656	0.678	0.568	0.450	0.437	0.505	0.520	0.549	0.335	0.556	0.520	0.475	0.902	0.738
R3	0.614	0.616	0.548	0.435	0.413	0.471	0.506	0.557	0.220	0.489	0.489	0.390	0.865	0.750
T1	0.683	0.652	0.560	0.434	0.408	0.465	0.535	0.592	0.209	0.487	0.532	0.424	0.766	0.923
T2	0.718	0.672	0.592	0.423	0.423	0.499	0.534	0.594	0.276	0.511	0.549	0.432	0.790	0.922
T3	0.683	0.643	0.534	0.423	0.377	0.466	0.503	0.491	0.355	0.520	0.475	0.504	0.725	0.902

Appendix 3.1: Scales and measures, study 2

Customer participation behaviour (CPB)

- ISk1. I asked others for information on what services this hotel offers.
- ISk2. I searched for information on where this hotel and its services are located.
- ISk3. I paid attention to how others behave to using this hotel and its services.
- ISh1. I clearly explained what I wanted the employees of this hotel to do.
- ISh2. I gave the proper information to the employees of this hotel.
- ISh3. I provided the necessary information so that the employees of this hotel could perform their duties.
- ISh4. I answered all the service-related questions of the employees of this hotel.
- RB1. I performed all the tasks that were required.
- RB2. I adequately completed all the expected behaviours.
- RB3. I fulfilled my responsibilities to this hotel.
- RB4. I followed the directives and/or orders of the employees of this hotel.
- PI1. I was friendly to the employees of this hotel.
- PI2. I was kind to the employees of this hotel.
- PI3. I was polite to the employees of this hotel.
- PI4. I was courteous to the employees of this hotel.
- PI5. I didn't act rudely to the employees of this hotel.
-

Customer citizenship behaviour (CCB)

- F1. If I had a useful idea on how to improve the services of this hotel, I let the hotel know.
- F2. When I received good services from this hotel, I commented on it.
- F3. When I experienced a problem, I let the hotel know about it.
- Adv1. I said positive things about this hotel and its employees to others.
- Adv2. I recommended this hotel and its employees to others.
- Adv3. I encouraged friends and relatives to use this hotel and its services.
- H1. I assisted other guests if they needed my help.
- H2. I helped other guests if they seemed to have problems.
- H3. I taught other guests to use the services of this hotel correctly.
- H4. I gave advice to other guests.
- Tol1. If service was not delivered as expected, I could be willing to put up with it.
- Tol2. If the employee made a mistake during service delivery, I could be willing to be patient.
- Tol3. If I had to wait longer than I usually expected to receive the services of this hotel, I could be willing to adapt.
-

Co-production (COP)

- K1. This hotel was open to my ideas and suggestions about its existing services or the development of new services.
- K2. This hotel provided sufficient illustrations and information to me regarding the services.

K3. I would willingly spare time and effort to share my ideas and suggestions with this hotel to help it further improve its products/services, and processes.

K4. This hotel provided me a suitable environment and opportunities to offer suggestions and ideas.

Eq1. This hotel had easy access to information about my preferences.

Eq2. The guest experience at this hotel was aligned with my requirements (i.e., the way I wish them to be).

Eq3. This hotel considered my role as important as its own in the guest experience.

Eq4. We shared an equal role in determining the outcome of the guest experience.

I1. During the guest experience, I could conveniently express my specific requirements.

I2. This hotel conveyed to its guests the relevant information related to the guest experience.

I3. This hotel allowed sufficient interaction with its guests.

I4. To get the maximum benefit from the services of this hotel, I had to play a proactive role during my interaction (i.e., I have to apply my skill, knowledge, time, etc.).

Value-in-use (VIU)

Exp1. It was a memorable experience for me that lasted for quite a while.

Exp2. Depending upon the nature of my participation, my experiences in the process might be different from those of other guests.

Exp3. It was possible for a guest to improve the experience by experimenting with and trying new things.

P1. The benefit, value, or fun of the services of this hotel depended on the guest and the usage condition.

P2. This hotel tried to serve the individual needs of each of its guests.

P3. Depending on their taste, choice, or knowledge, different guests involved themselves differently in the services of this hotel.

P4. This hotel provided an overall good experience.

Rel1. The hotel's extended facilitation was necessary for guests to enjoy the hotel services fully.

Rel2. I felt an attachment or relationship with this hotel.

Rel3. There is usually a group, a community, or a network of guests who are fans of this hotel.

Rel4. This hotel is renowned because its guests usually spread the positive word about it on their social networks.

Appendix 3.2: HTMT confidence intervals, stage 1, study 2

	Original sample (O)	Sample mean (M)	5.00%	95.00%
F -> Adv	0.689	0.689	0.621	0.758
H -> Adv	0.539	0.539	0.468	0.610
H -> F	0.713	0.713	0.636	0.790
ISk -> Adv	0.415	0.416	0.335	0.495
ISk-> F	0.542	0.543	0.451	0.633
ISk -> H	0.541	0.541	0.464	0.618
ISh -> Adv	0.457	0.457	0.377	0.538
ISh -> F	0.570	0.570	0.484	0.655
ISh -> H	0.483	0.483	0.408	0.558
ISh -> ISk	0.756	0.757	0.687	0.826
PI -> Adv	0.624	0.622	0.551	0.698
PI -> F	0.611	0.608	0.533	0.689
PI -> H	0.300	0.298	0.206	0.395
PI -> ISk	0.240	0.250	0.164	0.315
PI -> ISh	0.379	0.377	0.288	0.469
RB -> Adv	0.475	0.475	0.389	0.562
RB -> F	0.508	0.508	0.416	0.600
RB -> H	0.372	0.373	0.287	0.457
RB -> ISk	0.625	0.626	0.542	0.708
RB -> ISh	0.825	0.825	0.784	0.867
RB -> PI	0.532	0.530	0.440	0.624
Tol -> Adv	0.532	0.531	0.447	0.616
Tol -> F	0.577	0.577	0.479	0.675
Tol -> H	0.721	0.722	0.654	0.789
Tol -> ISk	0.425	0.426	0.334	0.517
Tol -> ISh	0.391	0.391	0.299	0.483
Tol -> PI	0.397	0.398	0.304	0.490
Tol -> RB	0.392	0.393	0.301	0.483

Appendix 3.3: Cross loadings, stage 2 study 2

	Adv	Eq	Exp	F	H	ISK	ISH	I	K	PI	P	Rel	RB	Tol
Adv1	0.916	0.583	0.481	0.615	0.435	0.350	0.418	0.472	0.479	0.611	0.555	0.505	0.463	0.440
Adv2	0.943	0.569	0.489	0.515	0.427	0.301	0.373	0.505	0.469	0.527	0.567	0.493	0.385	0.433
Adv3	0.915	0.565	0.487	0.504	0.501	0.317	0.363	0.488	0.469	0.481	0.539	0.502	0.366	0.423
Eq1	0.486	0.873	0.613	0.485	0.509	0.411	0.510	0.745	0.768	0.267	0.637	0.654	0.398	0.443
Eq2	0.596	0.884	0.600	0.480	0.448	0.333	0.483	0.646	0.601	0.409	0.645	0.615	0.437	0.403
Eq3	0.571	0.866	0.609	0.480	0.447	0.422	0.487	0.683	0.602	0.355	0.635	0.658	0.419	0.363
Eq4	0.504	0.840	0.598	0.459	0.504	0.426	0.449	0.741	0.630	0.266	0.599	0.661	0.357	0.389
Exp1	0.557	0.643	0.890	0.395	0.389	0.311	0.421	0.639	0.511	0.438	0.682	0.588	0.445	0.409
Exp2	0.316	0.505	0.794	0.375	0.505	0.353	0.371	0.615	0.486	0.232	0.588	0.540	0.308	0.434
Exp3	0.375	0.587	0.831	0.381	0.465	0.368	0.381	0.661	0.566	0.245	0.697	0.589	0.333	0.486
F1	0.390	0.443	0.376	0.815	0.538	0.351	0.382	0.475	0.518	0.303	0.405	0.435	0.311	0.369
F2	0.592	0.496	0.391	0.847	0.448	0.36	0.437	0.453	0.444	0.596	0.488	0.423	0.454	0.375
F3	0.470	0.422	0.364	0.827	0.500	0.328	0.367	0.401	0.470	0.412	0.397	0.400	0.307	0.396
H1	0.525	0.498	0.483	0.560	0.870	0.422	0.411	0.532	0.501	0.325	0.461	0.446	0.370	0.521
H2	0.441	0.486	0.465	0.520	0.900	0.366	0.364	0.488	0.453	0.301	0.415	0.409	0.321	0.519
H3	0.402	0.500	0.443	0.508	0.882	0.395	0.382	0.512	0.508	0.178	0.397	0.439	0.257	0.548
H4	0.347	0.450	0.424	0.490	0.858	0.396	0.373	0.475	0.481	0.177	0.380	0.411	0.248	0.535
ISh1	0.198	0.319	0.241	0.293	0.400	0.781	0.449	0.322	0.363	0.047	0.224	0.312	0.303	0.230
ISh2	0.285	0.288	0.288	0.306	0.250	0.771	0.454	0.276	0.275	0.234	0.317	0.290	0.433	0.212
ISh3	0.349	0.457	0.407	0.399	0.424	0.869	0.594	0.441	0.417	0.231	0.415	0.400	0.523	0.341
ISh1	0.371	0.478	0.380	0.446	0.472	0.587	0.827	0.478	0.453	0.214	0.400	0.375	0.515	0.267
ISh2	0.334	0.451	0.410	0.397	0.327	0.543	0.898	0.404	0.374	0.298	0.416	0.357	0.664	0.279
ISh3	0.362	0.505	0.415	0.391	0.342	0.504	0.898	0.450	0.416	0.359	0.476	0.395	0.719	0.291
ISh4	0.383	0.512	0.428	0.434	0.378	0.552	0.869	0.475	0.465	0.355	0.484	0.437	0.736	0.343
I1	0.474	0.751	0.634	0.497	0.532	0.403	0.481	0.907	0.700	0.256	0.647	0.616	0.396	0.398
I2	0.521	0.743	0.662	0.486	0.472	0.385	0.471	0.905	0.665	0.338	0.674	0.640	0.452	0.406
I3	0.467	0.703	0.679	0.424	0.408	0.295	0.427	0.799	0.580	0.350	0.632	0.557	0.433	0.361
I4	0.283	0.490	0.583	0.344	0.473	0.348	0.338	0.693	0.563	0.109	0.447	0.500	0.257	0.387
K1	0.372	0.555	0.462	0.472	0.507	0.417	0.403	0.594	0.819	0.104	0.492	0.570	0.299	0.360
K2	0.502	0.672	0.521	0.410	0.382	0.304	0.416	0.630	0.810	0.308	0.600	0.535	0.390	0.415
K3	0.364	0.555	0.474	0.490	0.438	0.355	0.343	0.567	0.773	0.217	0.468	0.483	0.299	0.336
K4	0.453	0.708	0.553	0.515	0.490	0.379	0.445	0.700	0.891	0.230	0.572	0.596	0.362	0.412
PI1	0.559	0.353	0.374	0.531	0.278	0.216	0.339	0.294	0.258	0.936	0.458	0.300	0.489	0.349
PI2	0.539	0.346	0.347	0.504	0.251	0.203	0.323	0.268	0.222	0.940	0.435	0.291	0.466	0.313
PI3	0.549	0.328	0.346	0.463	0.236	0.181	0.302	0.266	0.203	0.942	0.442	0.292	0.451	0.315
PI4	0.540	0.336	0.351	0.467	0.245	0.158	0.309	0.274	0.202	0.938	0.441	0.313	0.456	0.341
PI5	0.511	0.360	0.388	0.510	0.277	0.157	0.345	0.315	0.276	0.847	0.438	0.315	0.429	0.383
P1	0.395	0.575	0.709	0.425	0.457	0.387	0.409	0.650	0.586	0.286	0.797	0.565	0.381	0.454
P2	0.523	0.675	0.686	0.456	0.431	0.368	0.456	0.656	0.591	0.369	0.866	0.658	0.451	0.408
P3	0.412	0.568	0.645	0.418	0.408	0.374	0.401	0.608	0.543	0.350	0.795	0.626	0.415	0.435
P4	0.576	0.573	0.550	0.417	0.297	0.252	0.409	0.497	0.441	0.520	0.823	0.597	0.480	0.329
Rel1	0.434	0.559	0.535	0.399	0.359	0.34	0.332	0.526	0.508	0.325	0.665	0.806	0.364	0.368
Rel2	0.507	0.670	0.562	0.437	0.410	0.307	0.399	0.629	0.586	0.264	0.639	0.842	0.349	0.287
Rel3	0.400	0.612	0.560	0.449	0.444	0.358	0.385	0.602	0.576	0.224	0.541	0.836	0.307	0.353
Rel4	0.485	0.679	0.625	0.436	0.444	0.398	0.413	0.625	0.599	0.274	0.625	0.895	0.350	0.370
RB1	0.382	0.452	0.405	0.408	0.347	0.527	0.756	0.467	0.417	0.347	0.463	0.411	0.846	0.341

RB2	0.382	0.432	0.419	0.389	0.280	0.458	0.676	0.433	0.354	0.458	0.488	0.369	0.922	0.300
RB3	0.400	0.389	0.384	0.388	0.296	0.464	0.643	0.365	0.341	0.498	0.472	0.322	0.921	0.301
RB4	0.424	0.406	0.404	0.393	0.307	0.456	0.644	0.383	0.353	0.502	0.492	0.368	0.921	0.324
Tol1	0.275	0.326	0.385	0.345	0.592	0.325	0.222	0.389	0.410	0.076	0.332	0.356	0.159	0.751
Tol2	0.436	0.412	0.442	0.427	0.479	0.254	0.328	0.392	0.362	0.453	0.417	0.323	0.394	0.888
Tol3	0.463	0.449	0.481	0.397	0.507	0.290	0.307	0.416	0.423	0.367	0.472	0.388	0.319	0.914

Appendix 4.1: Scales and measures, study 3

Co-creation perception (CCP)

- D1. This hotel communicated with and listened to guests to improve its service.
- D2. This hotel used multiple communication channels (employees, website, social networks, etc.) to share and exchange ideas with guests about its services.
- D3. This hotel facilitated the communication of ideas and suggestions of guests about the services.
- A1. This hotel allowed guests to personalise the services they wished to receive.
- A2. Guests had numerous service options to adapt to their needs.
- A3. It was easy to receive information about the hotel's services, when, where, and how guests wished to receive them.
- R1. This hotel offered comprehensible information that allowed guests to assess the advantages and disadvantages of the services.
- R2. This hotel offered many possibilities for guests to present complaints regarding any problems that might arise during the service.
- R3. This hotel repeatedly urged guests to familiarise themselves with the possible risks of using the services (fire prevention, slips in the swimming pool, wet floors, no glass in wet zones).
- T1. This hotel provided transparent information for guests to assess and improve its services.
- T2. Guests had access to all the information that could be used to improve the services.
- T3. This hotel offered public and transparent information regarding the prices associated with the various services.
-

Customer participation behaviour (CPB)

- ISk1. I asked others for information on what services this hotel offers.
- ISk2. I searched for information on where this hotel and its services are located.
- ISk3. I paid attention to how others behave when using this hotel and its services.
- ISh1. I clearly explained what I wanted the employees of this hotel to do.
- ISh2. I gave the proper information to the employees of this hotel.
- ISh3. I provided the necessary information so that the employees of this hotel could perform their duties.
- ISh4. I answered all the service-related questions of the employees of this hotel.
- RB1. I performed all the tasks that were required.
- RB2. I adequately completed all the expected behaviours.
- RB3. I fulfilled my responsibilities to this hotel.
- RB4. I followed the directives and/or orders of the employees of this hotel.
- PI1. I was friendly to the employees of this hotel.
- PI2. I was kind to the employees of this hotel.
- PI3. I was polite to the employees of this hotel.
- PI4. I was courteous to the employees of this hotel.
- PI5. I didn't act rudely to the employees of this hotel.
-

Customer citizenship behaviour (CCB)

-
- F1. If I had a useful idea on how to improve the services of this hotel, I let the hotel know.
- F2. When I received good services from this hotel, I commented on it.
- F3. When I experienced a problem, I let the hotel know about it.
- Adv1. I said positive things about this hotel and its employees to others.
- Adv2. I recommended this hotel and its employees to others.
- Adv3. I encouraged friends and relatives to use this hotel and its services.
- H1. I assisted other guests if they needed my help.
- H2. I helped other guests if they seemed to have problems.
- H3. I taught other guests to use the services of this hotel correctly.
- H4. I gave advice to other guests.
- Tol1. If service was not delivered as expected, I could be willing to put up with it.
- Tol2. If the employee made a mistake during service delivery, I could be willing to be patient.
- Tol3. If I had to wait longer than I usually expected to receive the services of this hotel, I could be willing to adapt.
-

Co-production (COP)

- K1. This hotel was open to my ideas and suggestions about its existing services or the development of new services.
- K2. This hotel provided sufficient illustrations and information to me regarding the services.
- K3. I would willingly spare time and effort to share my ideas and suggestions with this hotel to help it further improve its products/services and processes.
- K4. This hotel provided me a suitable environment and opportunities to offer suggestions and ideas.
- Eq1. This hotel had easy access to information about my preferences.
- Eq2. The guest experience at this hotel was aligned with my requirements (i.e., the way I wish them to be).
- Eq3. This hotel considered my role as important as its own in the guest experience.
- Eq4. We shared an equal role in determining the outcome of the guest experience.
- I1. During the guest experience, I could conveniently express my specific requirements.
- I2. This hotel conveyed to its guests the relevant information related to the guest experience.
- I3. This hotel allowed sufficient interaction with its guests.
- I4. To get the maximum benefit from the services of this hotel, I had to play a proactive role during my interaction (i.e., I had to apply my skills, knowledge, time, etc.).
-

Value-in-use (VIU)

- Exp1. It was a memorable experience for me that lasted for quite a while.
- Exp2. Depending upon the nature of my participation, my experiences in the process might be different from those of other guests.
- Exp3. It was possible for a guest to improve the experience by experimenting with and trying new things.
- P1. The benefit, value, or fun of the services of this hotel depended on the guest and the usage condition.
- P2. This hotel tried to serve the individual needs of each of its guests.

P3. Depending on their taste, choice, or knowledge, different guests involved themselves differently in the services of this hotel.

P4. This hotel provided an overall good experience.

Rel1. The hotel's extended facilitation was necessary for guests to enjoy the hotel services fully.

Rel2. I felt an attachment or relationship with this hotel.

Rel3. There is usually a group, a community, or a network of guests who are fans of this hotel.

Rel4. This hotel is renowned because its guests usually spread the positive word about it on their social networks.

Appendix 4.2: HTMT confidence intervals, stage 1, study 3

	Original sample (O)	Sample mean (M)	5.00%	95.00%
Adv -> A	0.660	0.659	0.599	0.720
D -> A	0.948	0.948	0.922	0.974
D -> Adv	0.665	0.665	0.604	0.727
F -> A	0.540	0.540	0.462	0.618
F -> Adv	0.689	0.689	0.621	0.758
F -> D	0.586	0.586	0.511	0.662
H -> A	0.453	0.452	0.378	0.527
H -> Adv	0.539	0.539	0.468	0.610
H -> D	0.481	0.481	0.403	0.559
H -> F	0.713	0.713	0.636	0.790
ISk -> A	0.474	0.474	0.379	0.568
ISk -> Adv	0.415	0.416	0.335	0.495
ISk -> D	0.533	0.533	0.447	0.618
ISk -> F	0.542	0.543	0.451	0.633
ISk -> H	0.541	0.541	0.464	0.618
ISh -> A	0.575	0.575	0.498	0.653
ISh -> Adv	0.457	0.457	0.377	0.538
ISh -> D	0.588	0.587	0.521	0.656
ISh -> F	0.570	0.570	0.484	0.655
ISh -> H	0.483	0.483	0.408	0.558
ISh -> ISk	0.756	0.757	0.687	0.826
PI -> A	0.495	0.493	0.413	0.576
PI -> Adv	0.624	0.622	0.551	0.698
PI -> D	0.491	0.489	0.405	0.577
PI -> F	0.611	0.608	0.533	0.689
PI -> H	0.300	0.298	0.206	0.395
PI -> ISk	0.240	0.250	0.164	0.315
PI -> ISh	0.379	0.377	0.288	0.469
RB -> A	0.563	0.562	0.480	0.646
RB -> Adv	0.475	0.475	0.389	0.562
RB -> D	0.571	0.570	0.497	0.645
RB -> F	0.508	0.508	0.416	0.600
RB -> H	0.372	0.373	0.287	0.457
RB -> ISk	0.625	0.626	0.542	0.708
RB-> ISh	0.825	0.825	0.784	0.867
RB -> PI	0.532	0.530	0.440	0.624
R-> A	0.896	0.897	0.862	0.931
R-> Adv	0.666	0.666	0.612	0.720
R-> D	0.888	0.889	0.855	0.922
R-> F	0.681	0.682	0.616	0.747
R-> H	0.559	0.559	0.486	0.632
R-> ISk	0.609	0.611	0.532	0.686
R-> Ish	0.625	0.625	0.562	0.689
R-> PI	0.392	0.391	0.321	0.463
R-> RB	0.569	0.569	0.502	0.635
Tol-> A	0.379	0.379	0.289	0.469




Tol-> Adv	0.532	0.531	0.447	0.616
Tol-> D	0.414	0.414	0.322	0.507
Tol-> F	0.577	0.577	0.479	0.675
Tol -> H	0.721	0.722	0.654	0.789
Tol -> ISk	0.425	0.426	0.334	0.517
Tol -> ISh	0.391	0.391	0.299	0.483
Tol -> PI	0.397	0.398	0.304	0.490
Tol -> RB	0.392	0.393	0.301	0.483
Tol -> R	0.480	0.481	0.401	0.56
T -> A	0.863	0.863	0.824	0.903
T -> Adv	0.671	0.671	0.613	0.729
T -> D	0.822	0.822	0.779	0.864
T -> F	0.687	0.687	0.625	0.749
T -> H	0.525	0.525	0.454	0.597
T-> ISk	0.567	0.567	0.490	0.644
T -> ISh	0.603	0.603	0.539	0.667
T -> PI	0.418	0.415	0.331	0.505
T -> RB	0.565	0.564	0.490	0.639
T -> R	0.949	0.949	0.917	0.981
T -> Tol	0.456	0.456	0.375	0.538

Appendix 4.3: Cross loadings, stage 1, study 3

	A	Adv	D	Eq	Exp	F	H	ISk	ISh	I	K	PI	P	Rel	RB	R	Tol	T
A1	0.882	0.474	0.721	0.515	0.43	0.372	0.352	0.316	0.439	0.497	0.450	0.338	0.480	0.450	0.413	0.644	0.249	0.647
A2	0.925	0.553	0.753	0.582	0.471	0.403	0.357	0.355	0.461	0.536	0.510	0.414	0.542	0.488	0.449	0.677	0.301	0.678
A3	0.862	0.545	0.731	0.499	0.414	0.42	0.364	0.356	0.461	0.447	0.464	0.453	0.495	0.446	0.488	0.710	0.318	0.713
Adv1	0.558	0.915	0.563	0.581	0.481	0.615	0.435	0.35	0.418	0.473	0.480	0.611	0.553	0.509	0.463	0.544	0.439	0.581
Adv2	0.550	0.944	0.556	0.568	0.489	0.515	0.427	0.301	0.373	0.506	0.469	0.527	0.567	0.497	0.385	0.541	0.433	0.570
Adv3	0.527	0.916	0.529	0.564	0.487	0.504	0.502	0.317	0.363	0.488	0.469	0.481	0.538	0.505	0.366	0.526	0.423	0.538
D1	0.688	0.542	0.870	0.490	0.394	0.444	0.351	0.361	0.450	0.432	0.431	0.463	0.491	0.426	0.464	0.626	0.273	0.594
D2	0.736	0.508	0.893	0.541	0.443	0.412	0.392	0.380	0.443	0.488	0.490	0.351	0.492	0.526	0.422	0.670	0.329	0.646
D3	0.784	0.542	0.913	0.521	0.441	0.444	0.402	0.422	0.505	0.501	0.511	0.387	0.511	0.498	0.489	0.725	0.345	0.706
Eq1	0.503	0.486	0.498	0.877	0.614	0.485	0.509	0.411	0.510	0.744	0.773	0.267	0.639	0.657	0.398	0.581	0.443	0.575
Eq2	0.551	0.596	0.517	0.882	0.600	0.480	0.448	0.333	0.483	0.646	0.602	0.409	0.647	0.619	0.437	0.536	0.403	0.576
Eq3	0.542	0.571	0.522	0.860	0.609	0.480	0.447	0.421	0.487	0.683	0.602	0.355	0.637	0.660	0.419	0.543	0.363	0.546
Eq4	0.485	0.504	0.481	0.842	0.599	0.459	0.504	0.426	0.449	0.741	0.632	0.266	0.600	0.663	0.357	0.532	0.390	0.540
Exp1	0.481	0.557	0.452	0.642	0.889	0.395	0.389	0.311	0.421	0.637	0.512	0.438	0.683	0.593	0.445	0.467	0.408	0.463
Exp2	0.349	0.316	0.343	0.506	0.791	0.375	0.505	0.353	0.371	0.614	0.485	0.232	0.588	0.533	0.308	0.387	0.434	0.397
Exp3	0.376	0.375	0.386	0.589	0.834	0.381	0.465	0.368	0.381	0.660	0.566	0.245	0.696	0.589	0.333	0.428	0.487	0.434
F1	0.323	0.390	0.398	0.444	0.376	0.816	0.538	0.351	0.382	0.475	0.516	0.303	0.407	0.433	0.311	0.464	0.369	0.464
F2	0.429	0.592	0.459	0.495	0.391	0.849	0.448	0.360	0.437	0.453	0.445	0.596	0.486	0.424	0.454	0.460	0.375	0.538
F3	0.353	0.47	0.342	0.422	0.364	0.823	0.500	0.328	0.367	0.401	0.470	0.412	0.397	0.396	0.307	0.438	0.396	0.426
H1	0.401	0.525	0.433	0.499	0.483	0.560	0.871	0.422	0.411	0.532	0.501	0.325	0.462	0.444	0.370	0.454	0.522	0.453
H2	0.365	0.44	0.391	0.487	0.465	0.520	0.900	0.366	0.364	0.488	0.451	0.301	0.416	0.408	0.321	0.403	0.519	0.406
H3	0.353	0.402	0.355	0.501	0.443	0.507	0.882	0.394	0.382	0.512	0.508	0.178	0.398	0.440	0.257	0.440	0.548	0.432
H4	0.287	0.347	0.320	0.451	0.423	0.489	0.858	0.396	0.373	0.474	0.480	0.177	0.382	0.409	0.248	0.391	0.536	0.370
ISk3	0.231	0.198	0.283	0.319	0.241	0.292	0.400	0.781	0.449	0.321	0.360	0.002	0.226	0.311	0.303	0.352	0.231	0.324
ISk2	0.327	0.285	0.339	0.288	0.288	0.306	0.250	0.772	0.454	0.276	0.273	0.234	0.317	0.288	0.433	0.331	0.212	0.367
ISk1	0.365	0.348	0.418	0.457	0.407	0.399	0.424	0.868	0.594	0.442	0.417	0.231	0.416	0.398	0.523	0.471	0.342	0.431
ISh1	0.423	0.371	0.452	0.479	0.380	0.446	0.472	0.587	0.827	0.478	0.453	0.214	0.401	0.376	0.515	0.469	0.267	0.492
ISh2	0.416	0.334	0.412	0.451	0.410	0.397	0.327	0.543	0.898	0.404	0.374	0.298	0.415	0.357	0.664	0.433	0.278	0.432
ISh3	0.463	0.362	0.456	0.505	0.415	0.391	0.342	0.504	0.898	0.450	0.417	0.359	0.477	0.397	0.719	0.475	0.291	0.468
ISh4	0.472	0.383	0.499	0.512	0.428	0.435	0.378	0.551	0.870	0.475	0.466	0.355	0.486	0.438	0.736	0.508	0.342	0.498
I1	0.512	0.474	0.469	0.752	0.635	0.497	0.532	0.403	0.481	0.909	0.700	0.256	0.648	0.619	0.396	0.541	0.399	0.546
I2	0.539	0.521	0.505	0.744	0.662	0.487	0.472	0.385	0.471	0.907	0.667	0.338	0.676	0.641	0.452	0.547	0.406	0.572
I3	0.480	0.467	0.441	0.702	0.679	0.425	0.408	0.294	0.427	0.795	0.584	0.350	0.634	0.563	0.433	0.479	0.361	0.486
I4	0.292	0.283	0.346	0.492	0.583	0.344	0.473	0.348	0.338	0.689	0.564	0.109	0.447	0.496	0.257	0.372	0.388	0.408
K1	0.383	0.372	0.411	0.556	0.463	0.472	0.507	0.416	0.403	0.594	0.809	0.104	0.494	0.567	0.299	0.477	0.361	0.478
K2	0.529	0.502	0.477	0.673	0.522	0.410	0.382	0.304	0.416	0.63	0.806	0.308	0.600	0.537	0.390	0.500	0.415	0.529
K3	0.367	0.363	0.367	0.556	0.475	0.490	0.438	0.355	0.343	0.567	0.765	0.217	0.468	0.483	0.299	0.453	0.336	0.471
K4	0.479	0.453	0.492	0.712	0.553	0.515	0.490	0.379	0.445	0.700	0.903	0.230	0.573	0.598	0.362	0.579	0.413	0.603
PI1	0.447	0.559	0.447	0.351	0.373	0.531	0.278	0.216	0.339	0.294	0.258	0.936	0.455	0.300	0.489	0.357	0.348	0.367
PI2	0.417	0.538	0.416	0.345	0.347	0.504	0.251	0.203	0.323	0.268	0.222	0.94	0.432	0.290	0.466	0.334	0.312	0.341
PI3	0.393	0.549	0.396	0.327	0.346	0.463	0.237	0.181	0.302	0.266	0.204	0.942	0.440	0.291	0.451	0.291	0.314	0.333
PI4	0.397	0.540	0.398	0.335	0.351	0.467	0.245	0.158	0.309	0.274	0.203	0.938	0.438	0.311	0.456	0.287	0.34	0.337
PI5	0.425	0.511	0.400	0.359	0.387	0.510	0.277	0.157	0.345	0.314	0.278	0.847	0.435	0.315	0.429	0.353	0.382	0.401
P1	0.390	0.395	0.410	0.576	0.710	0.425	0.457	0.387	0.409	0.650	0.586	0.286	0.793	0.562	0.381	0.437	0.454	0.445
P2	0.517	0.523	0.526	0.675	0.686	0.456	0.431	0.368	0.456	0.656	0.591	0.369	0.879	0.662	0.451	0.539	0.408	0.545
P3	0.466	0.412	0.464	0.568	0.646	0.419	0.408	0.373	0.401	0.607	0.543	0.350	0.797	0.623	0.415	0.445	0.436	0.477

P4	0.494	0.576	0.446	0.571	0.550	0.418	0.297	0.252	0.409	0.497	0.442	0.520	0.816	0.599	0.480	0.447	0.328	0.454
Rel1	0.405	0.434	0.412	0.559	0.535	0.399	0.359	0.340	0.332	0.527	0.507	0.325	0.664	0.793	0.364	0.444	0.368	0.458
Rel2	0.460	0.507	0.479	0.670	0.563	0.437	0.410	0.307	0.399	0.629	0.588	0.264	0.641	0.856	0.349	0.511	0.287	0.532
Rel3	0.387	0.400	0.406	0.612	0.560	0.449	0.444	0.358	0.385	0.601	0.575	0.224	0.542	0.826	0.307	0.451	0.353	0.467
Rel4	0.480	0.485	0.512	0.678	0.626	0.437	0.444	0.397	0.413	0.625	0.599	0.274	0.627	0.903	0.350	0.561	0.370	0.534
RB1	0.453	0.381	0.486	0.452	0.404	0.408	0.348	0.527	0.756	0.467	0.418	0.347	0.463	0.409	0.846	0.480	0.340	0.493
RB2	0.456	0.382	0.457	0.431	0.419	0.389	0.280	0.458	0.676	0.433	0.354	0.458	0.488	0.370	0.922	0.456	0.299	0.467
RB3	0.442	0.400	0.438	0.388	0.384	0.388	0.296	0.463	0.643	0.364	0.342	0.498	0.471	0.322	0.921	0.414	0.300	0.438
RB4	0.474	0.424	0.471	0.405	0.404	0.393	0.307	0.456	0.644	0.383	0.354	0.502	0.492	0.368	0.922	0.454	0.323	0.458
R1	0.751	0.529	0.717	0.539	0.427	0.446	0.398	0.405	0.451	0.496	0.507	0.333	0.467	0.496	0.464	0.859	0.305	0.695
R2	0.670	0.536	0.681	0.589	0.476	0.529	0.423	0.431	0.518	0.531	0.563	0.369	0.552	0.534	0.480	0.898	0.362	0.737
R3	0.539	0.431	0.550	0.505	0.419	0.432	0.426	0.418	0.425	0.494	0.525	0.201	0.445	0.491	0.342	0.824	0.349	0.678
Tol1	0.182	0.275	0.216	0.328	0.385	0.345	0.592	0.324	0.222	0.388	0.410	0.076	0.332	0.350	0.159	0.299	0.753	0.306
Tol2	0.314	0.436	0.328	0.412	0.442	0.426	0.479	0.254	0.328	0.391	0.362	0.453	0.416	0.321	0.394	0.343	0.887	0.327
Tol3	0.321	0.463	0.350	0.450	0.482	0.397	0.507	0.290	0.307	0.416	0.425	0.367	0.473	0.384	0.319	0.362	0.913	0.363
T1	0.691	0.541	0.661	0.590	0.468	0.506	0.432	0.408	0.475	0.574	0.618	0.294	0.517	0.558	0.431	0.771	0.359	0.917
T2	0.728	0.585	0.685	0.622	0.470	0.556	0.469	0.450	0.520	0.577	0.604	0.355	0.529	0.555	0.462	0.767	0.353	0.928
T3	0.667	0.540	0.646	0.560	0.473	0.518	0.395	0.419	0.490	0.518	0.526	0.412	0.544	0.502	0.518	0.696	0.352	0.889

Appendix 5.1: Questionnaire

		
<h3>Guests' Perceptions of their hotel experience</h3> <p>The hotel guest experience involves interaction with people, such as staff or other guests. Interaction allows people to contribute to enhancing the hotel experience, and the guest plays an important role in this process. This questionnaire aims to collect data on guests' perceptions of their interaction with the hotels during their stay in the Algarve. The author assures absolute confidentiality of the collected data as all individual data will remain anonymous and will not be published. Your participation is voluntary, and the researchers request that you kindly select your answer as sincerely and objectively as possible. Thank you in advance for your time and effort.</p>		
<p>1. Kindly mark the (main) reason for your trip to the Algarve. Kindly tick only one option.</p> <p>Vacation/Holiday <input type="checkbox"/> Business <input type="checkbox"/> Health & Wellness <input type="checkbox"/> Meeting/convention <input type="checkbox"/></p> <p>Study/training <input type="checkbox"/> Visiting Friends & Relatives <input type="checkbox"/> Other <input type="checkbox"/> Which one? _____</p>		
<p>2. Which of the following categories describes your travel party to the Algarve? You may tick more than one option if necessary.</p> <p>Alone <input type="checkbox"/> Partner <input type="checkbox"/> Family Members <input type="checkbox"/> Friends <input type="checkbox"/></p> <p>Work colleagues <input type="checkbox"/> Organised/package group <input type="checkbox"/> Other <input type="checkbox"/> Which one? _____</p>		
<p>3. Have you previously stayed at this hotel? Yes <input type="checkbox"/> _____ time/s. No <input type="checkbox"/></p>		
<p>4. Kindly mention the name of the hotel where you stayed at _____ and its star rating _____.</p>		
<p>5. How many days have you spent at this hotel (including departure and arrival)? _____ days.</p>		
<p>6. Considering the interactions between guests and this hotel, to what extent do you agree/disagree with the following statements:</p> <p style="text-align: center;">Strongly disagree Disagree Neutral Agree Strongly agree</p> <p style="text-align: center;"><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		
<p>This hotel communicated with and listened to guests to improve its service.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		
<p>This hotel used multiple communication channels (employees, website, social networks, etc.) to share and exchange ideas with guests about its services.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		
<p>This hotel facilitated the communication of ideas and suggestions of guests about the services.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		
<p>This hotel allowed guests to personalise the services they wished to receive.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		
<p>Guests had numerous service options to adapt to their needs.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		
<p>It was easy to receive information about the hotel's services, when, where, and how guests wished to receive them.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>		

This hotel offered comprehensible information that allowed guests to assess the advantages and disadvantages of the services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel offered many possibilities for guests to present complaints regarding any problems that might arise during the service. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel repeatedly urged guests to familiarise themselves with the possible risks of using the services (fire prevention, slips in the swimming pool, wet floors, no glass in wet zones). <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel provided transparent information for guests to assess and improve its services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Guests had access to all the information that could be used to improve the services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel offered public and transparent information regarding the prices associated with the various services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
7. Considering your interactions with this hotel or other guests, to what extent do you agree/disagree with the following statements:
Strongly disagree Disagree Neutral Agree Strongly agree <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I asked others for information on what services this hotel offers. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I searched for information on where this hotel and its services are located. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I paid attention to how others behave to use this hotel and its services well. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I clearly explained what I wanted the employees of this hotel to do. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I gave the proper information to the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I provided the necessary information so that the employees of this hotel could perform their duties. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I answered all the service-related questions of the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I performed all tasks that were required. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I adequately completed all the expected behaviours. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I fulfilled my responsibilities to this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I followed the directives and/or orders of the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I was friendly to the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I was kind to the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I was polite to the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I was courteous to the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I didn't act rudely to the employees of this hotel. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
If I have a useful idea on how to improve the services of this hotel, I let the hotel know. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
When I received good services from this hotel, I commented about it. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
When I experienced a problem, I let the hotel know about it. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

I said positive things about this hotel and its employees to others. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I recommended this hotel and its employees to others. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I encouraged friends and relatives to use this hotel and its services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I assisted other guests if they needed my help. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I helped other guests if they seemed to have problems. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I taught other guests to use the services of this hotel correctly. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I gave advice to other guests. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
If service was not delivered as expected, I would be willing to put up with it. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
If the employee made a mistake during service delivery, I could be willing to be patient. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
8. Considering your interactions with this hotel or other guests, to what extent do you agree/disagree with the following statements:
Strongly disagree Disagree Neutral Agree Strongly agree <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel was open to my ideas and suggestions about its existing services or the development of new services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel provided sufficient illustrations and information to me regarding the services. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
I would willingly spare time and effort to share my ideas and suggestions with this hotel to help it further improve its products/services and processes. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel provided me with a suitable environment and opportunities to offer suggestions and ideas. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel had easy access to information about my preferences. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The guest experience at this hotel was aligned with my requirements (i.e., the way I wish them to be) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel considered my role as important as its own in the guest experience. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
We shared an equal role in determining the outcome of the guest experience. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
During the guest experience, I could conveniently express my specific requirements. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel conveyed to its guests the relevant information related to the guest experience. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
This hotel allowed sufficient interaction with its guests. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
To get the maximum benefit from the services of this hotel, I had to play a proactive role during my interaction (i.e., I have to apply my skill, knowledge, time, etc.). <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
It was a memorable experience for me that lasted for quite a while. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Depending upon the nature of my participation, my experiences in the process might be different from those of other guests. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
It was possible for a guest to improve the experience by experimenting with and trying new things. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
The benefit, value, or fun of the services of this hotel depended on the guest and the usage condition. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

<p>This hotel tried to serve the individual needs of each of its guests.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>Depending on their taste, choice, or knowledge, different guests involved themselves differently in the services of this hotel.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>This hotel provided an overall good experience.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>The hotel's extended facilitation was necessary for guests to enjoy the hotel services fully.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>I felt an attachment or relationship with this hotel.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>There is usually a group, a community, or a network of guests who are fans of this hotel.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>This hotel is renowned because its guests usually spread positive words about it on their social networks.</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>
<p>9. Gender: Female <input type="checkbox"/> Male <input type="checkbox"/> Other <input type="checkbox"/></p>
<p>10. Age: _____ years old.</p>
<p>11. Country of Residence: _____.</p>
<p>12. Marital status:</p> <p>Single <input type="checkbox"/> Married/ civil partnership <input type="checkbox"/> Divorced/separated <input type="checkbox"/> Widowed <input type="checkbox"/></p>
<p>13. Highest level of education:</p> <p>Less than High School <input type="checkbox"/> Completed High School <input type="checkbox"/> University <input type="checkbox"/></p>
<p>14. Occupation:</p> <p>Employed <input type="checkbox"/> Self-employed <input type="checkbox"/> Unemployed <input type="checkbox"/> Domestic <input type="checkbox"/></p> <p>Student <input type="checkbox"/> Other <input type="checkbox"/> : Which one? _____.</p>