MEDIATING ROLE OF TASK-RELATED AFFECTIVE WELL-BEING IN THE INFLUENCE OF CUSTOMER PARTICIPATION VIA SELF-SERVICE TECHNOLOGIES ON SERVICE OUTCOMES

A THESIS

Submitted by

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for the award of the Degree

of

DOCTOR OF PHILOSOPHY

Under Joint Doctoral Degree Programme

Department of Management Studies
Indian Institute of Technology Madras

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MARCH 2020

AUTHOR'S DECLARATION

To the best of my knowledge and belief, this thesis contains no material previously published by any other person except where due acknowledgement has been made.

This thesis contains no material accepted for the award of any other degree or diploma in any university.

The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee, Approval Number - HRE2018-0716.

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THESIS CERTIFICATE

This is to certify that the thesis entitled "**MEDIATING ROLE OF TASK-RELATED AFFECTIVE WELL-BEING IN THE INFLUENCE OF CUSTOMER PARTICIPATION ON SERVICE OUTCOMES"** submitted by **Aswathy Asokan A.** to the Indian Institute of Technology Madras, Chennai and Curtin University, Perth, Australia for the award of the degree of **DOCTOR OF PHILOSOPHY** is a bonafide record of research work carried out by her under my supervision. The contents of the thesis have not been submitted and will not be submitted to any other Institute or University for the award of any degree or diploma.

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Reji Sir

ACKNOWLEDGEMENTS

I thank God Almighty! The blessings of God made everything possible all through my life and the journey of PhD. I extend my heartfelt gratitude to my parents, who have always been proud to have me in whatever and however way I am, and they have been very supportive all these years. My Amma always kept encouraging me to continue my studies and keep pursuing my dreams. Thank you both for being there for me always. I am so fortunate to have you in my life Reji Sir; without you, I would have never dreamt of a PhD or believed that I could do all these. I am happy to have you there always, holding my hands while I was taking the first steps of my research dream and throughout the journey of my PhD. Even without me realising, you have taught many things to me, like everything a kid learns from the home. I cannot thank you more for convincing me to apply for IIT Madras PhD. You kept giving me confidence and made me believe in myself and never failed to reassure that I have the potential. Thank you for being my inspiration, my mentor, my guardian, my critique, my friend, and my fall back person for everything. I cannot thank Sangeetha Chchy enough; you have been listening to me every day with a lot of patience. You are that one person who heard me out for the last four and a half years daily without fail. You have always had time for me and heard my excitement, aspirations, happiness, tensions, irritations, and frustrations and have never failed in supporting me and showing me the right direction. I thank you, Chchy, from the bottom of my heart.

I acknowledge the scrutiny panel (Dr Varisha Rahman, Dr Geetha Mohan, Dr Richa Agarwal, Dr Vaibhav Chawla, and Late. Dr Upendra Kumar Maurya) for giving me a chance to pursue my PhD in a prestigious institution like IIT Madras. I thank all my supervisors for believing in me and accepting me as their scholar. I would like to thank Dr Arshinder Kaur for initially agreeing to co-supervise me and later take up the responsibility to be my primary supervisor. You have been supportive professionally and personally, had the patience always to hear me out and give adequate advice. You helped me during any situations of dilemmas and have always been considerate. Thank you for being there throughout my research journey, giving me intellectual and personal insights, mentoring me, thus helping me grow as a good human being and academician. I extend my gratitude to thank Dr Geetha Mohan for wholeheartedly choosing me as her first scholar. She has been positive and helped me with the initial steps in my PhD life. I acknowledge Late. Dr Upendra Kumar Maurya, for accepting me as his scholar

once Dr Geetha moved out of IIT Madras. I thank him for helping me stretch my limits and grow better as a researcher. The discussions with him and the questions raised by him have always left me thinking and learning more. I am incredibly thankful for the motivation and immense support he had given me, and I will be carrying it with me throughout my life.

I express my heartfelt thanks to IIT Madras, Office of International and Alumni Relations, Department of Management Studies, Head of the Department, Dr Geetha Mohan, and Dr Arshinder Kaur for selecting me as a candidate for the Joint Doctoral Program with the School of Marketing, Curtin University. The one year at Curtin University under the supervision of Dr Piyush Sharma and Dr Russell Kingshott helped me gain exposure. Working at Curtin was a different experience, and I was evolving as a researcher and an individual with experiences. I am lucky and blessed to have Dr Piyush Sharma as my supervisor and a mentor. You have been a game-changer for me by helping me understand my strength and polish it while giving me avenues to overcome my weaknesses as a researcher. It felt comfortable and resourceful working with you, and there has been a lot that I could learn from you. You have helped me grow and progress as an academician, and I thank you from the bottom of my heart for the great support. I express my warm gratitude to Dr Russell Kingshott for his valuable feedback. Your ideas and suggestions helped me in progressing in this journey. Thank you for all the support.

I would like to thank my doctoral committee members, Bharadwaj Sir (Director - Research, Great Lakes Institute of Management), Vaibhav Sir, and Usha Ma'am, for their interest and advice in my work. Special mention to Saji Sir for his timely help and advice in many instances. I thank Vidy (Dr Vidyasagar Potdar, Curtin University) for explicitly showing his support and motivations. I thank LSG Sir, Madhumathi Ma'am, and Prakash Sai Sir for chairing the doctoral committee meetings and providing thought-provoking questions and supports. I thank everyone who supports us directly or indirectly in the Department of Management Studies and IIT Madras for the smooth completion of PhD. Also, I appreciate the School of Marketing, Graduate Research School, Ethics committee, and everyone else who supports me at Curtin in the successful completion of my tenure at Curtin University. I am grateful to the fellowship program at IIT Madras and Curtin University for financially supporting me throughout the program. I acknowledge the funding provided for the travel assistance between the universities and the allowances for the national and international

conferences attended. Besides, I thank all the respondents who showed patience by participating in this study.

Next, I thank the loved ones, who have significantly contributed to my smile, success and provided me cushion whenever I fell, both at professional and personal front. I identify with them and will fall short of words if I ever attempt to describe them. However, let me thank them in my own short and sweet way. I would like to thank the three critical people who have trusted me and had different roles in my PhD journey. Firstly, my best friend Viji, you have been there throughout the PhD journey, you had ears for all my happy moments and cribbing. You have seen me in the ups and lows at the personal and professional front. I could always count on you and talking with you has made me feel comfortable. Thanks for the timely support and accepting me the way I am and taking all my worries, concerns, frustrations, depression, and arrogance. With all the fun of outings, shopping, and movie time, you made the life at IIT Madras lively and comfortable to be lived, and I thank you from the bottom of my heart. Next, my cool dude Jyotsna, you have always been so welcoming and generous. Your refreshing approach to every situation has given me the confidence to push forward and discussing the work with you has led me to clarity always. Thanks for being a good friend and support ever. Third, the motivating Zahra, your trust in me has improved my self-trust and confidence. You are amazing and have always had simple solutions for all the problems. Thank you so much for being there and for all the advice you have given me.

I especially thank Sharmista, Imon, and Biyas for making me feel like a part of the family. I am blessed to have Aparna and Saranya, who have been caring, concerned, and supportive when I needed it the most. I am happy to have friends like Ganesh and Shilpa, who made my stay at Perth cosy and comfortable. Thank you, Jayita, for helping me out in the initial stage and being a supportive friend. It is lovely to have the fellow scholars from IIT Madras turn good friends after reaching Curtin, and I am incredibly grateful for having you two, Rofia and Hari. I am happy to have you in my life Subhojith; it was friendly, fun, and lively with your great positive vibes. One minute with you can make anyone happy and positive. Thank you for being a stressbuster. I am lucky to earn a crazy and fantastic friend, Anuradha. The long conversations, discussions, and motivating each other was very much meaningful. Thank you for being there when needed. The beauty of life at Perth got added by having Subha, Sana, Summer, Prima, and Anulipt. I thank you all for the good memories of PhD life. Thank you all for the beautiful memories. Campus life at IIT Madras was beautiful with Neethu, James,

Priya, Urvi, Nibu, Renuka, Ramya M, Srividya, Rahul, Karthik, Ramesh, Priyanka, Niroopa, Soumya, Vandana, Ramesh Krishnan, Nilanjan, Shivmani, Aravind, and Vasanth. I thank you all for the support and the good time we shared.

Special mention to my family members. I thank Ani Uncle, Asha Aunty, Aniyan, Arya, Justu, Kanz, Tibykuty, Lallu, and Krishna for their acceptance, support, and motivations. Thank you for understanding that I may not be able to make up for every function and happening at home and my heartfelt gratitude for considering me as your pride and an essential member of the family. I thank my nephew (Aadi) for being the cheer of my life. Finally, my heartfelt gratitude to all the researchers and their works for contributing to my PhD journey. And, I thank God again for all the experiences while pursuing the PhD.

ABSTRACT

Keywords: *Service encounters, customer participation, task-related affective well-being, customer knowledge, task complexity.*

The demand for self-service technologies is amplified with the fast pace life demanding customers to participate in the services extended to them as a part of co-creation. Hence, customers spent a significant amount of time participating in service offerings and interacting with service employees. The concept of customer participation is widely embraced by global business giants such as Procter and Gamble, Dell, Starbucks, and Cisco to drive the service plan. Hence, firms consider customer participation to be an essential tool in improving their productivity ever since the service practitioners and researchers have accepted the active role of customers as resource integrators in value co-creation. However, the response of customer acceptance of customer participation and how they willingly use it to contribute towards value co-creation seems less favourable for the firms with what they hope to achieve.

Further, customers' continuous use of an ever-widening array of services could affect practically every aspect of their lives as people, employees, families, and members of society. The study investigates the concept of affective well-being during and after the service experience under the auspices of transformative service research. Service being co-creation requires customer participation in the form of mandatory, replaceable, and voluntary participation, that places different levels of stress influencing affective well-being in the consumption process. However, there is limited research on how the different types of customer participation potentially affect the well-being of the customer, and subsequent formation of various service outcomes like perceived service quality, customer satisfaction, loyalty, and more. Also, there were limited studies that explain the impact of customer participation on the experience of the customer in any service encounter.

Factors specific to the customer, firm, context, and situation influence the participation of customers in any service encounter. Various constructs were reported in the literature to moderate the relationship between CP and service outcomes, namely the customer participation process, customer participation readiness, power distance, self-efficacy, individualism/ collectivism and financial risk. However, the role played by customer knowledge regarding the service encounter and the complexity of the task will be critical when a customer participates in any service consumption. Therefore, the study considers customer

knowledge and task complexity as moderators. The current research attempts to understand the mediating role of task-related affective well-being in the influence of customer participation on service outcomes and the differential impact of customer participation types. The study also considers the critical intervention of customer knowledge and task complexity.

The study was conducted on two settings, first, on passengers travelling through Indian domestic airlines on their check-in service encounter (n = 360) and second, shoppers of Australian supermarket on their checkout service encounter (n = 396). The study used a scenario-based experimental design. Measurement model with good fit suggested reliability and validity proceed with the analysis. Structural equation modelling and multivariate analysis of variance were used for hypotheses testing. Findings indicate the mediation role of task-related affective well-being with significant moderation effect of customer knowledge and task complexity. The results also suggest the differential influence of customer participation types on service outcomes and task-related affective well-being and the interaction effect of customer participation with the moderators on task-related affective well-being.

The study advances the extant literature and provides several managerial implications. By understanding the role of task-related affective well-being, the study contributes to the domain of transformative service research and extends the literature on customer participation and service outcomes. The study contributes to the various theories such as reactance theory, socio-technical systems theory, feelings as information theory, self-determination theory, and McColl-Kennedy's framework. The result could help service managers to have a better service design and adequate selection of participation type based on the customer knowledge and task complexity. Since the study highlights the central importance of task-related affective well-being in the services context and its influence on service outcomes, decision-makers need to be cognizant of the service conditions leading to improved/diminished well-being. The study helps to develop strategies that could improve the design of the service encounter and provide a conducive environment for customers to participate.

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LIST OF ABBREVIATIONS

AGFI	Adjusted Goodness of Fit Index
AIC	Akaike's Information Criterion
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
ASV	Average Shared Variance
AVE	Average Variance Extracted
BCC	Browne-Cudeck Criterion
BIC	Bayesian Information Criterion
CB-SEM	Covariance-based Structural Equation Modeling
CE	Customer Experience
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CK	Customer Knowledge
CMIN	Chi-Squared Value
CP	Customer Participation
CR	Composite Reliability
df	Degree of Freedom
ECVI	Expected Cross Validation Index
EFA	Exploratory Factor Analysis
EFA	Exploratory Factor Analysis
FIT	Feelings-as-Information Theory
GDP	Gross Domestic Product
GFI	Goodness of Fit Index
HR	Human Resource
IFI	Incremental Fit Index
M	Mandatory Customer Participation
MANCOVA	Multivariate Analysis of Covariance
MANOVA	Multivariate Analysis of Variance
MaxR(H)	Maximum Reliability
MSV	Maximum Shared Variance
n	Sample Size
NCO	National Level Cultural Orientation

NCP	Non-Centrality Parameter
NFI	Normed Fit Index
NNFI	Non-Normed Fit Index
OB	Organization Behavior
PCFI	Parsimony Comparative Fit Index
PCLOSE	Probability of Close Fit
PGFI	Parsimony Goodness of Fit Index
PLS-SEM	Partial Least Square based Structural Equation Modeling
PNFI	Parsimony Normed Fit Index
PRATIO	Parsimony Ratio
PSQ	Perceived Service Quality
PV	Perceived Value
R	Replaceable Customer Participation
RFI	Relative Fit Index
RMSEA	Root Mean Square Error Approximation
RO	Research Objective
SAT	Customer Satisfaction
SD	Standard Deviation
SDT	Self-Determination Theory
SE	Standard Error
SEM	Structural Equation Modelling
SME	Small and Medium Enterprise
SPSS	Statistical Package for Social Science
SRMR	Standardized Root Mean Square Residual
SST	Self-Service Technology
STS	Socio-Technical Systems
TC	Task Complexity
TLI	Tucker-Lewis Index
TrAWB	Task-related Affective Well-Being
TSR	Transformative Service Research
V	Voluntary Customer Participation
VIF	Variance Inflation Factor
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

"Creating a strong business and building a better world are not conflicting goals – they are both essential ingredients for long-term success."

- Bill Ford

This chapter gives an overview of services and its importance, the importance of customer participation in service creation, and service consumption during service encounters with self-service technologies. The chapter narrates on various service encounters, details on self-service technologies and its evolution, and consumer behaviour in self-service technologies. It also explains the motivation and scope of the study, presents the statement of the problem and finally put forth the research objectives. Figure 1.1 shows the chapter structure.

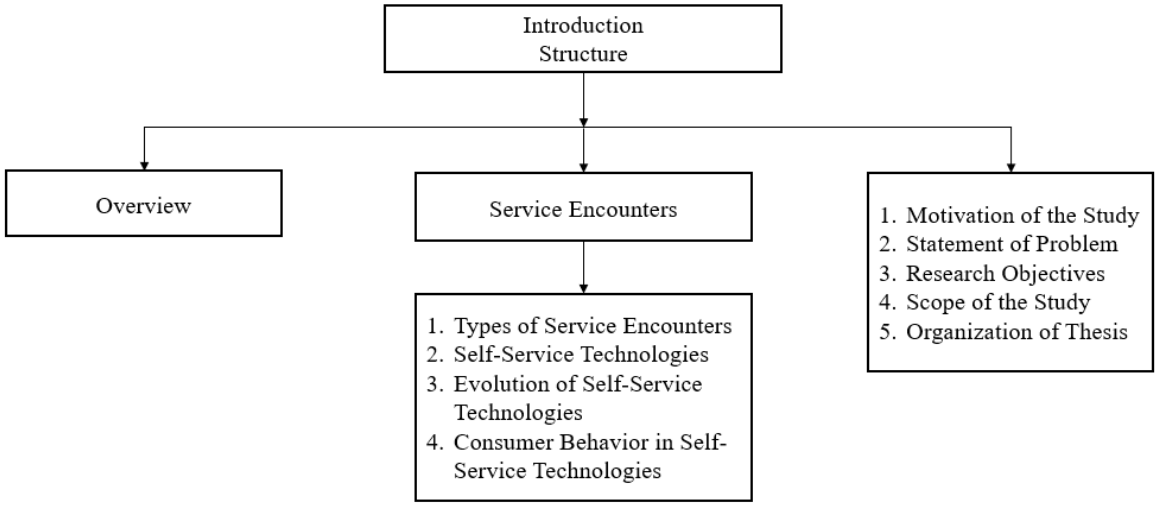
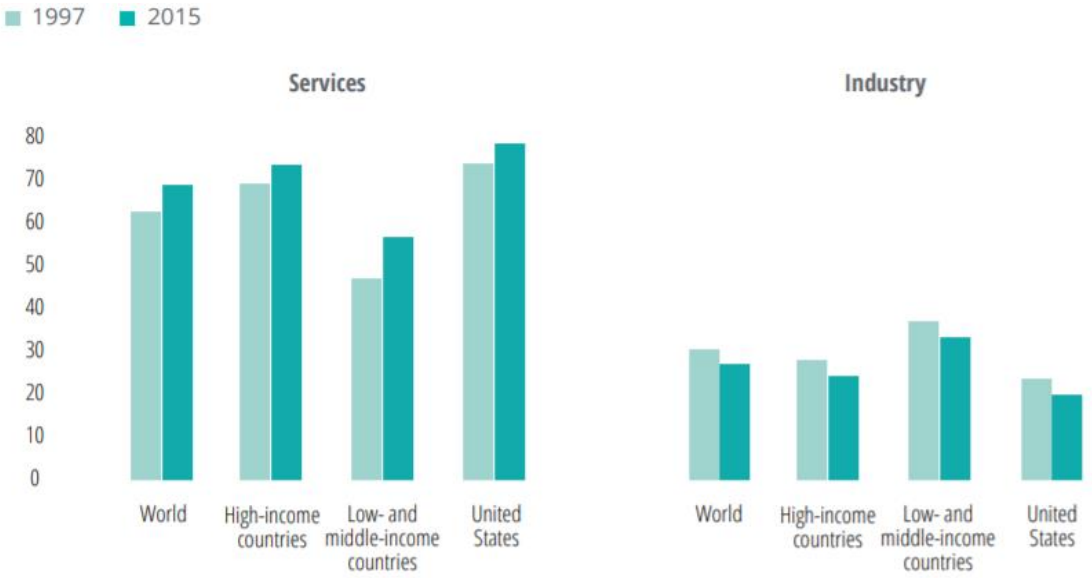


Figure 1.1 Chapter Structure

1.1 OVERVIEW

Services make up the bulk of today's economy, thus contributing to the majority of gross domestic product (GDP) in the world. Services are activities, benefits and satisfaction which are offered for sale or provided in connection with the sale of goods. The relationship between services growth and the world economic growth has become robust in the past two decades. Currently, 65% of the total global wealth comes from the service sector, and even for growing economies, service sector represents 50% of the GDP (The World Bank Data, 2018). In 2015, the value-added services accounted for 74% from 69% of GDP in high-income countries, and the United States showed a higher increase compared to the other high-income countries. The

low- and middle-income countries found a higher increase where the values jumped from 48% in 1997 to 57% in 2015 (see Figure 1.2). The increase in services led to a substantial decrease in the agricultural and industrial contribution to GDP (World Bank Data, 2018).



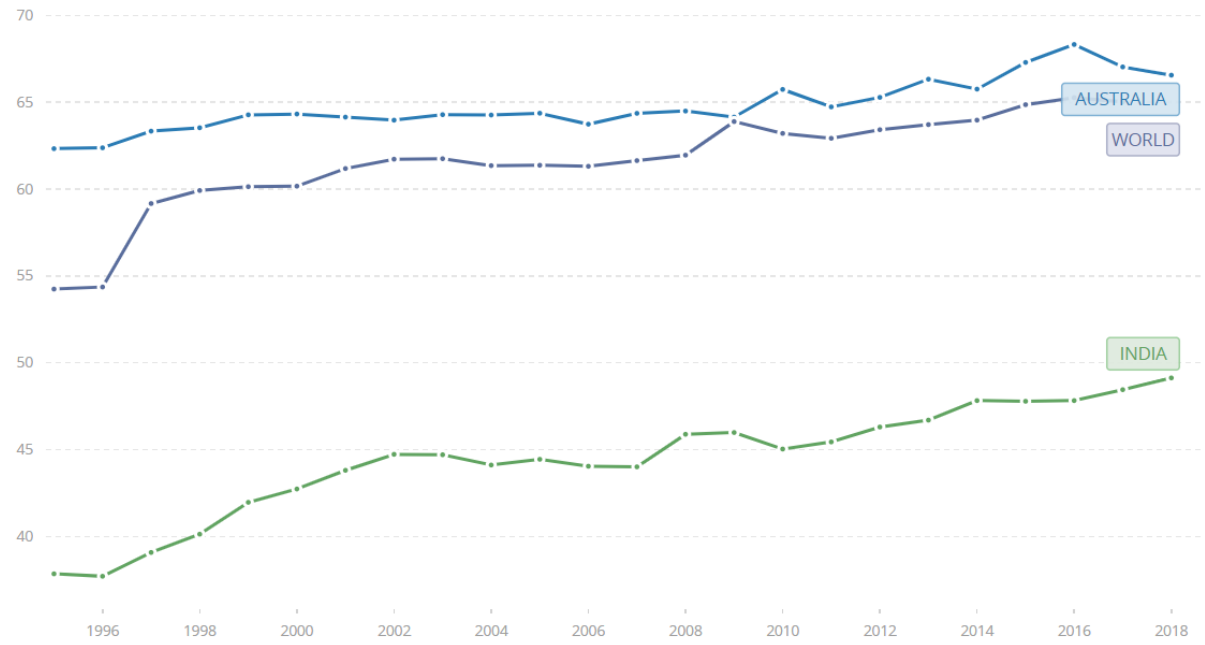
Note: The World Bank's definition of "industry" includes sectors such as mining, manufacturing, construction, electricity, water and gas.

Figure 1.2 Service and Industry Share of GDP

The current study includes services from India and Australia. The services sector in India is the dominant sector in India's GDP; it has also attracted significant foreign investment flows, contributed significantly to exports as well as provided large-scale employment. India's services sector covers a wide variety of activities such as trade, hotel and restaurants, transport, storage and communication, financing, insurance, real estate services, business services, community, social and personal services, and services associated with construction (IBEF, 2019). As of 2018, 31.45 per cent of India's employed population is working in the services sector (IBEF, 2019). Considering Australia, the service sector makes up the most significant part of the economy. Services represent above 65% of the GDP and employ four out of every five Australians. Australia is a world-class provider of a range of services, such as professional services, education and tourism, financial services, energy and mining-related services, environmental services and financial technology (FinTech). These are Australia's priority sectors for improving market access in global services trade reform efforts (dfat.gov.au). Figure 1.3 presents the percentage of GDP of the World, India, and Australia.

Encouraging customer participation for creating value to the customer is a key challenge faced by service providers because the customer needs to expend their energies for service co-creation. Despite this, service providers encourage customer participation, since it contributes

to overall productivity and can create positive outcomes for the firm as well as customers. Both researchers and service practitioners can reflect customer participation by accepting and recognising the active role of customers as resource integrators in value co-creation (Arnould, 2008; Vargo and Lusch 2008).



Note: x-axis represents the percentage of GDP, y-axis represent years

Figure 1.3 Percentage of GDP – World, India, and Australia

Dabholkar (1990) and Chan et al. (2010) conceptualised customer participation as the degree to which customers are involved in the production and delivery of the service by providing information, sharing information, making suggestions and other resources. Typically, the concept of customer participation was widely embraced by global business giants such as Procter and Gamble, Dell, Starbucks, and Cisco to drive their service agendas (Ramaswamy and Gouillart, 2010) suggesting its universality as part of the service offering. With the advent of technology in service delivery, many new options to ensure customer participation in service production through automated servicescape has evolved. Hence, it was the key theme for introducing self-service technologies (SST) and desire of the firms to make customer adopt such self-service options.

Many service organisations view the idea of SST as a win-win proposition. Self-service technologies were defined as "technological interfaces that enable customers to produce a service independent of direct service employee involvement" (Meuter et al. 2000). Services now adopt various self-service options that are vending machines, automatic teller machines,

information kiosks, self-checkouts and self-check-ins, telephone banking, mobile apps, websites, internet transactions, and other self-service technologies to streamline transaction processes by giving more control over the service process to the customers (Kimes and Collier, 2015; Meuter et al. 2005). However, customers' willingness to contribute to value co-creation seems less favourable for the firms with what they hope to achieve by actively engaging the customer in the process (Chan *et al.*, 2010). Managers assume that a new self-service medium can create excitement and provide customers with more options to exercise their freedom service encounter. Still, in many instances, firms fail to understand the expectation of customers about a self-service (Kimes and Collier, 2015) to affect customer adoption tendencies adversely. One reason may be an inadequate type of participation option for the customer suiting to the characteristics of the given service context that adversely affect the desired service outcomes to cause co-creation process a complex one that needs much richer understanding. Differently put, service firms may not fully appreciate the potential impact that various forms of participation may have upon the customers' perception of the quality, value and service experience. Not aware of this distinction makes customer participation a relatively 'blunt instrument' in creating value, and hence, a much closer examination of its effects in the service relationship is warranted. Therefore, the current study attempts to examine the influence of customer participation in bringing a better outcome and include those additional concepts that could affect the experience in a service encounter. This attempt would contribute to developing customer participation models that provide better customer service and expertise that transforms service organisation into a more profitable one.

1.2 SERVICE ENCOUNTERS

The term "service encounter" is widely used by scholars in the marketing field. Service encounters consider the role performances of both the customer and the service provider (Solomon et al., 1985). Surprenant and Solomon (1987) defined service encounter as "the dyadic interaction between customer and service provider". Even though this way of representation of service encounter focusses on the interaction of service provider with the customer that forms the interpersonal element of the encounter, Shostack (1985) defines the encounter from a broader perspective. Shostack (1985) describes service encounter to be an interaction of the customer directly with the service, that may include the service employee, physical facilities of the service provider, and other visible elements thus not limiting the encounter to the interpersonal interactions but also suggest the possibility of a non-human interaction. Hence, the service encounters occur in the nexus of the customer and various

technologies provided by the service organisations, such as web information, emails, kiosks, and call centres. (Bitner et al., 2000).

1.2.1 Different Types of Service Encounters

Literature classifies service encounters in numerous ways. First, based on the intensity of contact with the facilities or service personnel, service encounters were classified into the high-service encounter and low-service encounter (Lockwood, 1994; Gronroos, 1990). High-service encounter occurs when the contact of the customers with the service personnel is frequent, and low-service encounter occurs when the limited contact exists between the customers and the service personnel. A decreased contact with service personnel would make customers have higher involvement with the facilities at servicescape during the service encounter. Examples of high-contact service encounters include hotel industries, tourism industries, insurance industries, and examples for low-contact service encounters include internet banks, couriers etc. However, it was also noticeable that numerous industries falling under high-contact service encounters transact using tech-driven facilities such as online portals for buying a television or other appliances instead of buying at a physical outlet.

Second, based on the ways of interaction at service delivery, service encounters were classified into direct personal encounters, indirect personal encounters, and remote encounters (Gabbott and Hogg, 1998; Shostack, 1985). Direct personal encounter occurs when the service personnel interacts with the customers face-to-face. Mostly these encounters are critical to both the parties. For example, when a software firm buys a personal computer, they will be having a direct personal encounter with the sales employees of the selling organisation. Indirect personal encounters used to be the most frequent encounter that occurs between the customer and the service personnel where the interaction occurs through some medium instead of the face-to-face contact. For instance, insurance companies, utilities, telecommunication, handling queries, and similar activities could be done through telephone. The third type of service encounter is the remote encounter which is more common and frequently used by the customers. This type of encounter has no direct or indirect human contact where the interaction can occur through internet-based services such as automatic teller machines, or the interaction could be through letters. However, in many instances, the customer completes a service consumption through multiple encounters, and therefore, customer journey may contain a combination of the above mentioned three encounters.

Third, based on the contact intensity between the service touchpoints and the customers, service encounters were classified into technology-based encounters and interpersonal-based encounters (van Dolen et al., 2004; Snellman and Vihtkari, 2003; Dolen and Ruyter,2002; Parasuraman and Zinkhan, 2002; Bitner et al., 1994; Bettencourt and Gwinner,1996; Crosby et al., 1990; Grove and Fisk, 1983). Many service organisations use the technology-based encounter with the advancement in technologies, and the interaction occurs between the customer and the technology (for example, the use of a vending machine to get a bottle of water or using a kiosk for self-checkouts). Interpersonal-based encounters are the ones where the customer and the service personnel interact for service co-creation (for example, meeting a physician for regular check-ups or getting hairstyling).

1.2.2 Self-Service Technologies

The demand of SSTs have been steeply gaining attention from the service organisations, and more focused attention of the academicians on research to address challenges in the usage of self-service technologies is visible now (Gelbrich and Sattler, 2014; Collier et al., 2014; Bitner et al., 2010; Forbes, 2008; Meuter et al., 2000). The role of self-service contributes towards customer co-creation since customers will be sharing the responsibilities of service production jointly with service employees, and hence application of technology for service delivery using self-service technologies increased. Service organisations invest in a wide range of SSTs such as online services, self-service kiosks, mobile services, interactive voice systems, etc. that helps customer participate and engage in the process of service co-creation (Wang et al., 2012; Lin and Hsieh, 2011; Bitner et al., 2010; Meuter et al., 2000). Conventionally, SSTs were limited to automatic teller machines, vending machines and self-service kiosks (Meuter et al., 2005; Meuter et al., 2000). They were still extending the application when there is an increase in the adoption of technology-based self-service and internet-enabled technology-based self-service.

Technology-based self-service focusses on the behaviour of the customer while interacting with a technology to serve oneself (Dabholkar, 1996). Hence, customers become partial employees of the service organisation by performing the task done by the service employee, thus participating in the service encounter. When the internet gets incorporated into these technologies, it helps to enhance the service capabilities, thus creating the second type of self-service termed as internet-enabled technology-based self-service (Yen, 2005). The participation in both the above self-service options was for purposes like gaining information, transaction process and a support tool for self-help. Informational self-service found use in

gathering information regarding a service or a product such as an interactive or scanning kiosk or mobile apps. Transactional self-service enables customers to transact using the technology provided, such as vending machines or endless aisle kiosks. Finally, supportive self-service enables the self -help capabilities using technology or internet-enabled technology such as self-checkouts and check-ins or smart mirrors.

Table 1.1 Technology-based self-service

Self-Service	Technology-based self-service	Interner enabled technology-based self-service
Informational	ATMs, kiosks, digital directories, interactive maps	Mobile apps, artificial intelligence
Transactional	ATMs, vending machines	Endless aisle kiosks, mobile apps
Supportive	Self-checkouts, check-ins	Smart mirrors

(Source: Braxton (2019), Yen (2005)

1.2.3 Evolution of Self-Service Technologies

Not long ago, the traditional shops pulled the merchandise from the shelves inside to give the customer what they needed. Nevertheless, things have completely changed from the way people shop, read books, order food, chat with friends, attend meetings and seminars, watch movies, hail a cab or book an air ticket. The modern customers are finding comforts in interacting with multiple digital devices, technology interfaces and a mix of online channels. With the recent advancements in artificial intelligence and cloud technology, service organisations create customer experience through the installed automated systems and a well-equipped and technology-driven servicescape drive the evolution of customer self-service. An organisation that incorporated digital transformation utilises the cloud contact centre as a service that could give an interactive response. The response could be a voice message over the telephone, instantly switching between the social media's automated responses, develop and automate chatbots to provide appropriate answers to all the queries or advertise and shows preferences based on the previous searches.

The entire concept of self-service technology came into existence with the introduction of first commercial vending machines for the postcard in the 1880s in London and later it was introduced at New York in 1888 for selling gums where people could purchase without any human interaction. Also, the catalogues got introduced in the 1880s where customers can use it for gaining information about the products and shop leisurely. Progressively, the

introduction of the gas pump station occurred in 1905, and the growth of self-service gas stations was expanding to every state. In 1939 world fair at New York allowed people to try varieties of food which was later adopted by Vegas to give customers the option to choose the variety and quantity of food they required. The second phase in evolution was with the introduction of self-checkouts in supermarkets by 1992, allowing the customer to buy the groceries and bill it themselves and exit the supermarket without being in the queue for long. The emergence of online shopping sites such as Amazon and eBay occurred by 1994-95 that allows customers to purchase everything they want virtually, without even stepping out from their home. Then came the variety of kiosk, which helps in gaining information or transaction. Finally, with the internet-enabled technologies and fast pace growth of artificial intelligence and chatbots, the self-service became a necessity in the future.

1.2.4 Consumer Behaviour in Self-Service Technologies

Self-service technologies have both positive and negative influences on customers. It enabled customer's active participation in service co-creation, besides carried out the role of the service employee to be considered as a partial employee (Dong and Sivakumar, 2017) thus feeling control over the service and being in charge of their satisfaction (Demoulin, 2016; Lawlor, 2006; Dabholkar et al., 2003; Berry and Lampo, 2000; Bitner et al., 2000). Customers were comfortable with accessibility, flexibility, and speedier service delivery (Schumann et al., 2012; Meuter et al., 2003). Studies have reported that self-services by providing a service encounter to serve oneself leaves the customer feeling independence and enjoyment (Meuter et al., 2003; Dabholkar et al., 2003) in addition to the utilitarian benefits. Furthermore, customers admit gaining knowledge and efficacy in using the self-service technologies hence benefitting from service encounters (Jacob and Rettinger, 2011).

Despite all the positives, customers also perceive the self-service to be disadvantageous (Walker et al., 2002). Customers avoid interacting with self-service technologies as they do not perceive benefits by using it (Gerrard et al., 2006; Liljander et al., 2006). Similarly, customers' need for personal interaction cannot always be replaced (Kelly et al., 2013; Dabholkar et al., 2003; Walker et al., 2002; Lee and Allaway, 2002). Customers adopted the self-service technology when they were aware of their roles, able to perform the activities expected from them, and customers would be willing to take the effort (Liljander et al., 2006; Dabholkar et al., 2003; Bitner et al., 2002; Berry and Lampo, 2000). Besides, customers are unhappy with the higher levels of participation requirement and taking up more considerable responsibility as they are sceptic regarding the success of the service delivery (Gerrard et al.,

2006; Liljander et al., 2006; Meuter et al., 2003; Lee and Allaway, 2002). Literature also reports the role played by customers technology readiness (Lin and Chang, 2011) and technology anxiety (Meuter et al., 2003) or embarrassment (Forbes, 2008) in customers opting for self-service. The customer feels the lack of choice in selecting a service interface leading to anxiety (Liu, 2012; Reinders et al., 2008) and ill-being (Ajitha et al., 2019). Literature also mentions the importance of the employee presence during any service failure and customers thus avoid facing the self-service. Finally, customers avoid self-service due to the fear of risk, privacy, security, and financial threats (Zhu et al., 2013; McKnight et al., 2002).

1.3 MOTIVATION OF THE STUDY

Self-service was considered a top priority by many service organisation, and those who do not prioritise might jeopardise the future of business. According to statistics, 91% of the companies identify the internet-enabled technology focussed self-service as a relevant investment focus (Customer Contact Week Digital, 2018). Foreseeing the importance, 31% of the organisations already invested in technology like artificial intelligence to beat the future competition and 76% of the organisations were expanding and collaborating for investing in technology (Accenture, 2017). Reports suggest that 73% of the customers prefer to solve the issues of their product or service on their own, and 50% think it is essential to do it themselves (Bizreport, 2015). Customers expect service organisation to have the chatbots on their website to help customers and enable them to solve their issues. Hence, advancements in self-service technologies and its demand were increasing over the period, and the market registered a CAGR of 16.43% during the forecast period (Mordor Intelligence, 2019).

Figure 1.4 Self-Service Market: Regional Growth Rate

Figure 1.4 presented the regional growth rate presenting the fastest-growing market as the Asia Pacific and Oceania and predicted to grow further due to the increase in adoption of SSTs by large organisations and small and medium enterprises to spread their existence and increase the contributions towards services. Moreover, countries such as Japan, China, and India tends to boost the market growth rate with their growing consumer spending power.

Even with a progressive and promising future of self-service, both customers and service organisation did not have the right focus or clarity in taking advantage of self-service. "Most organisations realise the strategic impact of customer self-service on the overall customer experience but fall short in demonstrating benefits even after expensive investments" (Gartner, 2018, p. 11). Also, the service-dominant logic lens suggests a potential danger in the adoption of SSTs. Organisations embraced SSTs as an efficient mechanism to support and help customers by enabling them to co-create value. However, it has become a mere shifting of service production responsibilities to customers (Hilton et al., 2013).

In similar lines, reports also suggest that customers prefer self-service to be employee-led when faced with difficulties or service failures (Kimes and Collier, 2015). Thus it could be noticed that even though the technology is growing at a faster pace, SSTs became ubiquitous. The self-service market was expanding, service organisations invested in technologies, and customers expect to have self-service options in every service. The lack of clarity on the use of SSTs as a strategic tool for visible benefits takes away the profitability of all stakeholders. Hence, it became a priority to understand and explain the discrepancies present in the literature and reports.

1.4 STATEMENT OF PROBLEM

Customer participation (CP) was conceptualised as the degree to which customer takes effort in contributing to the production and delivery of the services by providing information, sharing information, making suggestions, and other resources (Dabholkar, 1990; Chan et al., 2010). Customer participation can occur through their interaction with service personnel or through a technological interface where the customer uses a self-service technology. Ideally, the service organisation attempted to design the servicescape to encourage customers to participate and have a better experience making the process profitable for the organisations as well, thus benefitting both the parties. However, theoretically, and practically, it appears that the service organisations are not receiving the anticipated outcomes for investing in the technologies due to the reluctance from customers to wholeheartedly accept, adopt and

appreciate such initiatives by actively in participating in a service encounter (Blut, 2019). Hence, research to understand the influence of customer participation on service outcomes in the context of self-service technologies need attention.

The literature on customer participation exposes many gaps in the knowledge domain. Prior research indicates that customer participation in services leads to a range of service outcomes such as customer satisfaction, perceived service quality, employee satisfaction, efficiency, loyalty, and productivity, among others (e.g. Gallan *et al.*, 2013; Ngo and O'Cass, 2013; Cheng and Xue, 2014; Amorim *et al.*, 2014; Dong *et al.*, 2015; Chen and Wang, 2016). Literature focused mainly on the impact of the construct concerning outcomes beneficial for the service providers that help the firm to improve its profitability. However, when customer participates in service encounters, the concern of the customer would be directly linked to their personal experiences with the service and the value perceived by them (Gap 1). Therefore, concerns of the customers need consideration in terms of how they influence outcomes, such as satisfaction, productivity, performance, loyalty, among others. Hence, building on the existing literature on various service outcomes that are relevant to the service provider, the current study focussed on additional service outcomes.

Since service consumption dominates the lives of customers today, other factors intrinsically linked to the service experience also play a potential role in helping to shape customer perceptions of the service offering. Typically, customers spent a significant amount of time participating in service offerings as well as interacting with service employees, so this ongoing experience is likely to influence their well-being (Rosenbaum et al., 2011). Thus, most service contexts that are directly related to (e.g. nursing, mental health counselling, physiotherapy) as well as not being connected explicitly to (e.g. banking, education, tourism) well-being potentially have a positive or negative impact on the well-being of the customer in ways not intended (or previously foreseen) by firms (Anderson et al., 2013) (Gap 2). Exploring this in more detail has been identified as a priority in the emerging domain of transformative service research, referred to generically as TSR (e.g. Anderson and Ostrom, 2015).

TSR focuses on the creation of elevating and inspiring changes for the improvement of the well-being of individuals (consumers and employees), families, communities, society, and ecosystem (Ostrom et al., 2010; Anderson et al., 2013). Well-being includes "physical health (objective and subjective perceptions), mental health (e.g., resilience, stress, and burnout), financial well-being, discrimination, marginalisation, literacy, inclusion, access, capacity building, and decreased disparity among others" (Anderson and Ostrom, 2015, p.243).

Given the centrality of service consumption (and growing customer participation) in everyday lives, the study developed a conceptual model that reveals how was customer well-being influenced by the nature of the tasks they are attempting to accomplish during the service encounter, and how this potentially affected various service outcomes. Although the research has attempted to conceptualise the domain of TSR by considering studies on well-being, no prior research has explained the central role of task-related affective well-being in the nexus between the different forms of participation on the service outcomes. With the above observations in mind, the current study depicts task-related affective well-being to play a mediating role between the various forms of customer participation and service outcomes.

CP involves the action of the customer, and this will vary based on the customer inputs quality (Chan et al., 2010; Mustak et al., 2013). Factors specific to the customer, firm, context, and situation influence the participation of customers in a service encounter (Dong et al., 2015). Literature reports various constructs moderating the relationship between CP and service outcome, namely the customer participation readiness (Dong et al., 2015), customer participation process (Dong and Sivakumar, 2015), power distance (Chan et al., 2010), self-efficacy (Chen, 2018), financial risk (Sheng and Zolfagharian, 2014), and individualism/ collectivism (Chan et al., 2010). However, when service encounter requires customer participation, the most critical factors involved in the participation are the knowledge of the customer regarding the activity/task needs to be carried out by the customer, and the complexity of the activity/task that the customer participates. Dabholkar (1990) mentions the importance of customer knowledge and task complexity in the service encounters that require customer participation, but the studies so far have not considered the same. Hence, in the current research, customer knowledge and task complexity are also hypothesised to moderate the link between CP and service outcomes, thus addressing an existing gap in the service literature (Gap 3). Specifically, this study examines the direct influence of moderators on task-related affective well-being and the moderated impact on the mediated path of customer participation - task-related affective well-being - service outcomes.

Firms consider customer participation as an essential tool to improve their productivity ever since the service practitioners and researchers have accepted the active role of customers as resource integrators in value co-creation (Vargo and Lusch, 2004; Arnould, 2008; Vargo and Lusch 2008, 2016). However, the response of customers towards customer participation and value co-creation seems less favourable for the service organisation compared to what they hope to achieve as the service employees were not satisfied with the participation of the

customers and hence the productivity and job satisfaction reduced impacting the overall performance of the service organisation (Chan et al., 2010). The reason could be due to the lack of clarity in the employee role and hence the service they provide and therefore, the type of customer participation involved in a service that dictates the distinct participation role of the customer in a service encounter could help improve the productivity and the performance. Hence, it is crucial to understand the various types of participation involved in service and the different role each dictates during a service encounter; differences that potentially influence how customers view the service offering (Gap 4).

While literature suggests the role of the customer varies based on the nature of participation, actors, service production, role behaviour, participation process, outcomes of participation, customer input, and level of participation, among others. Based on the specific nature of participation and the actor participating, Dong and Sivakumar (2017) identified three types of participation, namely mandatory customer participation, replaceable customer participation and voluntary customer participation. Conceptually the three typologies of customer participation vary in the amount of effort required from the customer for them to engage in and experience the service.

Mandatory participation refers to activities or resources that can only be performed or provided by customers and are essential for the service to be produced or delivered. Replaceable participation refers to customer activities or resources that can be performed or provided by customers or service providers but are still essential for the service to be produced or delivered. Voluntary participation refers to activities or resources that are not essential for service production or its delivery, and this is mostly performed at the discretion of customers to help improve their service experience. Hence, there was a need to understand the influence of each participation type in a service encounter and how these differences impact service outcomes, as well as intervening variables that could potentially influence the inter-relationship between the participation types and these service outcomes. Accordingly, this study attempts to explore and explain the differential impact of each form of participation on the potential range of service outcomes.

Also, the culture that frame mental programming based on the norms, values, and beliefs get transmitted throughout generations in society to facilitate the transaction and ease the tensions resulted in the formation of specific motivations, attitudes, and behavioural patterns (Au et al., 2018; Fehrenbacher et al., 2018; Keller et al., 2018, Hofstede, 1980). Hence, national-level cultural orientation could influence the way customers participate in a service encounter, and

the types of participation may be differentially affected based on the culture that lacks literature support (Gap 5). Hence, this study examines and understands the direct the role of national-level cultural orientation in the relationship between customer participation on task-related affective well-being and service outcomes and the interaction effect of customer participation with customer knowledge and task complexity on task-related affective well-being. Addressing the above gaps (see Chapter 2 for appropriate support of literature review) will help to understand ways to enhance customer participation and improve the adoption of self-service. Service organisations will be able to understand the reasons for their non-profitability and factors to focus on benefiting from investing in technologies such as artificial intelligence that could improve the service outcomes and benefit both customers and service organisations.

1.5 RESEARCH OBJECTIVES

To addresses the gap mentioned in the previous section, the study comes up with a conceptual model linking the significant variables identified in the research and addresses the following research objectives (RO).

RO1. To examine the influence of customer participation on various service outcomes (Gap 1)

RO2. To explore and examine the mediating role of task-related affecting well-being in the influence of customer participation on service outcomes (Gap 2)

RO3. To understand the direct influence of customer knowledge and task complexity on task-related affective well-being and the moderating role in the mediated path of customer participation - task-related affective well-being - service outcomes (Gap 3)

RO4. To identify the differential influence of customer participation on task-related affective well-being and the service outcome (Gap 4)

RO5. To explore the role of national-level cultural orientation in the influence of customer participation on task-related affective well-being and the service outcome; and its interaction with customer knowledge and task-complexity in the influence of customer participation on task-related affective well-being (Gap 5)

1.6 SCOPE OF THE STUDY

The thesis intends to target the primary objective of examining the interplay of customer participation and its effect on various service outcomes. In any service encounter, the activities in customer participation can influence the task-related affective well-being of the customers and identified to play an essential role in the nexus between customer participation and service outcomes. The study examines two moderating variables, customer knowledge, and task complexity, that could intervene in the relationships among the variable identified. Hence, this study majorly focused on behavioural variables rather than technology-related variables. The study was conducted in Indian domestic airline check-in, and Australian supermarket checkout settings as both the countries fall in the currently growing self-service market. The study was conducted on both emerging and emerged economy to understand the variations among them. Hence, this study could explore the national level of cultural orientation and its impact on the variables.

The study utilises a quasi-experimental design to conduct the studies. The thesis makes several contributions and implications to the academicians, practitioners, and society at large. Academic contributions were to the literature of various constructs studied, several theories, and transformative research domain. Practitioners implications were for managers of various service organisations, service and servicescape designers, among others. Societal implications were based on the well-being of the society and the importance of customer's well-being while participating in any service encounters. These form the scope of the current study.

1.7 ORGANISATION OF THESIS

This thesis comprises of eight chapters. The first chapter (this chapter) describes the importance of customer participation and service encounters, the emergence, and advancement of self-service technologies, the self-service market and the concerns faced by service organisations and customers to identify the research objectives of the study. The second chapter gave a broad overview of the literature on customer participation and presented the research gaps that lead to the objectives of the study. The third chapter narrates the conceptual and theoretical background of the research and introduces various topics such as well-being, task-related affective well-being, the domain of transformative service research, customer knowledge, task complexity and presents the conceptual model and presents various hypotheses proposed in the study.

The fourth chapter describes the research methodology, the research paradigm, the research process, the method used in the study. It details constructs and its operationalisation, a description of reliability and validity checks. The fifth, sixth and seventh chapters deal with the data analyses. The fifth chapter analyses the data collected from Indian domestic airline check-in setting and tests the related hypotheses. The sixth chapter repeats the same procedure in the Australian supermarket checkout setting. The seventh chapter does the comparative analyses among the two settings and tests the relevant hypotheses. The eighth chapter discusses the results based on the objectives of the study, and it presents the theoretical contribution, managerial and societal implications, limitations, and future research agendas. The chapter ends with a conclusion. Figure 1.5 shows the layout of the thesis.

Figure 1.5 Layout of Thesis

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

With the increasing adoption of self-service technologies for the majority of co-created service delivery puts the customer in the position to participate while in service encounter in some form or the other. The influence of service encounter on various service outcomes of customers was well researched over the period. However, with the introduction of SSTs, the face of service encounters was undergoing proliferation leading to a difference in the way the customers perceived various service outcomes such as service quality, satisfaction, etc. The possible explanation for the change was due to the partial extension of the work done by the employees to the customers making customers play the employee role during the encounter with self-service technology. Customers otherwise also participate in the co-created service delivery by providing information required by the service employees for successful service delivery. Hence, it becomes essential to explore and examine the role played by customer participation in service encounters.

This chapter elaborates on the relevant literature to develop a complete understanding of the existing literature relevant and related to the field of study. The review will help avoid overlooking variables that were existing in prior literature or identify the variables that may have an impact on the research topic. The process involved covering many research fields and areas of study that could contribute to a more comprehensive appreciation of the problem. The literature regarding customer participation and service outcomes were synthesised and analysed to help develop a conceptual model linking these important service constructs. The synthesis enabled us to categorise and present the existing literature to identify the relevant gaps. Several studies have focussed on the influence of customer participation on a range of service outcomes (e.g. Gallan et al., 2013; Ngo and O'Cass, 2013; Cheng and Xue, 2014; Amorim et al., 2014; Dong et al., 2015; Chen and Wang, 2016).

First, the chapter understands the literature on customer participation and the various antecedents and consequences of it. Next section presents a review on multiple intervening variables that act as mediators and moderators in customer participation literature. Finally, the chapter consolidates the various gaps present in the literature that gets addressed in the current study. Figure 2.1 presents the structure of the current chapter.

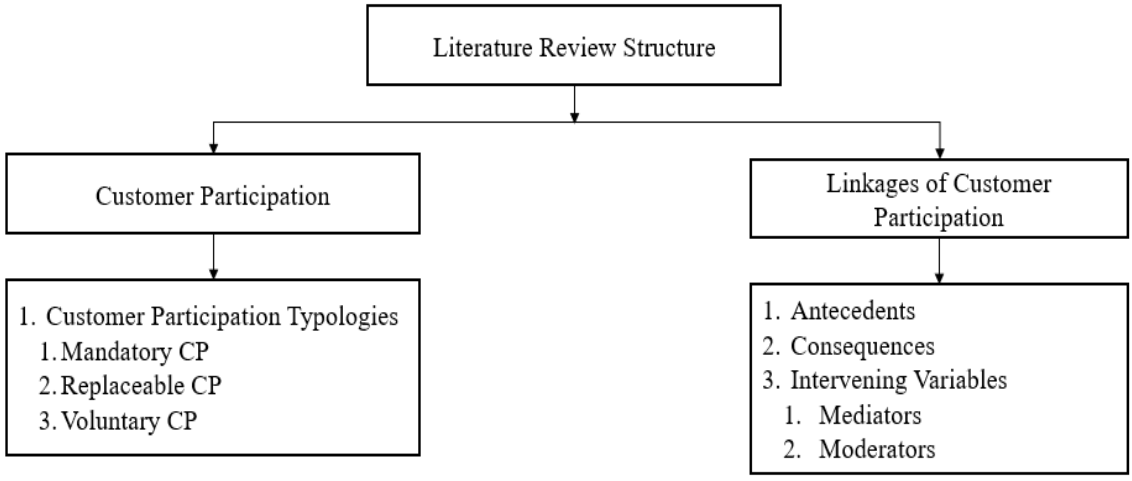


Figure 2.1 Chapter Structure

2.2 CUSTOMER PARTICIPATION

Customer participation (CP) was defined as "the degree to which the customer is involved in producing and delivering the service" (Dabholkar, 1990, p. 484). The concept is related to the active role played by the customer in any service encounter (Silpatik and Fisk, 1985). Thus, participation is the process in which customers take part in the encounter by providing information and knowledge, labour and task performance, and behaviours (Mustak et al., 2016). From the perspective of the service-dominant logic, customers contribute towards co-producing a service by participating proactively during the encounter (Chan et al., 2010). The term "customer participation" has been widely used over a long period in marketing and related disciplines (Mustak et al., 2016). However, terminologies such as customer involvement, co-production, and co-creation, for example, have been used interchangeably with customer participation in various literature, despite them being different from each other.

While customer participation captures the crux of customers' involvement in developing goods or services, the extent of such participation can be active (self-check-in at the airport) or passive (being present for the haircut) - which also includes situations without the complete involvement of the customer. In co-production, the customer collaborates with the firms to produce service, making collaboration and production the two critical elements (Vargo and Lusch, 2008). On the other hand, co-creation is on the basis of value creation, but the scope is much broader compared to co-production involving multiple actors contributing to the well-being of each other's (Vargo and Lusch, 2016). However, CP is conceptually distinct from these as it does not limit itself to joint production because it includes all forms of potential

service interactions the customer can have with the service organization (i.e., customer, joint, and firm production). Table 2.1 elaborates the chronological literature review.

2.2.1 Customer Participation Typologies

The participation can occur through physical labour, involvement or mental or emotional efforts (Silpakit and Fisk, 1985; Cermak et al., 1994; Rodie and Kleine, 2000; Chen, 2018). According to Ennew and Binks (1999), the CP comprises of three major dimensions – information sharing that helps to provide services that meet customer needs, responsible behaviour that fulfils the duties by cooperating with service providers, and personal interaction for building support, trust and commitment. There are other different ways to classify CP. According to Meuter and Bitner (1998), CP occurs in three types of service production – firm production where the participation of customer is zero, joint production where the firm and customers jointly participate through interactions, and customer production where full participation is by the customer. Further, based on the role of behaviour, CP is classified as in-role behaviour where the behaviour required to deliver the expected service outcome, and out-role behaviour explains their organizational citizenship behaviour which is discretionary (Zhao et al., 2018).

Dong and Sivakumar (2015) classified CP based on the participation process, outcome and tangibility of resources. Based on the participation process, CP is classified into structured participation and unstructured participation. Based on the outcome, CP is classified into generic outcome and specific outcome. Lastly, based on the tangibility of resources, CP is classified into tangible resources and intangible resources. Dong (2015) in her study on how CP matter based on the customer input identified two types of participation, CP producers where the customer is producing and CP designers where the customer designs the service. Besides, based on the spectrum of labour intensive and information-intensive services, Dong and Sivakumar (2017) classified CP as active and passive participation. Dong et al. (2015) studied the influence of customer participation on service outcomes (i.e., service quality and satisfaction) and categorized CP into low, medium and high levels, explaining the service responsibility of the customers from minimum followed by a medium to primary respectively.

Dong and Sivakumar (2017) considered all existing typology to comprise and consolidate into a new set of participation types. They proposed a typology for customer participation based on the nature of the tasks undertaken and who carries out the responsibility while in participation, whether it is the customer or the service provider. The typology is manifested

as mandatory participation, replaceable participation, and voluntary participation. Mandatory participation refers to those activities that are performed only by customers and are essential for the delivery of the service. Typically, a mandatory customer input includes people (e.g., the customer's presence at a dental clinic), objects (e.g., clothes for tailoring), information (e.g., providing information for tax preparation), and preferences (e.g., choosing a flight for travel). Replaceable participation refers to those essential activities that could be potentially performed by customers as well as service providers meaning the presence of substitutes (in terms of performance) are available to the customer when experiencing the service. The inputs required will be similar to mandatory, but there is a choice in the actor performing the task (e.g., grocery check-out done by an employee or self-checkout by the customer) and this choice is mostly at the discretion of the customer. In contrast, voluntary participation refers to activities that are either performed by the customers or the service providers but are not essential for the service delivery to occur, however, they do potentially help enhance the customer's overall service experience. The decision to incorporate particular service elements into the service offering, as well as for deciding who 'performs' the role is at the sole discretion of the customer. However, these two decisions do not detract from the overall service as they simply help to augment the offering (e.g., additional legroom during air travel).

Based on the customer participation typology by Dong and Sivakumar (2017), the existing literature was classified. Table 2.2 attempts to understand the literature on customer participation from the perspective of the typology suggested by Dong and Sivakumar (2017) where M represents mandatory participation, R for replaceable participation and V for voluntary participation. For instance, Cermak et al. (1994) studied the role of customer participation in service specification and delivery. The study attempted to conceptualize customer participation to include co-production in services, and focus on the customer participation type, replaceable participation that shows the extensive participation of the customer in specifying the requirements of service. The study presents a positive influence of replaceable customer participation on service quality, satisfaction and their future intention to participate in the service provided. The delineation of participation types in previous literature suggests that previous studies considered one or more of the types of customer participation and the mix of two or three types of participation. Despite this evidence, hardly any research attempts to understand the differences in the influence of the three participation types on the service process and its outcomes. Hence, there is a need to explore and understand the differential influence of customer participation types on various service outcomes.

Table 2.1 A Chronological Review of Literature on Customer Participation

Author(s)	**Focus**	**Nature of Study**	**Finding and Conclusions**
Lovelock and Young (1979)	Consequences of CP in the production of services	Conceptual	Customers can be a source of productivity gains.
Mills and Moberg (1982)	Need for organizational technology to manage the services sector as opposed to the goods	Conceptual	Suggests that one key difference between the two sectors is the customer's role in the production process. Customer contributions to services were explained as information and efforts.
Mills, Chase, and Marguiles, 1983	Managing the customer as a partial employee to increase system productivity	Conceptual	Suggests that greater customer involvement in the production process can be a source of productivity gains. Customer inputs need monitoring.
Bateson, 1985	Understanding the motivations of the self-service consumer	Empirical	Examines the difference between customers who are happy to be served and customer who would prefer to do it themselves and found that customers prefer self-service without incentives.
Fitzsimmons, 1985	The consequences of CP on productivity in the service sector	Conceptual	Suggest that CP by replacing provider labour by customer labour and the use of technology in personal interaction increase the service sector productivity.
Mills and Morris, 1986	Customers as partial employees	Conceptual	Customers act as a partial employee by sharing production activities in a service setting.
Goodwin, 1988	Training the customers in contributing to service quality	Conceptual	Suggests the willingness and commitment from the customers be trained by the providers or other customers for contributing to the service.
Czepiel, 1990	Nature of service encounter and future directions	Conceptual	Suggests that CP and satisfaction with participation in the production process may influence customer satisfaction.
Bowen, 1990	Taxonomy of services based on CP	Empirical	Customers can be segmented based on their willingness to participate in the creation of services.

Author(s)	Focus	Nature of Study	Finding and Conclusions
Bowers, Martin, and Luker, 1990	Treating employees like customers and customers like employees	Conceptual	Suggests that treating employees as a customer through internal marketing and customers as employees through training to participate increases overall system productivity.
Kelly, Donnelly, and Skinner, 1990	Managing customer roles when customer participates in service production and delivery	Conceptual	Suggests the role of customer as partial employees in service consumption and proposes the influence of CP on quality, productivity, employee performance, and employee responses.
Dabholkar, 1990	Using CP to enhance service quality perception	Conceptual	Suggest that CP may influence the opinion of the waiting time and thus affect perceived quality.
Fodness, Pitegoff, and Sautter, 1993	The downside of CP	Conceptual	Suggests the possibility of customers turning into competitors as they are trained to do service themselves.
Firat and Venkatesh, 1993	Argues for the reversal of roles of consumption and production	Conceptual	Discussed the reversal of consumption and production as customers take active roles.
Song and Adams, 1993	Using CP in production and delivery as opportunities for differentiation	Conceptual	CP must not be seen from the perspective of cost minimization but should be considered as an opportunity for the firms to differentiate market offerings.
Cermak, File, and Prince, 1994	Distinguishing participation versus involvement effects	Empirical	Attempts to differentiate between involvement and participation, but suggests that participation is confused with levels of involvement
Firat and Venkatesh, 1995	Distinguishes between customers perspectives of modernism and postmodernism	Conceptual	Modernist perspective argues about privileging production over consumption whereas postmodernism makes us understand the more significant consumer role in both production and consumption
Firat, Dholakia, and Venkatesh, 1995	Presents a postmodern perspective of the customer as customizer and producer	Conceptual	Customers have become customizers who market the offerings of the organization that are processes rather than finished products. There is a need to conceptualize the customers who coproduce as producers.
Hult and Lukas, 1995	CP in health care	Conceptual	Suggests the importance of CP and the complexity of the task in health care.

Author(s)	Focus	Nature of Study	Finding and Conclusions
Lengnick-Hall, 1996	Contribution of the customer to quality	Conceptual	Customers' role as resources, coproducers, buyers, users, and product influence quality.
Jo Bitner, Faranda, Hubbert, and Zeithaml,1997	Role of the customer in creating quality and productivity in service experiences	Empirical	Cp is seen as a production resource. The different levels of CP were found to contribute to service experience by enhancing service quality, satisfaction and value.
Deborah, Youngdahl, and Bowen, 1997	Relationship between CP and satisfaction	Empirical	Value perspective was used to explore the influence of CP in service experiences. Suggests treating CP as a variable in value creation
Van Raaij and Pruyn, 1998	Customer control and its impacts on judgements of service validity and reliability	Conceptual	Suggests that customer may perceive control in input, throughput and output stage of the service relationship. As control increases, feelings of responsibility and satisfaction increases.
Ennew and Binks, 1999	Issues of participation service relationships	Empirical	Participative behaviour was found useful and creates potential benefits in service relationships.
Prahalad and Ramaswamy, 2000	Co-opting customer competence	Conceptual	Customer role is changing from a passive audience to active co-creators. Companies can achieve a competitive advantage by leveraging customer competence.
Wind and Rangaswamy, 2000	Customization: The next revolution in mass customization	Conceptual	Customers are becoming active participants in product development, purchase and consumption. Customization is the key to value.
Bendapudi and Leone, 2003	Psychological implications of CP in co-production	Empirical	Presents the psychological impact of CP in production. Evidence suggests the importance of choice to participate in reducing self-service bias.
Halbesleben and Buckley, 2004	Role of customers in service-based organizations	Conceptual	Suggests that customers acting as human resources can provide maximum benefit to customers and organization.

Author(s)	Focus	Nature of Study	Finding and Conclusions
Auh, Bell, McLeod, and Shih, 2007	Role of coproduction and its impact on customer loyalty	Empirical	Coproduction may have an essential part in the basis for competition. Coproduction influences attitudinal loyalty but not behavioural loyalty.
Dong, Evans, and Zou, 2008	CP in service recovery and its influence on future cocreation	Empirical	Suggests that CP in the service recovery process is more likely to report higher levels of role clarity, the perceived value of future co-creation, satisfaction with service recovery and intention to cocreate in future.
Bolton and Saxena-Iyer, 2009	Conceptualization of interactive services	Conceptual	Suggests that the nature of CP is critically essential for the effective creation and delivery of interactive services.
Chan, Yim, and Lam, 2010	The desirability of CP as a potential source of value creation and satisfaction	Empirical	Promoting CP was found to be a double-edged sword. CP enhances customers economic value and strengthens the relational bond between customers and employees. However, it also increases employee job stress and hampers job satisfaction.
Yim, Chan, and Lam, 2012	Role of enjoyment in customer participation	Empirical	Self-efficacy positively moderates CP's influence on enjoyment. Synergetic effect of self-efficacy and other-efficacy on participation enjoyment also differs for customers and employees.
Mustak, Jaakkola, and Halinen, 2013	Conceptualization and value outcome of CP	Conceptual	Identified value outcomes attainable for customers and providers through CP.
Olsen and Mai, 2013	Role of convenience-orientation and knowledge on CP behaviour	Empirical	Convenience-orientation reduces involvement and time spent on CP activities, whereas knowledge is useful for CP.
Cheng and Xue, 2014	Importance of corporate image in CP	Empirical	Corporate image influence CP and service quality and CP was found to mediate the relation between corporate image and service quality.
Sheng and Zolfagharian, 2014	Role of CP in using recommendation agents	Empirical	CP increases enjoyment and decreases perceived ease of use which was aggravated when the purchase was risky. Suggests the dual effect of CP.

Author(s)	Focus	Nature of Study	Finding and Conclusions
Heidenreich, Wittkowski, Handrich, and Falk, 2015	Exploring the dark side of customer cocreation	Empirical	Flawed cocreation promotes internal failure attribution, which in turn enhances perceived guilt negatively influencing the satisfaction of the customers. Customer satisfaction can be restored by offering co-created service recovery.
Flores and Vasquez-Parraga, 2015	Understand the impact of choice on value creation and satisfaction	Empirical	Co-production as an option of service rendering has a more substantial positive impact on value creation than when the context when co-production was mandatory.
Dong and Sivakumar, 2015	Classification of CP in services	Conceptual	Suggests the moderating role of various classifications of CP such as service outputs and CP process.
Engstrom and Elg, 2015	The motivation of the patient to participate in service development	Empirical	Motives were found to be non-interest in participation, restitution after poor treatment, the desire of contact with others, volunteerism, desire to contribute and enjoyment of having a task to complete.
Dong, 2015	Distinguishing between CP as producers versus CP as designers	Conceptual	CP as a designer creates higher value and more preferred participation choice than CP as a producer. The differential influence of CP designer over CP producer weakens with CP as producer expectation and strengthen with CP as designer expectation.
Dong, Sivakumar, Evans, and Zou, 2015	Role of CP readiness in CP – outcome link	Empirical	CP readiness enhances the influence of CP on outcomes; however, with a decrease in CP readiness, the effect of CP on outcomes tapers off or become negative, suggesting CP as a double-edged sword.
Chen and Wang, 2016	CP in self-service technology and its influence in value creation and customer loyalty	Empirical	CP in the online check-in system influence the three values – enjoyment value, economic value, and relational value which further enhances the system and company satisfaction increasing customer loyalty.
Mustak, Jaakkola, Halinen, and Kaartemo, 2016	CP management in service production and delivery	Conceptual	CP management was addressed from the perspectives of human resource management, operations management, and marketing management

Author(s)	Focus	Nature of Study	Finding and Conclusions
Ahn and Rho, 2016	Influence of customer-firm relationship on CP	Empirical	CP behaviour enhances interaction increasing the relationship value and emotional commitment and increases with proneness to relate.
Dong and Sivakumar, 2017	Typology of customer participation in services	Conceptual	Suggests the typology classify CP as mandatory CP, replaceable CP and voluntary CP based on the nature of the task and the actor.
Zhao, Yan and Keh, 2018	Frontline employees' in-role and extra-role behaviour in CP	Empirical	Employees extra-role behaviour has a more substantial impact on CP compared to in-role behaviour and its mediated through emotions.
Balaji, Jha, Sengupta, and Krishnan, 2018	Role of consumer cynicism and CP in service recovery	Empirical	CP in the recovery process is enhancing customer satisfaction for cynical customers. Enhanced ownership in recovery process leads the cynical consumer to perceive joint recovery to be more transparent.
Chen, 2018	Influence of CP on service failure attribution	Empirical	Customers high self-efficacy attribute more responsibility to the firm for a service failure as their participation in service increases.
Auh, Menguc, Katsikeas, Jung, 2019	Role of customer empowerment in enhancing the benefits of CP for customer and firm	Empirical	Customer empowerment and satisfaction fully mediate the influence of CP on performance.
Blinda, Schnittka, Sattler, and Grave, 2019	Implementing effective CP for hedonic and utilitarian services	Empirical	Experience-oriented characteristics work better for hedonic than utilitarian service and a stronger positive effect of outcome-oriented characteristics for utilitarian.
Menguc, Auh and Wang, 2019	Influence of CP variation on service performance	Empirical	Suggests the negative influence of CP variation on service performance due to customer burnout.
Blut, Heirati, and Schoefer, 2019	Adverse effect of CP on customer in service co-development	Empirical	Greater CP leads to heightened role stress, including role conflict, role overload, and role ambiguity. Furthermore, role stress effects vary across service co-development types depending on the scope of the task and the beneficiary of participation.

CP = Customer Participation (Source: Consolidated for study)

Table 2.2 Comparison of Customer Participation Conceptualizations and its Relation to Other Constructs

Authors	**Research Focus**	**Approach**	**Components of CP Examined**	**Relation of CP to other constructs**
Cermak et al. (1994)	Role of CP in service specification and delivery	Conceptualized CP to include co-production in services	Focused on R (e.g., the customer takes part extensively in specifying the requirements)	Positively influences service quality, satisfaction, and future intentions
Lengnick-Hall (1996)	Roles played by the customer in creating quality	Conceptualized CP to include coproduction	Focused on R (e.g., the firm allows coproduction)	CP positively influence the quality of the production process and outcomes
Kellogg et al. (1997)	Influence of CP on their satisfaction	Conceptualized CP as discretionary actions by customers	Focused on V (e.g., customers collect information to prepare for the encounter)	CP positively relates to satisfactory service outcomes
Bitner et al. (1997)	Roles of customers in producing quality in service experience	Classified services based on levels of CP into low CP, medium CP, high CP	Focused on M and R but not V (e.g., voluntary behaviours to improve transactions is not considered)	CP positively influences satisfaction with the service (both outcome and provider) that enhances the service experience.
Ennew and Binks (1999)	Influence of CP on quality, satisfaction, and retention	Conceptualized CP as a joint production between customers and employees	Focused on R (e.g., share information, closer personal contacts)	CP is insignificant towards service quality, satisfaction, and customer retention however employee participation was viewed positively
Bendapudi and Leone (2003)	Psychological implication of CP in coproduction	Conceptualized CP as participation and non-participation	Focused on R (e.g., customer can choose to coproduce or not to coproduce)	Satisfaction with the firm varies based on CP and choice to participate will enhance the satisfaction
Halbesleben and Buckley (2004)	The role played by customers as human resources	Conceptualized that customer replaces or partners employee	Focused on R (e.g., ATMs, self-service gas station, consulting, healthcare)	CP proposed to influence productivity, efficiency, performance, and satisfaction

Bolton and Saxena-Iyer (2009)	Role of CP on effective creation and delivery of interactive services	Conceptualized CP to include coproduction (in-role) and cocreation (extra-role)	Focused on mixed M, R, and V on interactive service only (e.g., online games, online banking)	Explains customer behavioural outcomes like referrals, word of mouth, community interactions and firm outcomes like profit
Chan et al. (2010)	Role of CP in value creation and its influence on service outcomes	Conceptualized CP to different levels (low and high)	Focused on M and R but not V (e.g., voluntary behaviours to improve value creation is not considered)	CP enhances customer satisfaction and hampers job satisfaction of the employee
Mustak et al. (2013)	Summarizes the conceptualization and outcomes of CP	Reviewed evolution of CP (productive labour, various customer roles)	Included M, R, and V without differentiation (e.g., partial employee, quality evaluator, information exchange)	Summarized the positive and negative value outcomes for the sellers and customers
Sheng and Zolfagharian (2014)	Role of CP while using online product recommendation agents	Conceptualized that employee supports customers in information search	Focused on R (e.g., screen product alternatives to provide the best recommendations)	CP influences behavioural intentions
Dong (2015)	Role of CP in producing versus designing	Conceptualized CP as in-role behaviour	Focused on R by contributing to physical labour or sharing information (e.g., assembling the frame, designing frame)	CP influences value co-creation and choice of participation based on CP producing versus designing
Dong and Sivakumar (2015)	Propose a classification of CP in services	Conceptualized CP as employee in-role behaviour	Focused on R (e.g., customer or firm can design shoes to be purchased by customer)	Proposes the influence of CP on service outcomes such as satisfaction and efficiency
Dong et al. (2015)	Role of customer participation on service outcomes moderated by participation readiness	Classified services based on levels of CP into low CP, medium CP, high CP	Focused on M and R but not V (e.g., voluntary behaviours to improve the experience is not considered)	CP positively influence perceived service quality and satisfaction

Flores and Vasquez-Parraga (2015)	Role of choice to participate in value co-creation and satisfaction	Classified CP as in-role with choice and no choice	Focused on M and R but not V (e.g., no choice makes it M and choice makes it R)	R had a strong positive relation towards satisfaction mediated through relational and economic value compared to M
Chen and Wang (2016)	Role of CP in value co-creation and customer loyalty	Conceptualized CP in the context of self-service technologies	Focused on M (e.g., self-check-in kiosk, online check-in system)	M positively relates to enjoyment, economic and relational values, which further leads to satisfaction towards system and company
Mustak et al. (2016)	Propose a framework on constituents of CP management	Conceptualized CP inputs as labour and task, information and knowledge, behaviour	Focused mostly on M and R but not V (e.g., labour and task specify on in-role participation)	Summarized the positive and negative value outcomes for the sellers and customers
Ranjan and Read (2016)	Examines cocreation and influence on satisfaction	Conceptualized cocreation into co-production and value in use	Focused on mixed M, R, and V (e.g., knowledge sharing, interaction)	Cocreation positively relates to satisfaction
Dong and Sivakumar (2017)	Proposes a typology to increase conceptual clarity	Classifies CP into M, R, and V based on the criticality of service provision and entity involved in the provision	Focusses on M, R, and V and distinguishes the three from one another	No proposed outcomes
Chen (2018)	Role of CP in service failure attribution	Classifies CP as low and high	Focused mostly on M and R but not V (e.g., task intensive in-role participation)	Customers with high self-efficacy attribute service failure when CP was high

CP = Customer Participation, M = Mandatory CP, R = Replaceable CP, V = Voluntary CP

(Source: Ajitha et al., 2019)

2.3 LITERATURE ON CUSTOMER PARTICIPATION

Recent research indicates several variables connected with customer participation. They comprise of antecedents, consequences and intervening variables. The relationships are consolidated and presented in Figure 2.2. Details of every variable depicted in the figure will be presented in the following paragraphs under the subheadings – antecedents, consequences and intervening variables. The intervening variables will comprise of mediating variables and moderating variables.

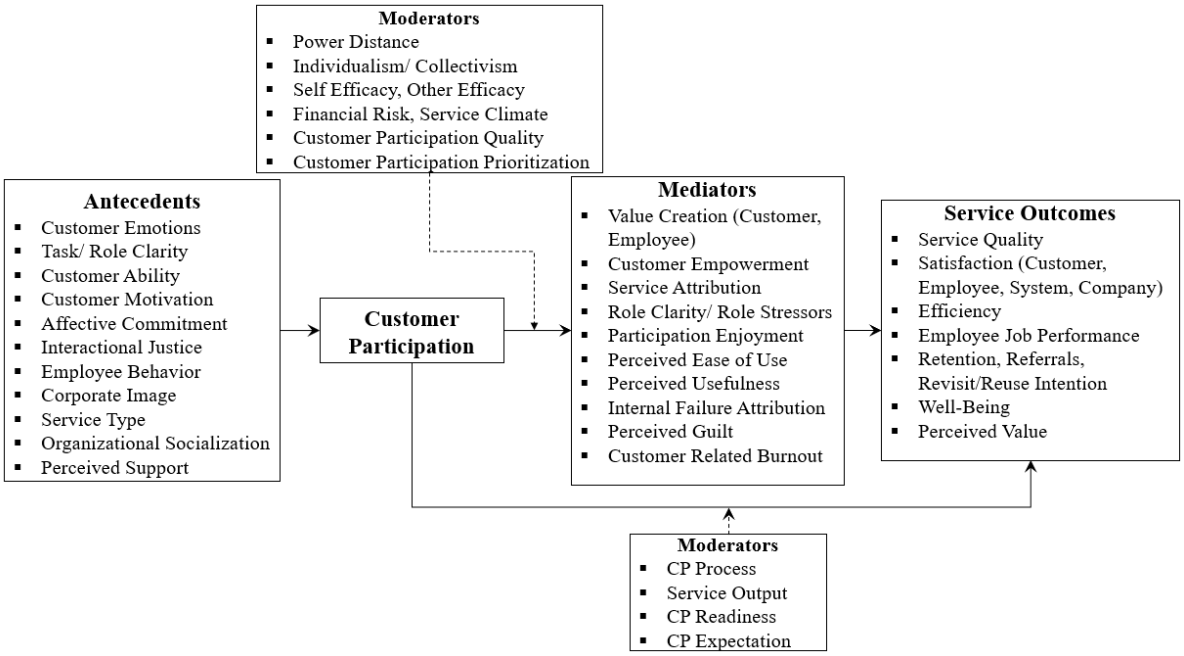


Figure 2.2 Overview of Current Customer Participation Literature

2.3.1 Antecedents of Customer Participation

The literature on the antecedents of customer participation has focused on customer-related and organization-related factors. Customer-related factors include customer resources (e.g. task clarity, time) and customer attributes (e.g. emotions, ability, motivation). Customer-related factors include but are not limited to, customer emotions (Zhao et al., 2018), customer ability, task clarity, or the competence and customer motivation (Auh et al., 2007; Bettencourt et al. 2002; Meuter et al. 2005; Lengnick-Hall 1996; Lovelock and Young 1979), interactional justice and affective commitment (Auh et al., 2007), role clarity (Bowen, 1986). Organisation-related factors emphasise how the organisation can facilitate customer participation, such as employee behaviour (Zhao et al., 2018; Liao and Chuang, 2004), corporate image (Cheng and Xue, 2014), service type (Blinda et al., 2019), organisational socialisation (Kelley et al., 1992) and perceived support (Bettencourt, 1997; Bitner et al., 1990).

Customer Emotion

Substantial research has examined the significant influence of emotions on customers' judgments and behaviours (Bagozzi et al., 1999; Fredrickson, 2011). Emotional responses were inevitably obtained during product consumption or service experiences (Zhao et al., 2018; Richins, 1997; Westbrook and Oliver, 1991). As positive emotions are highly distinct from negative emotions, studies consider it as two separate variables that comprise customer emotion that could independently contribute to favourable and unfavourable judgements (Scott et al., 2014; Watson et al., 1999). These emotional experiences were found to stimulate the involvement of the customer in value co-creation (Füller, 2010) and influence behavioural inclinations like customer participation by motivating or undermining it (Fredrickson, 2011; Auh et al.; 2007; Price et al., 1995).

Customer Ability

Customer ability or competence is conceptualized as the input quality that the customer provides for a successful service consumption process. Timely and useful contribution of inputs by the customer will lead to improved cocreation quality (Schneider and Bowen, 1995). Literature hence suggests the positive influence of customer ability or competence on customer participation in efficiently and effectively facilitating the service transactions (Auh et al., 2007; Kelley et al., 1990).

Task/ Role Clarity

Task clarity is conceptualized as the degree to which customers comprehend the activities or task that they require to carry out while in service consumption. Higher will be the likelihood that the contributions of the customers leading to improved service outcomes based on their clarity on their role expectations (Mills et al., 1983). Lengnick-Hall et al. (2000) explain the importance of communications amongst customer and the service personnel or SSTs to improve task clarity. Task clarity was found to influence the customer's participating behaviour (Auh et al., 2007; Bowen, 1986).

Customer Motivation

Effective cocreation requires customers' motivation in participating for any service encounter. It was conceptualized as the customers' willingness to get involved and contribute to the service cocreation (Lengnick-Hall et al., 2000). Motivated customers are more likely to respond to employees' requests for information promptly and they will be interested in reading

the documentation provided to understand and improve their knowledge of service encounter. Customer motivation positively influences customer participation (Auh et al., 2007).

Interactional Justice

Interactional justice is conceptualized as the fairmindedness in judgments based on the quality of the interpersonal treatment a customer receives during a service encounter (Auh et al., 2007; Masterson et al., 2000; Bies and Moag, 1986). According to the concepts of social exchange (Blau, 1964), the extent to which customers perceive the treatment to be impartial and fair influences the degree to the co-production.

Affective Commitment

Affective commitment is conceptualized as the identification, attachment, and involvement of a customer in the service firm (Auh, 2007; Meyer and Allen, 1997). Affective commitment is based on a sense of emotional attachment and liking to the interaction leading to a sense of belonging or being part of the service firm. The critical feature of the affective commitment is that the customer continues to stay with the firm because he/she wants to, and likely to be associated with increased participation in co-creation.

Employee Behaviour

Service employees' participation behaviour comprises of two key dimensions, in-role behaviour and extra-role behaviour (Zhu, 2013; MacKenzie et al., 1998; Podsakoff and MacKenzie, 1997; Williams and Anderson, 1991). The in-role behaviour was referred to as the mandatory and expected performance associated with the prescribed job or activity (Williams and Anderson, 1991; Podsakoff and MacKenzie, 1997). The extra-role behaviour is referred to the discretionary action of the service personnel that goes beyond the current role expectation (Morrison, 1996; Van Dyne et al., 1995) and is termed as organizational citizenship behaviour (Podsakoff et al., 2009; Organ et al., 2006). Zhao et al. (2018) show that both extra-role and the in-role behaviour of the service personnel enhance the level of customer participation, and the impact is higher in extra-role behaviour.

Corporate Image

Corporate image is conceptualized as the perception of a firm reflected in the associations held in the memory of customers (Keller, 1993). Corporate images had been considered as a valuable intangible asset for service organization over time. According to Dutton et al. (1994), people identify themselves with an organization based on an attractive corporate image and a

subjective evaluation that strengthens their identification. Therefore, the customer with strong identification to the corporate image of an organization was probable to exhibit participation behaviour as they perceive it to strengthen their attachment to the service organization.

Service Type

Service providers anticipate similar effectiveness from both experience and outcome-oriented customer participation characteristics for utilitarian and hedonic services. However, the two different type of services (hedonic vs utilitarian) influences the customer's evaluation and choices (Jiaang and Wang, 2006) in turn influencing the way customer participates while in service encounter. Blinda et al. (2019) identified that the customer participation characteristics varies with the change in service type.

Organisational Socialisation

Organisational socialization is a process by which an individual adapts to and comes to appreciate the value norms and required behaviour patterns of an organisation and can be utilized to provide service customers with organisationally specific behavioural guidelines. The organisational socialisation on employees and customers influences the way in which customer perceives a service encounter and they participate (Kelley et al., 1992).

Perceived Support

Perceived support for customers is an adaptation of perceived organizational support for employees to the relationship between the customer and the firm. Customers will be willing to actively participate in the development and governance of the firm to the extent they believe that their input and contribution matter and are valued by the firm (Hirschman, 1970). Bettencourt (1997) found that perceived support for customers has a positive influence on customer participation.

2.3.2 Service Outcomes: Consequences of Customer Participation

Customer participation is part of a journey that customers go and thus comprises a distinct set of processes encountered by the customer. Customer participation is widely embraced by the service practitioners and researchers considering the active resource integrator role of customers in value co-creation (Arnould, 2008; Vargo and Lusch, 2008, 2016). Most service research on CP focuses on various roles customer assume during the service production and delivery. Literature suggests that CP occurs when customers substitute employee roles. In contrast, other research indicates that CP was just to enhance the service production and

delivery and not necessary for service production or delivery (Dong and Sivakumar, 2017). The reason could be the inconsistent empirical findings on the influence of CP on various service outcomes. The outcomes of customer service experiences could be potentially positive or negative for service providers or customers. Ideally, positive results were desirable, or the service organization seeks even the elimination or reduction of adverse outcomes.

Customer participation could lead to both positive and negative service outcomes. Thus its role in the provision of the service encounter may not always be a desirable service approach (Chan et al., 2010), meaning its function in the service encounter needs to be understood more clearly. Numerous literature has identified the direct and continuous influence of customer participation on service outcomes, and the relations were also determined to be non-monotonic (Dong et al., 2015). Hence various studies show the influence on service outcomes as positive (Chan et al., 2010; Sweeney et al., 2015), negative (Bendapudi and Leone, 2003; Wu, 2011), and non-significant (Ennew and Bink, 1999) when CP increases. The nature and of these 'participation episodes' potentially influences customers' perceptions about various service outcomes.

Perceived Service Quality

Perceived service quality is considered as the global judgment or attitude towards the service encounter based on customers' beliefs about the service (Parasuraman et al., 1988). Numerous literature were present regarding the influence of customer participation on perceived service quality. However, the impact was captured to be positive and non-significant in various studies similar to the effect of customer participation on satisfaction. Hence, literature was delineated based on the types of participation mentioned by Dong and Sivakumar (2017), to explore and understand the type of participation studied in the literature and its influence on perceived service quality. The literature suggests the positive influence of various types of customer participation on perceived service quality (Cermak et al., 1994; Kellogg et al., 1997; Claycomb et al., 2001; Yoo et al., 2012; Gallan et al., 2013; Amorim et al., 2014; Dong et al., 2015; Sweeney et al., 2015). No study found a negative influence of participation on perceived service quality while Ennew and Binks (1999) showed there is no significant influence of participation on perceived service quality. Hence, a new empirical understanding will help delineate the influence of types of customer participation on perceived service quality.

Customer Satisfaction

Customer satisfaction is conceptualized as the emotional state of a customer on the evaluation of an interactive experience combining the customer's affective and evaluative aspects of the service encounter (Oliver, 1997). Influence of customer participation on customer satisfaction is a well-researched relationship. However, the impact was captured to be positive, negative and non-significant in various studies. The literature was delineated based on the types of participation mentioned by Dong and Sivakumar (2017); it was found that all types of participation so far studied had this mixed result. A large number of the literature suggests the positive influence of various types of customer participation on customer satisfaction (Dong et al., 2016; Dong et al., 2015; Sweeney et al., 2015; Heidenreich et al., 2015; Agarwal and Basu, 2014; Gallan et al., 2013; Yoo et al., 2012; Hunt et al., 2012; Yim et al., 2012; Chan et al., 2010; Dong et al., 2008; Kellogg et al., 1997; Cermak et al., 1994).

Chen and Wang (2016) studied the influence of customer participation on system and company satisfaction, and Chan et al. (2010) studied the influence on employee job satisfaction. Whereas, Bendapudi and Leone (2003), Wu (2011), Haumann et al. (2015), Heidenreich et al. (2015) found a negative influence of participation on customer satisfaction and Ennew and Binks (1999) showed there is no significant influence of participation on customer satisfaction. Therefore, a new empirical understanding is necessary to confirm the influence of customer participation on customer satisfaction and to understand the reason for inconsistency in results are due to the non-separation of participation types.

Perceived Value

The perceived value of the customer is defined as "a cognitive trade-off of sacrifices and benefits which are associated with consumption practices" (Zeithaml, 1988, p. 14). Value could generally be conceptualized as the fraction of perceived benefits to perceived cost (Monroe, 1979). Customer value is depicted as the outcome of the total evaluation of the utility of a product/ service by the customer based on their perception (Woodruff, 1997; Verma and Plaschka, 2003). Customer perceived value is viewed from the perspective of equity theory which compares the output to the input of a customer to that of a service provider (Oliver and DeSarbo, 1988). Hence, perceived cost forms the rewards and sacrifices for both the parties associated with the service results in perceived value. Customer participation influences the perceived value of a customer positively in the study by Yi and Gong (2013). However, Dong (2015) examined the negative influence of replaceable participation on perceived value. Also, Blut et al. (2019) found influence on the perceived value of customer

participation as unfavourable because participation has an adverse effect cos of role stressors. Therefore, it is necessary to understand the differential influence of customer participation types on the perceived value of the customer.

Efficiency

Efficiency is conceptualized as the accomplishment of a job with a minimum expenditure of resources (time, effort) (Fließ and Kleinaltenkamp, 2004; Chase, 1978). There are limited studies that examine the influence on efficiency in customer participation context (Lusch et al., 2007). In the context of a service, speed of service consumption or service delivery was measured to understand the efficiency (Fang et al., 2008). The efficiency can be studied from both the firm and customer perspective. The influence of efficiency from the customer perspective is studied to examine the influence of customer participation on it in the study by Dong and Sivakumar (2017). Previous studies show the negative influence of CP on efficiency (Dong and Sivakumar, 2015; Frei, 2006; Chase, 1978) showing that an increase in CP compromises efficiency of the output.

Employee Job Performance

Campbell (1990) is conceptualized as the individual level variable of job performance that is done by an individual (i.e. employee). The importance of employee job performance predominates the research in the field of organizational behaviour (e.g., Janssen and Van Yperen, 2004). Previous literature suggests the positive influence of customer participation on employee job performance mostly mediated through variables such as customer satisfaction or employee job satisfaction (Yim et al., 2012; Chan et al., 2010; Cronin and Taylor, 1992; Oliver, 1980; Oliver and Swan, 1989). Further, customer service performance (Auh and Wang, 2019) and branch performance (Auh et al., 2019) have been studied in customer participation context.

Referrals, Retention and Revisit/ Repurchase Intention

Customer repurchase intention is the most commonly used indicator of customer loyalty in marketing research domain (e.g., Wagner et al., 2009; Castano et al., 2008; Morgan and Rego, 2006; Chandon et al., 2005). Chen and Wang (2016) tested the influence of customer participation on customer loyalty mediated through value and satisfaction, showing a positive influence. Similarly, Yim et al. (2012) explained the positive influence of participation on repurchase intention mediated through satisfaction. CP studied in service recovery also shows

the positive influence of participation on the intention for future cocreation mediated through value and satisfaction (Dong et al., 2008).

Well-Being

Research on customer well-being in customer participation context is limited and mostly in the context of healthcare and hospitality services. Well-being is conceptualized as living a complete human life focused on things that are intrinsically worthwhile to human beings, including personal growth, relationships, community and health (Ryan et al., 2008). Engström and Elg (2015) explored the influence of patient participation in providing information regarding their illness, leading to a positive influence on their well-being.

Table 2.3 presents various service outcomes with the delineation of customer participation into mandatory, replaceable and voluntary participation.

2.3.3 Intervening Variables in Customer Participation Literature

Intervening variable includes mediating and moderating variables. CP literature comprises of multiple mediators and moderators. Figure 2.2 presents various mediators involved in CP literature and several moderators in the direct and mediated paths. Details of every intervening variable depicted in Figure 2.2 will be presented in the following paragraphs under the broader classification of mediators and moderators.

2.3.3.1 Mediating Variables

Literature suggests several mediating variables in the influence of customer participation on service outcomes. They include value creation (Ahn and Rho, 2016; Chen and Wang, 2016; Flores and Vasquez-Parraga, 2015; Heidenreich et al., 2015; Chan et al., 2010; Dong et al., 2008), service attribution (Chen, 2018), role clarity (Dong et al., 2008), role stressors (Blut et al., 2019), participation enjoyment (Sheng and Zolfagharian, 2014; Yim et al., 2012), perceived ease of use and perceived usefulness (Sheng and Zolfagharian, 2014), internal failure attribution and perceived guilt (Heidenreich et al., 2015), customer empowerment (Auh et al., 2019), customer-related burnout (Auh and Wang, 2019).

Value Creation

Value is integral to the use of services/products, and it is conceptualized as the perceived preferences of the customer for and calculation of the benefits over costs while engaging in an exchange (Ramirez 1999; Zeithaml 1988). Value came into existence from the perspective

Table 2.3 Literature on Influence of Customer Participation on Service Outcomes

Outcomes	**Types of CP**	**Positive effects with CP**	**Negative effects with CP**	**Non-significant effects with CP**
Customer Satisfaction	Mandatory Participation	Chan et al. (2010), Yim et al. (2012), Yoo et al. (2012), Gallan et al. (2013), Agarwal and Basu (2014), Dong et al. (2015), Sweeney et al. (2015), Dong et al. (2016)	Wu (2011), Heidenreich et al. (2015)	Ennew and Binks (1999)
	Replaceable Participation	Cermak et al. (1994), Dong et al. (2008), Chan et al. (2010), Hunt et al. (2012), Yim et al. (2012), Gallan et al. (2013), Heidenreich et al. (2015), Dong et al. (2015), Sweeney et al. (2015), Dong et al. (2016)	Bendapudi and Leone (2003), Wu (2011), Haumann et al. (2015)	Ennew and Binks (1999)
	Voluntary Participation	Kellogg et al. (1997), Chan et al. (2010), Yim et al. (2012), Yoo et al. (2012), Gallan et al. (2013), Sweeney et al. (2015)	Wu (2011)	Ennew and Binks (1999)
Perceived Service Quality	Mandatory Participation	Claycomb et al. (2001), Yoo et al. (2012), Gallan et al. (2013), Amorim et al. (2014), Dong et al. (2015), Sweeney et al. (2015)		Ennew and Binks (1999)
	Replaceable Participation	Cermak et al. (1994), Claycomb et al. (2001), Gallan et al. (2013), Amorim et al. (2014), Dong et al. (2015), Sweeney et al. (2015)		Ennew and Binks (1999)
	Voluntary Participation	Kellogg et al. (1997), Claycomb et al. (2001), Yoo et al. (2012), Gallan et al. (2013), Sweeney et al. (2015)		Ennew and Binks (1999)
Perceived Value	Mandatory Participation	Yi and Gong (2013)		
	Replaceable Participation	Yi and Gong (2013), Dong (2015)	Dong (2015)	
	Voluntary Participation	Yi and Gong (2013)		

CP = Customer Participation (Source: Ajitha et al., 2019)

of economics; however, it is now seen in the form of emotional, relational and enjoyment bonds between a customer and a service provider. Value co-creation plays a central role in service-dominant logic, and it forms the primary foundation of customer participation. Both service firms and customers derive value when the customer participates in a service encounter (Yim et al., 2012; Chan et al., 2010; Dong et al., 2008; Auh et al., 2007), and customers who perceive more value through co-creating a service tend to be more satisfied (Yim et al., 2012; Chan et al., 2010; Dong et al., 2008). Service research indicates that customers require intrinsic as well as extrinsic rewards as motivations for participating in coproduction service tasks or self-service (Yim et al., 2012; Etgar, 2008; Dabholkar and Bagozzi, 2002). Therefore, the co-created values might act as critical mediators between customer participation and service outcomes such as service quality, satisfaction and other outcomes.

Service Attribution

Literature presents the role of causal attribution when there is a service failure while a customer is participating. In an extremely participative service, customers control the service process to a more considerable extent, and hence they do bear at least some responsibility if there is a service failure (Koc et al., 2017; Zeithaml et al., 2003; Folkes and Kotsos, 1986; Folkes, 1984). Thus, customers can blame the service provider or themselves for service failure. When there is a highly participating customer, it is less likely to blame service providers for the service failure (Ross and Sicoly, 1979) as they are willing to accept blame (Jones and Nisbett, 1972). Koc et al. (2017) presented that customer participation in service encounters cause customers to have milder responses after experiencing a service failure. These studies provide support for the notion that higher customer participation reduces service failure attribution to service providers (Chen, 2018).

Internal Failure Attribution and Perceived Guilt

Internal attribution refers to attributing the success of failure to the actor itself than any external reason. When there is higher customer participation in the co-creation process, the service failure is also considered as cocreated and is attributed to themselves (Zhu et al., 2013). This internal attribution of failure evokes guilt that prompt the customer to have an action to resolve it (Heidenreich et al., 2015; Hareli and Hess, 2008; Smith and Bolton, 2002). Research by Heidenreich et al. (2015) considers the mediating role of internal failure attribution and perceived guilt in the influence of customer participation on satisfaction.

Role Clarity

Edvardsson et al. (2011) discuss the role of a customer in the service cocreation context, explaining that the "term role refers to socially defined expectations of individuals' behaviours in particular social positions [...]. A role provides an individual with a complex set of identities, which become the source of individual interpretations of social situations" (p. 331). Role clarity is conceptualized as customers' understanding of what is required of them in service production (Meuter et al. 2005). Customer role clarity in future cocreation is conceptualized as the extent to which customers understand the procedures, goals, criteria, and knowledge of consequences and the influence of it on future cocreation. Role clarity was found to positively mediate the relationship between customer participation in service recovery on customers' ability to future cocreate and their intention to future cocreate (Dong et al., 2008).

Role Stressor

Role theory asserts that when an individual engaging in a role experiences stress and may have troubles coping with the issues related. Role stress is conceptualized as the stress resulting from the role stressors that include conflicts, ambiguity, high workloads regarding any customer role (Eatough et al., 2011). Role theory suggests the adverse effect of it and the influence may increase negative feeling towards the role execution (Tubre and Collins, 2000). The existing studies examine either how CP impacts the role stress experienced by employees or the various role variables as perceived by customers (Mende et al. 2017; Guo et al. 2013; Yoo et al., 2012; Dong et al., 2008). Hence, role stressors are considered as an essential mediator to explain the negative impact of customer participation on service outcomes (Blut et al., 2019).

Participation Enjoyment

Participation enjoyment is conceptualized as the flow experience, while customer participation occurs in a service encounter (Chan and Li, 2010; Trevino and Webster, 1992; Csikszentmihalyi, 1975). Yim et al. (2012) explore the experiential view of participation, and experience can evoke value through providing enjoyment. Customer participation was found to create enjoyment for both customers and employees (Buenz and Merrill, 1968). Participation enjoyment was studied as a moderator in the relationship between customer participation and service outcomes (Sheng and Zolfagharian, 2014; Yim et al., 2012).

Perceived Ease of Use and Perceived Usefulness

Perceived ease of use is conceptualized as the degree of comfort associated with using technology and reflects the belief that using technology is free of effort. Perceived usefulness relates to consumer perceptions that using technology will improve their task performance and bestow them with benefits in carrying out certain activities (Davis et al., 1989, 1992; Davis, 1989). Consumer participation influences the intention to reuse under the mediating role of perceived ease of use and perceived usefulness (Sheng and Zolfagharian, 2014).

Customer Empowerment

Ramani and Kumar (2008, p. 28) defined customer empowerment as "the extent to which a firm provides its customers avenues to (1) connect with the firm and actively shape the nature of transactions and (2) connect and collaborate by sharing information; praise; criticism; suggestions; and ideas about its products, services, and policies". Customer role shifts to an active participant from a passive receiver in the service production and delivery due to customer empowerment. Customers appreciate a sense of control and, through participation, perceive that their involvement provides worth and is impactful in shaping the process and outcome of services. Customer empowerment was found to mediate the influence of customer participation on performance (Auh et al., 2019).

Customer-Related Burnout

Customer-related burnout was conceptualized to be the state of a service employee in consistence with diminished personal accomplishment, feelings of emotional exhaustion, and depersonalization due to repeated interactions with customers (Auh and Wang, 2019; Singh et al., 1994; Maslach and Jackson, 1981). Service employees will perceive a reduced sense of control and perceive their job for an improvised decision making and actions that force them to deviate from predetermined role scripts, leading to a greater sense of burnout when customer participation occurs. Employees in such circumstances will find it difficult to make accurate predictions and engage in enough planning because not all customers can be expected to participate in similar degrees. Thus, found to mediate the influence of customer participation variation on customer service performance (Auh and Wang, 2019).

2.3.3.2 Moderating Variables

There has been considerable interest in understanding the influence of customer participation in services. While examining the impact of participation on various service outcomes, attention was given to understand the multiple constructs that could moderate the influence.

Factors specific to the customer, firm, context, and situation influence the participation of customers in a service encounter (Dong et al., 2015). Various constructs were reported in the literature to moderate the relationship between CP and service outcome, namely the customer participation process (Dong and Sivakumar, 2015), customer participation readiness (Dong et al., 2015), power distance (Yim et al., 2012; Chan et al., 2010), self-efficacy (Chen, 2018), other efficacy (Yim et al., 2012), individualism/ collectivism (Chan et al., 2010), service output (Dong and Sivakumar, 2015), financial risk (Sheng and Zolfagharian, 2014); service climate (Auh and Wang, 2019), customer participation quality and prioritization (Auh and Wang, 2019), and customer participation expectation (Dong, 2015). Table 2.4 presents the details of the moderators.

Table 2.4 Moderators in the Influence of Customer Participation on Service Outcomes

Dependent Variables	**Moderators**	**Authors**
Employee Job Performance, Employee Job Satisfaction, Customer Satisfaction	Power Distance, Individualism/ Collectivism	Chan et al. (2010)
Service Outcomes (customer satisfaction and perceived service quality)	Customer Participation Readiness (identification with participation role, perceived benefit of participation, perceived ability)	Dong et al. (2015)
Service Outcome (satisfaction and efficiency)	Participation Process (structured vs unstructured), Service Output (generic vs specific)	Dong and Sivakumar (2015)
Intention to Reuse	Financial Risk involved in the Purchase	Sheng and Zolfagharian (2014)
Satisfaction	Self-Efficacy	Chen (2018)
Value	Customer Participation Expectation	Dong (2015)
Customer Service Performance	Service Climate, Customer Participation Quality, Customer Participation Prioritization	Auh and Wang (2019)

Customer Participation Process

CP process is conceptualized as the degree to which the participation process is well defined and structured (Collier and Meyer, 1998). The spectrum consists of two extremes, a structured process – a well-defined process with a known set of sequential and standardized procedures that enable customers to progress toward the goal (Leighton and Sternberg, 2012; Finke et al.,

1992) at one end. At the other end of the spectrum is an unstructured process – a process that is open-ended, undefined, and without a known set of standardized procedures (Collier and Meyer, 1998). An increasing CP adds uncertainty and risks, and the structured participation process helps standardize the process and reduce uncertainty and risks, weakening the negative impact of CP magnitude on efficiency thus showing a negative moderating effect (Dong and Sivakumar, 2015; Fließ and Kleinaltenkamp, 2004).

Service Outputs

Output specificity is conceptualized as the degree to which the nature of the output is influenced by the person who provides the resource to be a generic output or specific outputs (Kellogg and Nie, 1995; Foa and Foa, 1974). Generic output refers to the expected output that is clearly defined and common regardless of whether the service provider or the customer provides it. For specific output, the expected output can be idiosyncratic depending on whether the customer or the employee provides the service. The distinct outputs are due to the designed heterogeneity of the service (Silvestro et al., 1992). An increasing CP leads to greater satisfaction, CP with specific output benefits more than CP with generic output, thus showing a substantial positive effect (Dong and Sivakumar, 2015).

Customer Participation Readiness

CP readiness is defined as "the extent to which a customer is prepared to participate in service production and delivery consisting of three factors: perceived ability, perceived benefit of participation, and role identification" (Done et al., 2015; Meuter et al. 2005). Meuter et al. (2005) demonstrated the dimensions of customer readiness variables comprise of role clarity, motivation, and ability that determines customers' trial of self-service technologies. Likewise, Bowen (1986) explains ways to improve CP by providing clarity to the role, having the ability and motivation to carry out the role. CP readiness was found to positively moderate the influence of customer participation on perceived service quality and customer satisfaction (Dong et al., 2015).

Power Distance

Power distance is conceptualized as the degree to which inequality between individuals based on the power distribution that is considered acceptable (Hofstede, 1991). People having a value orientation view of higher power distance "superiors" and "subordinates" as different types and find differences in power natural or an "existential inequality" (Hofstede, 1980). In contrast, those with a value orientation view of lower power distance believe that people are

equal, and they view inequalities in roles as established merely for the sake of convenience (Gudykunst and Ting-Toomey, 1988). Customers in the culture having higher power distance believe that service employees and customers may be closely related to their perceived superior-subordinate relational roles. On the contrary, customers with an orientation of lower power distance prefer autonomous and delegated leadership and are comfortable in environments that empower them (Eylon and Au, 1999). Thus, customer participation has a weaker impact on service outcomes when a customer's value orientation on power distance increases (Chan et al., 2010).

Individualism/ Collectivism

Value orientation of collectivist (vs individualist) reflects a condition in where the group or collective interests take precedence over the needs and desire of individuals (Wagner and Moch, 1986; Patterson et al., 2006). They are also more conscious of their relationships with other people and place a higher value on group harmony (Chen et al., 1998). Given a chance to co-create with service employees, collectivist customers will be highly attentive to the opportunity and value of building a relationship with employees. They attend more closely to efficient communication that saves time and hassles and values the opportunity to provide input to enhance control over the decisions and processes that are conducive to economic outcomes (Erez and Earley, 1993; Winsted, 1997). Thus, collectivist value orientation positively moderates the influence of customer participation on economic value vs relational value (Chan et al., 2010).

Self-Efficacy and Other-Efficacy

Self-efficacy is conceptualized as the "belief in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). It operates as a cognitive mediator of action because people feel more comfortable taking action if they believe they are capable of performing the task (Bandura, 1977, 1982). Other-efficacy is defined as "a person's beliefs about his or her partner's ability to perform particular behaviours and to influence their behaviours and attitudes" (Bandura 1982; Lent and Lopez, 2002). Customer self-efficacy and other-efficacy positively moderate the influence of customer participation on service outcomes (Yim et al., 2012).

Financial Risk

Literature suggests the change in consumer search behaviours and decision outcomes as the financial risk involved in purchase changes (Beatty and Smith, 1987; Dowling and Staelin,

1994). When the level of the financial risk involved in a purchase is high, consumers will likely find the time and effort that they need to spend customer participation, reasoning that it will reduce the risk associated with the purchase/ cocreation. It suggests that the negative impact of consumer participation on perceived ease of use will become weaker when the purchase is of high financial risk. However, at the same time, consumers will be more engaged in the decision-making process as a result of the high financial risk involved in the purchase, which may, in turn, lead to greater feelings of fun and pleasure during the participation (Sheng and Zolfagharian, 2014).

Service Climate

Service climate is conceptualized as employees' shared view of the firm's service quality based on oriented policies, practices, and procedures and the service quality emphasis they observe through the behaviours that are rewarded, expected, and supported (e.g., de Jong et al., 2004; Schneider et al., 1998). When there is high service climate, employees perceive that management expects employees to demonstrate the appropriate skills to deliver high-quality service and provides the necessary training and resources to facilitate this. Service climate was considered as a group level moderator that reduces the negative influence of customer participation variation to customer service performance through customer burnout (Auh and Wang, 2019).

Customer Participation Quality and Prioritization

Customer prioritization is conceptualized as the extent to which employees treat customers differently based on the importance of the customer (Homburg et al., 2008). Customer participation quality explains the helpfulness, usefulness, accuracy, reliability and relevance of participation. It was studied that both CP prioritization and CP quality reduces the negative influence of customer participation variation to customer service performance through customer burnout (Auh and Wang, 2019).

Customer Participation Expectation

Customer expectations are conceptualized as the type of pretrial beliefs about a product or service that serve as reference levels against which product/service performance was judged (Parasuraman et al., 1994). Especially for services that are high in experience qualities or credence qualities in which outcomes are often ambiguous, consumers tend to use a general heuristic of prior beliefs and expectations to form evaluations of products and services (Darley and Gross, 1983; Hoch and Ha, 1986). Likewise, assimilation theory provides a similar

prediction that consumers tend to change the perception of the service/product performance to coincide with their expectations (Anderson, 1973). Considering these a given customer might hold differing expectations of the rationale underlying participation. Regardless of what expectations customers have of CP, the nature of such expectations can shape their evaluations and choice of participation, and customers tend to form evaluations consistent with their expectations (Dong, 2015; Darley and Gross, 1983; Klayman and Ha, 1987).

Hence, the literature regarding the antecedents, consequences and intervening variables for customer participation is summarised here. Based on the review of literature, gaps identified are presented next.

2.4 Gaps identified from the literature

- Customer participation and its influence on various service outcomes are studied. However, the impact on service outcomes demonstrated varying results in the empirical study. Therefore, it is necessary to examine the influence on multiple service outcomes to explain the variations in the relationship.
- Customer participation literature suggests various typologies for it, and a recent study comprised several typologies to one typology (Dong and Sivakumar, 2017). However, there is no empirical study that explored the differential influence of types of customer participation on various service outcomes to understand the relationships.
- Various mediating and moderating variables were identified in the literature that intervenes the influence of customer participation on different service outcomes. However, some key variables were not studied until now. Therefore, additional variables need to be identified that could explain the relationship between customer participation and service outcomes better.
- Also, limited studies are present that explores the cultural influence in the customer participation context.

2.5 Summary

This chapter briefed on various literature on customer participation and its influence on service outcomes. Literature review was presented in chronological order. Besides, the chapter presents the customer participation typology and the variable that interacts with customer participation. The review elucidates four distinct gaps in the literature, and by exploring and examining the gaps will be beneficial for both customers and service providers.

CHAPTER 3

DEVELOPMENT OF CONCEPTUAL FRAMEWORK

3.1 INTRODUCTION

Customer is regularly participating in multiple service encounters by providing information for effective service production by the service provider to the usage of self-service technology, where they produce and consume service themselves with the help of technology. The outcome of success or failure of a service encounter significantly rest with customer participation levels (high, medium, low). Additionally, the impact of customer participation on service outcomes depends on the quality of processes designed for customers to pass through. Multiple variables, such as customer readiness, self-efficacy, roles stressors, customer emotions, among others play an essential role in the influence of customer participation on service outcome. The chapter focusses firstly on the influence of customer participation on salient service outcomes and the role played by the customer's task-related affective well-being on these outcomes. Secondly, it encapsulates the role played by customer-specific (customer knowledge) and firm-specific (task complexity) factors on customer participation-task related affective wellbeing-service outcome link. Thirdly, the study focusses on examining the differential impact of customer participation typologies on proposed relationships among variables mentioned in the proposed framework. Finally, this study attempts to understand the role of national-level cultural orientation by considering it as an intervening variable capable of creating an interaction with predictors to influence the outcome. To meet the various objectives of the study, many existing paradigms and theoretical frameworks were examined and accordingly, the final conceptual framework was built (see Figure 3.3). Figure 3.1 presents the chapter structure.

3.2 SOCIO-TECHNICAL SYSTEMS THEORY

While the literature on CP draws upon several theoretical foundations (e.g. Chen, 2018, Dong, 2015; Dong et al., 2015), the research is grounded in socio-technical systems theory (Pasmore, 1988). Since 1950s, managers and researchers have identified the interaction of social and technical factors in a system to influence its performance. The organizations are made up of people using tools, techniques and knowledge to produce products/services valued by customers who are part of the firm's external environment (Griffith and Dougherty, 2001) encouraged by the open systems theory (von Bertalanffy, 1969), which explains that living

organism constitutes of an open system which comprises of interaction in and out of the system in the form of information, energy or material forms.

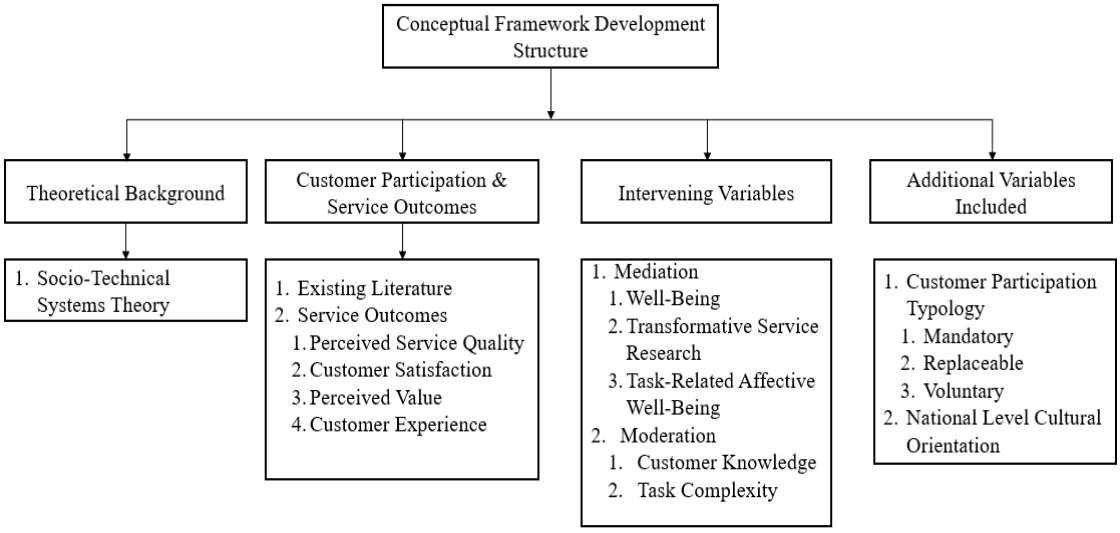
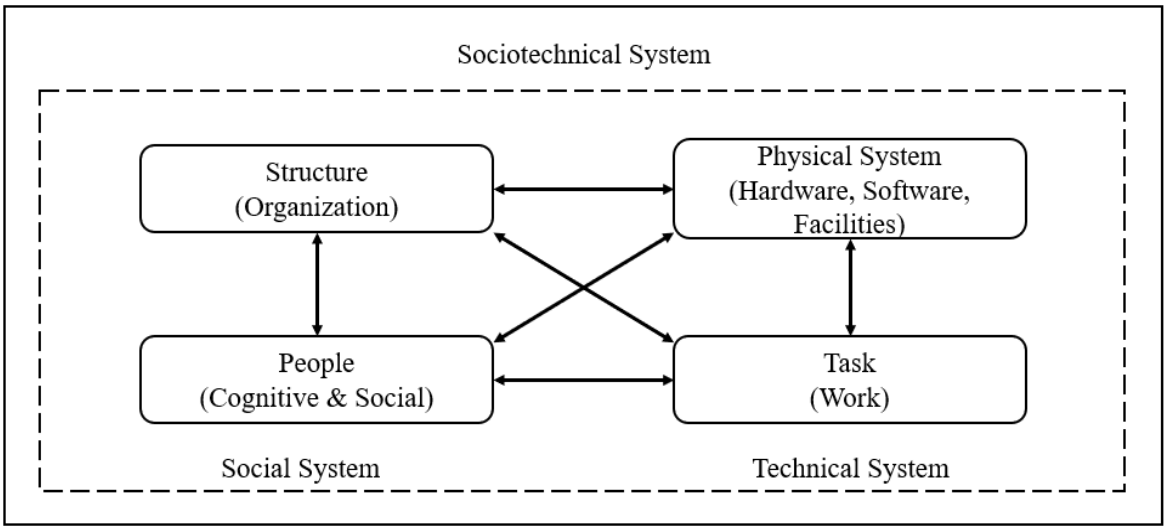


Figure 3.1 Chapter Structure

This new perspective criticized the technological determinism (Katz and Kahn, 1978) and conceived the scope of sociotechnical systems (see Figure 3.2) that provides a critical outlook for understanding the relationships between the sociological, psychological and socio-psychological conditions of individuals, technology and organizational outcomes (von Bertalanffy, 1969). The sociotechnical systems (STS) goes beyond the technological determinism by considering the organization as a working system with two interdependent subsystems, the social system and the technical system (Manz and Stewart, 1997).



Source: Bostrom and Heinen (1977)

Figure 3.2 Sociotechnical Systems

The term “sociotechnical systems” was coined by Trist (Trist et al., 1963; Trist and Bamforth, 1951) who viewed organization from the perspective of the interrelatedness between technical and social subsystems about their operational environments. The social system focuses on the relationships between people, their attitudes, skills and values. In contrast, the technical system handles the processes, tasks, and technology needed to transform inputs such as raw materials to outputs such as products (Bostrom and Heinen, 1977).

Hence, a system produces both physical products and social/psychological outputs (Appelbaum, 1997). The objective of the STS is to achieve a joint, balanced and synergistic optimization between the technical requirements of the organization and the needs and values of its members so that these two parties work in tandem to produce positive outcomes (Bostrom and Heinen, 1977; Griffith et al., 1998). Pasmore (1988) argued that organization “will function optimally only if the social and technical systems of the organization are designed to fit the demands of each other and the environment” (p. 1182). The demands include the service provider performance and service delivery outcomes focussed on fulfilling the customer needs.

During service co-creation, customer participates in various ways to have the best service delivery. Sociotechnical systems perspective gives clarity to understand the influence of participation in a service encounter such as SST, to the formation of service outcomes through the interaction between the social and technical systems in the service environment. Socio-technical systems theory is found appropriate in the current study due to the underpinning principle, that both social and technical systems in an organization work in tandem to produce a desirable outcome to both service providers and customers. When a customer participates in a service encounter, they assume the roles of employees in delivering the service forming the social subsystem and the technical subsystem that comprises of the tools, techniques, skills, procedures, and technology that enables the customers of the social system to accomplish their task.

3.3 EFFECT OF CUSTOMER PARTICIPATION ON SERVICE OUTCOMES

The study examines the baseline effect of customer participation on service outcomes. Customer participation is a part of the customers’ journey and thus comprises a distinct set of processes encountered by the customer. Typically, when the customer participates in a service

encounter, they enter the servicescape[1] anticipating an effective service delivery. For such delivery to happen, all customers must embark upon this service journey and in doing so are confronted by a service offering that potentially comprises various levels of participation which in turn may affect the service outcomes. Customer participation (CP) is widely embraced by the service practitioners and researchers considering the active resource integrator role of customers in value co-creation (Arnould, 2008; Vargo and Lusch, 2008, 2016). Most service researches on CP focus on various roles of the customer during the service production and delivery. Some literature suggests that CP occurs when customers substitute employee roles. In contrast, other literature indicates that CP is just to enhance the service production and delivery and not necessary for service production or delivery as such and it became essential to understand the domain of CP (Dong and Sivakumar, 2017). This could probably explain the inconsistent empirical findings on the influence of CP on various service outcomes. Studies show the impact on service outcomes as positive (Chan et al., 2010; Sweeney et al., 2015), negative (Bendapudi and Leone, 2003; Wu, 2011), and non-significant (Ennew and Bink, 1999) when CP increases. The current study also hypothesizes the influence of CP to be positive on the suite of service outcomes considered, however, this study further attempts to understand the underlying reason that could explain the change of positive influence of customer participation on service outcomes.

Satisfaction and perceived service quality are the frequently studied service outcomes in customer participation literatures (Cermak et al., 1994; Ennew and Binks, 1999; Claycomb et al., 2001; Auh et al., 2007; Ofir et al., 2009; Gallan et al., 2013; Dong et al., 2015), the study considers these two variables as critical service outcomes resulting from customer participation. Customer satisfaction is conceptualized as the emotional state of a customer on the evaluation of an interactive experience combining the customer's affective and evaluative aspects of the service encounter (Oliver, 1997). Perceived service quality is considered as the global judgment or attitude towards the service encounter, based on customers' beliefs about the service (Parasuraman *et al.*, 1988). Both customer satisfaction and perceived service quality are essential indicators of firm performance and hence included in the model.

To date, studies in customer participation have focused on service outcomes such as satisfaction, service quality, productivity, performance, among others. However, there is little

[1] Servicescape is defined as "the environment in which the service is assembled and in which the seller and customer interact, combined with tangible commodities that facilitate performance or communication of the service" (Booms and Bitner, 1981, p.36).

evidence regarding the influence of customer participation on service outcomes in terms of their combined experiences towards and perceived value of the service offering. Literature suggests that, in service encounters, customer participation allows customers to provide unique insights from their prior experience during service usage and provide information that was required for the service production thus letting them create value, which helps firms' offerings to meet better the customer needs (Dong and Sivakumar, 2017). Thus, customers are more likely to value the cocreated services and service providers are more likely to satisfy customer expectations (Dong et al. 2008). Hence, the study attempts to incorporate these outcomes to help better understand the influence of participation.

Value is generally conceptualized as the ratio of perceived benefits to perceived costs (Monroe, 1979). The perceived value of the customer is defined as "a cognitive trade-off of sacrifices and benefits which are associated with consumption practices" (Zeithaml, 1988, p. 14). Customer value is depicted as the outcome of the total evaluation of the utility of a product/ service by the customer based on their perception (Woodruff, 1997; Verma and Plaschka, 2003). Customer perceived value was viewed from the perspective of equity theory which compares the output to the input of a customer to that of a service provider (Oliver and DeSarbo, 1988). Perceived value was depicted as the outcome of the total evaluation of the utility of a product/ service by the customer based on their perception (Zeithaml, 1988; Woodruff, 1997; Verma and Plaschka 2003). Hence, it results from the evaluation of perceived cost and benefits in the form of rewards and sacrifices for both the parties associated with the service. Customer participation was found to influence the perceived value of a customer positively in the study by Yi and Gong (2013); however, Dong (2015) examined a negative influence of participation on perceived value. Therefore, it is necessary to investigate the influence of customer participation on the perceived value of the customer.

Customer experience is conceptualised as the customer's subjective response or assessment of all attributes based on their direct and indirect interaction between the firm and the customer (Lemke et al., 2011; Klaus and Maklan, 2012). Experience matter the most as goods and services were commoditized and experience construct is as real as an offering as any service, good or commodity. Experiences create a unique value for customers (Pine and Gilmore, 1998) and are hard to be copied by the competitors, and strongly affect the satisfaction, word-of-mouth communication of consumers and loyalty (Berry et al., 2002). Products and services accompanied by experiences are now essential for long-term profitability (Cetin and Dincer, 2014). Consequently, the customer is getting a personal and unique encounter with company's

products and services and hence be willing to pay more for memorable experiences (Ali et al., 2014). Gentile et al. (2007), states that: "The customer experience originates from a set of interactions between a customer and a product, a company, or part of its organization, which provoke a reaction". This experience implied the customer's involvement at different levels, such as rational, emotional, sensorial, physical, rational and spiritual and was strictly personal to the customer (Bolton et al., 2014). Customer experience involves "the total experience, including the search, purchase, consumption, and after-sale phases of the experience" (Verhoef et al., 2009). The nature and of these 'participation episodes' potentially influences their perceptions about service outcomes. Hence, exploring the influence of customer participation on customer experience will be essential and can give various insights to the service providers in delivering a memorable service to the customer. Therefore, it is necessary to examine the influence of customer participation in various service outcomes considered in the study and hence, the following hypothesis:

***H1a*:** Customer participation has a positive influence on service outcomes

3.4 MEDIATING VARIABLES IN THE INFLUENCE OF CUSTOMER PARTICIPATION ON SERVICE OUTCOMES

As presented in the literature review (see Chapter 2), the impact of several mediators in the relationship between customer participation and service outcomes were identified from previous studies. The widely used ones were customer cocreated value including individual value, enjoyment value, economic value, and relational value, employee value creation like job stress and relational values (Chat et al., 2010; Yi and Gong, 2013; Flores and Vasquez-Parraga, 2015; Chen and Wang, 2016). Other mediators studied were the types of participation based on whether the customers are producing or designing the product or service (Dong, 2015), perceived ease of use, perceived usefulness (Sheng and Zolfagharian, 2014), service failure attribution (Chen, 2018), and customer empowerment (Auh et al., 2019). Also, literature shows support for customer emotions consisting of both positive and negative emotions (Zhao et al., 2018) as mediators. Also, certain negative mediators were also studied in the customer participation – service outcomes link, such as role stressors including role conflict, role overload and role ambiguity (Blut et al., 2019), customer burnout (Menguc et al., 2019), and negative feelings (Blut et al., 2019).

However, when customer participates in an SST, based on the activity they need to perform, their well-being gets affected, which in turn could influence the service outcomes. For

example, if the customer needs to do a self-check-in at the airport, and they need to go through multiple steps which consume mental and physical efforts of the customer, thus affecting their well-being. Also, literature shows support for the mediation role of emotions in the influence of customer participation on service outcomes (Zhao et al., 2018). Therefore, customer well-being during service participation may be influencing the service outcomes, and hence, the same could be considered for examining the mediating role. Customer well-being is explained under the sub-sections – well-being, transformative services research, task-related affective well-being, and mediating role of task-related affective well-being.

3.4.1 Well-Being

Well-being is a holistic construct comprising of moods and emotions (Schwarz and Clore, 1996), happiness (Diener and Lucas, 1999), life satisfaction (Ryan et al., 2008) in addition to physical and mental elements. Subjective well-being of an individual is conceptualized as the degree to which an individual experience positive or a negative affect during their life (Diener et al., 1999; Zhong and Mitchell, 2012). WHO (1948) defined an individual's health as "a state of complete physical, mental and social well-being". This is reflected in the current priorities in the domain of TSR that emphasizes the need for researching and better understanding services that improve and transforms the lives of customers thus gaining the ongoing interest of scholars (Sirgy and Lee, 2008; Rosenbaum et al., 2011; Anderson et al., 2013). TSR literature facilitates understanding the importance of well-being in any service context because it is conceptualized to investigate the relationship between service experiences and individual well-being (Anderson, 2013).

Conceptually, well-being is approached by two traditions, hedonic and eudaimonic in the literature. The concept of hedonic well-being is based on sensory pleasure whereby positive emotions and better life satisfaction leads an individual to experience happiness (Kahnemann et al., 1999; Diener et al., 1999; Carruthers and Hood, 2004). Hedonic experiences are transitory and help to increase the well-being of an individual temporarily (Deci and Ryan, 2008). On the other hand, eudaimonic well-being embodies life's purpose (Ryff and Singer, 2000; Deci and Ryan, 2008) where the individual utilizes their full potential and achieve improvement. Hedonic experiences are transitory (Myers, 1992) that increase the well-being of an individual temporarily (Deci and Ryan, 2008). Well-being embraces the concept of psychological needs (Ryan and Deci, 2001; Deci and Ryan, 2008) constituted of autonomy, competence, and relatedness as an essential basis for well-being.

3.4.2 Transformative Service Research

Transformative service research (TSR) is regarded as any research; irrespective of academic discipline investigates the relationship of well-being in services (Anderson et al., 2013). The primary goal of TSR was to explore and examine well-being implications of services, and this domain is aptly defined as "the integration of consumer and service research that focusses on creating uplifting changes and improvements in the well-being of consumer entities: individuals (consumers and employees), communities and the ecosystem" (Anderson et al., 2013, p.1204). TSR highlights the central roles of individual well-being during service encounters (Anderson and Ostrom, 2015) because the customers' continuous interaction with services may affect their well-being positively or negatively. The TSR domain comprises on evaluating facets of well-being that include "mental and physical health, financial well-being, discrimination, marginalization, literacy, inclusion, access, capacity building, and decreased disparity among others" (Rosenbaum et al., 2011; Anderson et al., 2013). The current study attempts to understand the role of well-being in the influence of customer participation on service outcomes in service encounters and hence falls under the domain on TSR.

3.4.3 Task-related Affective Well-Being

The role of customer and their activities in service delivery has gained much attention, and there is a significant amount of literature in understanding the drivers of customer value co-creation and how it impacts the service providers, employees and the service outcomes (e.g., Dong et al., 2014; Gallan et al., 2013; Yim et al., 2012; Chan et al., 2010). Even though literature concentrates on the influencers of co-creation and their positive impact on the service providers, only limited studies have studied the effect of cocreation on well-being outcomes of customers and employees, such as financial well-being (Guo et al., 2013), participation enjoyment (Yim et al., 2012). Given the increasing co-creating role of customers and the significance of customers in value creation, there is a dearth in understanding the role of customers as part of co-creation activities and their impact on their well-being.

Zhong and Mitchell (2012) identified the significant influence of subjective well-being on the consumption process. Moreover, TSR suggests that well-being could be vital in every type of service context. Still, to date, the attempts to conceptualize the role of the construct in service encounters comprising the various forms of participation is limited. The current study decomposes participation into its constituent parts and considers their impact on well-being as well as how that impacts service-related outcomes. Given participation types reflect the

customers' tasks in hand and those potentially impart or trigger an event which could result in impacting the well-being of the person influencing their service outcome, in this study well-being is depicted from the perspective of task-related affective well-being (TrAWB).

Hence, the current study draws directly upon the underlying theme of TSR paradigm to explain the central role played by well-being during the service encounter; one that is potentially typified by a customer journey involving customer participation. Since various constructs mediate the influence of customer participation on service outcomes, such as value creation of customer and employees (Chan et al., 2010), service attribution (Chen, 2018), among others, the study considers that task-related affective well-being will also play a central role in the link between participation and a range of service outcomes.

3.4.4 Mediating role of task-related affective well-being

The current study considers multiple theories to understand the mediating role of task-related affective well-being. To conceptualise the influence of customer participation on task-related affective well-being, the study draws support specifically from self-determination theory (SDT) (Ryan and Deci, 2000) and the framework offered by McColl-Kennedy et al. (2017) on the elicitation of emotions on the service experience. According to Ryan and Deci (2000), SDT is well thought out organismic theory of motivation and well-being. It assumes individuals have predispositions to grow, master challenges, and integrate new experiences into a coherent sense of self thus "humans are active, growth-oriented organisms who were naturally inclined towards the integration of their psychic elements into a unified sense of self and integration of themselves into social structures" (Deci and Ryan, 2000, p.229). SDT identified that individuals have innate psychological needs that upon satisfying/thwarting can enhance or diminish motivation, mental health and well-being (Ryan and Deci, 2000).

SDT suggests a similar underlying mechanism for both motivation and well-being (Deci and Ryan, 1985) and through that scholars were able to articulate the theory of psychological needs that form the underpinning of personal growth, integrity, and well-being (Deci and Ryan, 2000). Deci and Ryan (2000) suggest that when basic needs (i.e. physiological and psychological) are satisfied with, this stimulates well-being and if not satisfied, potentially leads to ill-being. These needs comprise of autonomy, competence, and relatedness (Levesque *et al.*, 2004). During customer participation, customers experience self-endorsement and discretion in their behaviour and take an internal locus of control from the perspective of attribution. Since customers participate out of genuine interest and needs, it promotes a sense

of autonomy and freedom. While participating in the process and journey related to service creation, customers exercise, maintain and enhance their capabilities to adapt to a complex environment. Hence, customers feel confident in their behaviour that would help to further encourage a sense of competence in their ability to perform their role in the service. By participating in the service customers also feel connected to others, and when the customer experiences these psychological attachments, it acts to boost their sense of relatedness (Engstrom and Elg, 2015; Gong et al., 2016). By adopting Ryan and Deci's (2000) self-determination continuum, Engstrom and Elg (2015) were thus able to demonstrate the taxonomy of participation based on motivation to help show the influence of customer participation on well-being.

In a more recent study, McColl-Kennedy et al. (2017) have conceptualized the influence of events on the emotional well-being of the customer in a healthcare service context. Their framework suggests that a 'trigger event' can lead to a dynamic series of subsequent emotional experiences represented as sub-events comprising emotional relevance. This set of events triggers a potential suite of discrete (positive and/or negative) emotions that are likely to be short-term and transient and these can influence well-being during the customer's participation journey that would be experienced during the service encounter. Therefore, the following hypothesis:

H1b: Customer participation has a positive impact on task-related affective well-being

The information processed from the well-being of the customer helps in making judgements (Schwarz, 2012). Feelings as information theory (FIT) is one of the most influential explanations for the cognitive consequences of the affect (Schwarz and Clore, 2003). According to Schwarz and Clore (1996), FIT helps to better explain the role of experience, cognitive and somatic components of feelings in making judgements. The experience component of feelings include affective experience (e.g., emotions and moods), bodily experience (e.g., hunger, pain, psychological arousal) and cognitive experience (e.g., the metacognitive experience of accessibility, processing fluency). The cognitive component explains the storage and access of these experiences, based upon an individual's memory of previous events. The somatic component reflects the feeling of body movements processed for judgements. Hence, the theory assumes feeling acts as a potential source of information to enable an individual in the judgement process.

Therefore, by considering FIT as the lens to view the process of participation of customers during a service encounter, this theory helps to explain better the impact that the level and nature of their feelings of well-being will play when making judgments about service outcomes. Typically, when a customer participates in a service encounter the direct effect of their moods, emotions, metacognitive experiences, and bodily sensations helps to temper the customers judgement accordingly. Thus, based on the favourable judgement of well-being, the service outcomes are most likely to be considered positive, whereas the negative judgement of well-being impacts the service outcomes adversely. Hence, this study draws upon FIT to explain the linkage of task-related affective well-being on various service outcomes in addition to the influence of customer participation on service outcomes. Therefore, the following hypothesis:

H1c: Task-related affective well-being has a positive effect on service outcomes.

Based on the above discussion, it can be argued that task-related affective well-being is theoretically supported to mediate the influence of participation on service outcomes. Task-related affective well-being comprises affective, mental, and physical well-being of the customers that occurs during their service experience, facilitated by one or more of the forms of participation. The depiction of task-related affective well-being as a mediator draws on previous work in OB/HR areas that similarly show employee well-being as a mediator between management practices and organisational performance (Wood et al., 2012), as well as intervening between internal service quality and employee performance (Sharma et al., 2016). Introducing task-related affective well-being as a mediator in a consumer research setting is a significant contribution because it looks beyond the more commonly displayed roles of task-related affective well-being as being antecedent (Zhong and Mitchell, 2012) or an outcome (Devezer et al., 2014; Zhong and Mitchell, 2010) based construct. Therefore, the following hypothesis:

H1d: Task-related affective well-being mediates the positive influence of customer participation on service outcomes

3.5 MODERATING VARIABLES IN THE INFLUENCE OF CUSTOMER PARTICIPATION ON SERVICE OUTCOMES

Prior research shows that participation is a process (Dong and Sivakumar, 2015) in which the degree of a consumers' participation readiness (Dong et al., 2015), and service output (Dong and Sivakumar, 2015) were considered as the moderators in the relationship between customer

participation and service outcomes. Also, power distance (Chan et al., 2010), individualism/ collectivism (Chan et al., 2010), self-efficacy (Chen, 2018), among others were considered to moderate the mediated path between customer participation and service outcomes. There are various types of moderators, such as customer-specific moderators, firm-specific moderators, context-specific moderators, and situation-specific moderators.

Since the study is specifically on the task involved and how well a customer can participate in the same, it is crucial to understand the role played by the customer's knowledge regarding the task and the complexity of the task. This would intervene in the relationship between customer participation and service outcomes. Also, Dabholkar (1990) while defining CP narrated the importance of customer knowledge and task complexity in the service encounters that require customer participation and hence current study attempts to understand their role. Moreover, the study attempts to consider one customer-specific moderator and one organization-specific moderator. The variables are considered as moderators as the theories suggest the influence on the relationship in the mediated path of CP – TRAWB – service outcomes. The logic behind considering the two moderators are, the elevated (or limited) previous customer knowledge about what to do during a service encounter helps (or hinders) participation in the service encounter. In contrast, task complexity reflects the service design that is 'controlled' by the firm and this can either enhance or thwart the participating process. Therefore, it is essential to understand the role played by customer knowledge (customer-specific moderator) and task complexity (firm-specific moderator).

3.5.1 Customer Knowledge

Customer knowledge is defined as the perceived knowledge of the customer regarding the service encountered, enabling them to participate effectively (Chiou et al., 2002; Meuter et al., 2005). Customer knowledge is expected to influence information valuation and choice (Rao and Monroe, 1988). Knowledge regarding the services enhances the customer in assessing the service and be more efficient in their selection (Brucks, 1985). Alba and Hutchinson's (1987) analyzed the influence of customer knowledge on product evaluation, brand evaluation, attitude formation, and information search behaviour and found that variations in the levels of customer knowledge have a differential influence in evaluating and using information. Customer knowledge regarding the services was found to have a significant role in developing the trust and making them confident in using the services thus helping the service providers in differentiating their service offerings (Eisingerich and Bell, 2008). Hence, customer knowledge regarding the service offerings may affect the influence of customer

participation on various service outcomes and therefore considered as a moderating variable in the current study. Also, as the literature suggests, knowledge will enhance the confidence of the customer related to the service task in hand, improving the influence of customer participation on task-related affective well-being.

Typically, customer knowledge is a customer-specific factor and conceptualized as perceived knowledge of the customer regarding the service encountered enabling them to participate effectively (Chiou et al., 2002; Meuter et al., 2005). Bowen (1986) explains ways to improve customer participation by providing more awareness or knowledge from a human resource perspective. Based on the self-efficacy theory (Bandura, 1977) better knowledge about the service will enhance the customer's beliefs in their innate ability to process and achieve the goal of performing the service effectively thus improving the task-related affective well-being of the customer. Hence, customer knowledge has a positive influence on task-related affective well-being and is hypothesised as follows:

H2a: Customer knowledge has a positive effect on task-related affective well-being.

The strength of the relationship that customer participation has on task-related affective well-being and service outcomes will be moderated by customer knowledge (high vs low) based on the elaboration likelihood model (Petty and Cacioppo, 1986). The ability of the customer to participate in the service encounter depends on the customer knowledge, and it determines the route of the processing as being either a central or peripheral route. A central route is when an individual gives thoughtful consideration to the merits of information available. In contrast, the peripheral route results from a simple cue without scrutinizing the benefits of available information (p. 125).

The first type of persuasion was that which likely resulted from a person's careful and thoughtful consideration of the real merits of the information presented in support of an advocacy (central route). The other type of persuasion, however, was that which more likely occurred as a result of some simple cue in the persuasion context (e.g., an attractive source) that induced change without necessitating scrutiny of the real merits of the information presented (peripheral route). This means that when customer knowledge is high about what to do and how to do it, the processing of knowledge is likely to take place by the central route. Conversely, if their knowledge regarding the service is low, the processing will take a peripheral route and hence reduce the strength of relationships. The high customer knowledge/ central processing route is thus wholly based on the information in hand, leading to an increase

in the strength of the relationships. The low customer/ peripheral route is based on peripheral service-related cues that are likely to reduce the strength of the relationship. Hence, higher customer knowledge will interact with customer participation to increase the influence on task-related affective well-being and that of task-related affective well-being to service outcome positively. In contrast, lower customer knowledge will interact with customer participation to reduce its impact on task-related affective well-being and that of task-related affective well-being to service outcomes. Therefore, the following hypotheses:

H2b: The positive effect of customer participation on task-related affective well-being will be stronger (weaker) for higher (lower) levels of customer knowledge

H2c. The positive effect of task-related affective well-being on service outcomes will be stronger (weaker) for higher (lower) levels of customer knowledge

3.5.2 Task Complexity

Task complexity is defined as the degree of difficulty of a task based on the characteristics of the task, such as the psychological experience of the customer and customer-task interaction (Campbell, 1988). According to social cognitive theory (Bandura, 1977), the customer may choose a simple task over a complex task. It is because a simple task will lead to a more certain outcome, thus reducing the risk of failure. Wood (1986) viewed that task complexity is associated with the number of elements in the task. Task complexity is based on the structure of the task based on the attention, reasoning, memory and other information processing demands. A simple task may be less demanding in processing information compared to a complex task as the attentional focus, reasoning, working memory, and other cognitive demands are lesser (Robinson, 2001). Customer task is hence characterized based on the challenging work required, levels of decision-making latitude, and significance of the task (Shalley et al., 2004).

Customer task complexity is defined as "customer tasks that are rich in variety, identity, significance, autonomy and feedback" (Gong and Choi, 2016). Variety depicts the different skill requirements to perform diverse tasks; identity depicts the completion of a task by the customer; significance depicts the importance and meaningfulness perception of the task by the customer; autonomy depicts the extent of freedom enjoyed by the customer in performing their tasks; and finally, feedback depicts the information received by the customer on their task performance (Coelho and Augusto, 2010; Coelho et al., 2011; Hackman and Oldham, 1980). When the customer participates in the service encounter, the task given to them can

vary based on the service and the choice available. Hence, task complexity plays a vital role in the completion of the task, and it could affect the influence of customer participation on various service outcomes and task-related affective well-being. Also, task complexity may have an impact on the influence of task-related affective well-being on various service outcomes since the well-being interacts with the attentional focus, reasoning, working memory and other cognitive demands.

In a service encounter, the task at hand facing the customer is critical in considering the nature of the customers' participation because the degree of complexity may influence their how they engage - resulting in a positive or negative impact on the customers' view of service outcomes. This is because task complexity is conceptualised as the degree of difficulty of a task and based on the characteristics of the task such as the psychological experience of the customer and the customer-task interaction (Campbell, 1988). According to social cognitive theory (Bandura, 1977), the customer may choose a simple task over a complex task because the former will lead to a more certain outcome - reducing the risk of failure. As the complexity of the task increases, it influences the task-related affective well-being negatively; hence, the following hypothesis:

H3a: Task complexity has a negative effect on service outcomes.

Based on social cognitive theory (Bandura, 1977) it is anticipated that the strength of relationship from customer participation towards task-related affective well-being and task-related affective well-being towards service outcomes will be moderated by task complexity (high vs low). Task complexity interacts with customer participation; high task complexity will make the participation difficult compared to low task complexity. This is underpinned by Wood (1986), who argues that task complexity is based on information cues an individual needs to process in performing a task. The number of distinct cues an individual must process for successful task completion is the function of task complexity.

Previous literature on task complexity specifies that high task complexity demands more cognitive resource due to the increase in information processing requirements (e.g. Zigurs and Buckland, 1998; Speier and Morris, 2003; Klemz and Gruca, 2003). The cognitive capacity of the individual may be adversely influenced when the information processing exceeds a specific limit, leading to a negative performance (Norman and Bobrow, 1975; Kamis et al., 2008). Hence higher task complexity will interact with customer participation to increase the influence on task-related affective well-being and that of task-related affective well-being to

service outcome negatively. In contrast, a lower task-complexity will interact with customer participation to increase its impact on task-related affective well-being and that of task-related affective well-being to service outcomes. Therefore, the following hypotheses:

H3b: The positive effect of customer participation on task-related affective well-being will be stronger (weaker) for lower (higher) levels of task complexity.

H3c: The positive effect of task-related affective well-being on service outcomes will be stronger (weaker) for lower (higher) levels of task complexity.

As previously indicated customer participation is becoming critical in the service industry, playing a critical role in service delivery and associated outcomes. Literature suggests that asking the customer to participate in a service encounter may affect their well-being; whereby some customers may find it positive while others may not want to participate and/or even encounter a complex task. Based on the theoretical underpinnings and existing literature related to the topic, it is apparent that those constructs identified in the proposed conceptual model (see Figure 3.3) play an important role in helping shape customer expectations about the service offering.

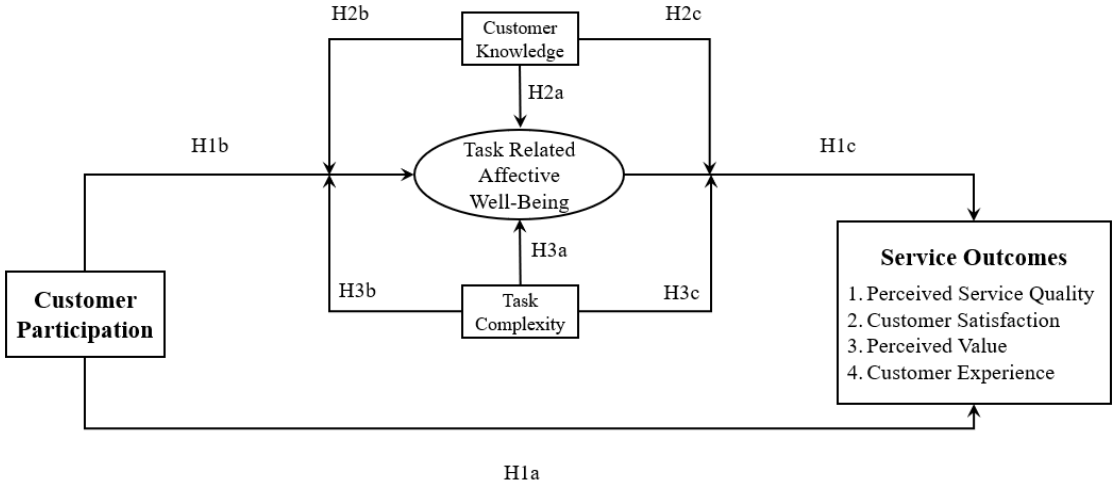


Figure 3.3 The Conceptual Model

3.6 CUSTOMER PARTICIPATION TYPOLOGY

Dong and Sivakumar (2017) proposed a typology for customer participation based on the nature of the tasks being undertaken and who carries out the task while in participation, whether it is the customer or the service provider. The typology is manifested as mandatory participation, replaceable participation, and voluntary participation. Mandatory participation refers to those activities that are performed only by customers and are essential for the delivery of the service. Typically, a mandatory customer input includes people (e.g., the customer's

presence at a dental clinic), objects (e.g., clothes for tailoring), information (e.g., providing information for tax preparation), and preferences (e.g., choosing a flight for travel). Replaceable participation refers to those essential activities that could be potentially performed by customers as well as service providers meaning the presence of substitutes (in terms of performance) are available to the customer when experiencing the service. The inputs required will be similar to mandatory, but there is a choice in the actor performing the task (e.g., grocery check-out done by an employee or self-checkout by the customer) and this choice is mainly at the discretion of the customer. In contrast, voluntary participation refers to activities that are either performed by the customers or the service providers but are not essential for the service delivery to occur, however, they do potentially help enhance the customer's overall service experience. The decision to incorporate particular service elements into the service offering, as well as for deciding who 'performs' the role is at the sole discretion of the customer. However, these two decisions do not detract from the overall service as they simply help to augment the offering (e.g., additional legroom during air travel).

The current study attempts to manipulate customer participation into mandatory, replaceable and voluntary participation. The manipulation is done with the help of scenarios, and customers were requested to position themselves in the scenario and respond based on the situation provided in the scenario (see Chapter 4 for details). Mandatory participation, by definition, offers a situation the customer performs the entire task and are devoid of any choices. In the study, customers were asked to imagine themselves being in a self-service encounter using a self-service technology for service consumption. For replaceable participation, customers are provided with choices, and they will be presented with a situation which allows them to have the option of using the self-service technology or go through the employee counter for the service delivery. Voluntary participation as defined above can be any task which is done on discretion by the customer, and the customer is asked to complete a survey if they prefer to do it. The three types of situation may provide a difference in the way it influences the service outcomes.

The three types of participation may place different levels of stress on customers in the process of any service consumption. The impact of the three types of participation (i.e., mandatory, replaceable, and voluntary) on both task-related affective well-being and the critical service outcomes are proposed herein to be different, justifying the need to conceptualize participation as being multi-faceted to tease out these variations. The differential influence of customer participation types could be explained using the reactance theory (Brehm, 1966).

Reactance theory (Brehm, 1966) helps to understand the differential influence of participation types on all four of these service outcomes. Reactance theory is social-psychological in nature that helps explain the reaction of an individual when their freedom to choose is restricted (Brehm, 1966). When there is a threat against an individuals' freedom to engage in specific behaviour, threatened behaviour becomes more attractive. Under any specific situation, two conditions arise and must be satisfied for reactance to occur, namely: (a) an individual must assume a measure of freedom to act, and (b) there must be some threat imposed upon that freedom (Lessne and Venkatesan, 1989).

Typically, from the reactance theory perspective, mandatory participation critically affects the customers' freedom to act during a service encounter as they need to undertake this form of activity to experience the service encounter. By posing a threat to their freedom to act (i.e. restrict choices) this in effect means mandatory participation is the least attractive option to the customer when compared to replaceable participation as the latter comprises more customer freedom, due to it also being potentially performed by the service employee. From a reactance theory perspective, the most attractive action needed to be performed by the customer is voluntary participation as this represents complete freedom of choice. Hence, customers would perceive voluntary participation better than replaceable participation, followed by mandatory participation. Therefore, the following hypotheses:

H4a: The positive effect of customer participation on task-related affective well-being are greater for voluntary customer participation followed by replaceable customer participation followed by mandatory customer participation

H4b: The positive effect of customer participation on service outcomes are greater for voluntary customer participation followed by replaceable customer participation followed by mandatory customer participation

Similarly, the differential impact of three types of participation on service outcomes and task-related affective well-being will influence the interaction of customer participation with customer knowledge and task complexity. As suggested before, the positive influence of customer participation on task-related affective well-being will be enhanced with the interaction of customer participation. In contrast, the positive influence of customer participation on task-related affective well-being will be reduced with the interaction of task complexity. Hence, the three types of participation differentially influence their interaction with the moderators, customer knowledge and task complexity. The differential influence of

customer participation types was explained using the reactance theory (Brehm, 1966), as mentioned above. From a reactance theory perspective, the most attractive action needed to be performed by the customer is voluntary participation as this represents complete freedom of choice. Hence, customers would perceive voluntary participation better than replaceable participation, followed by mandatory participation. Therefore, the following hypotheses:

H5a: The positive effect of customer participation on task-related affective well-being is stronger (vs weaker) for higher (vs lower) levels of customer knowledge, and the effect is greater for voluntary customer participation followed by replaceable customer participation followed by mandatory customer participation

H5b: The positive effect of customer participation on task-related affective well-being is stronger (vs weaker) for lower (vs higher) levels of task complexity, and the effect is greater for voluntary customer participation followed by replaceable customer participation followed by mandatory customer participation

3.7 NATIONAL LEVEL CULTURAL ORIENTATION

Culture is defined as "collective mental programming distinguishing the members of one group or category of people from others" (Hofstede, 2001, p. 9). The elements that frame such mental programming are norms, values and beliefs that are transmitted throughout generations in society by facilitating the transaction and easing the tensions resulting in the formation of specific motivations, attitudes, and behavioural patterns (Au et al., 2018; Fehrenbacher et al., 2018; Keller et al., 2018, Hofstede, 1980). National level cultural orientation used in the study attempts to examine the differential influence of national culture in the proposed conceptual model. Various models are used to measure the national culture (Chen et al., 2012), and the best used is Hofstede's cultural dimensions with up to six dimensions (Hofstede, 1980, 2001) and GLOBE (House et al., 2004) survey with nine dimensions. The current study explores the effect of national-level cultural orientation using Hofstede's cultural dimensions framework using the national level scores of the six dimensions. Six cultural dimensions that affect people's behavioural patterns were identified by Hofstede (1980, 2001) and Hofstede and Minkov (2010) in their widely influential work. The dimensions include individualism/ collectivism, power distance, uncertainty avoidance, masculinity/femininity, long-term/ short-term orientation, and indulgence/restraint (see Figure 3.4). Even though Hofstede's cultural values approach is not without limitations (Jones, 2007; McCoy et al., 2005; Baskerville, 2003; McSweeney, 2002), it is widely used and represents a concise taxonomy of significant

cultural dimensions that explain the behavioural preferences of people in a given society and continues to be widely used in cross-cultural studies.

According to Chan et al. (2010), customer participation was considered as social exchange, and therefore, the norms, roles and expectations of customers would be influenced by each party's cultural background (Patterson et al., 2006). Chan et al. (2010) demonstrate that individualism-collectivism and power distance cultural value orientations moderate the effects of customer participation on value creation. In the current study, the comparison is made between India and Australia in the context of customer participation in service consumption. It can be anticipated that cultural differences between these countries may affect the participation process. It is considered that people with a higher collectivist value orientation, for instance, India, compared with Australia, tend to be more expressively motivated and hope to establish social relationships. They place a higher value on the high "touch" component of their participation (Malhotra et al., 1994). Collectivist cultures are more predisposed to establishing a relationship with companies as "friends" and adapt their behaviours to cooperate and make personal connections (Stryker and Statham, 1985). Hence, they could be less attracted to self-service technologies. On the other hand, customers with a higher individualistic value orientation prefer rewards that are proportional to their contributions (Chen et al., 1998). They are less concerned with relationship building and more with customised service outcomes (Chan et al., 2010).

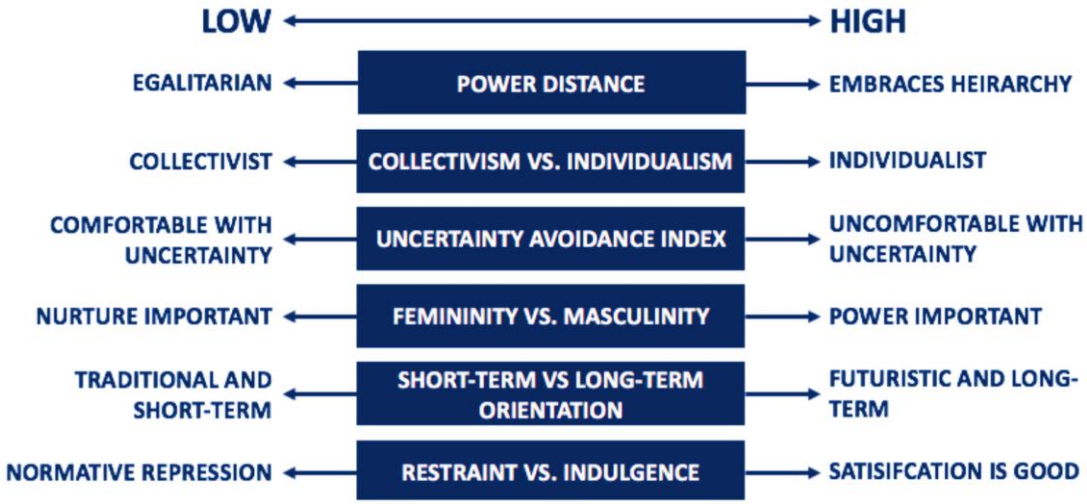


Figure 3.4 Hofstede's Cultural Dimensions

According to Johansson (1990), customers with a higher power distance value orientation, for instance, India, compared with Australia, may benefit less from participating in the service process. Increasing customer involvement in decision making may also generate greater

anxiety (Chan et al., 2010). Both Indians and Australians were found to be masculine stressing that their drive for achievement and material reward, therefore, shows the importance in customer participation. India is low on uncertainty avoidance compared to Australia. Hence, India will have higher tolerance or acceptance towards ambiguity, and the unfamiliar and Australians will be more focussed towards attaining details on the service participation before developing the participation behaviour. Finally, the score shows that Australians have high indulgence than Indians who have restraint behaviour. This states that Indians have stronger fear for failure (Hicks et al., 2015) compared to an indulgent culture which can potentially reduce the participation during the service encounter. The indulgent nature of Australians will enable them to participate in any form and makes it more comfortable for their participation in self-service technologies. Therefore, it is essential to incorporate national-level cultural orientation into the conceptual model and hence, the following hypotheses:

H6: National level cultural orientation influences the positive effect of customer participation on (a) service outcomes and (b) task-related affective well-being

H7a: National level cultural orientation influences the interaction effect of customer knowledge in the relationship between customer participation and task-related affective well-being

H7b: National level cultural orientation influences the interaction effect of task complexity in the relationship between customer participation and task-related affective well-being

3.8 SUMMARY

This chapter briefed on the theoretical background and discussed the overarching theory as well as many theoretical perspectives that helped to formulate the research framework used in the study. Various literature on the influence of customer participation on service outcomes was discussed to identify significant contributions of such attempts to bring better conceptual clarity to the proposed hypotheses. The chapter attempted to portray the rationale behind the adoption of the concept of transformative service research, and the role played by well-being in services research and the review on well-being and the formation of task-related affective well-being on decisions related to constructs used in the study. The chapter also presents the rationale for the adoption of various moderating variables discussed in the extant literature on customer participation in the current research and attempted to understand the importance of customer knowledge and task complexity in ensuring active customer participation for

positive service outcomes. Besides, the chapter justifies the inclusion of national cultural orientation as a moderator to understand the role played by customer participation types in a self-service setting.

CHAPTER 4

RESEARCH METHODOLOGY

4.1 INTRODUCTION

Research methodology chapter narrates the epistemological view to explain the nature of the research framework developed to validate the hypotheses of the study. Research area in services marketing deploys quantitative, qualitative, and mixed methods for meeting research objectives (Mustak et al., 2013). The current study considers literature and theoretical support to establish the conceptual model and adopts a cross-sectional experimental research design employing a quantitative method to demonstrate the causal relationship between various constructs in the model.

The chapter elaborates on the research process and research design of the study with a footing on its philosophical foundation. The chapter starts with the identification of the research paradigm adopted for the study. The research paradigm gives the justification for adopting a research method used in the study. Research design includes the explanation of the approach selected and the narration on the population, sample, sampling, and sample size used for the study. The chapter further explains the methods used for hypotheses testing and ends with a summary. Figure 4.1 presents the chapter structure.

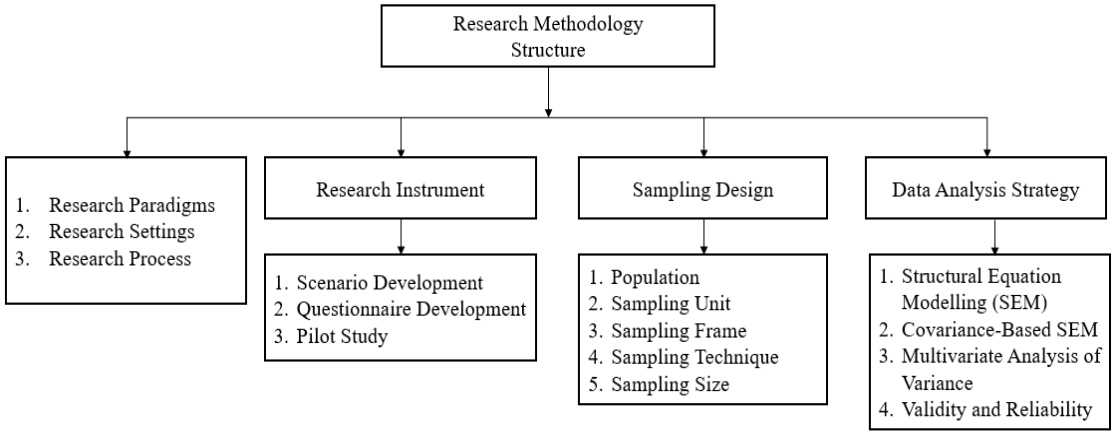


Figure 4.1 Chapter Structure

4.2 RESEARCH PARADIGM

Research paradigms are the philosophical views that show the direction to the research, specifically “A research paradigm is a cluster of beliefs that dictates scientists as what should be studied, how research should be conducted, and how results should be interpreted” (Bryman, 1988). Ontology, epistemology, axiology, and methodology are the four aspects that

are encompassed in a paradigm. Ontology refers to the assumptions about the social or real-world; epistemology discusses what is regarded as "acceptable knowledge" in any discipline; axiology denotes values; and, methodology refers to the "best means" of obtaining the knowledge (Guba and Lincoln, 2005). Research paradigms contemplate on the philosophy of being (ontology) and the philosophy of knowing (epistemology) (Bryman and Bell, 2011). This will help in understanding the axiology to recognize and appropriate adopted methodology in research. A research paradigm fundamentally provides a platform for the study to raise its rigour and soundness. Epistemology and ontology orientations are directly related to reviews concerning business (Bryman, 1984). Epistemological studies involving arguments on the very nature of business knowledge and the way this business knowledge is gained. While ontological studies concern social entities and questions, the role played by social actors or the people involved. The two distinctive research paradigms grounded on an epistemological framework are the interpretivism and positivism approaches (Weber, 2004).

Positive research with inductive reasoning has been the dominant form of research in the domain of marketing (Hanson and Grimmer, 2007), which is based on verification-oriented causal relationships through a quantitative methodology (Cook and Reichardt, 1979). The context and objectives of the current study determined the research paradigm. The purpose of this study was to examine the mediating role of task-related affective well-being and the moderation effect of customer knowledge and task complexity in influencing customer participation that decides various service outcomes. Also, the study attempts to understand the differential impact of three types of customer participation. In this regard, the study followed a positivist paradigm doctrine to develop specific hypotheses about the relationships between variables of the study, identified suitable items for the measurement of variables and carried out statistical analysis to test the hypotheses taking insights from a representative sample. The positivist paradigm is often used for theory verification and the methodologies used are extremely repetitive as they are structured to accommodate large samples. This approach collects rich and complex information on social phenomenon and translates the data freely without bias or prejudgments, thus logically generalizing them to the society (Uma and Roger, 2013; Sekaran, 2003; Malholtra and Peterson, 2006).

The epistemological consideration and the positivist research paradigm lead to a quantitative research approach. One of the positivist paradigm features is that it envisages the social behaviour of research participants while the researcher maintains distance from the participants to minimize researcher bias. The thoroughly organized data collection technique

leads to deductive reasoning, which can be achieved using valid and reliable quantitative methods (Bryman, 2008; Bryman and Bell, 2003). A structured, systematic data collection technique is essential for quantitative methods as the study requires a statistically acceptable sample size to gain insights. Subsequently, the estimation of the mathematical model developed to examine the relationships between the constructs is done (Bryman, 2008; Sekaran, 2003). This approach will become highly reliable, valid and generalizable if the sample size is adequate (Hair et al., 2006; Cavana et al., 2001).

4.3 RESEARCH SETTINGS

The study is conducted in two settings, India and Australia. The conceptual model developed in this study is for every service context and setting. Since the study considers different types of participation, it was conducted in the context where the manipulation for three different types of participation was possible. Considering these services settings, both countries are fast-growing with respect to the adoption of self-service technologies. Indian domestic air passengers' market is one of the fastest-growing, and the self-check-in kiosks are vastly used (Mordor Intelligence, 2019). The self-checkouts in retail stores and supermarkets are widely getting accepted; however, Australia and Italy have the largest market in retail. It would be able to justify the sample size requirement as the population density using this service is more pronounced. Hence, the study is conducted in both the setting – Indian domestic airline check-in and Australian supermarket checkouts.

4.4 RESEARCH PROCESS

Research process is considered as the heart of research methodology that applies scientific methods to solve complex tasks (Blalock and Blalock, 1982). A research process involves various steps that help to understand the research domains that aid the researcher in asking meaningful research questions that could be studied by utilizing valid research methodologies that address the objectives (Nunamaker et al., 1990). The research process in the social and behavioural sciences can be summarized as follows: (1) choosing the research problem(s), (2) stating hypotheses, (3) formulating the research design, (4) gathering data, (5) analyzing data, and (6) interpreting the results to conclude about hypotheses (Bailey, 2008) (see Figure 4.2). Following is a brief discussion of the research process carried out:

Step 1: Literature Review

The research is initiated with an extensive review of the literature on customer participation to explore and identify various antecedents, consequences and intervening variables in

customer participation studies in the domain of services marketing. This was followed by literature on well-being and specifically consumer well-being in the services industry.

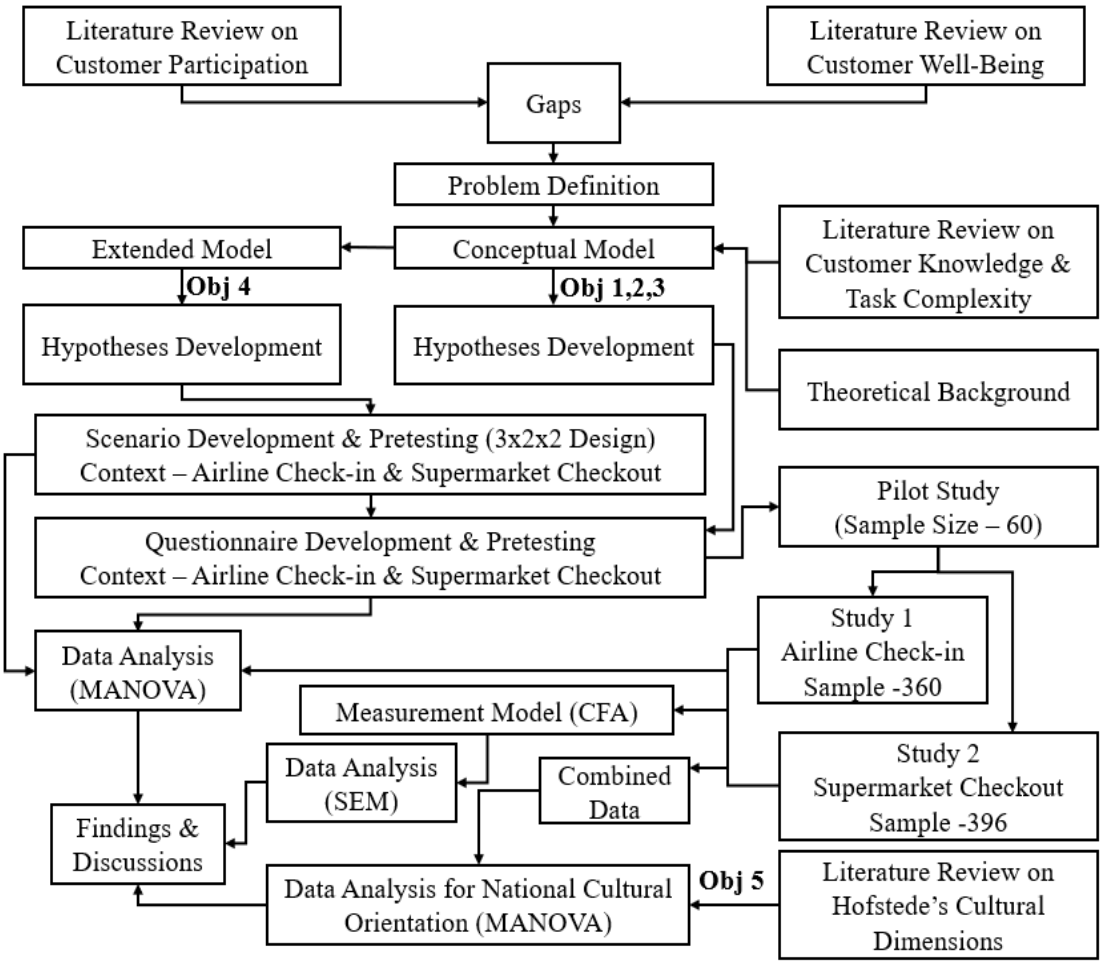


Figure 4.2 Research Process Flowchart

The literature on customer participation presented various constructs studied, which lead to the probable constructs that could help explain the service participation of the customer in a service encounter. Hence, the literature on customer knowledge and task complexity was reviewed to explore if they could play a role in service encounters while the customer participated. Sociotechnical systems theory was viewed as the overarching theory. In contrast, there were multiple theories such as self-determination theory, feelings as information theory, self-efficacy theory, elaboration likelihood model aided in the association between constructs used in the study (see Chapter 3 for details).

Step 2: Developing a Conceptual Model

Based on the review of the literature and theoretical support, a conceptual model comprising customer participation in service encounters and its relationship with other constructs was

developed. Various theories supported in building the conceptual model and the literature on customer participation and to the extended model for the study. Literature was analyzed to identify the existing established scales to measure the constructs in the study.

Step 3: Development of Hypotheses

Hypotheses are testable statements that are developed based on the literature support and theoretical underpinning. The conceptual model and hypotheses of the current study were built on the support of customer participation literature and various theoretical background. In this backdrop, 17 testable hypotheses were developed and justified for quantitative verification (see Chapter 3 for details).

Step 4: Scenario Development and Pre-testing

This study applies a quantitative research approach using a 3x2x2 between-subject experiment. Random assignment of participants was done for one of the twelve scenarios. The twelve scenarios were built based on the context for Study 1 and Study 2, as the context studied was different in the settings. Pre-testing of the developed scenarios took place sequentially among experts and target respondents in both the settings. The final version of the scenarios was refined based on the feedback from pre-testing.

Step 5: Questionnaire Development and Pre-testing

The questionnaire included scales to measure the eight constructs used in the study. Thirty three items were adapted from pre-established scales for the eight constructs. Additional questions were added to understand the demographic profile of the customers. A seven-point Likert scale was used to design the questionnaire. Pre-testing was conducted to ensure the validity and reliability of the items in the questionnaire. Pre-testing was carried out in two phases – experts and respondents from the target population. The final version of the questionnaire was refined based on the feedback from pre-testing. The development process applied to both the studies and the questionnaire was contextualized to fit in both the settings.

Step 7: Pilot Study

The study conducted a pilot survey among 60 respondents from the target population to ensure the appropriateness of the instrument further. The respondents for the pilot were selected on a random basis from the identified for the main study. The initial assessment of the validity and reliability of the instrument done using data from the pilot sample was positive.

Step 8: Data Collection

The study was conducted in two settings – Indian domestic airline check-ins and Australian supermarket checkouts. In study 1, the field experimentation data was collected through an online questionnaire survey using a convenience sampling approach. The sample contained postgraduate students with similar demographics (educational qualification, age, income) for homogeneity across the different groups in the population. Study 2 sample consisted of Australian retail customers with different demographic characteristics identified from online panel respondents.

Step 9: Data Analysis

The initial descriptive analysis of data was conducted using the IBM SPSS.20 software. The covariance-based structural equation modelling tool IBM AMOS.22 was used for hypotheses testing. Since the study requires analysis effects due to the manipulation of causal variables, a multivariate analysis of variance using SPSS 20 was performed (see Chapter 5 and 6 for details on data analysis).

Step 10: Discussion of Results

Findings based on the statistical analysis were presented and interpreted. The contribution to practitioners and academicians with limitations and future research agenda is elaborated based on insights gained out of significant observations about trends identified in the behaviour of the population under investigation (see Chapter 8).

4.5 RESEARCH INSTRUMENT

4.5.1 Scenario Development

Scenarios have been widely used in research related to psychology and behaviour (Lu et al., 2013; Liberman et al., 2007; Liberman and Trope, 1998) to reconstruct a situation desired by the researcher to prime customers and to facilitate the decision making of the respondents (Alexander and Becker, 1978). Marketing literature reports the use of scenarios in situations where the researcher had to evaluate services recovery, salesforce supervision, ethical judgment, deceptive practices, etc. (Wason et al., 2002). The variables, namely, customer participation types, customer knowledge, and task complexity, were manipulated in the current study to construct twelve scenarios. By presenting scenarios that describe a specific type of participation and highlighting them on a higher or lower customer knowledge and task complexity situation in contrasting scenarios, such that participants were able to personally connect to the situation presented in the scenario (Gronhoj and Bech-Larsen, 2010). To

manipulate the versions of scenarios, the contents were altered by the addition or removal of sentences based on the control for other versions. This approach is termed as a factorial scenario-based survey, that combines "ideas from experimental design with sample survey" (Rossi and Anderson, 1982, p. 15).

The scenario was defined as "stories which present hypothetical situations requiring action or judgment from respondents" (Wason and Cox, 1996, p. 155). In contrast, Alexander and Becker (1978, p.94) defined vignettes as "short descriptions of a person or social situation that contain precise references to what were thought to be the most important factors in the decision-making or judgement-making processes of respondents". One of the major advantages in the current study due to usage of a scenario-based experimental design Is that it will reduce social desirability bias, improve construct validity, standardize stimuli, and enhance the visualization of reality (Wason et al., 2002). Amidst a large number of studies using scenario-based design, literature for developing scenarios is limited in the field of marketing. Judgements on decisions and actions of participants based on the scenario and the results are less understood or focussed in the literature (Dabholkar and Kellaris, 1992).

The current study followed Wason et al. (2002) guidelines to prepare scenarios. Scenarios were developed by manipulating three variables in the study, customer participation, customer knowledge, and task complexity. Customer participation in the independent variable in the study and was manipulated for its three types, namely, mandatory participation, replaceable participation, and voluntary participation (see Chapter 2). The study considers customer knowledge and task complexity as moderating variables and is manipulated based on customer perception as high or low.

The three variables were manipulated based on the specific context, and manipulation checks for the scenarios were performed during the pre-testing stage and the main survey. The items used for manipulation check were identified from extant literature and were content verified with experts. Expert reviews helped to purify the scenarios and helped to achieve the face validity. Ten customers were selected from the target population for pretesting the scenarios and for verifying manipulation checks.

4.5.2 Questionnaire Development

A prominent paradigm for developing scales to measure latent construct was proposed by Churchill (1979). Churchill's procedure involves multiple steps, as illustrated in Figure 4.3.

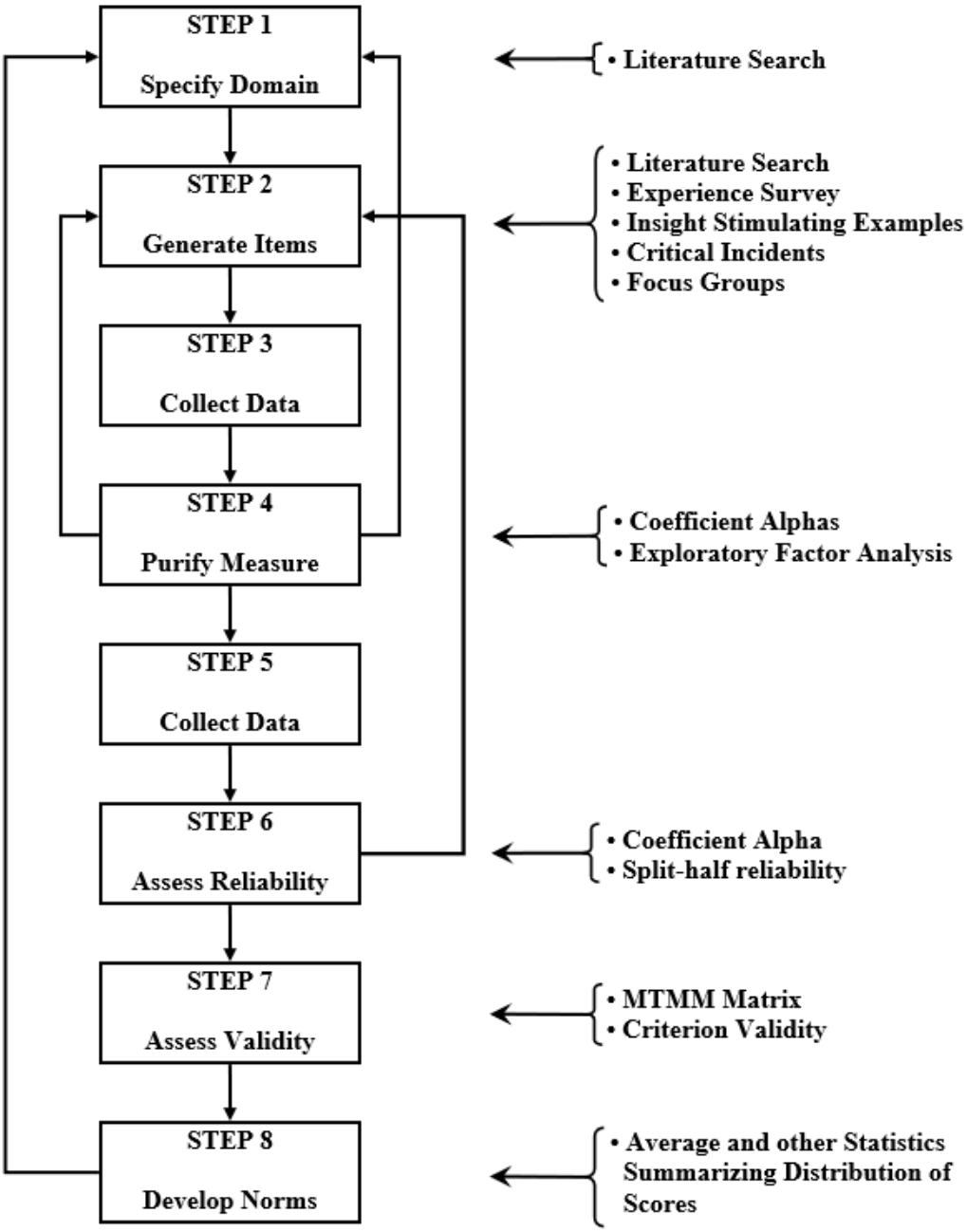


Figure 4.3 Churchill's Procedure for Developing Scales (Source: Churchill, 1979)

The first step in the procedure requires clarity on the domain of the construct by developing an appropriate operational definition based on the conceptual understanding about the construct from the extant literature that outlines the boundaries of the construct domain. Accordingly, on the strength of literature support and suggestions from experts in the academic domain, the constructs included in the theoretical framework of this study were defined as provided in Table 4.1.

Table 4.1 Constructs – Operational Definition and Measure

Variable Name	**Operational Definition and Measure**
Customer Participation	The degree to which the customer is involved in producing and delivering the service by providing and sharing information, making suggestions and other resources. 3 item-scale (Chan et al., 2010; Dabholkar, 1990)
Task-related Affective Well-Being	The frequent experience of positive affect and the infrequent experience of the negative affect based on the task performed during participation in the service encounter. 10 item-scale of General Health Questionnaire (E.g. Zhong and Mitchell, 2010, 2012) and well-being scale (Niven et al., 2012; Warr, 1990)
Customer Knowledge	The perceived knowledge by the customer regarding the service encounter, enabling them to participate effectively. 3 item-scale (Gurhan-Canli, 2003)
Task Complexity	The degree of difficulty of task based on the characteristics of the task. 4 item-scale (Hærem et al., 2015 in line with Wood, 1986 and Campbell, 1988)
Perceived Service Quality	The global judgment or attitude towards the service encounter, based on customers' beliefs about the service. 3 item-scale (Sharma and Wu, 2015; Zeithaml et al., 1996)
Customer Satisfaction	The emotional state of a customer on the evaluation of an interactive experience combining the customer's affective and evaluative aspects of the service encounter. 3 item-scale (Voss et al., 1998)
Perceived Value	The outcome of total evaluation of the utility of a product/ service by the customer based on their perception. 4 item-scale (Ruiz et al., 2008)
Customer Experience	The customer's subjective response or assessment of all attributes based on their direct and indirect interaction between the firm and the customer during the service encounter. 3 item-scale (Anderson and Smith, 2016; Pine and Gilmore, 1999)

The next step in the process was to identify suitable items to be included in "scale" for measuring the constructs. The term "scale" refers to an instrument useful for capturing a theoretical phenomenon that is not directly observable (DeVellis, 2003). Such aspects can be an attribute, behaviour, category or event that uses different values based on its level of prevalence in the sample unit. Behavioural and social sciences studies use phenomena that are abstract and not directly measurable and hence latent constructs by nature.

Latent Constructs are defined as "hypothetical constructs invented by the researcher to understand a research area" (Bentler, 1980). This study included many latent constructs and hence, observable and empirically measurable indicators/ items (also referred to as manifest variables) were required as explained in step 2 of Churchill's procedure. Extant literature in the area of customer participation, customer well-being and cultural orientations were thoroughly reviewed to identify relevant items helpful in measuring the constructs under investigation. A final of 45items were identified after scrutinizing 33 items located from the extant literature on confirming contextual relevance with the help of experts.

Constructs are concepts assessed using items (indicators) that bear a specific relationship with the phenomenon of interest. These connections between the phenomena explained by the construct and the items used for measurement refers to the epistemic relationships or "rules of correspondence" (Bagozzi, 1984). The epistemic relationship can be of two forms, namely, reflective and formative. Reflective indicators represent manifestations or reflections of a construct and a variation in the underlying concept can cause changes in the magnitude of indicators. In simple terms, the construct causes the indicators and hence may have possessed a high indicator to indicator correlations as they share a common meaning or theme (Jarvis et al., 2003).

The indicators when considered as the cause of constructs as it was considered to be formed by its indicators, it is termed as formative indicators (Edwards and Bagozzi, 2000). A construct will be modelled in the study as formative, if (a) the indicators form the essential characteristics of the construct, (b) construct changes based on the changes in the indicators, (c) indicators are not changed based on the changes in the constructs (d) every indicator is unique (need not share a common theme), (e) elimination of one indicator may change the construct conceptually, (f) changes of indicators are not necessarily interdependent, and (g) indicators are not expected to have the same antecedents and consequences (Coltman et al., 2008; Jarvis et al., 2003). In this study, considering the nomological expressions of all constructs, they were assumed as reflective.

Next, the stage in scale development decides on the level of measurement for each item included in the scale. Nominal and ordinal data were majorly used for collecting demographic data, while ratio scale was used for studies related to absolute values such as actual performance in various units and financial data (Sekaran and Bougie, 2013; Hair et al., 2006). By contrast, interval scales are relatively common in behavioural and social sciences studies, which deal with abstracts. The Likert scale is the most conventionally used level of

measurement for self-administered personal surveys in marketing research (Sekaran and Bougie, 2013; Malhotra and Peterson, 2001). Several Likert scale responses have been introduced, each with its benefit in measuring a variety of reactions and perceptions. The free choice response has odd-numbered options to provide a neutral option for respondents to opt for, while the forced-choice response forces the respondents to choose sides, not allowing them to remain in an indecisive spot. Free choice increases reliability (Malhotra and Peterson, 2001), whereas forced-choice reduces social desirability by not allowing participants to remain impartial (Souiden et al., 2006).

There are various levels for Likert scales based on the number of points on the scale to have a scale with smaller or larger differences, such as a ten-point scale, seven-point scale, and five-point scale. It is essential to be clear about the objective of measuring in order to make the correct choice of point-scale. In general, behavioural sciences are challenging to measure using small differences in point-scales or a smaller point of scale, such as a five-point scale. However, considering the presence of multiple indicators for every construct and customer would prefer to have an average spread for selecting their responses, the current study adopted a seven-point Likert scale that considers 1 as strongly disagree and 7 as strongly agree

The final questionnaire contained the scenario used for experimentation in the setting, the statements including items that measure the constructs, manipulation questions, and demographic questions. The first draft of the questionnaire was offered to experts for suggestions and feedback, which will significantly improve the face and content validity. The necessary changes were made based on the experts' opinions before testing it with the target respondents. Ten customers were selected from the target population for pretesting the questionnaire regarding readability and understandability. The required changes were made, and the final questionnaire was used for the pilot and main study. The questionnaire is provided as Annexure 1 of the thesis.

4.6 PILOT STUDY

A pilot study was conducted with the final version of the questionnaire for further purification of the instrument. 60 respondents from the target population were contacted for the pilot study data collection. Pilot study data was tested for both external and internal validity and reliability. The results showed acceptable levels factor loadings, reliability, and validity. The details of the pilot study for Study 1 and Study 2 are presented in the relevant section of Chapter 5 and Chapter 6, respectively.

4.7 SAMPLING DESIGN

Sampling design forms an integral part of any research design. It serves as the foundation for decisions related to population, sampling strategy, and sample size calculations. Sample selection is a highly critical aspect of any research design as it forms the data from which the generalizable inferences about the population are made. Since the data collected for the current study includes a scenario-based survey, the major focus is on identifying the right sample, which genuinely represents population characteristics to respond to the questionnaire. The sampling design includes a six-step process for arriving at the right selection of the sample. The six steps involved in sampling design are (a) defining the population and sample unit, (b) identifying sampling frame, (c) selecting a sampling method, (d) determining sample size, (e) locate sample units, and (f) collecting data from the designated respondents (Churchill and Iacobucci, 2002).

4.7.1 Defining population and sample unit

The population comprises the total number of study subjects, or the total unit of analysis available and sample forms a fraction of it (Malhotra and Birks, 2007). It is most probable that in a large-scale social study, the exact population is unknown or that an investigation of the population may be impractical. A subset of the population that is representative of the population can be selected for conducting the research (Bryman, 2008; Malhotra and Birks, 2007). The findings from the sample investigation may then be inferred for the population, depending on the thumb rules deciding generalizability. The sample needs to be representativeness of the population for generalizability (Hair et al., 2006; Sekaran, 2003). As the current study investigates the influence of customer participation in airline check-ins and supermarket check-outs in India and Australia, respectively, the respondents should be a customer who has participated in the above processes. Unit of analysis (sample unit) for Study 1 is an individual customer who has travelled in the last one month using a domestic airline in India, and the unit of analysis for Study 2, is an individual customer who has shopped from a supermarket in Australia at least once in the previous month.

4.7.2 Sampling Frame

A sample frame helps the researcher a rough idea of where most respondents matching the description of the study can be located (Hair et al., 2010; Bryman, 2008). This can be any information ranging from phone listings to actual addresses of potential respondents or locations where they are often found (Malhotra, 2007). In this study, the sampling frames

considered were customers who used domestic airlines in India for once in the previous month (Study 1) and customers who shopped from a supermarket in Australia at least once during the last month (Study 2). The Sample frame for study 1 was the list of postgraduate students from leading Indian Universities. The final sample units were located on satisfying the eligibility criteria that the participant should have used domestic airlines check-in at least once in the previous month of data collection. Similarly, samples for study 2 were identified from the sample frame of retail customers maintained by M/s Asia Pacific Digital Australia Pty Ltd, qualifying the eligibility conditions. In both cases, only those who have volunteered for the study were included.

4.7.3 Sampling Technique

Sampling techniques are processes by which individuals in a population are selected without bias to become respondents of a research project (Hair et al., 2006; Sekaran, 2003). The sampling technique used depends significantly on the type of population. Sampling techniques take two major forms. For a known population size and if there is a sampling frame, a probability sampling technique is used. In contrast, for a population size that is unknown or too large, a non-probability sampling technique is common (Bryman, 2008). Non-probability sampling techniques that are common for behavioural studies are convenience, judgmental, snowballing, and quota sampling (Malhotra, 2007; Hair et al., 2006). Non-probability sampling techniques were broadly classified into convenience and purposive sampling by Cavana et al. (2001).

Purposive sampling is described as a selection of sample members from a group of individuals who are known to possess the specific information needed for the research. Hence researchers seek these people based on whom they think may be most likely to provide accurate information for the research at hand and be willing to provide it (Nardi, 2006; Aaker et al., 2008). The common purposive sampling techniques are judgmental, quota sampling and snowballing (Cavana et al., 2001). When the researcher selects the respondents based on his/her judgement of who is the most relevant information provider it is referred to as judgmental sampling. In this research, a sampling approach that captures the purpose of the study through a judgmental selection of sample units was made. Therefore, the approach adopted was non-probability based. In most non-probability sampling, it is common to use a combination of purposive, convenience and judgmental sampling techniques. However, samples were not collected from a pre-design, and no prejudice or bias from the part of the researcher was dominant in such decisions. The randomness was achieved as the selection

was purely on chance and based on their availability to give responses without any prior decision to include someone by the researcher. However, to test the assumption of randomness, the expected outcome of a random sampling procedure, 'runs' test and other statistical assumptions relevant for parametric estimation such as normality, data independence, and absence of common method bias was performed.

4.7.4 Sample Size

The number of usable responses is termed as the sample size (De Veaux et al., 2013). A common view among researchers is that the size of the sample should be based on the number of items in the questionnaire (Hair et al., 2010) used for collecting responses. The minimum number of valid responses needed for sound analysis was recommended as a minimum of 10 responses per item in the most complex construct (Hair et al., 2010; Field, 2009). A decision concerning sample size adequacy is based on a trade-off between cost and time and the need for precision (Bryman and Bell, 2011). While making the decision based on the trade-off, the researcher considers the sample size, type of analysis, and nature of research used in previous studies similar to their study (Malhotra, 2010). The exploratory design usually collects fewer observations compared to other designs that call for a sophisticated tool for analyzing the data (Malhotra, 2010).

The sample size for experimental design is calculated based on treatment cells. As a rule of thumb, 30 subjects in each treatment cell are considered ideal if the researcher wants to determine a 0.70 change of standard deviation in the outcome variable. In order to estimate the sample size requirement under this approach, the researcher needs to have knowledge regarding the acceptable limits for the level of precision (e.g. D=5%) and level of confidence (e.g. 95%) (Z=1.96) (De Veaux et al., 2009). For social sciences, the widely accepted limits for the confidence level is 95%, and confidence interval of 5% (Cohen, 1988) and standard deviation of one, a sample size of n = 16 observations in each treatment cell would be required. The current study considers a minimum of 30 subjects in each treatment cells for 12 scenarios (n = 360 for Study 1 and n = 396 for Study 2). Since this study included SEM estimations, the sample size adequacy was verified using the Free Statistics Calculator (version 4 available at https://www.danielsoper.com/statcalc/calculator.aspx?id=89). The minimum sample size required for 8 latent variables with 33 items at an anticipated effect size of 0.3 with a power level of 0.8 (acceptable levels for social science research) was 177 to justify the sample size achieved.

4.7.5 Data Collection

Data collection instrument determines the quality of the data and the ability to collect data from a large sample size. Therefore, the data collection process for the quantitative approach needs careful consideration. A questionnaire survey may be undertaken by using face-to-face interviews, email interviews, postal interviews, or telephone interviews (Sekaran and Bougie, 2013; Malhotra, 2007; Aaker et al., 2005). The current study has a scenario-based questionnaire survey, and various methods of collecting data were carefully considered before deciding on the data collection method. In Study 1, the data was collected from full-time postgraduate students from University in India during a period of one month (Dec 2018 to Jan 2019). The students were called on a behavioural lab, and the data was collected by asking them to access a link to the questionnaire. A web-based survey tool named Qualtrics, which has an option to randomize the scenario was utilized to collect the data from the respondents. Study 2 used a panel survey for collecting data. The scenario-based questionnaire was developed in Qualtrics and shared with the market research company, and the link was shared with the respondents who fulfil the criteria. The responses were manually checked for flat liners and reverted, and the data point was removed and accordingly, the data was collected, and the questionnaire was alive for one week in the month of April 2019. Finally, the data is checked for missing data and other errors and cleaned to have a final response sheet.

4.8 DATA ANALYSIS STRATEGY

The study adopts causal research to understand the relationship between the causal factors and the effect predicted on the outcome variable under investigation (Hair et al., 2012). The current study examines the causal relationship between the constructs studied in the scenario based on an experimental design. A five-stage approach was adopted to analyze the data, as illustrated in Table 4.2.

Table 4.2 Data Analysis Strategy

Stages	**Analysis Adopted**
Stage 1	Verify data quality and statistical assumptions about normality, randomness, independence, etc.
Stage 2	Scale validation for all constructs using confirmatory factor analysis and measurement model fitness for validity and reliability checks.

Stage 3	Research model estimation with a structural equation modelling approach for hypotheses testing.
Stage 4	Manipulated variables and their relationships with other constructs were examined using multivariate analysis of variance.
Stage 5	Mean comparison was conducted to examine the other variables of interest using analysis of variance and t-tests.

In the first stage, data quality for statistical examination was verified by checking the existence of missing values and outliers using SPSS 20. It was followed by verification of statistical assumptions regarding normality at univariate and multivariate level, randomness, independence, multicollinearity, etc. The next attempt was to test the measurement model for scale validation. In this stage, firstly measurement models for all latent constructs were developed individually and then confirmatory factor analysis was carried out for pooled measurement model for verifying the reliability and validity of the measures used for the study based on goodness of fit criteria using AMOS 22. The third stage estimated the structural model to examined using covariance-based SEM in AMOS 22 to verify the linkages among variables used in the study.

For examining the manipulated variables, initially, manipulation check and realism checks were conducted. Then the multivariate analysis of variance was run to understand the influence of manipulated categorical variables on other interlinked constructs. It attempts to understand the direct effects and interaction effects among manipulated variables and scale variables. The difference in perceptions about variables of interest among various categories of the population was made by comparing the means statistically using analysis of variance and t-tests. The following section provides a description of the approach adopted.

4.8.1 Quality Criteria for Scale Developed

In every research involving psychometric soundness of measures developed for measurement, validity, and reliability are the two most important concepts illustrating the quality of measurement. Patton (2001) opined that validity and reliability are two factors to be concerned about while designing, analysing results and judging the quality of the study.

4.7.1.1 Validity

According to Davis et al., (1993) “A measurement scale is valid if it does what it is supposed to do and measures what it is supposed to measure”. According to Hardy and Bryman (2004),

there are different types of validity:

- Face/Content validity – It was achieved through a thorough examination of the wording used in the items included in the instrument and their connection to the relevant frame of reference used in the particular study. Face validity can also be examined using the opinion and judgment of experts concerning the items and wording used
- Criterion-related validity – evaluates a scale in terms of a criterion on which people tend to differ. This includes concurrent and predictive validity
- Construct validity – requires "an examination of the theoretical inferences that might be made about the underlying construct".

Content validity confirms that the measures include an adequate and representative set of items and the clarity of the definition and concept used. A major threat to content validity is ill-defined terms and concepts. The variable measurements in this study were consistent with prior studies and hence there did not seem to have any threat to content validity. The pilot study was conducted to determine whether any alterations or rewording of questionnaires were necessary due to any jargon, inconsistencies or leading questions. Criterion-related validity deals with the instrument's ability to measure an item accurately and analyze it. Construct validity explains how well the results obtained from the use of the measure fit in the theories around which the test was designed. This was assessed through convergent and discriminant validity. Convergent validity was established when the scores obtained with two different instruments measuring the same concept are highly correlated. Discriminant validity was established when based on theory, two variables were predicted to be uncorrelated, and the scores obtained by measuring them are indeed empirically found to be so. A measurement instrument has good discriminant validity of the question statements (or other measures) associated with each latent variable are not confused by the respondents, in terms of their meaning, with the question-statements associated with other latent variables

4.7.1.2 Reliability

Reliability is the extent to which measurements of the test are repeatable. In other words, the measuring procedure should yield consistent results on repeated tests. The more consistent the results are given by repeated measurements, the higher the reliability of measurement procedures. Kirk et al. (1986) identify three types of reliability referred to in quantitative research, which relate to (1) the degree to which a measurement, given repeatedly, remains the same (2) the stability of a measurement over time; and (3) the similarity of measurements

within a given period. There are two aspects of reliability such an external and internal reliability. According to Hardy and Bryman (2004), external reliability means that the studied variable does not fluctuate greatly over time, which means that it is stable. This kind of reliability can be tested through test-retest reliability, which means measuring the same scale twice in different time frames and see to what extent the two sets of data have yielded the same replies of the respondents. Furthermore, according to Hardy and Bryman (2004), internal reliability means that all the constituent indicators of a variable measure the same thing, which means that the variable is coherent. One of the most popular methods for estimating internal reliability also applied in this thesis, is Cronbach's Alpha (R) test of reliability. In this study, Cronbach's coefficient alpha values of all constructs were above 0.7, showing scale reliability for all reflective constructs.

Apart from various validity/reliability considerations, a scale should be free from multi-collinearity, common method bias, average variance extracted, etc. to conclude its quality in measurement and corresponding guidelines are reported in Table 4.3. The measures such as composite reliability score (CR), average variance extracted (AVE), maximum shared variance (MSV), and average shared variance (ASV) are useful for establishing validity and reliability. The thresholds for these measures are Reliability, CR > 0.7; Convergent Validity, AVE > 0.5; Discriminant Validity, MSV < AVE; ASV < AVE; and square root of AVE should be greater than inter-construct correlations. If convergent validity issues are noticed, then variables do not correlate well with each other within their parent factor. If discriminant validity issues noticed, then variables correlate more highly with variables outside their parent factor than with the variables within their parent factor; i.e., the latent factor is better explained by some other variables (from a different factor), than by its observed variables.

Table 4.3 Validity/ Reliability Guidelines

1	Multi-Collinearity	VIF is less than 10 (Hair et al. 1998).
2	Absence of Common Method Variance	First factor of EFA should not explain more than 50% the variance in the variables (Podsakoff and Organ, 1986)
3	Average variance Extracted	Should be >0.5 (Fornell & Larcker, 1981)
4	Convergent Validity	1. Standardized Regression estimates in CFA should be > 0.5 (Byrne,2001) 2. All indicators should be significant with critical ratios (C.R)>1.96 3. Standardized residual co-variance should be less than 2.58 (Byrne 2010)

5	Discriminant Validity	If the square root of the average variance extracted should be higher than any of the correlations involving that latent variable (Fornell & Larcker, 1981)
6	Reliability	Squared multiple correlation R^2 ("smc") greater than 0.5, moderate if between 0.3 and 0.5 and poor if less than 0.3 (Holmes-Smith, 2001) or Composite Reliability, Cronbach Alpha >0.7

4.8.2 Structural Equation Modelling

The application and use of structural equation modelling (SEM) are progressively increasing (Hair et al., 2010) and after its initial appearance in the 1980s in marketing literature SEM has become a "quasi-standard" (Hair et al., 2012). SEM is popular among researchers due to specific advantages such as (a) flexible for assessing constructs' measurement properties under various theoretical settings; (b) evaluation of latent variables' measurement, and testing of the relationship between latent variables were done simultaneously; (c) dealing explicitly with the measurement error; (d) and enabling an increased depth of analysis than the first-generation techniques such as principal component analysis, multiple regression and cluster analysis (Hair et al., 2014; Barclay et al., 1995). SEM aids in testing and confirming the conceptual model by combining factor analysis and multiple regressions. The variables in SEM are measured (observed, manifest) variables (indicators) and factors (latent variables). There are two steps in conducting a structural equation model, firstly to test the measurement model to confirm a valid and reliable measure and then to test hypotheses. The measurement model is the part that relates latent variables to its measured indicators, and the structural model relates latent variables to one another. Since the study required testing of the hypothesized model for the best-fit of the data, SEM was considered appropriate.

SEM allows the simultaneous estimation of multiple variables and their associations. The two SEM-based methods are covariance-based SEM (CB-SEM) and partial least squares-based SEM (PLS-SEM). CB-SEM contains a maximum likelihood procedure that tries to minimize the difference between the observed and estimated covariance matrices. However, a PLS-SEM focuses on maximizing the explained variance of the causal variables. A CB-SEM more confirmatory in approach, whereas a PLS-SEM is more exploratory in finding and evaluating relationships (Hair et al., 2011, 2013). In CB-SEM, the error terms are attached to each indicator and indicator loadings are estimated. It helps the researcher to eliminate the indicators with large error terms or low loadings to improve the quality of measurement. Thus, for a better conceptualization of theoretical interest embedded in a latent construct, CB-SEM

is more accepted among researchers. Hence this study used a CB-SEM for estimation of the research model for a conclusion about related hypotheses. Among two popular tools, namely LISERL and AMOS, for performing a CB-SEM, this study used AMOS 22 for SEM.

In SEM terminology, the fit of a model refers to the ability of a model to capture the data truly. A well-fitted model predicts parameters close to the observed data values or measured statistics. Many fit criteria are suggested for verifying the quality of fit of an estimated model. Table 4.4 provides popular fit criteria adopted in CB-SEM estimations. Due to plentiful fit measures, researchers argue to identify the most relevant fit indices to be reported. Jaccard and Wan (1996), recommend the use of one fit index from the absolute, relative and parsimony measures to reflect diverse criteria. Another recommendation was to report measures such as Kline (2005) recommended the use of chi-square; GFI, NFI, or CFI; NNFI; and SRMR as the prominent measures to dictate the model fit.

Based on the recommendation by Garson (1998), the fit indices generally need to be reported are CMIN, RMSEA, and one of the relative fit measures (NFI, RFI, IFI, TLI, CFI). Studies also report the normed chi-square that is the chi-square index divided by degrees of freedom to make the measure less dependent on sample size. SRMR is the standardized root mean square residual that estimated as the average difference between the predicted and observed variances and covariance in the model, based on standardized residuals. Standardized residuals are fitted residuals divided by the standard error of the residual. The smaller the SRMR, the better the model fit. SRMR = 0 indicates perfect fit.

Table 4.4 Model Fit Measures

Consideration	**Fit Indices**
Absolute fit measures (reference to other models relevant in the situation)	CMIN, CMIN/df, RMR, SRMR, GFI, AGFI, PGFI
Relative fit measures (reference to an explicit basis model though unrealistic	NFI, RFI, IFI, CFI, TLI
Parsimony measures (introduced by penalizing for lack of parsimony)	PRATIO, PNFI, PCFI
Fit measures based on non-central chi-squared distribution	NCP, FMIN, FO, RMSEA
Information theoretic fit measures (to choose among several realistic but different models)	AIC, BIC, BCC, ECVI
Fit measures based on the sample size	HOELTER

RMSEA is the Root mean square error of approximation, and it is also known as RMS or RMSE or discrepancy per degree of freedom. The value for RMSEA needs to be less than or equal to .05 to consider a good fit model (Schumacker and Lomax, 2004). Hu and Bentler (1999) have suggested RMSEA ≤ .06 as the cut-off for a good model fit. PCLOSE is another measure that tests the null hypothesis of whether the value of RMSEA is not greater than .05. If PCLOSE is less than .05, the null hypothesis is rejected, then it is concluded that the computed RMSEA is greater than .05, indicating a lack of a close fit. Hence a model is said to be fit when the hypothesis is not rejected (failed to reject). Hoelter's critical N is another measure that is used to judge the adequacy of sample size and conventionally the Hoelter's N value greater than 200 is considered to be adequate. Taking insights from many kinds of literature related, in this research, the following fit criteria in Table 4.5 was considered ideal.

Table 4.5 Model Fit Criteria

1	CMIN/df	Less than 5
2	CFI, GFI	More than 0.9
4	SRMR	Less than 0.06
5	RMSEA	Less than 0.08
6	PClose	More than 0.05
7	Hoetler N at 0.05	More than 200

4.8.3 Multivariate Analysis of Variance

Multivariate analysis of variance (MANOVA) is widely used in the experimental design, which has manipulation at least for one of the independent variables. Multivariate analysis of variance (MANOVA) can have one or more grouping variables but would include multiple outcome variables. MANOVA analyses the influence of the grouping variable(s) on the collection of outcome variables (latent construct) that is of interest to the research. There is various assumption test to be satisfied with performing MANOVA, and they are assumption test for normality, linearity, and homogeneity of variance.

IBM SPSS software is used for the analysis of data using MANOVA. It is easier to understand and could be applied to any design and hypothesis testing. There is no need to concern regarding error terms or modifications to the degrees of freedom (O'Brien and Kaiser, 1985). MANOVA approach uses a natural generalization of the use of the specific type of error term for contrasts. The MANOVA approach handles sets of contrasts in such a way that each

contrast in the set remains linked with just its specific error term. As a result, all the problems associated with general (average) error terms can be avoided.

Multivariate analysis of covariance is termed as MANCOVA. Compared to MANOVA, MANCOVA will have an additional variable that is under control. Hence, it assesses for statistical differences on multiple continuous dependent variables by an independent grouping variable, while controlling for a third variable called the covariate; multiple covariates can be used, depending on the sample size. Covariates are added so that it can reduce error terms and so that the analysis eliminates the covariates' effect on the relationship between the independent grouping variable and the continuous dependent variables. The current study includes age, gender, qualification, prior expectation, etc. in MANCOVA as covariates.

4.8 SUMMARY

This chapter presented the methodological overview chosen to address the research objectives of this study. The chapter started with a discussion on the research paradigm, presented the research process and progressed toward the detailed description of the methods used in the research of this study. Also, the chapter presented the sampling methodology and the properties of the instruments used analysis strategies.

CHAPTER 5

DATA ANALYSES – INDIAN AIRLINE CHECK-IN

5.1 INTRODUCTION

This chapter discusses various analyses performed on collected data on check-in process in Indian domestic airlines to gather insights about the mediating role of task-related affective well-being in the influence of customer participation on service outcomes and the differential influence of types of participation. Organization of this chapter is as follows. The chapter begins with a description of the data's characteristics and is followed by the measurement assessment to qualify the data for significance testing. The final set of data is then used to test the proposed hypotheses using appropriate statistical tools in SPSS and AMOS. Specifically, the study uses structural equation modelling (SEM) and multivariate analysis of variance (MANOVA) (see chapter structure presented in Figure 5.1).

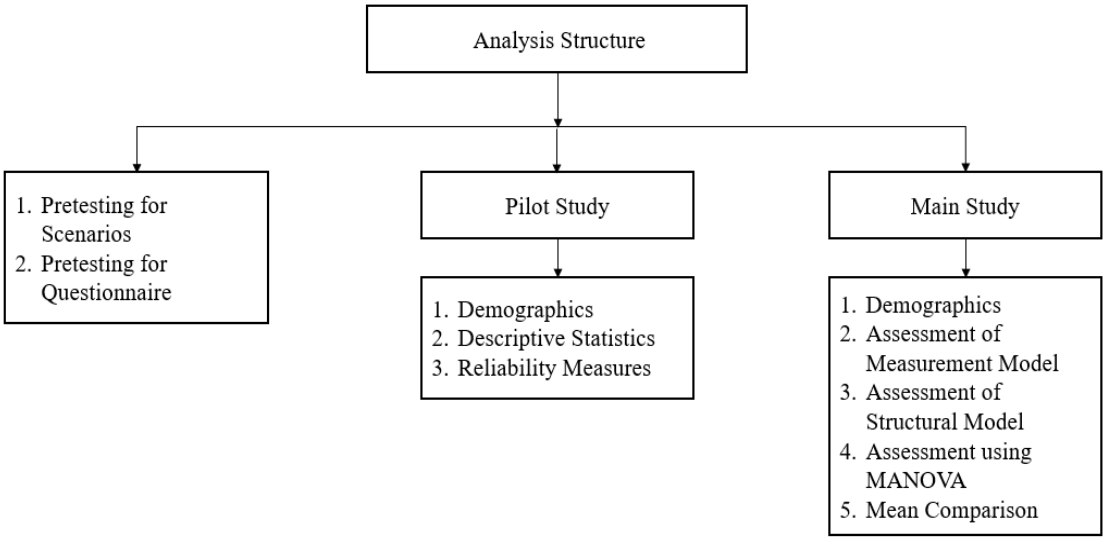


Figure 5.1 Chapter Structure

5.2 PRE-TESTING OF THE SCENARIOS

The study makes use of twelve between-subject experimental scenarios comprising 3 x 2 x 2 design with three customer participation (CP) types, two levels of customer knowledge (CK) and two levels of task complexity (TC). The study focusses on self-service processes; hence, it considers the airline check-in process. Twelve scenarios were built by manipulating the types of CP, CK and TC in the domestic airline check-in process in India.

5.2.1 Expert Review

The initial scenarios were sent to five expert researchers in the marketing and consumer research domains to check the face validity of the scenario manipulations. Experts were considering the specific context of the study and the content in the scenario to see if it narrates the scenario precisely. The scenarios were rephrased based on the suggestions given by the experts to bring in clarity.

5.2.2 Feedback from Target Respondents

Feedback was collected from five respondents on the suitability of the scenario. The participants were provided with the information on the context and the process to understand the twelve scenarios. They were encouraged to comment on the clarity and unambiguousness of the scenario. Based on their responses, the scenario wordings were revised for better understandability.

5.3 PRE-TESTING OF THE INSTRUMENT

The study comprises of eight variables, and well-established scales were adapted for measuring the variables. The items were contextualized for the context of the current study, the domestic airline check-in process in India.

5.3.1 Expert Review

The initial questionnaire was sent to five expert researchers in the marketing and consumer research domains to check the face validity of the questionnaire items and measures. Experts were considering the specific context of the study and the content in the questionnaire to see if it captures the context and the variables comprehensively. The questionnaire was rephrased based on the suggestions of the experts to bring in clarity.

5.3.2 Feedback from the Target Respondents

Feedback was collected from the five respondents on the suitability of the questions. Participants were encouraged to comment on the questions' complexity and comprehensibility. All respondents communicated the problems of the length of the questionnaire. However, this issue could not be addressed due to the requirements to accomplish the research objectives. Considering the comments from the participants, the questions were rephrased to bring in clarity wherever required.

5.4 PILOT STUDY

Following the pre-testing of the instrument, a pilot survey was conducted on a sample of respondents who met the criteria of the final survey sample to ensure the quality of the data and other administrative issues. The questionnaires were administered via online form. Respondents were given instructions about filling out the questionnaire and assurance about the confidentiality of their responses. Respondents took approximately 20 minutes to fill the entire questionnaire. This pilot was carried out on 60 respondents who travelled using domestic flights at least once in the previous month. The instrument for data collection in the pilot study was the final version of the field experimentation questionnaire.

5.4.1 Demographics Information on Pilot Study Sample

Four sets of demographics data were collected from pilot study participants, namely: gender, age group, marital status, and qualification. Data was collected from the postgraduate students of an Indian university. The pilot study comprised of 35 males (58.3%) and 25 female (41.7%) respondents. 73.3% of respondents fall within the age group of 21 to 30, and the rest above 30 years of age (26.7%). 33.3% of the respondents were married and the 66.7% single. The respondents considered were postgraduate students comprising of 16.7% respondents had their last qualification in bachelor's, and the rest of the respondents hold a master's degree (83.3%).

5.4.2 Descriptive Statistics

After collecting data from the pilot study sample of 60 respondents, the data were recorded in SPSS software for the initial descriptive statistics analysis. No cases were found with missing data, so all responses were usable. Table 5.1 presents the descriptive statistics. Mean values ranged from 3.4 to 5.4; the standard deviation ranged from 1.0 to 1.7. The result did not represent any extreme values; hence, they were acceptable. The values for skewness ranged from -1.1 to +0.7 considered acceptable (Chou and Bentler, 1995), and the values for kurtosis ranged from -1.0 to +0.9 were considered acceptable (Kline, 2005). The items were then scrutinized to identify outliers and were treated so they could be normalized.

Table 5.1 Descriptive Statistics of the Pilot Study

Items	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**	**Items**	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**
CP1	4.917	1.430	-0.749	-0.076	TC1	4.950	1.443	-0.855	0.095
CP2	4.833	1.659	-0.740	-0.520	TC2	4.517	1.589	-0.228	-0.881
CP3	4.983	1.692	-1.015	0.094	TC3	3.483	1.490	0.606	-0.459
TrAWB1	4.567	1.555	-0.492	-0.273	TC4	3.400	1.543	0.495	-0.562
TrAWB2	4.700	1.544	-0.419	-0.541	PSQ1	5.017	1.066	-0.382	-0.762
TrAWB3	5.067	1.483	-0.989	0.270	PSQ2	4.317	1.269	-0.216	-0.530
TrAWB4	4.550	1.523	-0.441	-0.018	PSQ3	4.200	1.363	-0.293	-0.030
TrAWB5	5.150	1.494	-0.833	0.076	SAT1	4.983	1.200	-0.880	0.270
TrAWB6	5.150	1.246	-0.729	0.829	SAT2	4.400	1.278	-0.197	-0.111
TrAWB7	4.833	1.224	-0.761	0.141	SAT3	5.050	1.320	-0.552	-0.072
TrAWB8	4.633	1.551	-0.371	-0.932	PV1	4.550	1.346	-0.326	-0.543
TrAWB9	5.317	1.396	-0.980	0.299	PV2	4.700	1.499	-0.370	-0.422
TrAWB10	4.150	1.400	-0.200	-0.345	PV3	4.433	1.566	0.004	-0.948
CK1	4.717	1.427	-0.709	0.014	PV4	4.250	1.601	-0.091	-0.933
CK2	4.617	1.342	-0.345	-0.336	CE1	4.900	1.285	-0.601	0.580
CK3	4.617	1.403	-0.647	-0.213	CE2	4.367	1.414	-0.128	-0.566
					CE3	4.383	1.427	-0.462	-0.087

5.4.3 Reliability of Measurement Instrument

Testing the reliability of survey data is the pre-requisite for data analysis and inference. Reliability analysis tests whether a scale consistently reflects the subset it measures (Churchill, 1979; Nunnally & Bernstein, 1994).

Table 5.2 Reliability Measures of Constructs from Pilot Study

Constructs	**Number of items**	**Cronbach's alpha**
Customer participation	3	0.899
Task-related affective well-being	10	0.828
Customer knowledge	3	0.900
Task complexity	4	0.822
Perceived service quality	3	0.868
Customer satisfaction	3	0.731
Perceived value	4	0.910
Customer experience	3	0.856

By consistency, it means that a respondent should score questionnaire the same way at different times. The two respondents with the same attitude should identically score the survey. According to Field (2005), values between 0.7 and 0.8 of Cronbach's α are acceptable values of consistency. As a rule of thumb, good reliability is suggested if, Cronbach's alpha estimate is higher than 0.7 (Hair et al., 1995). Table 5.2 depicts the reliability of all the constructs present in the study.

5.5 MAIN STUDY

A scenario-based questionnaire survey was used to conduct the main study. The survey was done online using Qualtrics, a web-based survey tool. The postgraduate students of Indian University were considered to collect data sample as they would be having a similar kind of experience with domestic air travel. The sample was collected based on purposive sampling, and the survey link was personally sent to the respondents for the online data collection in a window being active for one week.

5.5.1 Data Cleaning

The target sample for the study was 500, of which the received responses were 432, and the rest were incomplete, yielding a response rate of 86.40%. These responses were subjected to data cleaning; 38 cases responded with mostly the same values for all the items indicating the disengagement of respondents and were dropped. 12 responses had a standard deviation more than three from the mean, and hence concluded to be outliers and thus removed from the data set. Qualtrics have the option to randomize the scenarios and allocate the scenarios sequentially to the respondents based on they open the link to fill in the survey. However, due to the incomplete responses, there was an unequal set of data for each scenario, 22 responses were dropped. Hence, the total usable sample for the study was 360.

5.5.2 Data Coding and Preparation

The data were coded for all scale and categorical variables. The scale items were on a 7-point Likert scale and the "strongly disagree" to "strongly agree" were coded from 1 to 7, respectively. The categorical variables were coded using numeric starting with 1. For example, gender was coded as 1 for "male" and 2 for "female". The data was further reviewed to seek out errors in the form of invalid data to produce clean data for the research analysis. Table 5.3 presents descriptive statistics. Mean values ranged from 3.3 to 5.4; the standard deviation ranged from 1.3 to 1.6. The result did not represent any extreme values; hence, they were acceptable. The values for skewness (Chou & Bentler, 1995) and the values for kurtosis (Kline, 2005) were considered acceptable. The items were then scrutinized to identify outliers and were treated so they could be normalized.

5.5.3 Common Method Variance

To demonstrate the soundness of the measurement scale developed, it was necessary to address the issue of common method variance. Common methods variance can be a significant source of measurement error in data collection when variables are latent and measured using the same survey at one point of time (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Common method variance may inflate the true correlations among latent constructs and threaten the validity of conclusions. For this study, measures were taken to reduce common method bias. First, data were collected from respondents who were aware of the issues addressed in the research. Second, to ensure that the respondents gave their opinion freely, they were assured of anonymity. Finally, sequences were altered to make a coherent structure

Table 5.3 Descriptive Statistics of the Main Study

Items	Mean	Std. Deviation	Skewness	Kurtosis	Items	Mean	Std. Deviation	Skewness	Kurtosis
CP1	5.036	1.381	-0.940	0.399	TC1	5.036	1.334	-0.874	0.217
CP2	4.892	1.499	-0.727	-0.318	TC2	4.547	1.458	-0.411	-0.749
CP3	4.925	1.499	-0.824	-0.097	TC3	3.506	1.592	0.452	-0.743
TrAWB1	4.469	1.474	-0.336	-0.479	TC4	3.342	1.561	0.489	-0.591
TrAWB2	4.450	1.473	-0.214	-0.524	PSQ1	4.728	1.328	-0.580	-0.040
TrAWB3	4.919	1.517	-0.806	0.022	PSQ2	4.167	1.412	-0.185	-0.600
TrAWB4	4.389	1.483	-0.282	-0.429	PSQ3	4.117	1.450	-0.199	-0.477
TrAWB5	5.194	1.482	-0.782	0.039	SAT1	4.728	1.349	-0.645	-0.141
TrAWB6	4.889	1.468	-0.699	-0.106	SAT2	4.181	1.408	-0.264	-0.389
TrAWB7	4.569	1.370	-0.502	-0.298	SAT3	4.625	1.523	-0.444	-0.442
TrAWB8	4.794	1.467	-0.460	-0.577	PV1	4.392	1.388	-0.236	-0.646
TrAWB9	5.383	1.448	-0.950	0.341	PV2	4.414	1.421	-0.161	-0.516
TrAWB10	4.050	1.473	-0.155	-0.557	PV3	4.117	1.498	-0.145	-0.675
CK1	4.614	1.353	-0.514	-0.267	PV4	4.283	1.514	-0.266	-0.679
CK2	4.578	1.432	-0.169	-0.669	CE1	4.658	1.417	-0.389	-0.522
CK3	4.619	1.342	-0.357	-0.506	CE2	4.253	1.438	-0.082	-0.636
					CE3	4.064	1.535	-0.168	-0.620

and smooth flow of logical questions. In addition, statistical evidence was collected using Harman's single-factor test for assessing common method variance in a single-method research design (Podsakoff and Organ 1986). Following the steps of this process, all 33 items of the main criteria variables in the research model underwent exploratory factor analysis. In examining the results of the unrotated solution, the highest variance explained by a single factor was found to be 37.81%, and all factors together account for 72.41%of the total variance. Thus, no single item accounted for most of the covariance (Podsakoff and Organ 1986) confirming that common method variance was not a major concern in this study.

5.5.4 Normality

Analysis for univariate normality was done using the Kolmogorov-Smirnov test with Lillefors significance correction revealed that none of the variables was normally distributed (Table 5.4). To assess the extent of non- normality, the level of skewness and kurtosis are commonly used by the statisticians. A distribution is said to be normal when the values of skewness and kurtosis are equal to zero (Tabachnick and Fidell; 2001). It is suggested that absolute values of univariate skewness indices greater than 3.0 seem to describe extremely skewed data sets (Chou and Bentler 1995). Also, the kurtosis index greater than 10 may suggest a problem. As in this study, all the variables fall under the skewness value of 3 and kurtosis index of 10 (Table 5.3), inferring non-normality does not exist to a problem level.

Table 5.4 Kolmogorov-Smirnov (K-S) Test of Normality

Items	**t-statistic**	**Significance**	**Items**	**t-statistic**	**Significance**
CP1	0.223	0.000	TC1	0.230	0.000
CP2	0.242	0.000	TC2	0.153	0.001
CP3	0.237	0.000	TC3	0.227	0.000
TrAWB1	0.160	0.001	TC4	0.186	0.000
TrAWB2	0.177	0.000	PSQ1	0.222	0.000
TrAWB3	0.252	0.000	PSQ2	0.185	0.000
TrAWB4	0.159	0.001	PSQ3	0.208	0.000
TrAWB5	0.215	0.000	SAT1	0.239	0.000
TrAWB6	0.186	0.000	SAT2	0.173	0.000

TrAWB7	0.254	0.000	SAT3	0.235	0.000
TrAWB8	0.178	0.000	PV1	0.198	0.000
TrAWB9	0.254	0.000	PV2	0.163	0.000
TrAWB10	0.157	0.001	PV3	0.159	0.001
CK1	0.245	0.000	PV4	0.149	0.002
CK2	0.196	0.000	CE1	0.164	0.000
CK3	0.191	0.000	CE2	0.152	0.001
			CE3	0.150	0.002

5.5.5 Demographic Information of the Respondents

Figure 5.2 summarizes the demographic data of the total sample of 360 respondents. Data was collected from the postgraduate students of an Indian university. The study comprised of 60% male and 40% female respondents. 78% of respondents fall within the age group of 21 to 30, and the rest above 30 years of age (22%). 26% of the respondents were married, and the 74% single and 0.5%. The respondents considered were postgraduate students comprising of 21% respondents had their last qualification in bachelor's and the rest of the respondents hold a master's degree (77%) and others comprise of 2%. Also, the information on the last travelled domestic airline was collected, and it shows that majority of the respondents (48%) travelled by Indigo Airlines followed by SpiceJet with 12% and others for 40 %.

5.5.6 Assessment of Measurement Model

Confirmatory factor analysis was employed to assess the measurement model for reliability and validity of all decision constructs using AMOS 20.0 software. The current study comprises of customer participation as the independent variable, task-related affective well-being as the mediator variable, customer knowledge and task complexity as moderators, and customer outcome as the dependent variable. The study uses four customer outcome variables like perceived service quality, customer satisfaction, perceived value, and customer experience to test the model. Hence, four separate measurement models were tested to state the fit of the model based on the outcomes used.

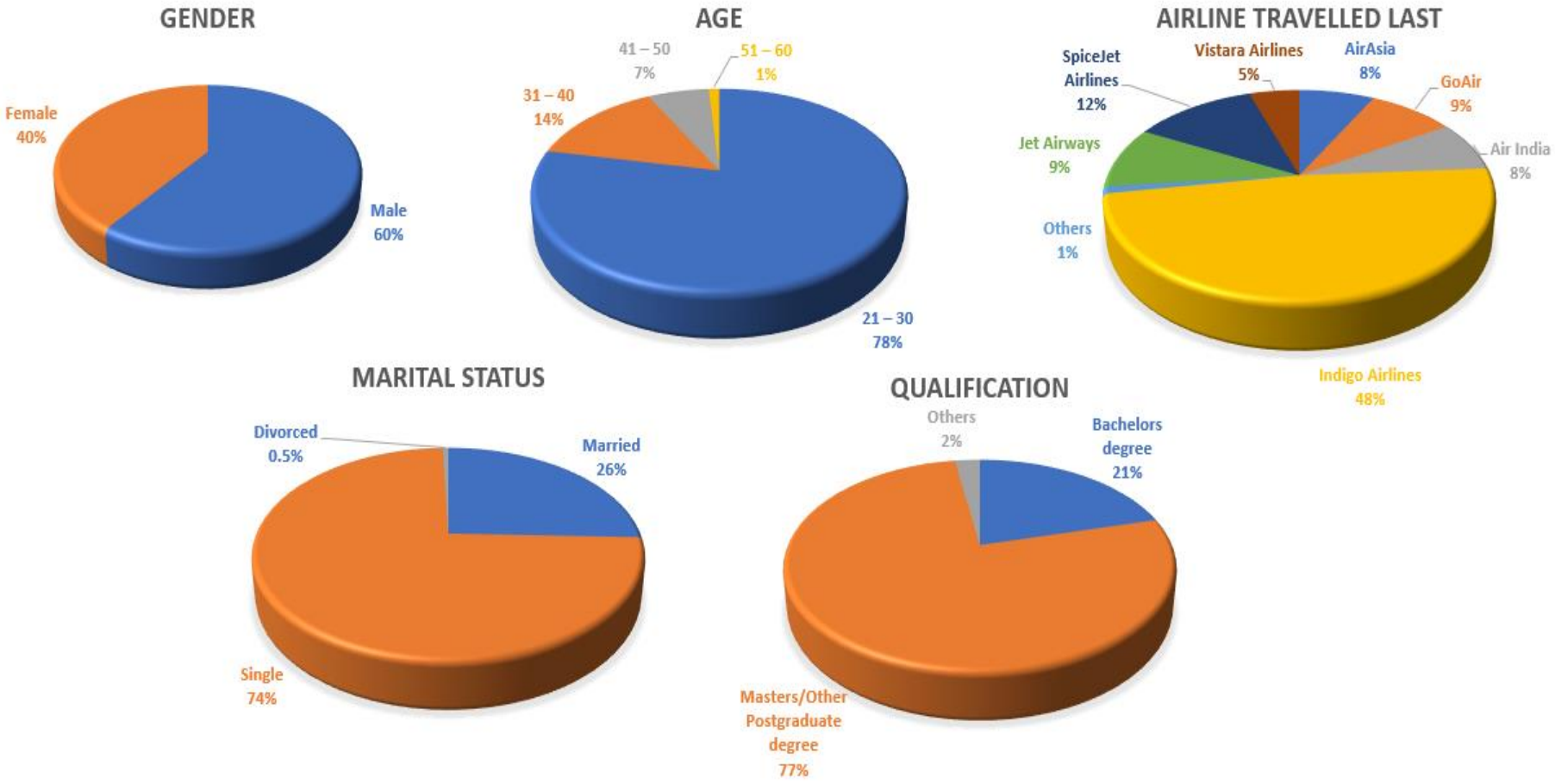


Figure 5.2 Demographic Information of Respondents

Measurement model examines the relationship between the latent variable with its measure. The model was evaluated for reliability and validity based on the goodness of fit depicted through the fit indices. A good fit measurement model is a prerequisite for proceeding with the structural model. Considering the assessment of measurement model, task-related affective well-being construct showed poor loading of items to the construct. According to the rule of thumb (Hair et al., 2011), item loadings should be higher than 0.70. According to Hulland (1999), in the general study, should adopt a minimum cut off level of 0.50 and items with loadings of less than 0.50 should be dropped from further analysis. In the current study, items trawb4, trawb6, trawb7, and trawb10 had loadings less than 0.50 and hence dropped from further analysis. The measurement model for the four service outcomes was, therefore evaluated with 6 items for task-related affective well-being. All factor loadings are higher than 0.50 with significant ($p < 0.001$) t-values. Table 5.5 shows the psychometric properties of the scales.

Table 5.5 Scale Summary

Scale Items (1 = strongly disagree, 7 = strongly agree)	**λ**	**α**	**M**	**SD**
Task-related Affective Well-Being (Cronbach alpha = 0.858)				
1. I will not be worrying about what I am expected to do.	0.62	0.42	4.47	1.47
2. I am not be straining to complete the check-in process.	0.76	0.57	4.45	1.47
3. I can overcome the difficulties during check-in process.	0.78	0.61	4.92	1.52
4. I do lose confidence in myself during the check-in experience.	0.80	0.64	5.19	1.48
5. I am not anxious during the check-in process.	0.77	0.60	4.79	1.47
6. I am not depressed during the check-in process.	0.68	0.47	5.38	1.45
Customer Participation (Cronbach alpha = 0.871)				
1. I will spend time to provide necessary information for the check-in process.	0.83	0.69	5.04	1.38
2. I will have a high level of participation in check-in process.	0.93	0.86	4.89	1.50
3. I will be very much involved during the check-in process.	0.92	0.84	4.93	1.50
Perceived Service Quality (Cronbach alpha = 0.872)				
1. The quality of the check-in experience is good.	0.88	0.78	4.73	1.33
2. The quality of the check-in experience is excellent.	0.92	0.84	4.17	1.41

3. The quality of the check-in experience is above expectation.	0.87	0.76	4.12	1.45
Customer Satisfaction (Cronbach alpha = 0.811)				
1. I am satisfied with the check-in process.	0.89	0.80	4.73	1.35
2. I am pleased with the check-in process.	0.86	0.75	4.18	1.41
3. I am happy with the check-in process.	0.81	0.65	4.63	1.52
Perceived Value (Cronbach alpha = 0.882)				
1. I still consider the overall check-in experience to be of great value to me.	0.86	0.74	4.39	1.39
2. I believe this helped to enhance the value received during this process.	0.89	0.79	4.41	1.42
3. The value received during this process outweighed the time I had to expend to check-in.	0.86	0.74	4.12	1.50
4. The value received during this process outweighed the effort I had to expend to check-in.	0.83	0.69	4.28	1.51
Customer Experience (Cronbach alpha = 0.852)				
1. The check-in experience is engaging.	0.87	0.76	4.66	1.42
2. The check-in experience is enjoyable.	0.94	0.88	4.25	1.44
3. The check-in experience is memorable.	0.83	0.69	4.06	1.53
Customer Knowledge (Cronbach alpha = 0.825)				
1. I know a lot about the check-in process.	0.88	0.77	4.61	1.35
2. My knowledge regarding check-in process is adequate.	0.81	0.66	4.58	1.43
3. My knowledge about check-in process is very good.	0.89	0.80	4.62	1.34
Task Complexity (Cronbach alpha = 0.782)				
1. The check-in process involves many distinct steps.	0.66	0.43	5.04	1.33
2. The check-in process requires processing a lot of information cues.	0.82	0.67	4.55	1.46
3. The order of the steps for the check-in process is confusing.	0.85	0.72	4.51	1.59
4. The steps involved in the check-in process are uncertain.	0.78	0.61	4.64	1.56

Notes: n = 360. λ, Standardized factor loading; α, squared multiple correlations; M, mean; SD, standard deviation.

Reliability and validity are measured using composite reliability (CR), average variance extracted (AVE), maximum shared variance (MSV), and maximum reliability (MaxR(H)). The Cronbach alpha was used to assess the reliability of all constructs (see Table 5.5). The composite reliability indicates internal consistency and the value should be higher than 0.70 to ensures the reliability of all constructs (Hair et al., 2010). MaxR(H) is the McDonald

construct validity that represents the maximum reliability of constructs which is considered as the more robust measure in comparison to CR (Gagne & Hancock, 2006; Drewes, 2000). The value for MaxR(H) should be higher than 0.70 for supporting the reliability of all constructs. Hence, Cronbach's alpha, CR, and MaxR(H) are estimated to ensure the reliability of the construct.

AVE explains the measure of the amount of variance captured by a construct in relation to the amount of variance due to measurement error. AVE greater than 0.50 explains convergent validity. The values of CR being greater than AVE confirms the convergent validity of the construct (Fornell & Larcker, 1981). MSV is the square of the highest correlation coefficient between the constructs and MSV of constructs if lower than the AVE explains discriminant validity. Hence, Fornell-Larcker criterion revealed that the square root of AVE should be greater than the off-diagonal elements across the row and down the column to establish discriminant validity at the construct level.

5.5.6.1 Measurement Model 1: Perceived Service Quality

The measurement model shows a good fit ($\chi^2 = 216.20$, df = 108, $\chi^2/df = 2.00$, RMSEA = 0.05, PCLOSE = 0.31, SRMR = 0.04, GFI = 0.94, CFI = 0.97, NFI = 0.94, RFI = 0.92, IFI = 0.97, TLI = 0.96) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 5.6 presents the reliability and validity results.

Table 5.6 Reliability and Validity Results from Measurement Model 1

	CR	**AVE**	**MSV**	**MaxR(H)**	**PSQ**	**TrAWB**	**CK**	**TC**	**CP**
PSQ	0.874	0.699	0.450	0.882	**0.836**				
TrAWB	0.801	0.506	0.482	0.818	0.207	**0.711**			
CK	0.833	0.714	0.450	0.845	0.671	0.378	**0.845**		
TC	0.779	0.562	0.482	0.865	-0.208	-0.694	-0.391	**0.749**	
CP	0.877	0.707	0.318	0.911	0.564	0.152	0.479	-0.190	**0.841**

Notes: PSQ = Perceived Service Quality, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

Table 5.6 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically

significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 5.6 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 5.6 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model 1 provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

5.5.6.2 Measurement Model 2: Customer Satisfaction

The measurement model shows a good fit ($\chi^2 = 217.08$, df = 108, $\chi^2/df = 2.01$, RMSEA = 0.05, PCLOSE = 0.30, SRMR = 0.04, GFI = 0.94, CFI = 0.96, NFI = 0.93, RFI = 0.92, IFI = 0.96, TLI = 0.96) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 5.7 presents the reliability and validity results.

Table 5.7 Reliability and Validity Results from Measurement Model 2

	CR	AVE	MSV	MaxR(H)	SAT	TrAWB	CK	TC	CP
SAT	0.848	0.651	0.493	0.852	**0.807**				
TrAWB	0.802	0.507	0.480	0.819	0.230	**0.712**			
CK	0.834	0.716	0.493	0.855	0.702	0.372	**0.846**		
TC	0.779	0.562	0.480	0.865	-0.192	-0.693	-0.390	**0.749**	
CP	0.877	0.708	0.332	0.911	0.576	0.152	0.477	-0.191	**0.841**

Notes: SAT = Customer Satisfaction, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

Table 5.7 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 5.7 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 5.7 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model provided evidence for reliability

and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

5.5.6.3 Measurement Model 3: Perceived Value

The measurement model shows a good fit ($\chi^2 = 198.18$, df = 123, χ^2/df = 1.61, RMSEA = 0.04, PCLOSE = 0.92, SRMR = 0.04, GFI = 0.94, CFI = 0.98, NFI = 0.94, RFI = 0.93, IFI = 0.98, TLI = 0.97) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 5.8 presents the reliability and validity results.

Table 5.8 Reliability and Validity Results from Measurement Model 3

	CR	AVE	MSV	MaxR(H)	PV	TrAWB	CK	TC	CP
PV	0.871	0.631	0.331	0.905	**0.795**				
TrAWB	0.801	0.506	0.482	0.818	0.177	**0.711**			
CK	0.837	0.720	0.232	0.870	0.482	0.365	**0.849**		
TC	0.779	0.562	0.482	0.865	-0.131	-0.694	-0.388	**0.749**	
CP	0.878	0.709	0.331	0.911	0.575	0.152	0.474	-0.190	**0.842**

Notes: PV = Perceived Value, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

Table 5.8 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 5.8 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 5.8 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

5.5.6.4 Measurement Model 4: Customer Experience

The measurement model shows a good fit ($\chi^2 = 204.76$, df = 108, χ^2/df = 1.90, RMSEA = 0.05, PCLOSE = 0.49, SRMR = 0.04, GFI = 0.94, CFI = 0.97, NFI = 0.94, RFI = 0.92, IFI = 0.97,

TLI = 0.96) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 5.9 presents the reliability and validity results.

Table 5.9 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 5.9 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 5.9 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

Table 5.9 Reliability and Validity Results from Measurement Model 4

	CR	AVE	MSV	MaxR(H)	CE	TrAWB	CK	TC	CP
CE	0.868	0.690	0.338	0.936	**0.831**				
TrAWB	0.801	0.506	0.482	0.818	0.112	**0.711**			
CK	0.835	0.718	0.338	0.862	0.581	0.368	**0.847**		
TC	0.779	0.562	0.482	0.865	-0.156	-0.694	-0.389	**0.749**	
CP	0.877	0.708	0.275	0.911	0.524	0.152	0.475	-0.190	**0.841**

Notes: CE = Customer Experience, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

5.5.7 Assessment of Structural Model

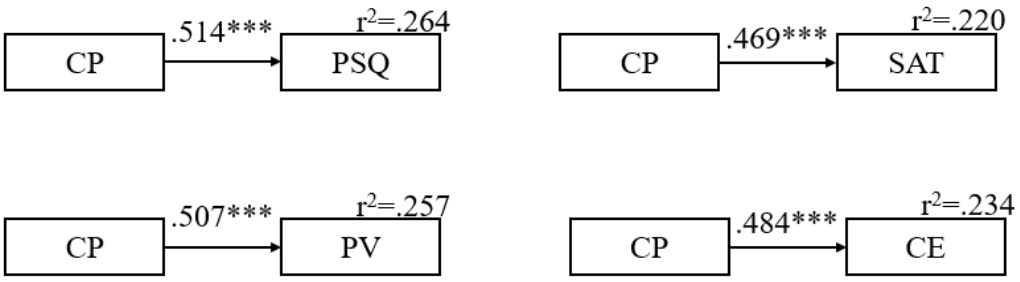
The study used AMOS 20 for structural equation modelling (SEM) to test hypotheses on the conceptual model. The mean centred values were used to incorporate moderation testing. SEM makes it possible to analyse multiple regressions in one structural model. Thus, it is essential to ensure that the prerequisites of the analysis are met. Therefore, assumptions of SEM were tested before going ahead with hypotheses testing. The various assumptions were sample adequacy, linearity, homoscedasticity, randomness and normality.

The study considers a sample size of 360, and it is above the minimum recommended sample requirement (Hair et al., 2006). Based on the partial regression plots, the relationship between

the latent variables were found to be linear in pattern. Presence of equality of variance of the dependent variable across the independent variables were tested by plotting the residuals against the standardized predicted values, and the plots were evenly distributed around zero meeting the assumption for equal variance (Hair et al., 2006). Runs test was used to check the randomness of the sample, and the sample was found to be random on an item basis. Normality was tested based on the limits of skewness and kurtosis and presented in Table 5.3.

5.5.7.1 Testing Direct Effect of Customer Participation on Service Outcomes

The study considered four service outcomes to explain the model. Hence, the influence of customer participation on each of the service outcome was examined. Figure 5.3 presents the influence of customer participation on four service outcomes considered. The model explained 26.4% variance for the influence of customer participation on perceived service quality ($\beta = 0.514$, $p < 0.001$), 22.0% variance for the influence of customer participation on customer satisfaction ($\beta = 0.469$, $p < 0.001$), 25.7% variance for the influence of customer participation on customer satisfaction ($\beta = 0.507$, $p < 0.001$), 23.4% variance for the influence of customer participation on customer satisfaction ($\beta = 0.484$, $p < 0.001$). Thus, customer participation was found to have a positive influence on the four service outcomes studied, supporting hypothesis 1a.



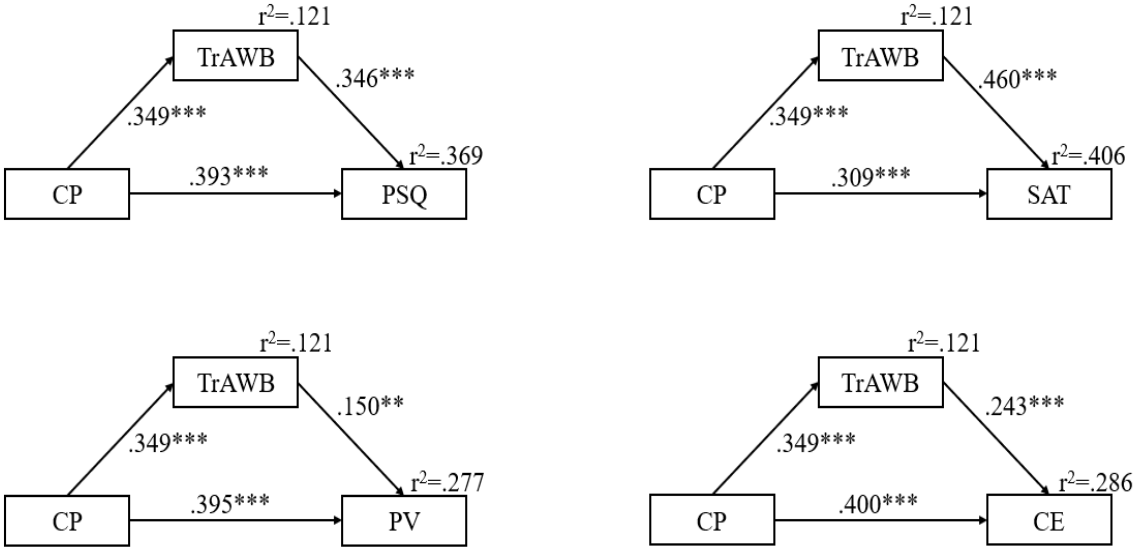
Notes: *** = $p < 0.001$, r^2 = coefficient of determination, CP = Customer Participation, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience

Figure 5.3 Influence of Customer Participation on Service Outcomes

5.5.7.2 Testing Mediation role of Task-related Affective Well-Being

Mediation relationship exists when there exist at least one mediator intervening between predictor and outcome variable, which affects the relationship (Baron and Kenny, 1986). The study followed Zhao et al. (2010) specification for establishing mediation after Preacher and Hayes' (2004) bootstrapping procedure. The mediation role of task-related affective well-being in the influence of customer participation on four service outcomes is presented in figure

5.4. The β value for the direct effect of customer participation on customer outcome is represented as c, the β value for the indirect effect of customer participation on task-related affective well-being (a) and task-related affective well-being on customer outcome (b) is represented as (a x b). The model explained 36.9% variance for the influence on perceived service quality (a = 0.349, b = 0.346, c = 0.393, p < 0.001), 40.6% variance for the influence on customer satisfaction (a = 0.349, b = 0.460, c = 0.309, p < 0.001), 27.7% variance for the influence on perceived value (a = 0.349, b = 0.150, c = 0.395, p < 0.001), and 28.6% variance for the influence on customer experience (a = 0.349, b = 0.243, c = 0.400, p < 0.001). The model explained 12.1% variance on the mediator, task-related affective well-being.



Notes: *** = p < 0.001, r^2 = coefficient of determination, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience

Figure 5.4 Mediating Role of Task-related Affective Well-Being

In accordance with Zhao et al. (2010), Table 5.10 presents the direct and indirect effects to represent the mediation effect. If the indirect path a x b is significant and the direct path c is significant, then the product a x b x c is checked for its sign. Since all the effects are positive, the result concludes the mediation to be complementary mediation in the current study. Thus, customer participation was found to have a positive influence on task-related affective well-being (hypothesis 1b) and task-related affective well-being was found to have a positive influence on the four service outcomes studied (hypothesis 1c). The results also prove the mediating role of task-related affective well-being in the influence of customer participation on service outcomes, thus satisfying hypothesis 1d.

Table 5.10 Mediating Role of Task-related Affective Well-Being

Service Outcomes	a	b	c	a x b	a x b x c	Mediation Type
PSQ	0.349	0.346	0.393	0.121	0.047	Complementary
SAT	0.349	0.460	0.309	0.161	0.050	Complementary
PV	0.349	0.150	0.395	0.052	0.021	Complementary
CE	0.349	0.243	0.400	0.085	0.034	Complementary

Notes: PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience, a = β value of CP to mediator, b = β value of mediator to customer outcome, c = β value of direct effects, CP to service outcomes

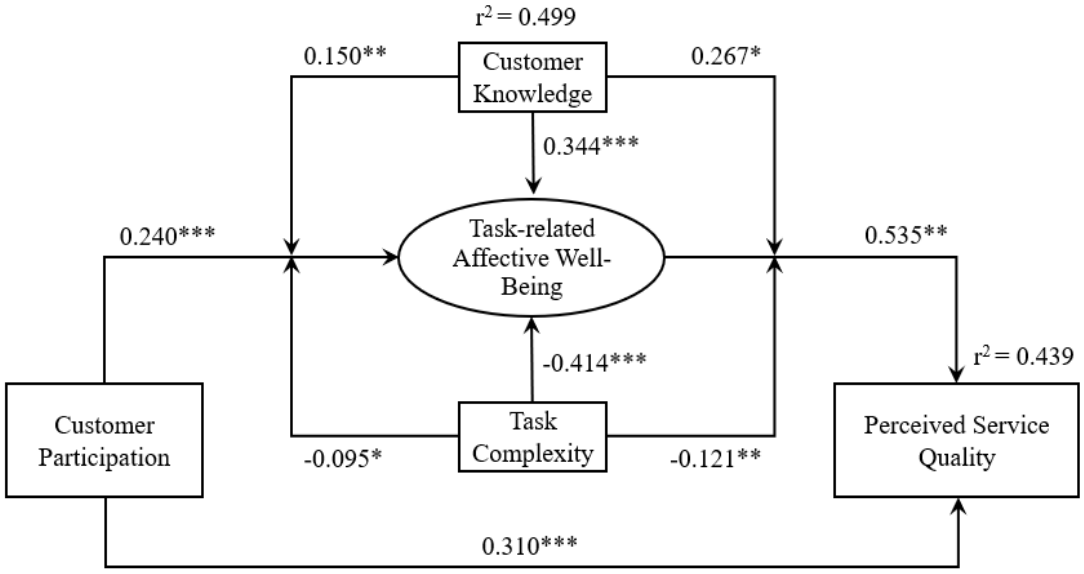
5.5.7.3 Empirical Testing of the Theoretical Model

To empirically test the entire model in the study, multiple moderated mediated regression recommended by Preacher, Rucker & Hayes (2007) was used. It was used to test the next set of hypotheses (H2 – H3) about the moderating effects of customer knowledge and task complexity on the mediating role of task-related affective well-being between customer participation and service outcomes. For this, the mean centred average scores of all variables including independent (customer participation), mediator (task-related affective well-being), moderators (customer knowledge and task complexity), and dependent (service outcomes – perceived service quality, customer satisfaction, perceived value, customer experience) variables were used. Four interaction terms were created by multiplying customer participation and task-related affective well-being with those of customer knowledge and task complexity. The multiple moderated mediated structural model based on Preacher et al. (2007) was tested using AMOS 20. The path analysis was done separately for the four service outcomes – perceived service quality, customer satisfaction, perceived value, customer experience.

Path Analysis – Perceived Service Quality

The measurement model shows a good fit ($\chi^2 = 1.76$, df = 1, χ^2/df = 1.76, RMSEA = 0.04, PCLOSE = 0.36, SRMR = 0.006, GFI = 0.99, CFI = 0.99, NFI = 0.99, RFI = 0.96, IFI = 0.99, TLI = 0.98) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 5.5.

The results show significant effect of customer knowledge on task-related affective well-being ($H2a_1$: $\beta = 0.344$, $p < 0.001$) and task complexity on task-related affective well-being ($H3a_1$: $\beta = -0.414$, $p < 0.001$). Similarly, the interaction terms CP x CK ($H2b_1$: $\beta = 0.150$, $p < 0.01$) and CP x TC ($H3b_1$: $\beta = -0.095$, $p < 0.05$) have significant effects on task-related affective well-being, and TrAWB x CK ($H2c_1$: $\beta = 0.267$, $p < 0.05$) and TrAWB x TC ($H3c_1$: $\beta = -0.121$, $p < 0.01$) have significant effects on perceived service quality, in the expected directions. Also, the model explained 49.9% variance for the influences on task-related affective well-being and 43.9% variance for the influences on perceived service quality.



Notes: *** = $p < 0.001$, ** = $p < 0.01$, * = $p < 0.05$, r^2 = coefficient of determination

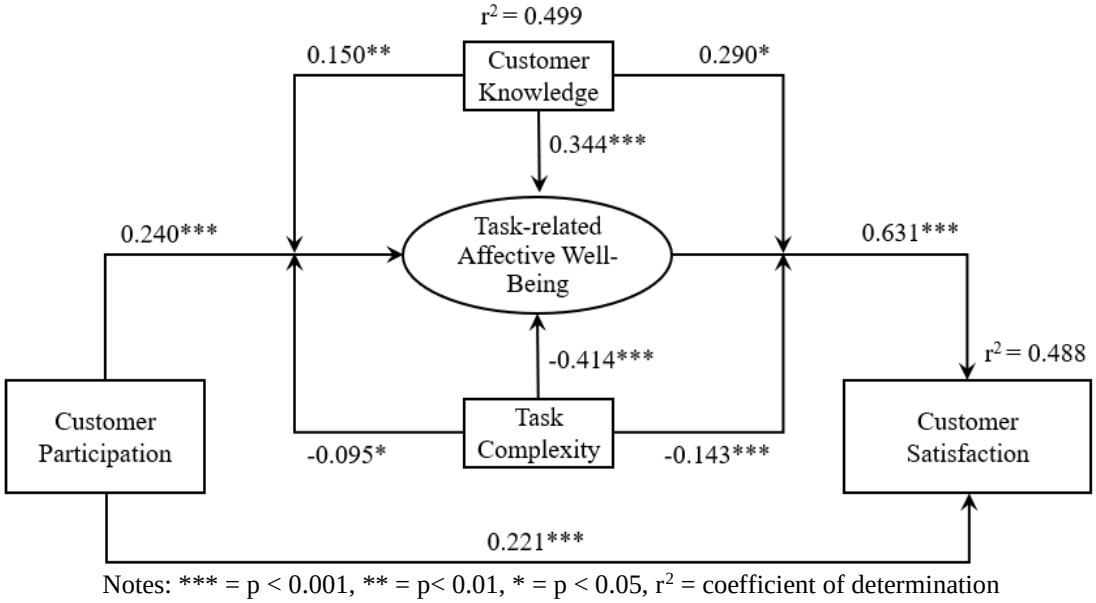
Figure 5.5 Path Analysis with Perceived Service Quality as Service Outcome

Path Analysis – Customer Satisfaction

The measurement model shows a good fit ($\chi^2 = 0.317$, df = 1, $\chi^2/df = 0.317$, RMSEA = 0.001, PCLOSE = 0.72, SRMR = 0.003, GFI = 0.99, CFI = 0.99, NFI = 0.99, RFI = 0.93, IFI = 0.99, TLI = 0.99) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 5.6.

The results show significant effect of customer knowledge on task-related affective well-being ($H2a_2$: $\beta = 0.344$, $p < 0.001$) and task complexity on task-related affective well-being ($H3a_2$: $\beta = -0.414$, $p < 0.001$). Similarly, the interaction terms CP x CK ($H2b_2$: $\beta = 0.150$, $p < 0.01$) and CP x TC ($H3b_2$: $\beta = -0.095$, $p < 0.05$) have significant effects on task-related affective

well-being, and TrAWB x CK (H2c$_2$: β = 0.290, p < 0.05) and TrAWB x TC (H3c$_2$: β = -0.143, p < 0.001) have significant effects on customer satisfaction, in the expected directions. Also, the model explained 49.9% variance for the influences on task-related affective well-being and 48.8% variance for the influences on customer satisfaction.



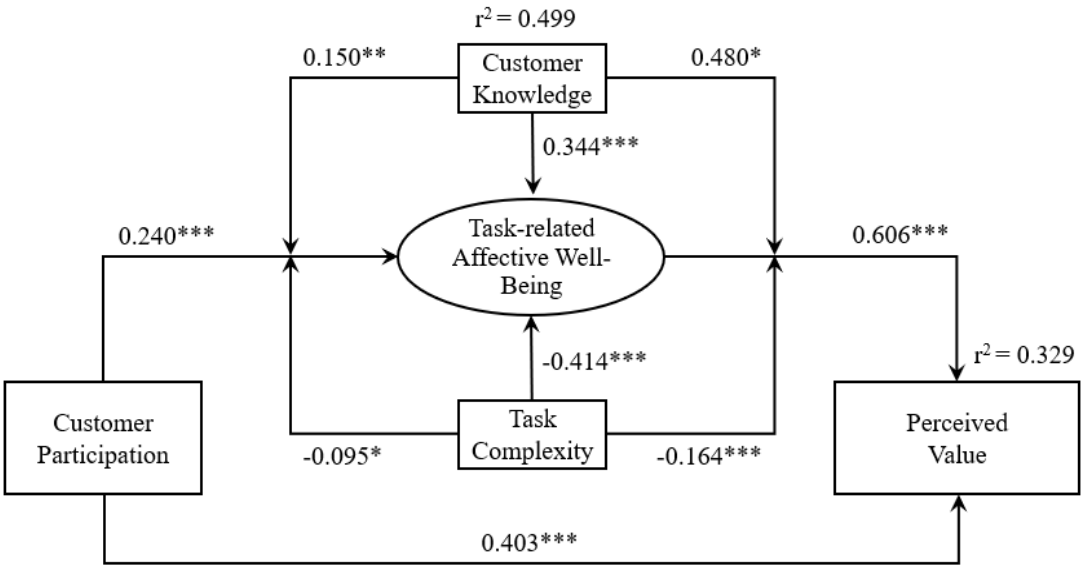
Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

Figure 5.6 Path Analysis with Customer Satisfaction as Service Outcome

Path Analysis – Perceived Value

The measurement model shows a good fit (χ^2 = 0.415, df = 1, χ^2/df = 0.415, RMSEA = 0.001, PCLOSE = 0.68, SRMR = 0.004, GFI = 0.99, CFI = 0.99, NFI = 0.99, RFI = 0.99, IFI = 0.99, TLI = 0.99) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 5.7.

The results show significant effect of customer knowledge on task-related affective well-being (H2a$_3$: β = 0.344, p < 0.001) and task complexity on task-related affective well-being (H3a$_3$: β = -0.414, p < 0.001). Similarly, the interaction terms CP x CK (H2b$_3$: β = 0.150, p < 0.01) and CP x TC (H3b$_3$: β = -0.095, p < 0.05) have significant effects on task-related affective well-being, and TrAWB x CK (H2c$_3$: β = 0.480, p < 0.05) and TrAWB x TC (H3c$_3$: β = -0.164, p < 0.001) have significant effects on perceived value, in the expected directions. Also, the model explained 49.9% variance for the influences on task-related affective well-being and 32.9% variance for the influences on perceived value.

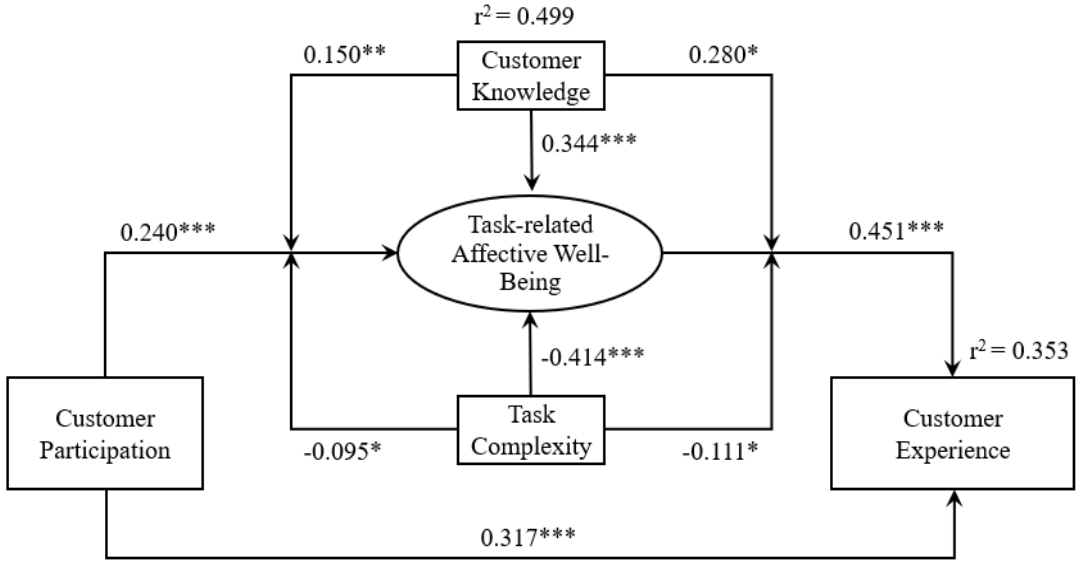


Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

Figure 5.7 Path Analysis with Perceived Value as Service Outcome

Path Analysis – Customer Experience

The measurement model shows a good fit (χ^2 = 0.496, df = 1, χ^2/df = 0.496, RMSEA = 0.001, PCLOSE = 0.64, SRMR = 0.004, GFI = 0.99, CFI = 0.99, NFI = 0.99, RFI = 0.93, IFI = 0.99, TLI = 0.99) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 5.8.



Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

Figure 5.8 Path Analysis with Customer Experience as Service Outcome

The results show significant effect of customer knowledge on task-related affective well-being ($H2a_4$: $\beta = 0.344$, $p < 0.001$) and task complexity on task-related affective well-being ($H3a_4$: $\beta = -0.414$, $p < 0.001$). Similarly, the interaction terms CP x CK ($H2b_4$: $\beta = 0.150$, $p < 0.01$) and CP x TC ($H3b_4$: $\beta = -0.095$, $p < 0.05$) have significant effects on task-related affective well-being, and TrAWB x CK ($H2c_4$: $\beta = 0.280$, $p < 0.05$) and TrAWB x TC ($H3c_4$: $\beta = -0.111$, $p < 0.05$) have significant effects on customer experience, in the expected directions. Also, the model explained 49.9% variance for the influences on task-related affective well-being and 35.3% variance for the influences on customer experience.

The structural model for the four service outcomes was analysed for testing the hypotheses. The direct effects were tested first followed by the mediation effect, and finally, the path analyses for the entire structural model using multiple mediated moderated regression using AMOS. The hypotheses proposed for the model were tested and presented in Table 5.11.

Table 5.11 Result – Hypotheses Testing using SEM

Hypotheses		**Results**
H1a	Customer participation has a positive influence on service outcomes	Supported
H1b	Customer participation has a positive influence on task-related affective well-being	Supported
H1c	Task-related affective well-being has a positive influence on service outcomes	Supported
H1d	Task-related affective well-being mediates the positive influence of customer participation on service outcomes	Supported
H2a	Customer knowledge has a positive influence on task-related affective well-being	Supported
H2b	The positive effect of customer participation on task-related affective well-being is stronger (vs weaker) for higher (vs lower) levels of customer knowledge	Supported
H2c	The positive effect of task-related affective well-being on customer outcome is stronger (vs weaker) for higher (vs lower) levels of customer knowledge	Supported
H3a	Task complexity has a negative influence on task-related affective well-being	Supported
H3b	The positive effect of customer participation on task-related affective well-being is stronger (vs weaker) for lower (vs higher) levels of task complexity	Supported
H3c	The positive effect of task-related affective well-being on customer outcome is stronger (vs weaker) for lower (vs higher) levels of task complexity	Supported

Notes: SEM = Structural Equation Modelling

5.5.8 Multivariate Analysis of Variance

Customer participation was classified into various types over a period. Dong & Sivakumar (2017) consolidated all typologies to come up with a new typology inclusive of most of the characteristics present in existing typologies and named it as mandatory customer participation, replaceable customer participation and voluntary customer participation (See Chapter 3). The study uses multivariate analysis of variance (MANOVA) to address research objective 4 and to test the hypotheses. The study used a 3 x 2 x 2 between-subjects scenario-based experimental design by customer participation (voluntary, replaceable and mandatory), customer knowledge (low vs high), and task complexity (low vs high) using 12 versions of the service encounter.

5.5.8.1 Manipulation Check

Manipulation on types of customer participation was done based on specific questions on the type of participation and how willing the respondents were to participate in those types (see Figure 5.9). Scenarios on mandatory participation show that 85% of the respondents understood the participation mentioned was mandatory, and the majority expressed their willingness to participate. Scenarios on replaceable participation show that 80% of the respondents understood the participation can be self or with the help of an employee. Majority of respondents expressed their willingness to participate with the help of an employee than to do it themselves. Scenarios on voluntary participation show that 90% of the respondents identified the participation type to be voluntary in form, and the majority of the respondents were willing to do voluntary participation.

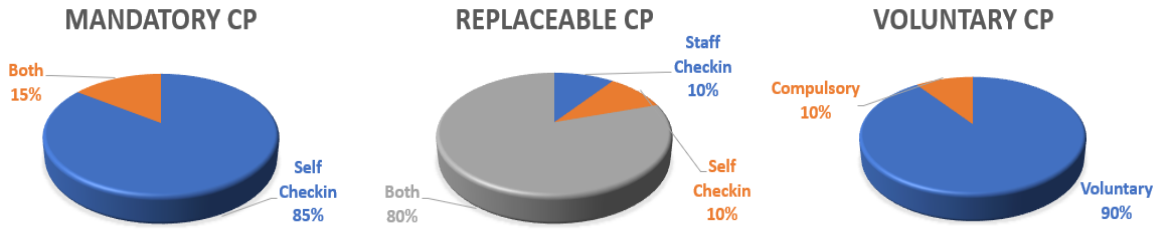


Figure 5.9 Manipulation Check for Types of Customer Participation

For checking the manipulation on customer knowledge, t-test (see Table 5.12) revealed a significant difference between the high and low knowledge ($T(345) = -7.47$, $p < 0.001$) with a higher value for high knowledge ($M = 5.14$, $SD = 1.08$) compared to low knowledge ($M = 4.20$, $SD = 1.31$).

Table 5.12 Manipulation Check for Customer Knowledge

Customer Knowledge	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	t	df	Sig.
CK Low	4.200	1.307	6.177	0.013	-7.474	345	0.000
CK High	5.144	1.079					

Notes: CK Low = Low Customer Knowledge, CK High = High Customer Knowledge

Table 5.13 Manipulation Check for Task Complexity

Task Complexity	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	t	df	Sig.
TC Low	4.625	1.108	3.864	0.050	9.459	358	0.000
TC High	3.590	0.962					

Notes: TC Low = Low Task Complexity, TC High = High Task Complexity

Similarly, for task complexity, t-test (see Table 5.13) revealed a significant difference between the high and low complexity ($T(358) = 9.46$, $p < 0.001$) with a higher value for low complexity ($M = 4.62$, $SD = 1.11$) compared to high complexity ($M = 3.59$, $SD = 0.96$). Hence, the scenarios used in the study were successful in capturing the manipulations in the expected direction.

5.5.8.2 Main Effects and Interaction Effects

The direct and indirect effects of the manipulated variables (customer participation, customer knowledge, and task complexity) on task-related affective well-being were analyzed using multivariate analysis of variance (MANOVA). The MANOVA test revealed a significant multivariate main effect for customer participation types, customer knowledge and task complexity. The two-way interactions effects of customer participation with customer knowledge and task complexity on task-related affective well-being were also found significant. Table 5.14 presents the Wilks' Lambda and Pillai's Trace. Pillai's criterion is considered more robust and is used when homogeneity of covariance is violated. Violation of equality of variance-covariance matrices has minimal impact if the groups are approximately equal size (Hair et al., 2010). The result states that all the main effects and interaction effects (two-way interactions) were found to be significant.

Table 5.14 Multivariate Tests

Effect	Pillai's Trace	Wilks' Lambda	Partial η2	Sig.
Intercept	0.984	0.016	0.984	0.001
Customer Participation Types	0.465	0.542	0.264	0.001
Customer Knowledge	0.214	0.786	0.214	0.001
Task Complexity	0.171	0.829	0.171	0.001
CP Type * Customer Knowledge	0.219	0.783	0.115	0.001
CP Type * Task Complexity	0.087	0.914	0.054	0.001

Notes: CP Type = Customer Participation Types, Sig. = Significance level.

The main effect of customer participation shows that task-related affective well-being and the service outcomes (perceived service quality, customer satisfaction, perceived value, customer experience) have the highest value for mandatory customer participation followed by replaceable customer participation and voluntary customer participation respectively (see Table 5.15). Tukey's post hoc test reveals that the three types of participation are significantly different from each other (H4 supported in counter direction). The main effects of customer knowledge show that task-related affective well-being is higher for high customer knowledge (m = 4.85) and lower for low customer knowledge (m = 4.57) (see Figure 5.9). The main effects of task complexity show that task-related affective well-being is lower for high task complexity (m = 4.63) and higher for low task complexity (m = 4.80) (see Figure 5.10).

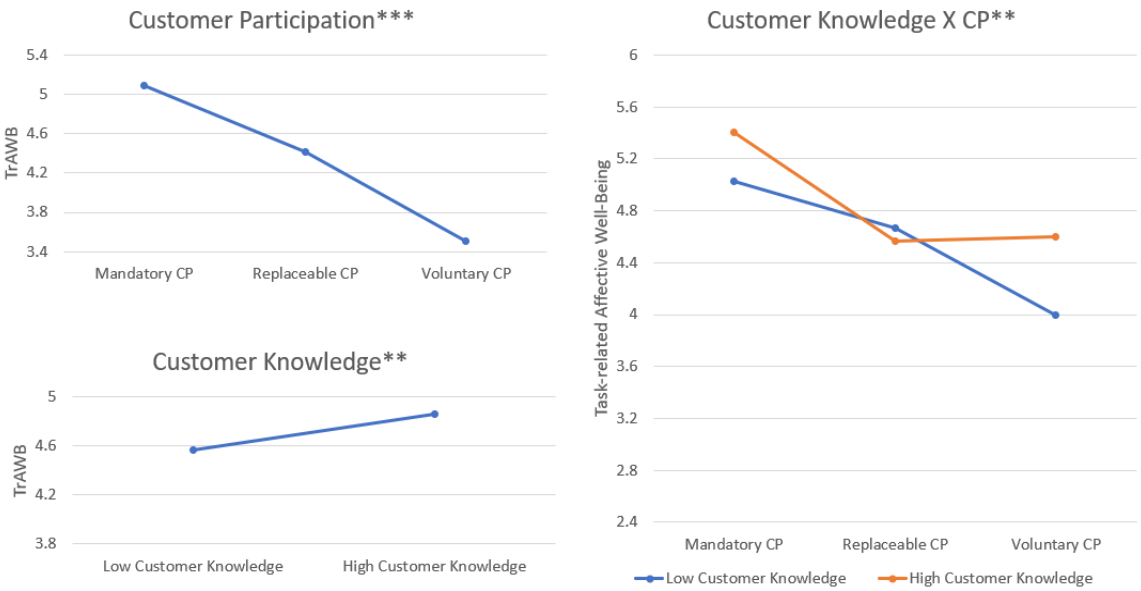
Table 5.15 Main Effects of Customer Participation

Outcome Variables	Mean Difference	Sig.	Direction	Support
WB(M) < WB(R)	5.218 - 4.617 = 0.60	p < 0.001	M > R	Supported in Counter Direction
WB(R) < WB(V)	4.617 - 4.297 = 0.32	p < 0.001	R > V	Supported in Counter Direction
PSQ(M) < PSQ(R)	5.086 - 4.414 = 0.67	p < 0.001	M > R	Supported in Counter Direction
PSQ(R) < PSQ(V)	4.414 - 3.511 = 0.90	p < 0.001	R > V	Supported in Counter Direction
SAT(M) < SAT(R)	5.219 - 4.528 = 0.69	p < 0.001	M > R	Supported in Counter Direction
SAT(R) < SAT(V)	4.528 – 3.786 = 0.74	p < 0.001	R > V	Supported in Counter Direction
PV(M) < PV(R)	4.965 - 4.402 = 0.56	p < 0.001	M > R	Supported in Counter Direction
PV(R) < PV(V)	4.402 - 3.538 = 0.86	p < 0.001	R > V	Supported in Counter Direction

CE(M) < CE(R)	4.994 - 4.400 =	0.59	p < 0.001	M > R	Supported in Counter Direction
CE(R) < CE(V)	4.400 - 3.581 =	0.82	p < 0.001	R > V	Supported in Counter Direction

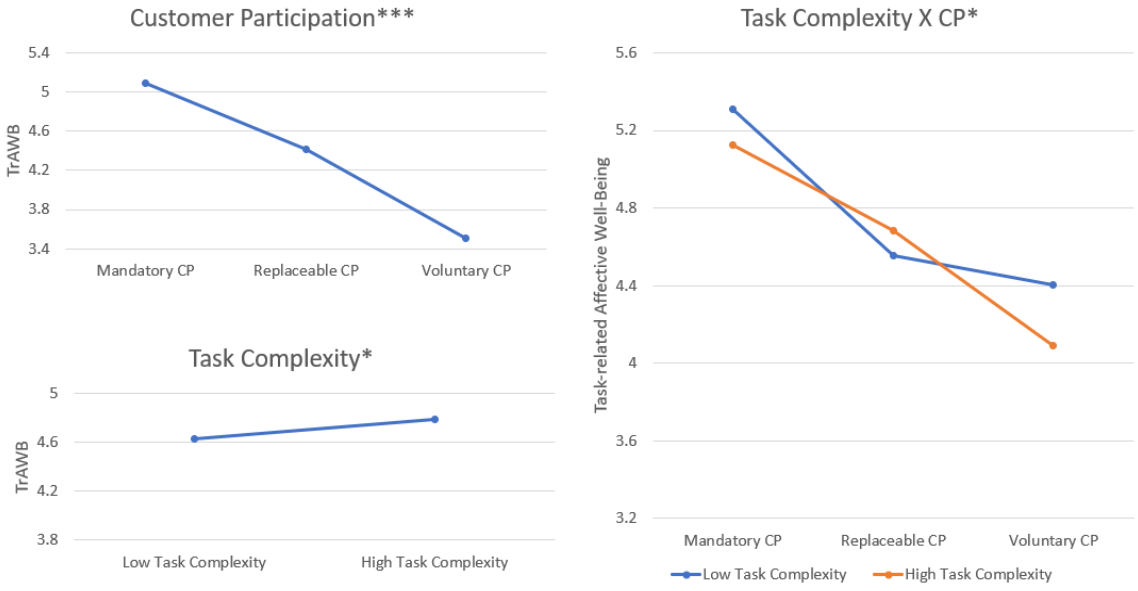
Notes: WB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience, M = Mandatory Customer Participation, R = Replaceable Customer Participation, V = Voluntary Customer Participation

The two-way interaction between customer participation and customer knowledge shows that task-related affective well-being increases from low customer knowledge to high customer knowledge for mandatory and voluntary customer participation and it decreases slightly for replaceable customer participation (see Figure 5.10). It can be noticed that task-related affective well-being decreases from mandatory customer participation, followed by replaceable and voluntary customer participation for both levels of customer knowledge (see Table 5.16) (H5a supported in counter direction). The two-way interaction between customer participation and task complexity shows that task-related affective well-being increases from high task complexity to low task complexity for mandatory and voluntary customer participation and it decreases slightly for replaceable customer participation (see Figure 5.11). Also, task-related affective well-being was found to decrease from mandatory customer participation, followed by replaceable and voluntary customer participation for both levels of task complexity (see Table 5.17) (H5b supported in counter direction).



Notes: TrAWB = Task-related Affective Well-Being, CP = Customer Participation

Figure 5.10 Interaction Effect of Customer Participation and Customer Knowledge



Notes: TrAWB = Task-related Affective Well-Being, CP = Customer Participation

Figure 5.11 Interaction Effect of Customer Participation and Task Complexity

Table 5.16 Interaction Effect of Customer Participation and Customer Knowledge

CP X CK	Low Customer Knowledge			High Customer Knowledge			Hypotheses
	M CP	R CP	V CP	M CP	R CP	V CP	
TrAWB	5.03**	4.67**	3.99**	5.41**	4.56**	4.60**	Supported in Counter Direction

Notes: TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, CP = Customer Participation, M CP = Mandatory Customer Participation, R CP = Replaceable Customer Participation, V CP = Voluntary Customer Participation, ** = p< 0.01

Table 5.17 Interaction Effect of Customer Participation and Task Complexity

CP X TC	Low Task Complexity			High Task Complexity			Hypotheses
	M CP	R CP	V CP	M CP	R CP	V CP	
TrAWB	5.31*	4.55*	4.50*	5.13*	4.68*	4.09*	Supported in Counter Direction

Notes: TrAWB = Task-related Affective Well-Being, TC = Task Complexity, CP = Customer Participation, M CP = Mandatory Customer Participation, R CP = Replaceable Customer Participation, V CP = Voluntary Customer Participation, * = p < 0.05

MANOVA was used for testing the hypotheses while considering the types of participation. The direct and interaction effects were tested using SPSS. The results of the hypotheses proposed and tested are presented in Table 5.18.

Table 5.18 Result – Hypotheses Testing using MANOVA

Hypotheses		Results
H4a	The positive effect of CP on TrAWB are greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported in Counter Direction
H4b	The positive effect of CP on service outcomes are greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported in Counter Direction
H5a	The positive effect of CP on TrAWB is stronger (vs weaker) for higher (vs lower) levels of CK, and the effect is greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported in Counter Direction
H5b	The positive effect of CP on TrAWB is stronger (vs weaker) for lower (vs higher) levels of TC, and the effect is greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported in Counter Direction

Notes: MANOVA = Multivariate Analysis of Variance, TrAWB = Task-related Affective Well-Being, CP = Customer Participation, CK = Customer Knowledge, TC = Task Complexity

5.5.9 Effect of Demographics on Study Measures

The study examined the effects of categorical demographic variables (a) gender on study variables by using 't' tests and (b) marital status, (c) age, and (d) qualification using analysis of variance (ANOVA). In both 't' test and ANOVA, an inferential statistic named Levene's test assess the homogeneity of variance for a variable calculated for two or more groups.

5.5.9.1 *Effect of Gender on Study Variables*

An examination of differences in all study variables across gender is presented in Table 5.19. The t-test results show that there is no significant difference between male and female on the study variables.

Table 5.19 Effect of Gender on Study Variables

Variable	Levene's Test for Equality of Variances		t-test for Equality of Means		
	F	Sig.	t	df	Sig.
CP	0.846	0.358	0.457	358	0.648
TrAWB	1.207	0.273	1.388	358	0.166
PSQ	1.274	0.260	0.190	358	0.850
SAT	0.043	0.836	0.127	358	0.899
PV	0.466	0.495	-0.841	358	0.401

CE	0.040	0.842	0.511	358	0.610
CK	0.038	0.846	0.945	358	0.345
TC	2.305	0.130	-1.804	358	0.072

Notes: F = F statistic, t = T statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

5.5.9.2 *Effect of Marital Status on Study Variables*

An examination of differences in all study variables across marital status is presented in Table 5.20. The ANOVA results show that there is no significant difference among the three groups (single, married and divorced) on the study variables.

Table 5.20 Effect of Marital Status on Study Variables

Variable		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
CP	Between Groups	1.073	2	0.537	0.315	0.730
	Within Groups	607.948	357	1.703		
	Total	609.022	359			
TrAWB	Between Groups	0.535	2	0.267	0.320	0.726
	Within Groups	298.253	357	0.835		
	Total	298.788	359			
PSQ	Between Groups	1.537	2	0.769	0.493	0.611
	Within Groups	556.235	357	1.558		
	Total	557.773	359			
SAT	Between Groups	1.432	2	0.716	0.482	0.618
	Within Groups	530.302	357	1.485		
	Total	531.733	359			
PV	Between Groups	1.949	2	0.974	0.621	0.538
	Within Groups	560.601	357	1.570		
	Total	562.549	359			
CE	Between Groups	1.158	2	0.579	0.349	0.706
	Within Groups	592.706	357	1.660		
	Total	593.864	359			
CK	Between Groups	1.451	2	0.725	0.544	0.581
	Within Groups	476.026	357	1.333		
	Total	477.477	359			
TC	Between Groups	2.002	2	1.001	0.745	0.476
	Within Groups	479.889	357	1.344		
	Total	481.891	359			

Notes: F = F statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

5.5.9.3 *Effect of Age on Study Variables*

An examination of differences in all study variables across age groups is presented in Table 5.21. The ANOVA results show that there is no significant difference among the three groups (21 – 30, 31 – 40 and above 40) on the study variables.

Table 5.21 Effect of Age on Study Variables

Variable		Sum of Squares	df	Mean Square	F	Sig.
CP	Between Groups	3.002	2	1.501	0.884	0.414
	Within Groups	606.020	357	1.698		
	Total	609.022	359			
TrAWB	Between Groups	4.820	2	2.410	2.927	0.055
	Within Groups	293.968	357	0.823		
	Total	298.788	359			
PSQ	Between Groups	1.112	2	0.556	0.356	0.700
	Within Groups	556.661	357	1.559		
	Total	557.773	359			
SAT	Between Groups	1.159	2	0.580	0.390	0.677
	Within Groups	530.574	357	1.486		
	Total	531.733	359			
PV	Between Groups	2.475	2	1.237	0.789	0.455
	Within Groups	560.075	357	1.569		
	Total	562.549	359			
CE	Between Groups	4.166	2	2.083	1.261	0.285
	Within Groups	589.698	357	1.652		
	Total	593.864	359			
CK	Between Groups	1.158	2	0.579	0.349	0.706
	Within Groups	592.706	357	1.660		
	Total	593.864	359			
TC	Between Groups	2.625	2	1.313	0.978	0.377
	Within Groups	479.266	357	1.342		
	Total	481.891	359			

Notes: F = F statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

5.5.9.4 *Effect of Qualification on Study Variables*

An examination of differences in all study variables across qualification is presented in Table 5.22. The ANOVA results show that there is no significant difference among the three groups (bachelors, masters, others) on the study variables.

Table 5.22 Effect of Qualification on Study Variables

Variable		Sum of Squares	df	Mean Square	F	Sig.
CP	Between Groups	7.841	2	3.921	2.328	0.099
	Within Groups	601.181	357	1.684		
	Total	609.022	359			
TrAWB	Between Groups	2.130	2	1.065	1.281	0.279
	Within Groups	296.658	357	0.831		
	Total	298.788	359			
PSQ	Between Groups	10.358	2	5.179	3.377	0.035
	Within Groups	547.415	357	1.533		
	Total	557.773	359			
SAT	Between Groups	7.021	2	3.510	2.388	0.093
	Within Groups	524.712	357	1.470		
	Total	531.733	359			
PV	Between Groups	7.841	2	3.921	2.328	0.099
	Within Groups	601.181	357	1.684		
	Total	609.022	359			
CE	Between Groups	6.952	2	3.476	2.114	0.122
	Within Groups	586.912	357	1.644		
	Total	593.864	359			
CK	Between Groups	0.503	2	0.252	0.188	0.828
	Within Groups	476.973	357	1.336		
	Total	477.477	359			
TC	Between Groups	5.571	2	2.785	2.088	0.125
	Within Groups	476.321	357	1.334		
	Total	481.891	359			

Notes: F = F statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

Hence, the demographic variables considered in the study is not significantly influencing the study variables.

5.6 SUMMARY

This chapter presented the results of the quantitative analysis of study 1 conducted on the domestic airline check-in process among the graduate students at Indian University. The study used 360 usable data for the analysis purpose. The chapter presents an assessment of the measurement model for testing reliability and validity. The conceptual model was analysed using structural equation modelling, and the manipulations of variables based on scenarios were analysed using multivariate analysis of variance. The hypotheses testings were conducted, and the results were presented in tables (see Table 5.11 and Table 5.18).

CHAPTER 6

DATA ANALYSES – AUSTRALIAN SUPERMARKET CHECKOUT

6.1 INTRODUCTION

This chapter discusses various analyses performed on collected data on the check-out process in Australian supermarkets to gather insights about the mediating role of task-related affective well-being in the influence of customer participation on service outcomes and the differential influence of types of participation. Organization of this chapter is as follows. The chapter begins with a description of the data's characteristics and is followed by the measurement assessment to qualify the data for significance testing. The final set of data is then used to test the proposed hypotheses using appropriate statistical tools in SPSS and AMOS. Specifically, the study uses structural equation modelling (SEM) and multivariate analysis of variance (MANOVA) (see chapter structure presented in Figure 6.1).

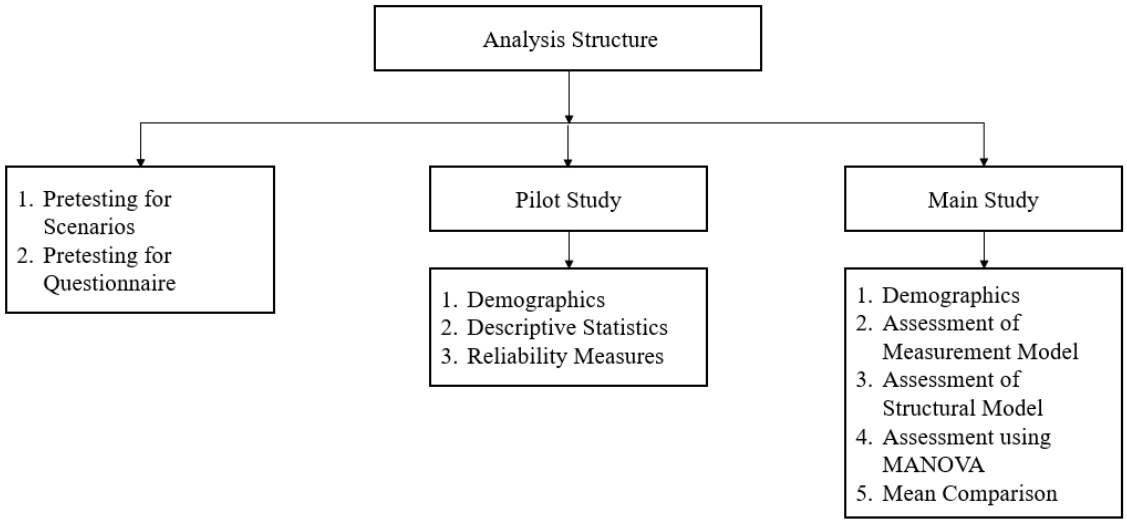


Figure 6.1 Chapter Structure

6.2 PRE-TESTING OF THE SCENARIOS

The study makes use of twelve between-subject experimental scenarios comprising 3 x 2 x 2 design with three customer participation types, two levels of customer knowledge and two levels of task complexity. The study focusses on self-service processes; hence, it considers the supermarket check-out process. Twelve scenarios were built by manipulating the types of CP, CK and TC in the supermarket check-out process in Australia.

6.2.1 Expert Review

The initial scenarios were sent to five expert researchers in the marketing and consumer research domains to check the face validity of the scenario manipulations. Experts were considering the specific context of the study and the content in the scenario to see if it narrates the scenario precisely. The scenarios were rephrased based on the suggestions given by the experts to bring in clarity.

6.2.2 Feedback from Target Respondents

Feedback was collected from five respondents on the suitability of the scenario. The participants were provided with the information on the context and the process to understand the twelve scenarios. They were encouraged to comment on the clarity and unambiguousness of the scenario. Based on their responses, the scenario wordings were revised for better understandability.

6.3 PRE-TESTING OF THE INSTRUMENT

The study comprises of eight variables, and well-established scales were adapted for measuring the variables. The items were contextualized for the context of the current study, the supermarket check-out process in Australia.

6.3.1 Expert Review

The initial questionnaire was sent to five expert researchers in the marketing and consumer research domains to check the face validity of the questionnaire items and measures. Experts were considering the specific context of the study and the content in the questionnaire to see if it captures the context and the variables comprehensively. The questionnaire was rephrased based on the suggestions of the experts to bring in clarity.

6.3.2 Feedback from the Target Respondents

Feedback was collected from the five respondents on the suitability of the questions. Participants were encouraged to comment on the questions' complexity and comprehensibility. All respondents communicated the problems of the length of the questionnaire. However, this issue could not be addressed due to the requirements to accomplish the research objectives. Considering the comments from the participants, the questions were rephrased to bring in clarity wherever required.

6.4 PILOT STUDY

Following the pre-testing of the instrument, a pilot survey was conducted on a sample of respondents who met the criteria of the final survey sample to ensure the quality of the data and other administrative issues. The questionnaires were administered via online form. Respondents were given instructions about filling out the questionnaire and assurance about the confidentiality of their responses. Respondents took approximately 15 minutes to fill the entire questionnaire. This pilot was carried out on 60 respondents who are frequently shopping from supermarkets in Australia. The instrument for data collection in the pilot study was the final version of the field experimentation questionnaire.

6.4.1 Demographics Information on Pilot Study Sample

Four sets of demographics data were collected from pilot study participants, namely: gender, age group, marital status, and qualification. Data was collected from the supermarket customers in Australia. The pilot study comprised of 27 males (45%) and 33 female (55%) respondents. 6.7% of respondents fall below the age of 21, 66.7% fall within the age group of 21 to 50, 15% of the respondents fall within the age group of 51 to 60, and the rest above 60 years of age (11.6%). 33.3% of the respondents were married, 45% single, 16.7% de facto and the rest divorced (5%). 15% of the respondents shopped for less than 50 AUD, 65% falls in 50 – 150 AUD and the rest shopped for 200 AUD and above (20%).

6.4.2 Descriptive Statistics

After collecting data from the pilot study sample of 60 respondents, the data were recorded in SPSS software for the initial descriptive statistics analysis. No cases were found with missing data, so all responses were usable. Table 6.1 presents the descriptive statistics. Mean values ranged from 2.2 to 4.8; the standard deviation ranged from 1.0 to 1.8. The result did not represent any extreme values; hence, they were acceptable. The values for skewness ranged from -1.1 to +1.4 considered acceptable (Chou & Bentler, 1995), and the values for kurtosis ranged from -1.4 to +2.3 were considered acceptable (Kline, 2005). The items were then scrutinized to identify outliers and were treated so they could be normalized.

Table 6.1 Descriptive Statistics of the Pilot Study

Items	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**	**Items**	**Mean**	**Std. Deviation**	**Skewness**	**Kurtosis**
CP1	3.783	1.595	-0.021	-0.800	TC1	2.850	1.388	0.907	0.678
CP2	4.500	1.372	-0.408	-0.085	TC2	2.967	1.583	0.851	-0.065
CP3	4.450	1.556	-0.267	-0.783	TC3	2.533	1.384	1.339	2.275
TrAWB1	4.283	1.617	-0.379	-0.532	TC4	3.467	1.631	0.583	-0.377
TrAWB2	4.217	1.367	-0.160	-0.028	PSQ1	4.433	1.430	-0.742	0.249
TrAWB3	4.617	1.574	-0.384	-0.880	PSQ2	4.233	1.370	-0.602	0.378
TrAWB4	4.050	1.630	0.111	-0.724	PSQ3	4.017	1.467	-0.430	-0.388
TrAWB5	4.633	1.794	-0.462	-0.811	SAT1	4.533	1.578	-0.866	0.177
TrAWB6	3.217	1.678	0.535	-0.612	SAT2	4.533	1.641	-0.822	0.085
TrAWB7	4.733	1.539	-0.833	-0.003	SAT3	4.683	1.546	-1.097	0.498
TrAWB8	2.817	1.557	0.902	0.312	PV1	4.317	1.420	-0.734	0.111
TrAWB9	2.183	1.172	0.939	0.700	PV2	4.183	1.334	-0.481	0.264
TrAWB10	3.850	1.593	-0.241	-0.740	PV3	3.900	1.515	-0.249	-0.721
CK1	3.750	1.480	-0.071	-0.816	PV4	3.933	1.539	-0.260	-0.463
CK2	4.483	1.682	-0.213	-0.864	CE1	4.067	1.506	-0.333	-0.209
CK3	4.383	1.776	-0.027	-1.337	CE2	4.233	1.640	-0.460	-0.447
					CE3	4.133	1.420	-0.133	-0.006

6.4.3 Reliability of Measurement Instrument

Testing the reliability of survey data is the pre-requisite for data analysis and inference. Reliability analysis tests whether a scale consistently reflects the subset it measures (Churchill, 1979; Nunnally & Bernstein, 1994).

Table 6.2 Reliability Measures of Constructs from Pilot Study

Constructs	**Number of items**	**Cronbach's alpha**
Customer participation	3	0.880
Task-related affective well-being	10	0.877
Customer knowledge	3	0.845
Task complexity	4	0.863
Perceived service quality	3	0.926
Customer satisfaction	3	0.858
Perceived value	4	0.917
Customer experience	3	0.878

By consistency, it is meant that a respondent should score questionnaire the same way at different times. The two respondents with the same attitude should identically score the survey. According to Field (2005), values between 0.7 and 0.8 of Cronbach's α are acceptable values of consistency. As a rule of thumb, good reliability is suggested if, Cronbach's alpha estimate is higher than 0.7 (Hair et al., 1995). Table 6.2 depicts the reliability of all the constructs present in the study.

6.5 MAIN STUDY

A scenario-based questionnaire survey was used to conduct the main study. The survey was done online using Qualtrics, a web-based survey tool. The supermarket shoppers from Australia were considered to collect data sample. The sample was collected based on purposive sampling, and the survey link was sent to the market research firm. They collected the response from the supermarket shoppers through an online survey with the window being active for one week.

6.5.1 Data Cleaning

The target sample for the study was 500, of which the received responses were 483, and the rest were incomplete, yielding a response rate of 96.60%. These responses were subjected to data cleaning; 77 cases responded with mostly the same values for all the items indicating the disengagement of respondents and were dropped. 4 responses had a standard deviation more than three from the mean, and hence concluded to be outliers and hence removed from the data set. Qualtrics have the option to randomize the scenarios and allocate the scenarios sequentially to the respondents based on they open the link to fill in the survey. However, due to the incomplete responses, there was an unequal set of data for each scenario, 6 responses were dropped. Hence, the total usable sample for the study was 396.

6.5.2 Data Coding and Preparation

The data were coded for all scale and categorical variables. The scale items were on a 7-point Likert scale and the "strongly disagree" to "strongly agree" were coded from 1 to 7, respectively. The categorical variables were coded using numeric starting with 1. For example, gender was coded as 1 for "male" and 2 for "female". The data was further reviewed to seek out errors in the form of invalid data to produce clean data for the research analysis. Table 6.3 presents descriptive statistics. Mean values ranged from 2.6 to 4.9; the standard deviation ranged from 1.4 to 1.9. The result did not represent any extreme values; hence, they were acceptable. The values for skewness (Chou and Bentler, 1995) and the values for kurtosis (Kline, 2005) were considered acceptable. The items were then scrutinized to identify outliers and were treated so they could be normalized.

6.5.3 Common Method Variance

To demonstrate the soundness of the measurement scale developed, it was necessary to address the issue of common method variance. Common methods variance can be a major source of measurement error in data collection when variables are latent and measured using the same survey at one point of time (Podsakoff et al., 2003). Common method variance may inflate the true correlations among latent constructs and threaten the validity of conclusions. For this study, measures were taken to reduce common method bias. Firstly, data were collected from respondents who were aware of the issues addressed in the research. Secondly, to ensure that the respondents gave their opinion freely,

Table 6.3 Descriptive Statistics of the Main Study

Items	Mean	Std. Deviation	Skewness	Kurtosis	Items	Mean	Std. Deviation	Skewness	Kurtosis
CP1	4.152	1.469	-0.158	-0.615	TC1	4.571	1.520	-0.461	-0.328
CP2	4.758	1.454	-0.541	0.024	TC2	4.452	1.437	-0.297	-0.153
CP3	4.869	1.507	-0.560	-0.185	TC3	4.331	1.491	-0.298	-0.385
TrAWB1	4.273	1.478	-0.104	-0.662	TC4	4.841	1.457	-0.644	-0.058
TrAWB2	4.301	1.492	-0.083	-0.688	PSQ1	4.775	1.515	-0.602	-0.241
TrAWB3	4.515	1.605	-0.362	-0.853	PSQ2	4.833	1.517	-0.660	-0.101
TrAWB4	4.359	1.574	-0.113	-0.768	PSQ3	4.598	1.463	-0.378	-0.304
TrAWB5	4.763	1.633	-0.416	-0.801	SAT1	4.434	1.470	-0.294	-0.249
TrAWB6	3.346	1.804	0.309	-1.018	SAT2	4.366	1.511	-0.381	-0.173
TrAWB7	4.705	1.548	-0.757	0.026	SAT3	4.404	1.507	-0.285	-0.222
TrAWB8	3.167	1.739	0.456	-0.841	PV1	4.538	1.467	-0.408	-0.185
TrAWB9	2.611	1.641	0.902	-0.050	PV2	4.470	1.564	-0.482	-0.267
TrAWB10	4.043	1.559	-0.257	-0.493	PV3	4.391	1.528	-0.191	-0.413
CK1	4.242	1.548	-0.106	-0.857	PV4	4.571	1.520	-0.461	-0.328
CK2	4.652	1.605	-0.413	-0.814	CE1	4.452	1.437	-0.297	-0.153
CK3	4.649	1.708	-0.337	-0.952	CE2	4.331	1.491	-0.298	-0.385
					CE3	4.841	1.457	-0.644	-0.058

they were assured of anonymity. Finally, sequences were altered to make a coherent structure and smooth flow of logical questions. In addition, statistical evidence was collected using Harman's single-factor test for assessing common method variance in a single-method research design (Podsakoff and Organ 1986). Following the steps of this process, all 33 items of the main criteria variables in the research model underwent exploratory factor analysis. In examining the results of the unrotated solution, the highest variance explained by a single factor was found to be 39.23%, and all factors together account for 73.95%of the total variance. Thus, no single item accounted for most of the covariance (Podsakoff and Organ 1986) confirming that common method variance was not a major concern in this study.

6.5.4 Normality

Analysis for univariate normality was done using the Kolmogorov-Smirnov test with Lillefors significance correction revealed that none of the variables was normally distributed (Table 6.4). To assess the extent of non- normality, skewness and kurtosis are commonly used by the statisticians. A distribution is said to be normal when the values of skewness and kurtosis are equal to zero (Tabachnick and Fidell, 2001). It is suggested that absolute values of univariate skewness indices greater than 3.0 seem to describe extremely skewed data sets (Chou and Bentler 1995). Also, the kurtosis index greater than 10 may suggest a problem. As in this study, all the variables fall under the skewness value of 3 and kurtosis index of 10 (Table 6.3), inferring non-normality does not exist to a problem level.

Table 6.4 Kolmogorov-Smirnov (K-S) Test of Normality

Items	**t-statistic**	**Significance**	**Items**	**t-statistic**	**Significance**
CP1	0.147	0.000	TC1	0.151	0.000
CP2	0.190	0.000	TC2	0.166	0.000
CP3	0.171	0.000	TC3	0.191	0.000
TrAWB1	0.148	0.000	TC4	0.151	0.000
TrAWB2	0.148	0.000	PSQ1	0.157	0.000
TrAWB3	0.174	0.000	PSQ2	0.180	0.000
TrAWB4	0.130	0.000	PSQ3	0.177	0.000
TrAWB5	0.180	0.000	SAT1	0.185	0.000
TrAWB6	0.181	0.000	SAT2	0.172	0.000
TrAWB7	0.202	0.000	SAT3	0.176	0.000

TrAWB8	0.181	0.000	PV1	0.149	0.000
TrAWB9	0.213	0.000	PV2	0.167	0.000
TrAWB10	0.194	0.000	PV3	0.167	0.000
CK1	0.145	0.000	PV4	0.172	0.000
CK2	0.178	0.000	CE1	0.165	0.000
CK3	0.174	0.000	CE2	0.170	0.000
			CE3	0.159	0.000

6.5.5 Demographic Information of the Respondents

Figure 6.2 summarizes the demographic data of the total sample of 396 respondents. Data were collected from an online panel of shoppers from Australia. The study comprised 51.5% male and 48.5% female respondents. 66.9% of respondents fall within the age group of 21 to 50, 21.7% of the respondents fall within the age group of 51 to 70, 6.6% respondents fall above 70 years of age and the rest below 21 years of age (4.8%). 43.2% of the respondents were married, 37.4% of the respondents were single, 11.6% were de facto, 6.6% were divorced, and the rest were widowed (1.3%). Majority of respondents were high school qualified (33%), followed by 29% of TAFE or vocational degree holders, 24% of the respondents with bachelor's degree, 13% with a postgraduate degree and rest 1% holding other degrees. Among the sample considered, 83% of the respondents were in Australia for more than ten years, with 17% respondents with less than ten years of stay.

An average shopper had their household size less than 5 members (88%) having 15% who live alone, 30% with two members, 23% with three members, 20% with four members and the rest with 5 members or more. The majority (79%) shop for an amount of less than 200 AUD and the rest (21%) above 200 AUD. 50% of the respondents' shop alone, 40% of the respondents shop with their family member and 7% of the respondents' shop with friends. 73% of the respondents own a loyalty membership, and 33% of the respondents are last-minute shoppers (see Figure 6.3).

In addition to the demographic information, the shopping pattern of the respondents were also captured in the response. The frequently shopped supermarket was Woolworths (41%), followed by Coles (39%), then ALDI with 12% and 8% of the respondents shopped on

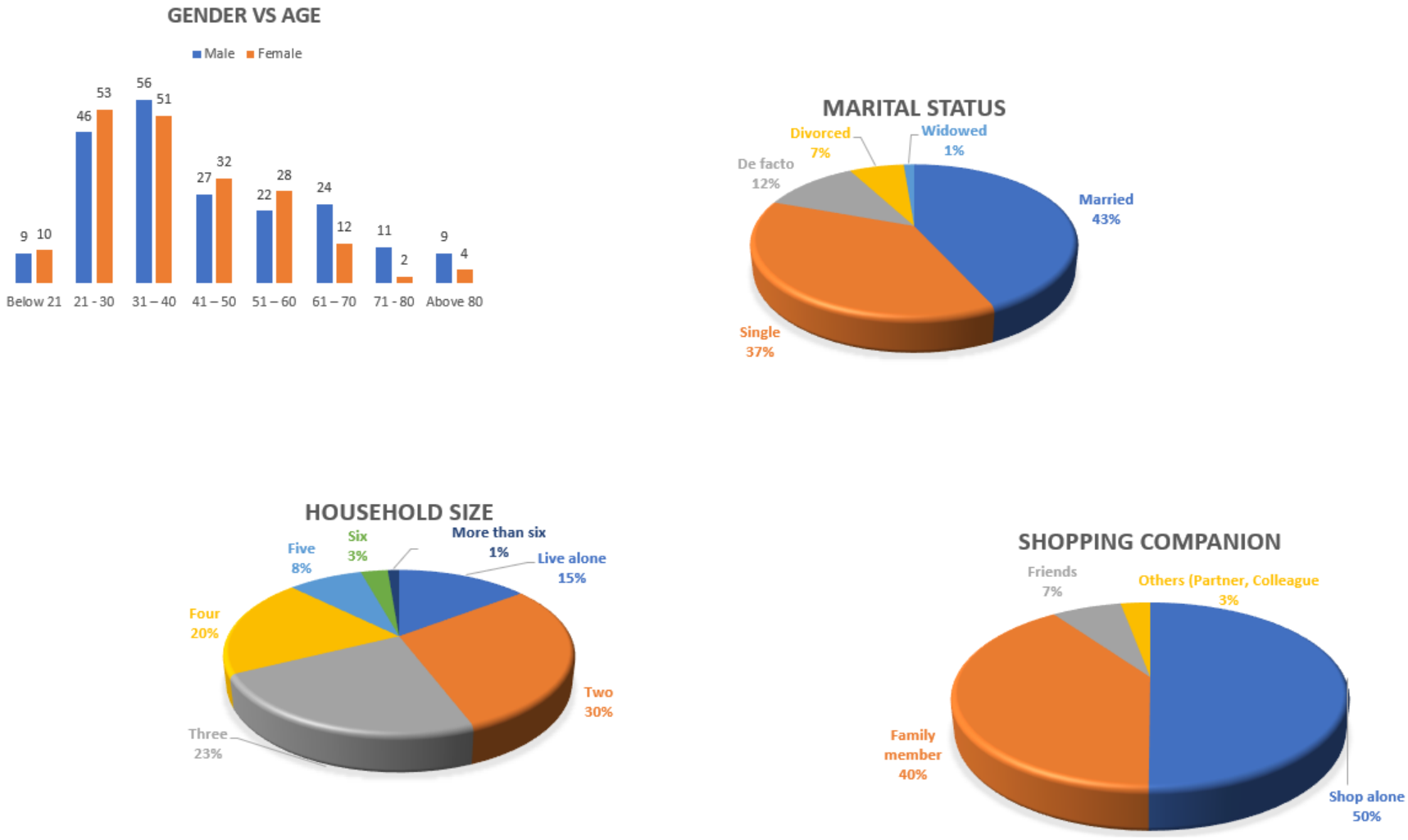


Figure 6.2 Demographic Information of Respondents

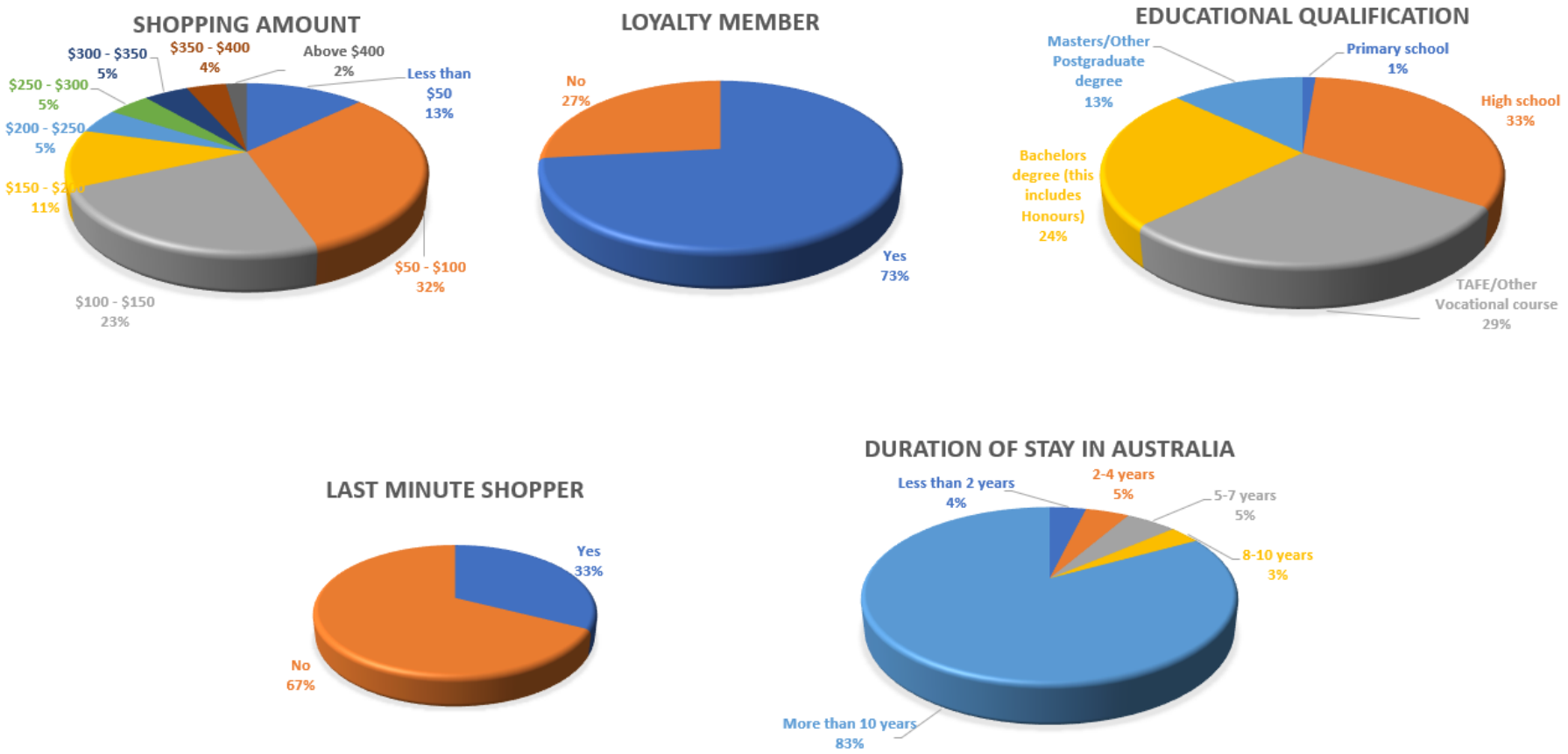


Figure 6.3 Additional Information of the Respondents

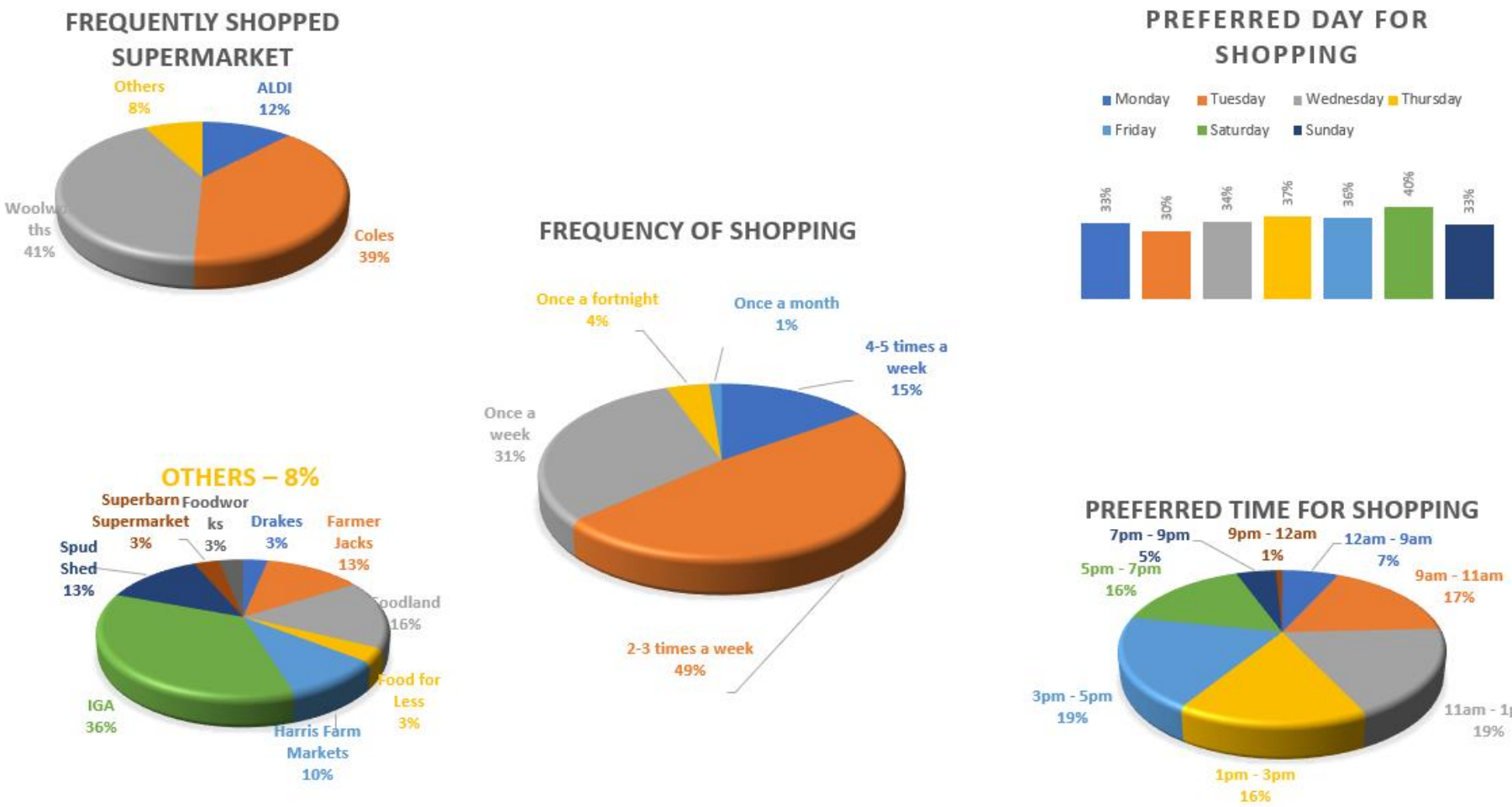


Figure 6.4 Shopping Pattern of the Respondents

the rest of the supermarkets (see Figure 6.3). 15% of the respondents shopped very frequently, 49% of the respondents stated that they shop two to three per week, 31% shopped for once a week, and the rest shopped for one a fortnight or even less frequent (5%). Majority of the respondents prefers to shop on Saturdays, Thursdays and Fridays followed by other days. The preferred time for shopping was found to be from 11 am to 1 pm and 3 pm to 5 pm (see Figure 6.4).

6.5.6 Assessment of Measurement Model

Confirmatory factor analysis was employed to assess the measurement model for reliability and validity of all decision constructs using AMOS 20.0 software. The current study comprises of customer participation as the independent variable, task-related affective well-being as the mediator variable, customer knowledge and task complexity as moderators, and customer outcome as the dependent variable. The study uses four customer outcome variables like perceived service quality, customer satisfaction, perceived value, and customer experience to test the model. Hence, four separate measurement models were tested to state the fit of the model based on the outcomes used.

Measurement model examines the relationship between the latent variable with its measure. The model was evaluated for reliability and validity based on the goodness of fit depicted through the fit indices. A good fit measurement model is a prerequisite for proceeding with the structural model. Considering the assessment of measurement model, task-related affective well-being construct showed poor loading of items to the construct. According to the rule of thumb (Hair et al., 2011), item loadings should be higher than 0.70. According to Hulland (1999), in general, studies should adopt a minimum cut off level of 0.50 and items with loadings of less than 0.50 should be dropped from further analysis. In the current study, items trawb4, trawb6, trawb7, and trawb10 of task-related affective well-being were dropped as the same items were dropped in Study 1 due to poor loadings (less than 0.50) and the analyses were done without these four items. The measurement model for the four service outcomes was, therefore evaluated with 6 items for task-related affective well-being. All factor loadings are higher than 0.50 with significant ($p < 0.001$) t-values. Table 6.5 shows the psychometric properties of all the scales.

Reliability and validity are measured using composite reliability (CR), average variance extracted (AVE), maximum shared variance (MSV), and maximum reliability (MaxR(H)). The Cronbach alpha was used to assess the reliability of all constructs (see Table 6.5). The

composite reliability indicates internal consistency and the value should be higher than 0.70 to ensures the reliability of all constructs (Hair et al., 2010). MaxR(H) is the McDonald construct validity that represents the maximum reliability of constructs which is considered as the more robust measure in comparison to CR (Gagne and Hancock, 2006; Drewes, 2000). The value for MaxR(H) should be higher than 0.70 for supporting the reliability of all constructs. Hence, Cronbach's alpha, CR, and MaxR(H) are estimated to ensure the reliability of the construct.

Table 6.5 Scale Summary

Scale Items (1 = strongly disagree, 7 = strongly agree)	**λ**	**α**	**M**	**SD**
Task-related Affective Well-Being (Cronbach alpha = 0.873)				
1. I will not be worrying about what I am expected to do.	0.84	0.71	4.27	1.48
2. I am not be straining to complete the checkout process.	0.88	0.77	4.30	1.49
3. I can overcome the difficulties during checkout process.	0.85	0.73	4.52	1.60
4. I do lose confidence in myself during the checkout experience.	0.86	0.73	4.76	1.63
5. I am not anxious during the checkout process.	0.88	0.78	4.70	1.55
6. I am not depressed during the checkout process.	0.84	0.71	4.04	1.56
Customer Participation (Cronbach alpha = 0.832)				
1. I will spend time to provide necessary information for the checkout process.	0.78	0.61	4.15	1.47
2. I will have a high level of participation in checkout process.	0.92	0.84	4.76	1.45
3. I will be very much involved during the checkout process.	0.90	0.81	4.87	1.51
Perceived Service Quality (Cronbach alpha = 0.912)				
1. The quality of the checkout experience is good.	0.91	0.83	4.57	1.52
2. The quality of the checkout experience is excellent.	0.94	0.88	4.45	1.44
3. The quality of the checkout experience is above expectation.	0.92	0.85	4.33	1.49
Customer Satisfaction (Cronbach alpha = 0.840)				
1. I am satisfied with the checkout process.	0.94	0.88	4.84	1.46
2. I am pleased with the checkout process.	0.95	0.91	4.78	1.52
3. I am happy with the checkout process.	0.94	0.89	4.83	1.52

Perceived Value (Cronbach alpha = 0.920)				
1. I still consider the overall checkout experience to be of great value to me.	0.90	0.80	4.60	1.46
2. I believe this helped to enhance the value received during this process.	0.92	0.84	4.43	1.47
3. The value received during this process outweighed the time I had to expend to checkout.	0.91	0.82	4.37	1.51
4. The value received during this process outweighed the effort I had to expend to checkout.	0.89	0.79	4.40	1.51
Customer Experience (Cronbach alpha = 0.899)				
1. The checkout experience is engaging.	0.91	0.83	4.54	1.47
2. The checkout experience is enjoyable.	0.93	0.86	4.47	1.56
3. The checkout experience is memorable.	0.90	0.80	4.39	1.53
Customer Knowledge (Cronbach alpha = 0.887)				
1. I know a lot about the check-in process.	0.85	0.73	4.24	1.55
2. My knowledge regarding checkout process is adequate.	0.94	0.89	4.65	1.61
3. My knowledge about checkout process is very good.	0.91	0.83	4.65	1.71
Task Complexity (Cronbach alpha = 0.869)				
1. The checkout process involves many distinct steps.	0.86	0.73	3.53	1.76
2. The checkout process requires processing a lot of information cues.	0.90	0.81	3.41	1.72
3. The order of the steps for the checkout process is confusing.	0.85	0.72	3.21	1.83
4. The steps involved in the checkout process are uncertain.	0.79	0.62	3.73	1.74

Notes: n = 360. λ, Standardized factor loading; α, squared multiple correlations; M, mean; SD, standard deviation.

AVE explains the measure of the amount of variance captured by a construct in relation to the amount of variance due to measurement error. AVE greater than 0.50 explains convergent validity. The values of CR being greater than AVE confirms the convergent validity of the construct (Fornell and Lacker, 1981). MSV is the square of the highest correlation coefficient between the constructs and MSV of constructs if lower than the AVE explains discriminant validity. Hence, Fornell-Lacker criterion revealed that the square root of AVE should be greater than the off-diagonal elements across the row and down the column to establish discriminant validity at the construct level.

6.5.6.1 Measurement Model 1: Perceived Service Quality

The measurement model shows a good fit ($\chi^2 = 202.67$, df = 105, χ^2/df = 1,93, RMSEA = 0.05, PCLOSE = 0.58, SRMR = 0.04, GFI = 0.94, CFI = 0.97, NFI = 0.95, RFI = 0.94, IFI = 0.98, TLI = 0.97) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 6.6 presents the reliability and validity results.

Table 6.6 Reliability and Validity Results from Measurement Model 1

	CR	**AVE**	**MSV**	**MaxR(H)**	**PSQ**	**TrAWB**	**CK**	**TC**	**CP**
PSQ	0.913	0.778	0.543	0.915	**0.882**				
TrAWB	0.834	0.562	0.085	0.861	0.640	**0.750**			
CK	0.911	0.836	0.543	0.916	0.737	0.650	**0.914**		
TC	0.837	0.633	0.026	0.854	-0.122	-0.102	-0.162	**0.796**	
CP	0.884	0.720	0.099	0.913	0.284	0.291	0.314	-0.079	**0.849**

Notes: PSQ = Perceived Service Quality, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

Table 6.6 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 6.6 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 6.6 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model 1 provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

6.5.6.2 Measurement Model 2: Customer Satisfaction

The measurement model shows a good fit ($\chi^2 = 208.28$, df = 105, χ^2/df = 1.98, RMSEA = 0.05, PCLOSE = 0.49, SRMR = 0.04, GFI = 0.94, CFI = 0.98, NFI = 0.95, RFI = 0.94, IFI = 0.98, TLI = 0.97) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90,

1⩽ χ^2/df⩽ 3) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 6.7 presents the reliability and validity results.

Table 6.7 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 6.7 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 6.7 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

Table 6.7 Reliability and Validity Results from Measurement Model 2

	CR	**AVE**	**MSV**	**MaxR(H)**	**SAT**	**TrAWB**	**CK**	**TC**	**CP**
SAT	0.940	0.840	0.702	0.942	**0.917**				
TrAWB	0.835	0.562	0.086	0.862	0.810	**0.750**			
CK	0.911	0.836	0.702	0.918	0.838	0.615	**0.914**		
TC	0.837	0.632	0.026	0.853	-0.095	-0.101	-0.162	**0.795**	
CP	0.884	0.720	0.138	0.913	0.372	0.293	0.314	-0.078	**0.849**

Notes: SAT = Customer Satisfaction, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

6.5.6.3 Measurement Model 3: Perceived Value

The measurement model shows a good fit (χ^2 = 221.56, df = 120, χ^2/df = 1.85, RMSEA = 0.05, PCLOSE = 0.73, SRMR = 0.04, GFI = 0.94, CFI = 0.98, NFI = 0.95, RFI = 0.94, IFI = 0.98, TLI = 0.97) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, 1⩽ χ^2/df⩽ 3) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 6.8 presents the reliability and validity results.

Table 6.8 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent

validity. Also, Table 6.8 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 6.8 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

Table 6.8 Reliability and Validity Results from Measurement Model 3

	CR	**AVE**	**MSV**	**MaxR(H)**	**PV**	**TrAWB**	**CK**	**TC**	**CP**
PV	0.916	0.732	0.533	0.928	**0.855**				
TrAWB	0.835	0.563	0.085	0.860	0.645	**0.750**			
CK	0.910	0.836	0.533	0.914	0.730	0.651	**0.914**		
TC	0.837	0.633	0.027	0.853	0.161	0.102	0.163	**0.795**	
CP	0.884	0.720	0.100	0.913	0.289	0.291	0.316	-0.079	**0.849**

Notes: PV = Perceived Value, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

6.5.6.4 Measurement Model 4: Customer Experience

The measurement model shows a good fit ($\chi^2 = 197.61$, df = 105, $\chi^2/df = 1.88$, RMSEA = 0.05, PCLOSE = 0.661, SRMR = 0.04, GFI = 0.95, CFI = 0.98, NFI = 0.95, RFI = 0.94, IFI = 0.98, TLI = 0.97) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). Table 6.9 presents the reliability and validity results.

Table 6.9 Reliability and Validity Results from Measurement Model 4

	CR	**AVE**	**MSV**	**MaxR(H)**	**CE**	**TrAWB**	**CK**	**TC**	**CP**
CE	0.900	0.750	0.533	0.913	**0.866**				
TrAWB	0.835	0.562	0.085	0.861	0.635	**0.750**			
CK	0.911	0.837	0.533	0.914	0.730	0.650	**0.915**		
TC	0.837	0.633	0.026	0.853	0.157	0.102	0.162	**0.796**	
CP	0.884	0.720	0.100	0.913	0.273	0.291	0.316	-0.079	**0.848**

Notes: CE = Customer Experience, TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, TC = Task Complexity, CP = Customer Participation, CR = Composite Reliability, AVE = Average Variance Extracted, MSV = Maximum Shared Variance, MaxR(H) = McDonald Construct Reliability. The square root of AVE is shown on diagonal in bold faces.

Table 6.9 shows that the CR values and MaxR(H) values for every construct were greater than 0.70, confirming the reliability of all constructs. The indicators/items have statistically significant factor loadings, and AVE was found to be greater than 0.50 establishing convergent validity. Also, Table 6.9 shows that AVE was found to be greater than MSV and the square root of AVE was found to be greater than the off-diagonal elements across the row and down the column establishing discriminant validity at the construct level. Table 6.9 also presents significant correlation among constructs in the expected direction, confirming the nomological validity of the constructs. Hence, the measurement model provided evidence for reliability and validity of the constructs, and the constructs could be employed for hypotheses testing using the structural model.

6.5.7 Assessment of Structural Model

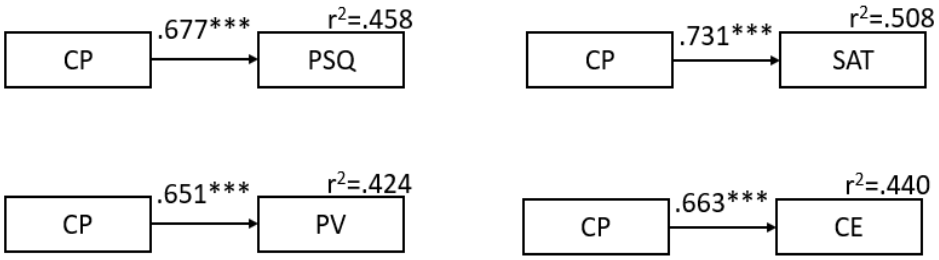
The study used AMOS 20 for structural equation modelling (SEM) to test hypotheses on the conceptual model. The mean centred values were used to incorporate moderation testing. SEM makes it possible to analyse multiple regressions in one structural model. Thus, it is essential to ensure that the prerequisites of the analysis are met. Therefore, assumptions of SEM were tested before going ahead with hypotheses testing. The various assumptions were sample adequacy, linearity, homoscedasticity, randomness and normality.

The study considers a sample size of 396, and it is above the minimum recommended sample requirement (Hair et al., 2006). Based on the partial regression plots, the relationship between the latent variables were found to be linear in the pattern. Presence of equality of variance of the dependent variable across the independent variables were tested by plotting the residuals against the standardized predicted values, and the plots were evenly distributed around zero meeting the assumption for equal variance (Hair et al., 2006). Runs test was used to check the randomness of the sample, and the sample was found to be random on an item basis. Normality was tested based on the limits of skewness and kurtosis and presented in Table 6.3.

6.5.7.1 Testing Direct Effect of Customer Participation on Service Outcomes

The study considered four service outcomes to explain the model. Hence, the influence of customer participation on each of the service outcome was examined. Figure 6.5 presents the influence of customer participation on four service outcomes considered. The model explained 45.8% variance for the influence of customer participation on perceived service quality ($\beta = 0.677$, $p < 0.001$), 50.8% variance for the influence of customer participation on customer satisfaction ($\beta = 0.731$, $p < 0.001$), 42.4% variance for the influence of customer participation

on customer satisfaction (β = 0.651, p < 0.001), 44.0% variance for the influence of customer participation on customer satisfaction (β = 0.663, p < 0.001). Thus, customer participation was found to have a positive influence on the four service outcomes studied, supporting hypothesis 1a.



Notes: *** = p < 0.001, r^2 = coefficient of determination, CP = Customer Participation, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience

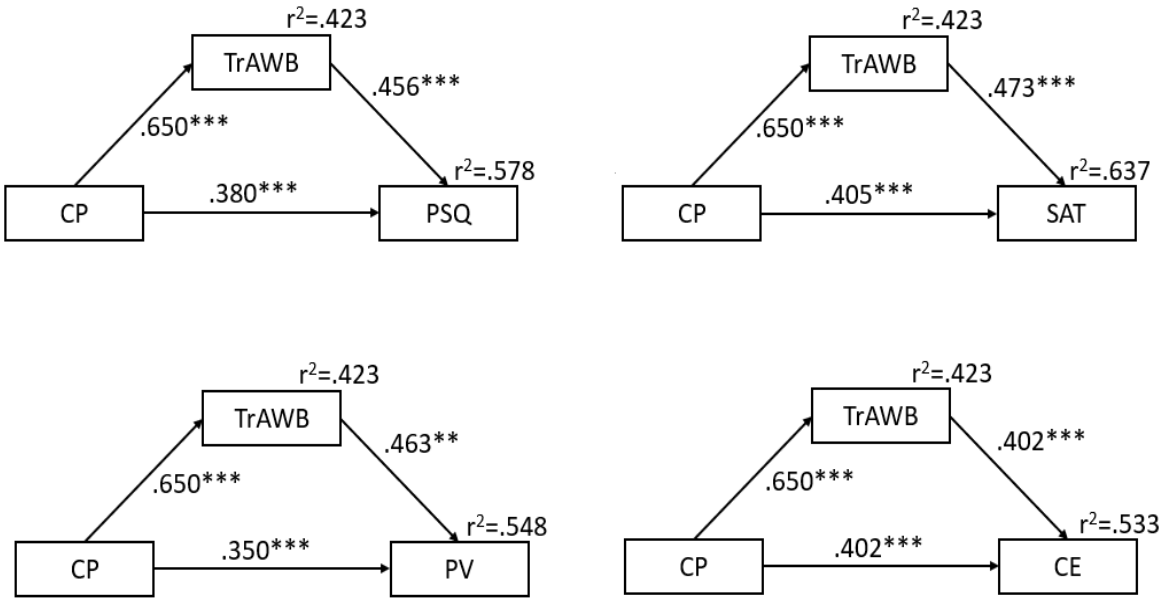
Figure 6.5 Influence of Customer Participation on Service Outcomes

6.5.7.2 Testing Mediation role of Task-related Affective Well-Being

Mediation relationship exist when there exist at least one mediator intervening between predictor and outcome variable which affects the relationship (Baron & Kenny, 1986). The study followed Zhao, Lynch & Chen's (2010) specification for establishing mediation after Preacher and Hayes' (2004) bootstrapping procedure. The mediation role of task-related affective well-being in the influence of customer participation on four service outcomes is presented in Figure 6.6. The β value for direct effect of customer participation on customer outcome is represented as c, the β value for indirect effect of customer participation on task-related affective well-being (a) and task-related affective well-being on customer outcome (b) is represented as (a x b). The model explained 57.8% variance for the influence on perceived service quality (a = 0.650, b = 0.456, c = 0.380, p < 0.001), 63.7% variance for the influence on customer satisfaction (a = 0.650, b = 0.473, c = 0.405, p < 0.001), 54.8% variance for the influence on perceived value (a = 0.650, b = 0.463, c = 0.350, p < 0.001), and 53.3% variance for the influence on customer experience (a = 0.650, b = 0.402, c = 0.402, p < 0.001). The model explained 42.3% variance on the mediator, task-related affective well-being.

In accordance with Zhao et al. (2010), Table 6.10 presents the direct and indirect effects to represent the mediation effect. If the indirect path a x b is significant and the direct path c is significant, then the product a x b x c is checked for its sign. Since all the effects are positive, the result concludes the mediation to be complementary mediation in the current study. Thus,

customer participation was found to have a positive influence on task-related affective well-being (hypothesis 1b) and task-related affective well-being was found to have a positive influence on the four service outcomes studied (hypothesis 1c). The results also prove the mediating role of task-related affective well-being in the influence of customer participation on service outcomes, thus satisfying hypothesis 1d.



Notes: *** = $p < 0.001$, r^2 = coefficient of determination, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience

Figure 6.6 Mediating Role of Task-related Affective Well-Being

Table 6.10 Mediating Role of Task-related Affective Well-Being

Service Outcomes	**a**	**b**	**c**	**a x b**	**a x b x c**	**Mediation Type**
PSQ	0.650	0.456	0.380	0.296	0.112	Complementary
SAT	0.650	0.473	0.405	0.307	0.124	Complementary
PV	0.650	0.463	0.350	0.301	0.105	Complementary
CE	0.650	0.402	0.402	0.261	0.105	Complementary

Notes: PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience, a = β value of CP to mediator, b = β value of mediator to customer outcome, c = β value of direct effects, CP to service outcomes

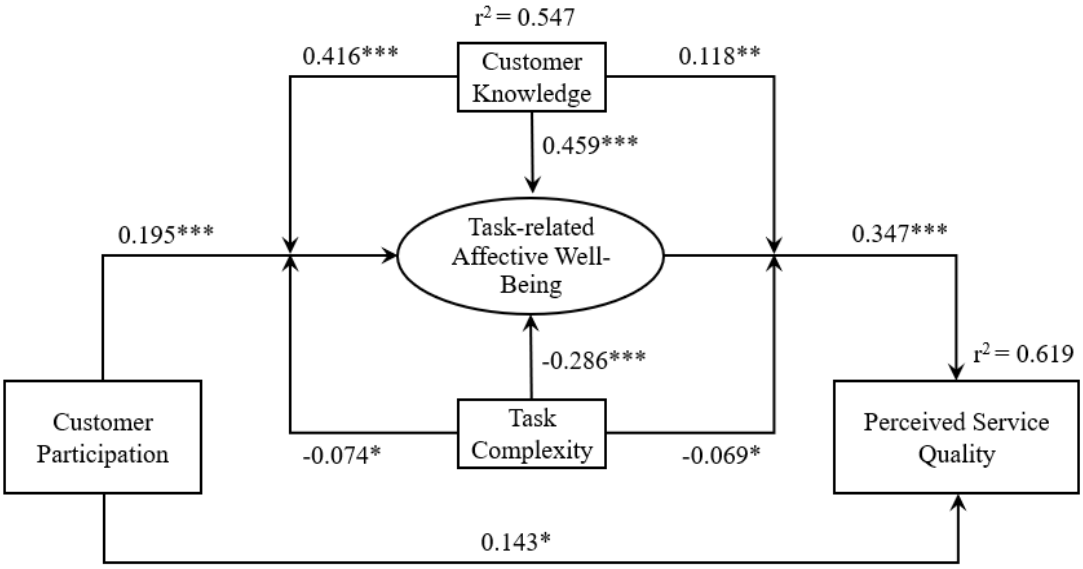
6.5.7.3 Empirical Testing of the Theoretical Model

To empirically test the entire model in the study, multiple moderated mediated regression recommended by Preacher, Rucker & Hayes (2007) was used. It was used to test the next set of hypotheses (H2 – H3) about the moderating effects of customer knowledge and task complexity on the mediating role of task-related affective well-being between customer participation and service outcomes. For this, the mean centred average scores of all variables including independent (customer participation), mediator (task-related affective well-being), moderators (customer knowledge and task complexity), and dependent (service outcomes – perceived service quality, customer satisfaction, perceived value, customer experience) variables were used. Four interaction terms were created by multiplying customer participation and task-related affective well-being with those of customer knowledge and task complexity. The multiple moderated mediated structural model based on Preacher et al. (2007) was tested using AMOS 20. The path analysis was done separately for the four service outcomes – perceived service quality, customer satisfaction, perceived value, customer experience.

Path Analysis – Perceived Service Quality

The structural model shows a good fit ($\chi^2 = 0.57$, df = 1, χ^2/df = 0.57, RMSEA = 0.01, PCLOSE = 0.63, SRMR = 0.002, GFI = 1.00, CFI = 1.00, NFI = 1.00, RFI = 0.99, IFI = 1.00, TLI = 1.00) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 6.7.

The results show significant effect of customer knowledge on task-related affective well-being ($H2a_1$: $\beta = 0.459$, $p < 0.001$) and task complexity on task-related affective well-being ($H3a_1$: $\beta = -0.286$, $p < 0.001$). Similarly, the interaction terms CP x CK ($H2b_1$: $\beta = 0.416$, $p < 0.001$) and CP x TC ($H3b_1$: $\beta = -0.074$, $p < 0.05$) have significant effects on task-related affective well-being, and TrAWB x CK ($H2c_1$: $\beta = 0.118$, $p < 0.01$) and TrAWB x TC ($H3c_1$: $\beta = -0.069$, $p < 0.05$) have significant effects on perceived service quality, in the expected directions. Also, the model explained 54.7% variance for the influences on task-related affective well-being and 61.9% variance for the influences on perceived service quality.

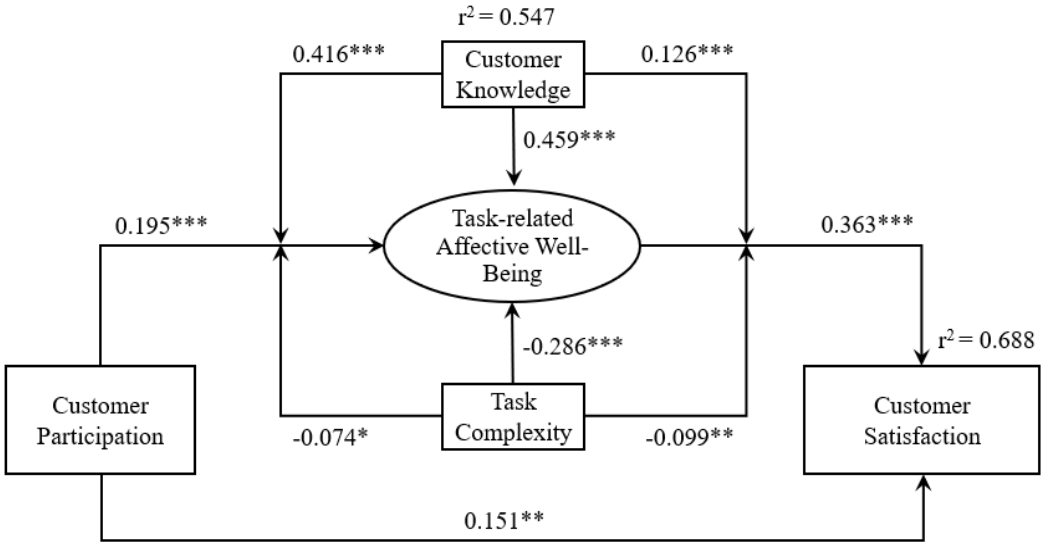


Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

Figure 6.7 Path Analysis with Perceived Service Quality as Service Outcome

Path Analysis – Customer Satisfaction

The structural model shows a good fit ($\chi^2 = 1.84$, df = 1, χ^2/df = 1.87, RMSEA = 0.04, PCLOSE = 0.37, SRMR = 0.004, GFI = 0.99, CFI = 1.00, NFI = 0.99, RFI = 0.97, IFI = 1.00, TLI = 0.99) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 6.8.



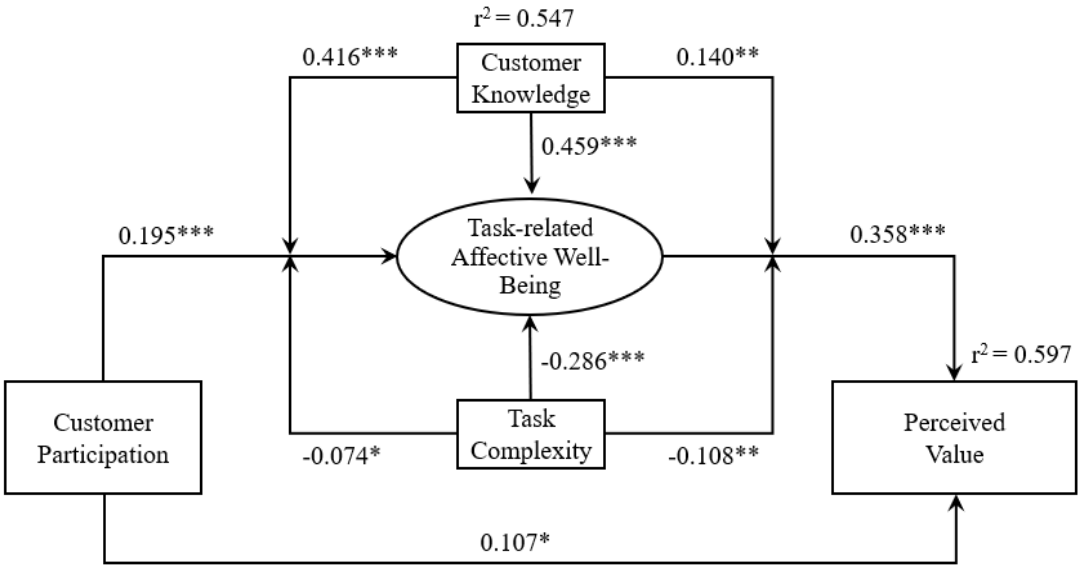
Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

Figure 6.8 Path Analysis with Customer Satisfaction as Service Outcome

The results show significant effect of customer knowledge on task-related affective well-being ($H2a_2$: $\beta = 0.459$, $p < 0.001$) and task complexity on task-related affective well-being ($H3a_2$: $\beta = -0.286$, $p < 0.001$). Similarly, the interaction terms CP x CK ($H2b_2$: $\beta = 0.416$, $p < 0.001$) and CP x TC ($H3b_2$: $\beta = -0.074$, $p < 0.05$) have significant effects on task-related affective well-being, and TrAWB x CK ($H2c_2$: $\beta = 0.126$, $p < 0.001$) and TrAWB x TC ($H3c_2$: $\beta = -0.099$, $p < 0.01$) have significant effects on customer satisfaction, in the expected directions. Also, the model explained 54.7% variance for the influences on task-related affective well-being and 68.8% variance for the influences on customer satisfaction.

Path Analysis – Perceived Value

The structural model shows a good fit ($\chi^2 = 0.71$, df = 1, $\chi^2/df = 0.71$, RMSEA = 0.01, PCLOSE = 0.59, SRMR = 0.003, GFI = 1.00, CFI = 1.00, NFI = 1.00, RFI = 0.99, IFI = 1.00, TLI = 1.00) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 6.9.



Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

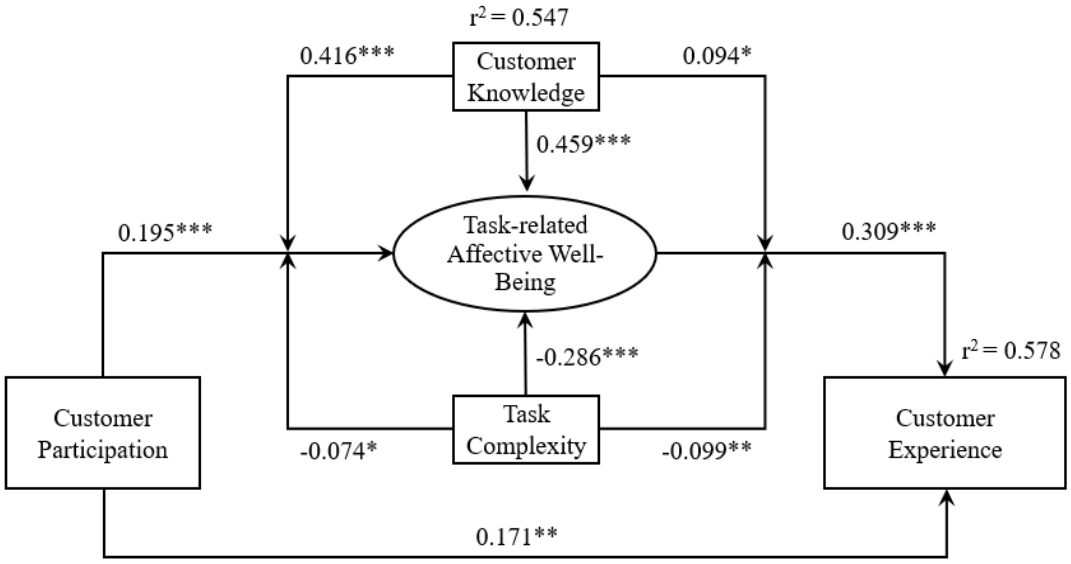
Figure 6.9 Path Analysis with Perceived Value as Service Outcome

The results show significant effect of customer knowledge on task-related affective well-being ($H2a_3$: $\beta = 0.459$, $p < 0.001$) and task complexity on task-related affective well-being ($H3a_3$: $\beta = -0.286$, $p < 0.001$). Similarly, the interaction terms CP x CK ($H2b_3$: $\beta = 0.416$, $p < 0.001$) and CP x TC ($H3b_3$: $\beta = -0.074$, $p < 0.05$) have significant effects on task-related affective

well-being, and TrAWB x CK (H2c$_3$: β = 0.140, p < 0.01) and TrAWB x TC (H3c$_3$: β = -0.108, p < 0.01) have significant effects on perceived value, in the expected directions. Also, the model explained 54.7% variance for the influences on task-related affective well-being and 59.7% variance for the influences on perceived value.

Path Analysis – Customer Experience

The structural model shows a good fit (χ^2 = 0.73, df = 1, χ^2/df = 0.73, RMSEA = 0.01, PCLOSE = 0.59, SRMR = 0.003, GFI = 1.00, CFI = 1.00, NFI = 1.00, RFI = 0.99, IFI = 1.00, TLI = 1.00) with all the fit indices better than the cut-off values (i.e. RMSEA < 0.06, PCLOSE > 0.05, SRMR < 0.08, GFI > 0.90, CFI > 0.90, NFI > 0.90, RFI > 0.90, IFI > 0.90, TLI > 0.90, $1 \leqslant \chi^2/df \leqslant 3$) recommended by Hooper et al. (2008) and Hu and Bentler (1999). The structural model with regression weights coefficients are presented in Figure 6.10.



Notes: *** = p < 0.001, ** = p< 0.01, * = p < 0.05, r^2 = coefficient of determination

Figure 6.10 Path Analysis with Customer Experience as Service Outcome

The results show significant effect of customer knowledge on task-related affective well-being (H2a$_4$: β = 0.459, p < 0.001) and task complexity on task-related affective well-being (H3a$_4$: β = -0.286, p < 0.001). Similarly, the interaction terms CP x CK (H2b$_4$: β = 0.416, p < 0.001) and CP x TC (H3b$_4$: β = -0.074, p < 0.05) have significant effects on task-related affective well-being, and TrAWB x CK (H2c$_4$: β = 0.094, p < 0.05) and TrAWB x TC (H3c$_4$: β = -0.099, p < 0.01) have significant effects on customer experience, in the expected directions. Also, the model explained 54.7% variance for the influences on task-related affective well-being and 57.8% variance for the influences on customer experience.

The structural model for the four service outcomes was analysed for testing the hypotheses. The direct effects were tested first followed by the mediation effect, and finally, the path analyses for the entire structural model using multiple mediated moderated regression using AMOS. The hypotheses proposed for the model were tested and presented in Table 6.11.

Table 6.11 Result – Hypotheses Testing using SEM

Hypotheses		**Results**
H1a	Customer participation has a positive influence on service outcomes	Supported
H1b	Customer participation has a positive influence on task-related affective well-being	Supported
H1c	Task-related affective well-being has a positive influence on service outcomes	Supported
H1d	Task-related affective well-being mediates the positive influence of customer participation on service outcomes	Supported
H2a	Customer knowledge has a positive influence on task-related affective well-being	Supported
H2b	The positive effect of customer participation on task-related affective well-being is stronger (vs weaker) for higher (vs lower) levels of customer knowledge	Supported
H2c	The positive effect of task-related affective well-being on customer outcome is stronger (vs weaker) for higher (vs lower) levels of customer knowledge	Supported
H3a	Task complexity has a negative influence on task-related affective well-being	Supported
H3b	The positive effect of customer participation on task-related affective well-being is stronger (vs weaker) for lower (vs higher) levels of task complexity	Supported
H3c	The positive effect of task-related affective well-being on customer outcome is stronger (vs weaker) for lower (vs higher) levels of task complexity	Supported

Notes: SEM = Structural Equation Modelling

6.5.8 Multivariate Analysis of Variance

Customer participation was classified into various types over a period. Dong and Sivakumar (2017) consolidated all typologies to come up with a new typology inclusive of most of the characteristics present in existing typologies and named it as mandatory customer participation, replaceable customer participation and voluntary customer participation (See

Chapter 3). The study uses multivariate analysis of variance (MANOVA) to address research objective 4 and to test the hypotheses. The study used a 3 x 2 x 2 between-subjects scenario-based experimental design by customer participation (voluntary, replaceable and mandatory), customer knowledge (low vs high), and task complexity (low vs high) using 12 versions of the service encounter.

6.5.8.1 Manipulation Check

Manipulation on types of customer participation was done based on specific questions on the type of participation and how willing the respondents were to participate in those types (see Figure 6.11). Scenarios on mandatory participation show that 89% of the respondents understood the participation mentioned was mandatory, and a majority expressed their willingness to participate, whereas 8% of the respondents identified it as replaceable where both self and staff check-outs were available, and 3% understood the scenario as staff check-out. Scenarios on replaceable participation show that 80% of the respondents understood the participation can be self or with the help of an employee. 17% of the respondents identified it as self-check-out, and rest 3% identified it as staff check-out scenario. Majority of respondents expressed their willingness to participate with the help of an employee than to do it themselves. Scenarios on voluntary participation show that 90% of the respondents identified the participation type to be voluntary in form, and the majority of the respondents were willing to do voluntary participation.

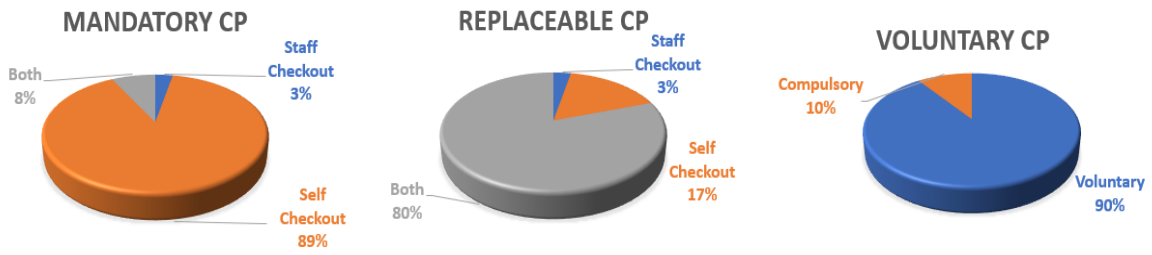


Figure 6.11 Manipulation Check for Types of Customer Participation

For checking the manipulation on customer knowledge, t-test (see Table 6.12) revealed a significant difference between the high and low knowledge ($T(388) = -3.02$, $p < 0.001$) with a higher value for high knowledge ($M = 4.73$, $SD = 1.36$) compared to low knowledge ($M = 4.29$, $SD = 1.53$). Similarly, for task complexity, t-test (see Table 6.13) revealed a significant difference between the high and low complexity ($T(394) = 2.41$, $p < 0.001$) with a higher value for low complexity ($M = 3.43$, $SD = 1.90$) compared to high complexity ($M = 2.99$, SD

= 1.73). Hence, the scenarios used in the study were successful in capturing the manipulations in the expected direction.

Table 6.12 Manipulation Check for Customer Knowledge

Customer Knowledge	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	t	df	Sig.
CK Low	4.294	1.533	4.417	0.036	-3.015	388	0.003
CK High	4.734	1.360					

Notes: CK Low = Low Customer Knowledge, CK High = High Customer Knowledge

Table 6.13 Manipulation Check for Task Complexity

Task Complexity	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means		
			F	Sig.	t	df	Sig.
TC Low	3.434	1.902	3.126	0.078	2.407	394	0.017
TC High	2.995	1.726					

Notes: TC Low = Low Task Complexity, TC High = High Task Complexity

6.5.8.2 Main Effects and Interaction Effects

The direct and indirect effects of the manipulated variables (customer participation, customer knowledge, and task complexity) on task-related affective well-being were analyzed using multivariate analysis of variance (MANOVA). The MANOVA test revealed a significant multivariate main effect for customer participation types, customer knowledge and task complexity. The two-way interactions effects of customer participation with customer knowledge and task complexity on task-related affective well-being were also found significant. Table 6.14 presents the Wilks' Lambda and Pillai's Trace. Pillai's criterion is considered more robust and was used when the homogeneity of covariance was violated. Violation of equality of variance-covariance matrices has minimal impact if the groups are approximately equal size (Hair et al., 2010). The result states that all the main effects and interaction effects (two-way interactions) were found to be significant.

Table 6.14 Multivariate Tests

Effect	**Pillai's Trace**	**Wilks' Lambda**	**Partial η^2**	**Sig.**
Intercept	0.998	0.002	0.998	0.001
Customer Participation Types	0.984	0.025	0.843	0.001

Customer Knowledge	0.617	0.383	0.617	0.001
Task Complexity	0.823	0.177	0.823	0.001
CP Type * Customer Knowledge	0.187	0.816	0.107	0.001
CP Type * Task Complexity	0.669	0.363	0.401	0.001

Notes: CP Type = Customer Participation Types, Sig. = Significance level.

The main effect of customer participation shows that task-related affective well-being and the service outcomes (perceived service quality, customer satisfaction, perceived value, customer experience) have the highest value for voluntary customer participation followed by replaceable customer participation and mandatory customer participation respectively (see Table 6.15).

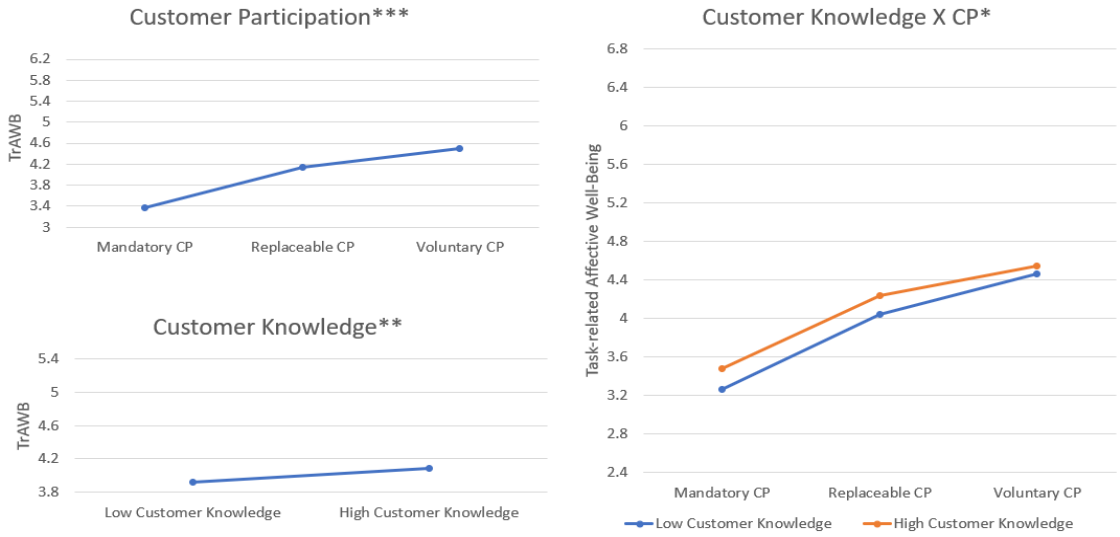
Table 6.15 Main Effects of Customer Participation

Outcome Variables	**Mean Difference**	**Sig.**	**Direction**	**Support**
WB(M) < WB(R)	3.368 - 4.142 = -0.77	p < 0.001	M < R	Supported
WB(R) < WB(V)	4.142 - 4.507 = -0.36	p < 0.001	R < V	Supported
PSQ(M) < PSQ(R)	3.207 - 4.561 = -1.35	p < 0.001	M < R	Supported
PSQ(R) < PSQ(V)	4.561 - 5.578 = -1.02	p < 0.001	R < V	Supported
SAT(M) < SAT(R)	3.184 - 5.016 = -1.83	p < 0.001	M < R	Supported
SAT(R) < SAT(V)	5.016 - 6.246 = -1.23	p < 0.001	R < V	Supported
PV(M) < PV(R)	3.295 - 4.597 = -1.30	p < 0.001	M < R	Supported
PV(R) < PV(V)	4.597 - 5.448 = -0.85	p < 0.001	R < V	Supported
CE(M) < CE(R)	3.283 - 4.619 = -1.34	p < 0.001	M < R	Supported
CE(R) < CE(V)	4.619 - 5.500 = -0.88	p < 0.001	R < V	Supported

Notes: WB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience, M = Mandatory Customer Participation, R = Replaceable Customer Participation, V = Voluntary Customer Participation

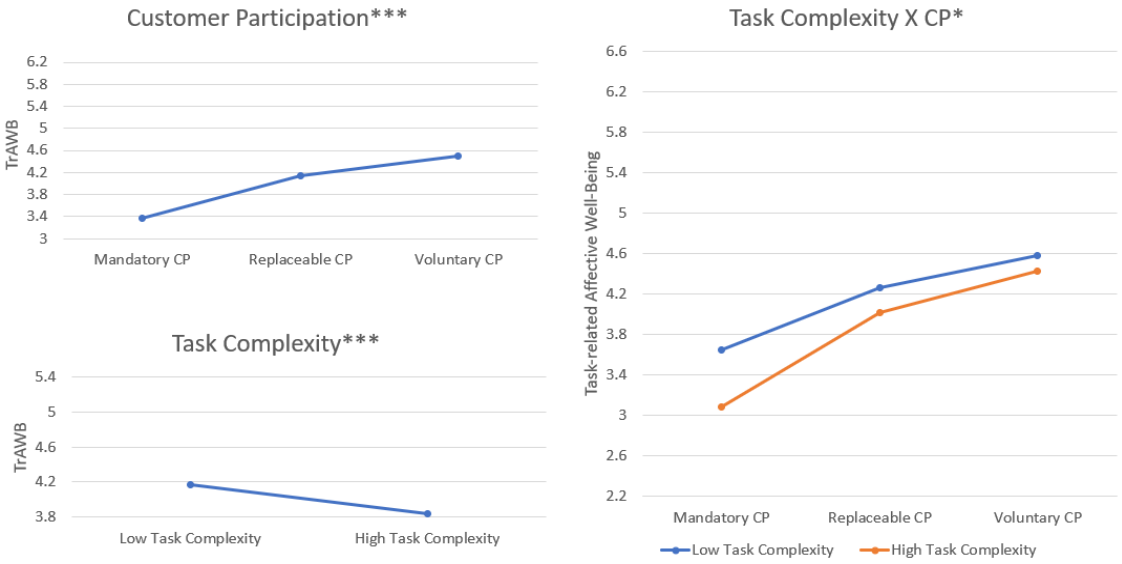
Tukey's post hoc test reveals that the three types of participation are significantly different from each other (H4 supported). The main effects of customer knowledge show that task-related affective well-being is higher for high customer knowledge (m = 4.09) and lower for low customer knowledge (m = 3.92) (see Figure 6.12). The main effects of task complexity show that task-related affective well-being is lower for high task complexity (m = 3.84) and higher for low task complexity (m = 4.17) (see Figure 6.13). The two-way interaction between

customer participation and customer knowledge shows that task-related affective well-being increases from low customer knowledge to high customer knowledge for mandatory, replaceable and voluntary customer participation (see Figure 6.12). Task-related affective well-being increases from mandatory customer participation, followed by replaceable and voluntary customer participation for both levels of customer knowledge (see Table 6.16) (H5a supported).



Notes: TrAWB = Task-related Affective Well-Being, CP = Customer Participation

Figure 6.12 Interaction Effect of Customer Participation and Customer Knowledge



Notes: TrAWB = Task-related Affective Well-Being, CP = Customer Participation

Figure 6.13 Interaction Effect of Customer Participation and Task Complexity

The two-way interaction between customer participation and task complexity shows that task-related affective well-being increases from high task complexity to low task complexity for mandatory, replaceable and voluntary customer participation (see Figure 6.13). Task-related affective well-being increases from mandatory customer participation, followed by replaceable and voluntary customer participation for both levels of task complexity (see Table 6.17) (H5b supported).

Table 6.16 Interaction Effect of Customer Participation and Customer Knowledge

CP X CK	Low Customer Knowledge			High Customer Knowledge			Hypotheses
	M CP	R CP	V CP	M CP	R CP	V CP	
TrAWB	3.260*	4.040*	4.464*	3.475*	4.243*	4.549*	Supported

Notes: TrAWB = Task-related Affective Well-Being, CK = Customer Knowledge, CP = Customer Participation, M CP = Mandatory Customer Participation, R CP = Replaceable Customer Participation, V CP = Voluntary Customer Participation, ** = p< 0.01

Table 6.17 Interaction Effect of Customer Participation and Task Complexity

CP X TC	Low Task Complexity			High Task Complexity			Hypotheses
	M CP	R CP	V CP	M CP	R CP	V CP	
TrAWB	3.653*	4.267*	4.584*	3.083*	4.017*	4.430*	Supported

Notes: TrAWB = Task-related Affective Well-Being, TC = Task Complexity, CP = Customer Participation, M CP = Mandatory Customer Participation, R CP = Replaceable Customer Participation, V CP = Voluntary Customer Participation, * = p < 0.05

MANOVA was used for testing the hypotheses while considering the types of participation. The direct and interaction effects were tested using SPSS. The results of the hypotheses proposed and tested are presented in Table 6.18.

Table 6.18 Result – Hypotheses Testing using MANOVA

Hypotheses		**Results**
H4a	The positive effect of CP on TrAWB are greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported
H4b	The positive effect of CP on service outcomes are greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported

H5a	The positive effect of CP on TrAWB is stronger (vs weaker) for higher (vs lower) levels of CK, and the effect is greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported
H5b	The positive effect of CP on TrAWB is stronger (vs weaker) for lower (vs higher) levels of TC, and the effect is greater for voluntary CP followed by replaceable CP followed by mandatory CP	Supported

Notes: MANOVA = Multivariate Analysis of Variance, TrAWB = Task-related Affective Well-Being, CP = Customer Participation, CK = Customer Knowledge, TC = Task Complexity

6.5.9 Effect of Demographics on Study Measures

The study examined the effects of categorical demographic variables (a) gender on study variables by using 't' tests and (b) marital status, (c) age, and (d) qualification using analysis of variance (ANOVA). In both 't' test and ANOVA, an inferential statistic named Levene's test assess the homogeneity of variance for a variable calculated for two or more groups.

6.5.9.1 *Effect of Gender on Study Variables*

An examination of differences in all study variables across gender is presented in Table 6.19. The t-test results show that there is no significant difference between male and female on the study variables.

Table 6.19 Effect of Gender on Study Variables

Variable	**Levene's Test for Equality of Variances**		**t-test for Equality of Means**		
	F	**Sig.**	**t**	**df**	**Sig.**
CP	0.028	0.868	-1.807	394	0.072
TrAWB	2.268	0.133	-1.156	394	0.248
PSQ	1.148	0.285	-0.936	394	0.350
SAT	2.215	0.137	-1.703	394	0.089
PV	3.978	0.047	-0.876	394	0.381
CE	3.782	0.053	-0.613	394	0.540
CK	1.803	0.180	0.240	394	0.811
TC	0.021	0.886	2.147	394	0.032

Notes: F = F statistic, t = T statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

6.5.9.2 *Effect of Marital Status on Study Variables*

An examination of differences in all study variables across marital status is presented in Table 6.20. The ANOVA results show that there is no significant difference among the five groups (single, married, de facto, divorced, and widowed) on the study variables.

Table 6.20 Effect of Marital Status on Study Variables

Variable		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
CP	Between Groups	1.900	4	0.475	0.289	0.885
	Within Groups	642.816	391	1.644		
	Total	644.716	395			
TrAWB	Between Groups	2.082	4	0.520	0.785	0.535
	Within Groups	259.093	391	0.663		
	Total	261.174	395			
PSQ	Between Groups	8.003	4	2.001	1.071	0.370
	Within Groups	730.309	391	1.868		
	Total	738.312	395			
SAT	Between Groups	5.329	4	1.332	0.664	0.618
	Within Groups	785.114	391	2.008		
	Total	790.443	395			
PV	Between Groups	11.114	4	2.778	1.550	0.187
	Within Groups	701.051	391	1.793		
	Total	712.165	395			
CE	Between Groups	6.606	4	1.651	0.857	0.490
	Within Groups	753.501	391	1.927		
	Total	760.107	395			
CK	Between Groups	10.745	4	2.686	1.861	0.116
	Within Groups	564.233	391	1.443		
	Total	574.977	395			
TC	Between Groups	10.791	4	2.698	1.661	0.169
	Within Groups	635.153	391	1.624		
	Total	645.944	395			

Notes: F = F statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

6.5.9.3 *Effect of Age on Study Variables*

An examination of differences in all study variables across age groups is presented in Table 6.21. The ANOVA results show that there is the significant difference among the age groups (below 21, 21 to 30, 31 to 40, 41 to 50, 51 to 60, 61 to 70, 71 to 80, and above 80) on the study

variables. Post hoc test suggests that group 21 to 30 years of age are different from the group above the age of 80 for the variable considered in the study.

Table 6.21 Effect of Age on Study Variables

Variable		Sum of Squares	df	Mean Square	F	Sig.
CP	Between Groups	33.508	7	4.787	3.039	0.004
	Within Groups	611.208	388	1.575		
	Total	644.716	395			
TrAWB	Between Groups	16.494	7	2.356	3.736	0.001
	Within Groups	244.680	388	0.631		
	Total	261.174	395			
PSQ	Between Groups	38.083	7	5.440	3.015	0.004
	Within Groups	700.229	388	1.805		
	Total	738.312	395			
SAT	Between Groups	40.639	7	5.806	3.004	0.004
	Within Groups	749.804	388	1.932		
	Total	790.443	395			
PV	Between Groups	44.300	7	6.329	3.677	0.001
	Within Groups	667.865	388	1.721		
	Total	712.165	395			
CE	Between Groups	36.058	7	5.151	2.760	0.008
	Within Groups	724.048	388	1.866		
	Total	760.107	395			
CK	Between Groups	41.714	7	5.959	4.336	0.000
	Within Groups	533.263	388	1.374		
	Total	574.977	395			
TC	Between Groups	5.185	7	0.741	0.444	0.874
	Within Groups	647.759	388	1.669		
	Total	652.944	395			

Notes: F = F statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

6.5.9.4 *Effect of Qualification on Study Variables*

An examination of differences in all study variables across qualification is presented in Table 6.22. The ANOVA results show that there is no significant difference among the three groups (bachelors, masters, others) on the study variables.

Table 6.22 Effect of Qualification on Study Variables

Variable		Sum of Squares	df	Mean Square	F	Sig.
CP	Between Groups	6.506	4	1.627	0.997	0.409
	Within Groups	638.210	391	1.632		
	Total	644.716	395			
TrAWB	Between Groups	5.655	4	1.414	2.163	0.072
	Within Groups	255.519	391	0.654		
	Total	261.174	395			
PSQ	Between Groups	11.518	4	2.879	1.549	0.187
	Within Groups	726.795	391	1.859		
	Total	738.312	395			
SAT	Between Groups	11.059	4	2.765	1.387	0.238
	Within Groups	779.385	391	1.993		
	Total	790.443	395			
PV	Between Groups	14.230	4	3.557	1.993	0.095
	Within Groups	697.935	391	1.785		
	Total	712.165	395			
CE	Between Groups	13.138	4	3.284	1.719	0.145
	Within Groups	746.969	391	1.910		
	Total	760.107	395			
CK	Between Groups	9.348	4	2.337	1.615	0.170
	Within Groups	565.629	391	1.447		
	Total	574.977	395			
TC	Between Groups	6.657	4	1.664	1.007	0.404
	Within Groups	646.287	391	1.653		
	Total	652.944	395			

Notes: F = F statistic, Sig = Significant level, df = degree of freedom, CP = Customer Participation, TrAWB = Task-related Affective Well-Being, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience CK = Customer Knowledge, TC = Task Complexity

Hence, the demographic variable considered in the study, excluding age were not significantly influencing the study variables.

6.6 SUMMARY

This chapter presented the results of the quantitative analysis of study 2 conducted on the supermarket check-out process among the shoppers in Australia. The study used 396 usable data for the analysis purpose. The chapter presents the assessment of the measurement model for testing reliability and validity. The conceptual model was analysed using structural

equation modelling, and the manipulations of variables based on scenarios were analysed using multivariate analysis of variance. The hypotheses testings were conducted, and the results were presented in tables (see Table 6.11 and Table 6.18).

CHAPTER 7

COMPARATIVE ANALYSES

7.1 INTRODUCTION

This chapter discusses various analyses performed on collected data from both Indian and Australian data to understand the differences in adopting self-service technology and the influence on task-related affective well-being and service outcomes based on the different types of customer participation. The chapter also presents the differences in the result of the interaction of customer participation types with the moderators used in the study (customer knowledge and task complexity). Organization of this chapter is as follows. The chapter begins with the description of data and Hofstede's cultural differences between the countries considered followed by testing the proposed hypotheses using multivariate analysis of variance (MANOVA).

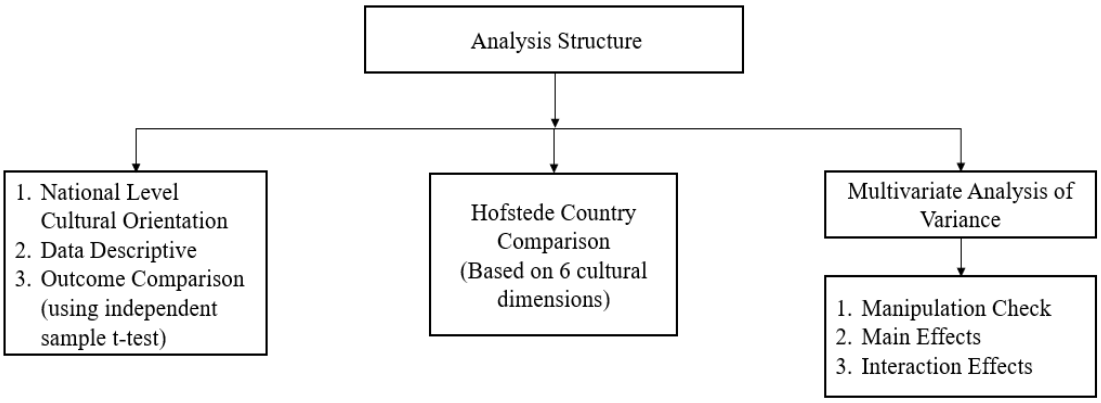


Figure 7.1 Chapter Structure

7.2 NATIONAL LEVEL CULTURAL ORIENTATION

This study attempted to understand the differential influence of customer participation types on task-related affective well-being and service outcomes and the interaction effect of customer participation types with (a) customer knowledge and (b) task complexity on task-related affective well-being. The differential influence of customer participation types was proposed with the support of reactance theory (Brehm, 1966). Study 1 presents a significant differential influence counter-direction to the proposed hypotheses (see Chapter 5), and Study 2 presents a significant differential influence of customer participation types in the proposed

direction (see Chapter 6). Hence, the current chapter attempts to examine the differences in the two countries and with the help of Hofstede's country comparison understands one basic reason for the differences to be the cultural difference of the country. Therefore, the study uses national-level cultural orientation as the basis for testing the differences occurred in the results in Study 1.

7.3 DATA DESCRIPTION

The study makes use of twelve between-subject experimental scenarios comprising 3 x 2 x 2 design with three customer participation types, two levels of customer knowledge and two levels of task complexity. The study focusses on self-service processes considering self-check-in and self -checkout; hence, the current study considers two such processes in a different cultural context. Study 1 considered the check-in process in the Indian context, and study 2 considered the checkout process in the Australian context. Twelve scenarios were built by manipulating the types of customer participation, customer knowledge and task complexity for both the context and tested for hypotheses (see Chapter 5 and Chapter 6). The study proceeds with the comparison of Indian domestic airline check-in and Australian supermarket check-out based on the similarity of outcome variables. Other than the task-related affective well-being, the study failed to identify any significant difference between variables in the two contexts (see Table 7.1).

Table 7.1 Comparison based on National Level Cultural Orientation

Outcomes	**India**	**Australia**
Task-related Affective Well-Being	4.711***	4.006***
Perceived Service Quality	4.337^{ns}	4.448^{ns}
Customer Satisfaction	4.511*	4.815*
Perceived Value	4.301^{ns}	4.446^{ns}
Customer Experience	4.325^{ns}	4.467^{ns}

Notes: *** = $p < 0.001$, ** = $p < 0.01$, * = $p < 0.05$, ns = $p > 0.05$

Hence, a comparative analysis was done to understand the influence of culture irrespective of the context considered in the study. For comparative analyses, the data was combined by creating an additional variable termed national level cultural orientation with two values – one for the Indian context and two for the Australian context. Since the individual data for study

1 and study 2 examined the descriptive statistics, assumptions testing, measurement models for validity and reliability in Chapter 5 and Chapter 6 respectively, this chapter directly goes into hypotheses testing to present the results.

7.4 HOFSTEDE COUNTRY COMPARISON

Hofstede compares the culture of countries based on six dimensions – power distance, individualism, masculinity, uncertainty avoidance, long term orientation, and indulgence. Australia and India were compared to the cultural difference based on these six dimensions and presented in Figure 7.2 (retrieved on November 2019). It shows that India has a higher power distance (score = 77) and long-term orientation (score = 51) compared to Australia. Australia score higher for individualism (score = 90), masculinity (score = 61), uncertainty avoidance (score = 51), and indulgence (score = 71) compared to India. The differences convey the importance of understanding the interaction between customer participation types and national level cultural orientation.

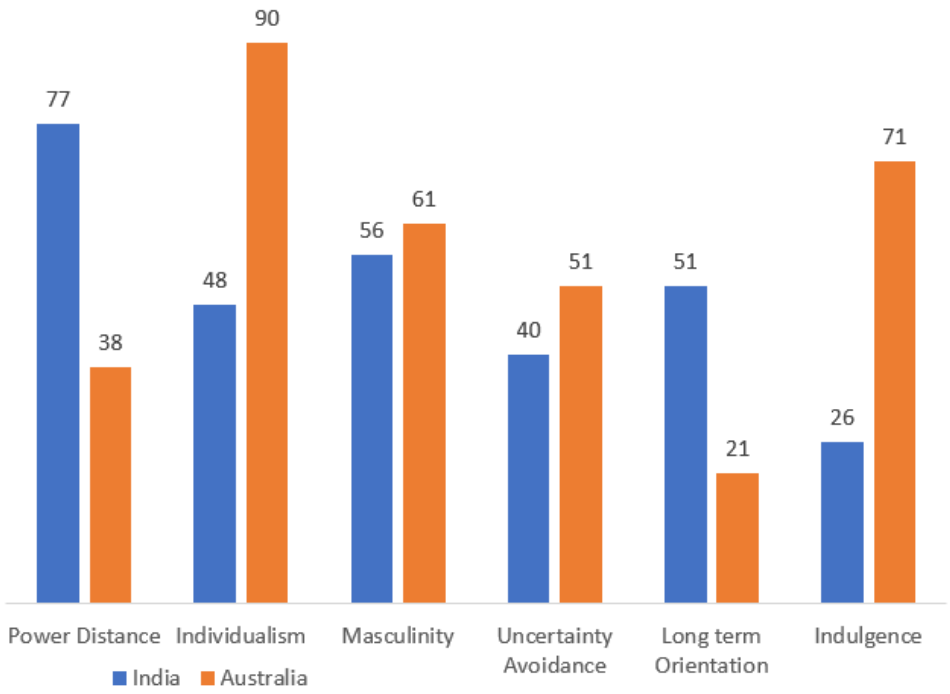


Figure 7.2 Hofstede Country Comparison based on Cultural Dimensions

7.5 MULTIVARIATE ANALYSIS OF VARIANCE

The study uses multivariate analysis of variance (MANOVA) to address research objective 5 and to test the hypotheses. The study used a 2 x 3 x 2 x 2 between-subjects scenario-based experimental design by national-level cultural orientation (India, Australia) customer

participation (voluntary, replaceable and mandatory), customer knowledge (low vs high), and task complexity (low vs high) using a 12 versions of the service encounter.

7.5.1 Manipulation Check

Manipulation on national level cultural orientation was done based on collecting the data from the respective country of study. Manipulation types of customer participation were done based on specific questions on the type of participation and how willing the respondents were to participate in those types for both the studies. For checking the manipulation on customer knowledge, both studies used a t-test that revealed a significant difference between the high and low knowledge with a higher value for high knowledge compared to low knowledge. Similarly, for task complexity, both studies carried out a t-test that revealed a significant difference between the high and low complexity with a higher value for low complexity compared to high complexity (for details see Chapter 5 and Chapter 6). Hence, the scenarios used in the study were successful in capturing the manipulations in the expected direction.

7.5.2 Main Effects and Interaction Effects

The direct and indirect effects of the manipulated variables (national level cultural orientation, customer participation, customer knowledge, and task complexity) on task-related affective well-being and service outcomes were analyzed using multivariate analysis of variance (MANOVA). The MANOVA test revealed a significant multivariate main effect for national-level cultural orientation on task-related affective well-being and service outcomes. The two-way interaction effects of national-level cultural orientation with customer participation on service outcomes were found significant. Besides, the effects of the two-way interaction of national-level cultural orientation with customer participation and the three-way interaction of national cultural orientation and customer participation with customer knowledge and task complexity on task-related affective well-being were also found significant. Table 7.2 presents the Wilks' Lambda and Pillai's Trace. Pillai's criterion is considered more robust and is used when homogeneity of covariance is violated. Violation of equality of variance-covariance matrices has minimal impact if the groups are approximately equal size (Hair et al., 2010). The result states that all the main effects and interaction effects (two-way interactions) were found to be significant.

Table 7.2 Multivariate Tests

Effect	Pillai's Trace	Wilks' Lambda	Sig.
Intercept	0.987	0.013	0.000
NCO	0.297	0.703	0.000
NCO * CPType	0.706	0.301	0.000
NCO * CPType * CKnow	0.084	0.916	0.000
NCO * CPType * TComp	0.080	0.920	0.000

Notes: NCO = National Level Cultural Orientation, CP Type = Customer Participation Types, CKnow = Customer Knowledge, TComp = Task Complexity, Sig. = Significance level.

The main effect of national-level cultural orientation shows that the service outcomes (perceived service quality, customer satisfaction, perceived value, customer experience) have the highest value for Australia compared to India whereas, it is the reverse for task-related affective well-being (see Table 7.2). T-test reveals that the national level cultural orientation of the two countries was not significantly different from each other. The task-related affective well-being showed a significant difference between the culture. Hence, the proceeds to understand the interaction effects.

The two-way interaction between national-level cultural orientation and customer participation shows that service outcomes decrease from voluntary customer participation to replaceable customer participation to mandatory customer participation in the Australian context and the reverse for Indian context (see Table 7.3). Figure 7.3 presents the interaction effect clearly showing the results in the Indian context in the counter directional way. Hence, national-level cultural orientation influences the positive effect of customer participation on service outcomes; however, the effect is the counter direction for Indian context (H6a Supported).

Similarly, the two-way interaction between national-level cultural orientation and customer participation shows that task-related affective well-being decreases from voluntary customer participation to replaceable customer participation to mandatory customer participation in the Australian context and the reverse for Indian context (see Table 7.4 and Figure 7.4). Hence, national-level cultural orientation influences the positive effect of customer participation on task-related affective well-being; however, the effect is the counter direction for Indian context (H6b Supported).

Table 7.3 Interaction Effects Between National Level Cultural Orientation and Customer Participation on Service Outcomes

NCO x CP		Mandatory CP	Replaceable CP	Voluntary CP
PSQ	India	5.086***	4.414***	3.511***
	Australia	3.207***	4.561***	5.578***
SAT	India	5.219***	4.528***	3.786***
	Australia	3.184***	5.016***	6.246***
PV	India	4.965***	4.402***	3.538***
	Australia	3.295***	4.597***	5.448***
CE	India	4.994***	4.400***	3.581***
	Australia	3.283***	4.619***	5.500***

Notes: *** = p < 0.001, NCO = National Level Cultural Orientation, CP = Customer Participation, PSQ = Perceived Service Quality, SAT = Customer Satisfaction, PV = Perceived Value, CE = Customer Experience

Figure 7.3 Interaction Effects Between National Level Cultural Orientation and Customer Participation on Service Outcomes

Table 7.4 Interaction Effects Between National Level Cultural Orientation and Customer Participation on Task-related Affective Well-Being

NCO x CP		Mandatory CP	Replaceable CP	Voluntary CP
TrAWB	India	5.218***	4.617***	4.297***
	Australia	3.368***	4.142***	4.507***

Notes: *** = p < 0.001, NCO = National Level Cultural Orientation, CP = Customer Participation, TrAWB = Task-related Affective Well-Being

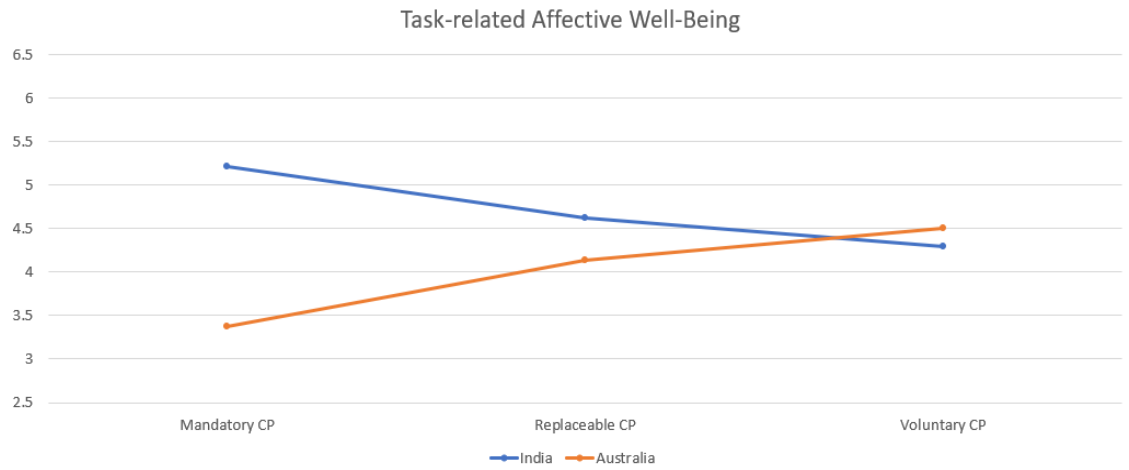


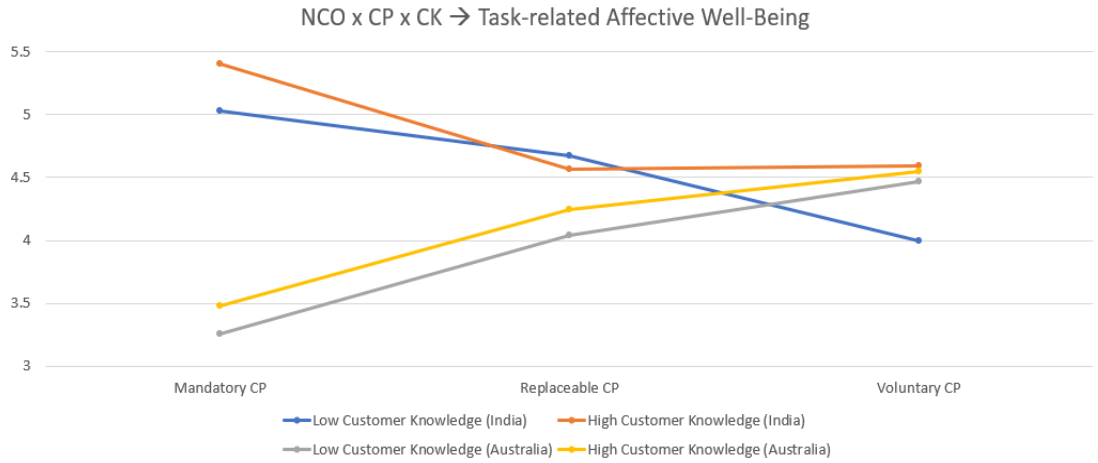
Figure 7.4 Interaction Effects Between National Level Cultural Orientation and Customer Participation on Task-related Affective Well-Being

To understand the interaction among national-level cultural orientation with customer participation and moderators, the interaction of customer participation with customer knowledge and task complexity is studied for India and Australia. Considering the interaction among national-level cultural orientation, customer participation, and customer knowledge, customer knowledge increases from low to high for all types of participation (see Table 7.5 and Figure 7.5).

Table 7.5 Interaction Effects Between National Level Cultural Orientation, Customer Participation and Customer Knowledge on Task-related Affective Well-Being

CP X CK → TrAWB	India		Australia	
	Low CK	High CK	Low CK	High CK
Mandatory CP	5.028**	5.408**	3.260**	3.475**
Replaceable CP	4.670**	4.563**	4.040**	4.243**
Voluntary CP	3.998**	4.597**	4.464**	4.549**

Notes: ** = p < 0.01, CP = Customer Participation, CK = Customer Knowledge, TrAWB = Task-related Affective Well-Being



Notes: NCO = National Level Cultural Orientation, CP = Customer Participation, CK = Customer Knowledge

Figure 7.5 Interaction Effects Between National Level Cultural Orientation, Customer Participation and Customer Knowledge on Task-related Affective Well-Being

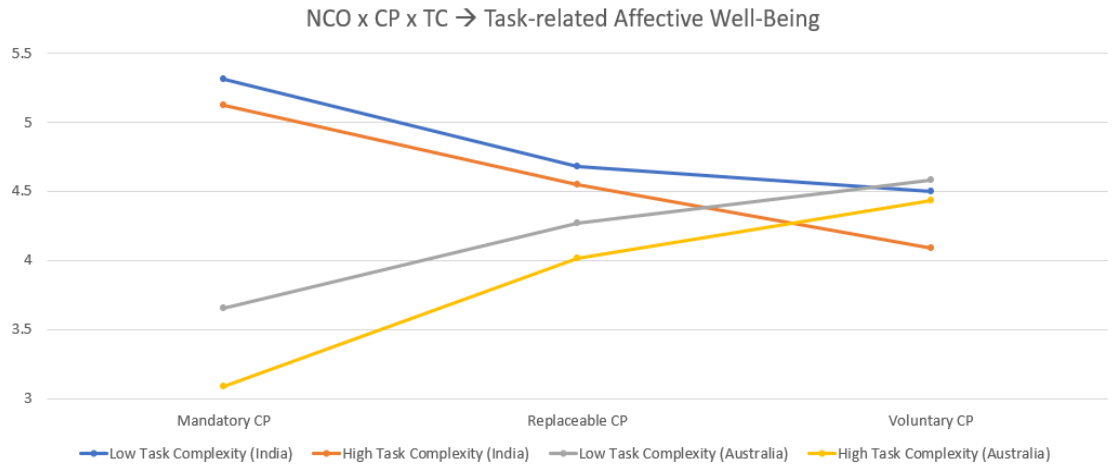
For India, the task-related affective well-being is higher for mandatory customer participation, followed by replaceable customer participation, followed by voluntary customer participation (Counter direction). However, the values of task-related affective well-being were higher for voluntary customer participation, followed by replaceable participation, followed by mandatory customer participation in the Australian context (H7a Supported).

Table 7.6 Interaction Effects Between National Level Cultural Orientation, Customer Participation and Task Complexity on Task-related Affective Well-Being

CP X TC → TrAWB	**India**		**Australia**	
	Low TC	**High TC**	**Low TC**	**High TC**
Mandatory CP	5.127*	5.310*	3.653*	3.083*
Replaceable CP	4.682*	4.552*	4.267*	4.017*
Voluntary CP	4.092*	4.503*	4.584*	4.430*

Notes: ** = $p < 0.01$, CP = Customer Participation, TC = Task Complexity, TrAWB = Task-related Affective Well-Being

Considering the interaction among national-level cultural orientation, customer participation, and task complexity, task complexity increases from high to low for all types of participation (see Table 7.6 and Figure 7.6). For India, the task-related affective well-being is higher for mandatory customer participation, followed by replaceable customer participation, followed by voluntary customer participation (Counter direction). However, the values of task-related affective well-being were higher for voluntary customer participation, followed by replaceable participation, followed by mandatory customer participation in the Australian context (H7b Supported).



Notes: NCO = National Level Cultural Orientation, CP = Customer Participation, CK = Customer Knowledge

Figure 7.6 Interaction Effects Between National Level Cultural Orientation, Customer Participation and Task Complexity on Task-related Affective Well-Being

MANOVA was used for testing the hypotheses while considering the types of participation. The direct and interaction effects were tested using SPSS. The results of the hypotheses proposed and tested are presented in Table 7.7.

Table 7.7 Result – Hypotheses Testing using MANOVA

Hypotheses		**Results**
H6	National level cultural orientation influences the positive effect of CP on (a) service outcomes and (b) TrAWB	Supported
H7a	National level cultural orientation influences the interaction effect of CK in the relationship between CP and TrAWB	Supported
H7b	National level cultural orientation influence the interaction effect of TC in the relationship between CP and TrAWB	Supported

Notes: MANOVA = Multivariate Analysis of Variance, TrAWB = Task-related Affective Well-Being, CP = Customer Participation, CK = Customer Knowledge, TC = Task Complexity

7.6 SUMMARY

This chapter presented the results of the comparative analysis based on national-level cultural orientation between Indian airline check-in and Australian supermarket check-out processes. The study used 756 usable data for the analysis purpose. The chapter presents an assessment of the manipulations of variables based on scenarios using multivariate analysis of variance. The hypotheses testing was conducted, and the results were presented in tables (see Table 7.7).

CHAPTER 8

DISCUSSIONS AND CONCLUSION

8.1 INTRODUCTION

This chapter discusses the key observations based on significant findings of the study, its theoretical contributions, and practical implications (as presented in figure 8.1). The chapter also presents the implications of proven relationships among constructs of theoretical importance in the domain of service encounters and generalizations about consumer behaviour in such technology-enabled servicescape. The validation of a framework that explains task-related affective well-being emanating from their nature of participation in the service process confirms the methodological accuracy of the study for generalizations.

The contributions of this study are not limited to empirically validating the role of task-related affective well-being in developing favourable outcomes, but more importantly, analyses the variations in such perceptions about the level of participation by the customers in service encounters. The attempt was fruitful since the conceptual model validated in the study could offer support to findings of consumer behaviour in service encounters reported in the extant literature, could corroborate many accepted theories, and offer empirical support to mediation and moderation effects of beliefs of the customer about affective well-being, task complexity, and customer knowledge.

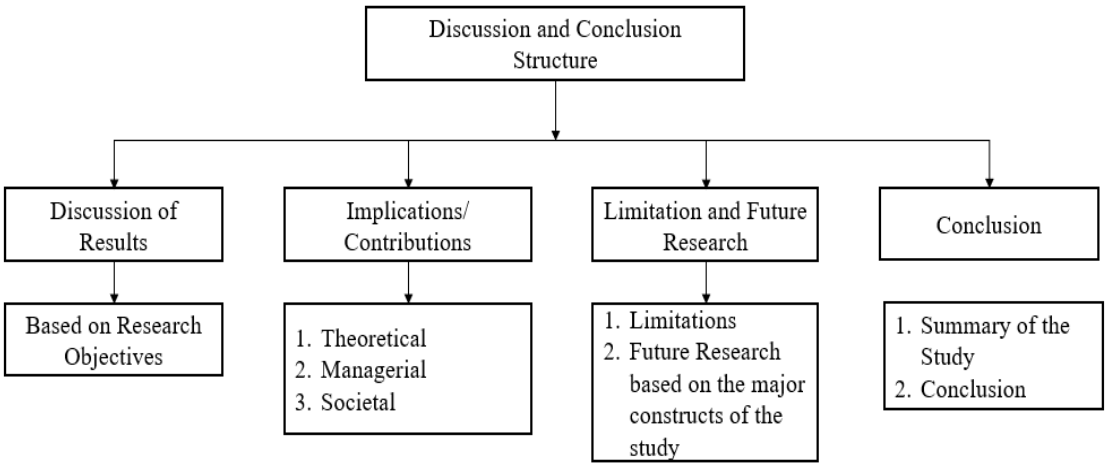


Figure 8.1 Chapter Summary

Another noteworthy contribution of this study was that cross-cultural investigations suggested that, on the perception of choice in the nature of participation, the customers engage in a contradictory manner than proposed in the reactance theory. Thus, the findings confirm the

influence of national-level cultural orientation in developing reactance among customers irrespective of the nature of service encounters. The next section of the chapter presents the contribution of findings to the existing knowledge concerning theory, practice, and society. Furthermore, the chapter discusses the limitations of the research and suggests future research directions elaborating on some potential avenues in the context of current research. Finally, the chapter summarises the research based on its objectives.

8.2 DISCUSSIONS

The rationale behind the current study lay on the empirical understanding that participation of customers in service production will have an impact on their evaluation of service outcomes. Any differences in the level and effort of this participation can influence the way they perceive and evaluate the service encounter and the outcomes associated. Participation of customers may form a trigger to initiate the service production, but when it comes to the context of SST, customer participation becomes the prime importance as the service production and delivery is driven solely by the customers. Hence, it becomes even more important to investigate the typology of customer participation. While prior studies have identified the influence on service outcomes based on the levels of participation (low, medium, and high) in the service relationship, the focus of this study was on the influence of mandatory, replaceable and voluntary participation on a suite of essential service outcomes.

The attempt to conceptualize task-related affective well-being as an important construct in the transformative service research domain, and the examination of its influence on service outcomes, while a customer participates in service production, form the major theme behind the study. Thus, the study hence builds on the emergent domain of transformative service research by explicitly investigating the influence of the various types of participation on customer wellbeing and service outcomes. In doing, so the study extends the dominant focus on service outcomes, currently reported in the literature, to also consider the perceived value and customer experience. Moreover, the study simultaneously investigates the mediating role of task-related affective well-being as well as the moderating role of customer knowledge and task complexity on the link between customer participation and the identified service outcomes. Further, this research investigated the variations in the strength of the relationship of customer participation with the other variables in the study by replicating the study in two cultural contexts, namely India (Study 1) and Australia (Study 2). The detailed discussion based on the constructs and the research objectives are presented in the following subsections.

8.2.1 Customer Participation as an Antecedent

Customer participation and its influence on various outcomes were the major explorations underlined in the first objective presented in the study. The hypothesis H1a was proposed for meeting this objective. The results of the hypothesis tested under H1a forms the rationale behind the following discussions.

The importance of service co-creation has been gradually increasing over the years, by way of developing technological interfaces for effective information sharing, providing multiple cues in servicescape for better customer participation, and mapping customer priorities for customized service production. In response to service providers initiatives for cocreation, customers assumed more responsibility and started sharing information about themselves voluntarily to the employee and have presumed the role of "partial employee" (Dong and Sivakumar, 2017; Mustak et al., 2016; Chan et al., 2010; Hsieh et al., 2004) for effective service production. This shared responsibility was giving a better customer experience from services, and they started feeling more freedom in the service encounter. The sharing of responsibility of the service organizations with the customer has resulted in being beneficial for both parties. In this transition, a significant stimulant for making the customer happy was the freedom the customer enjoyed while participating in service production. This led to extending a portion or complete service to the customers with the adoption of self-services facilities. Increasing adoption of self-service technologies put customers in a position to create their service. However, the literature suggests customer participation as a double-edged sword (Chan et al., 2010) having both positive and negative impact on outcomes (E.g. Chan et al., 2010; Dong, 2015; Dong et al., 2015; Balaji et al., 2018; Aug and Wang, 2019; Blut et al., 2019). Therefore, this study attempted to explore and understand the reasons behind the mixed influence of customer participation.

Customer participation typology by Dong and Sivakumar (2017) could probably explain the differences in the effects of participation on service outcomes. The result of the study suggests a positive influence of customer participation (CP) on all the outcomes, namely, task-related affective well-being (TrAWB), perceived service quality (PSQ), customer satisfaction (SAT), perceived value (PV), and customer experience (CE). This study reveals a positive influence on customer participation on service outcomes in the studies conducted. The results are in line with the existing literature on customer participation (E.g. Chan et al., 2010; Yim et al., 2012; Dong et al., 2015; Dong et al., 2016; Auh et al., 2019).

For Study 1, the highest influence of CP on service outcomes was noticed on PV ($\beta^2 = 0.403$) compared to CE ($\beta = 0.317$), PSQ ($\beta = 0.310$) and SAT ($\beta = 0.221$). The influence of CP on TrAWB ($\beta = 0.240$) was less compared to service outcomes. The results of Study 2 found highest influence of CP on service outcome to be CE ($\beta = 0.171$) compared to SAT ($\beta = 0.151$), PSQ ($\beta = 0.143$) and PV ($\beta = 0.107$). The influence of CP on TrAWB ($\beta = 0.195$) was greater compared to service outcomes. Considering the outcomes, PV had the highest effect in Study 1, whereas the highest effect for Study 2 was found to be CE. Also, TrAWB was found to be the greatest for Study 1 compared to Study 2, where it was noticed to be least. Thus, it was noticed that, for service encounters in India, the participation of the customer will influence the perceived value higher than the other outcomes, whereas it is having the least influence among Australians. Therefore, motivation for Indians to participate in any service production will depend on the value they receive from service in comparison to their experience and the quality they perceive. Also, the results suggest that it requires additional effort to get an Indian customer to be satisfied with participating in the service encounter compared to their perceived value. However, looking at the Australian customers, they were found happy to participate in service encounters for the experience of it followed by the formation of satisfaction. Also, compared to Indians, participation was not found to be an influencer for deriving value. There needs to be something more that makes them perceive higher value. The cultural differences could explain the differences in results between the two countries.

The indulgence vs restraint dimension of Hofstede's country comparison (Hofstede et al., 2010) is sufficient to explain the differences in the influence of CP on service outcomes of India and Australia. Indulgent society allows free gratification of basic and natural human desires, whereas restraint society controls the gratification of needs that are regulated by strict social norms. Hence, people living in society or country with higher indulgence will be inclined to have fun and will be enjoying life compared to the restraint people who feels helpless and are mostly unhappy. Hofstede's result on country comparison states that India comprises of restraint society with a value 26 and Australia is an indulgent country with a higher value of 71. Hence, individuals in Australia will be more focused on experiences compared to Indians who are focused on what is the requirement. Thus, the above observation forms the likely reason to consider the role of national-level cultural orientation in customer participation.

[2] β = Path coefficient

From the findings of the study, it was established that CP significantly predicts TrAWB and various service outcomes. Among Indian customers, the ability of CP to predict TrAWB was higher than among Australians. Similarly, as mentioned in the previous section, the ability of CP to produce various service outcomes was relatively higher in India in comparison with Australia. However, a noticeable difference was among various service outcomes CP was predicting more value perceptions in India while was predicting more customer experience in Australia. Further, the effect of CP was maximum on TrAWB in Australia compared to service outcomes, whereas in India, it was maximum on service outcomes than TrAWB. It implies that among Australians, a significant perception of well-being was more solicited for creating a favourable environment for quality service encounters in comparison with Indians. Next section discusses the mediating role of TrAWB in the influence of CP on service outcomes, and it will be able to give additional clarity in understanding the role of CP as an antecedent.

8.2.2 Mediation Effect of Task-Related Affective Well-Being

Examination of the mediating role of TrAWB falls under the scope of the second objective in this study. The hypothesis H1b, H1c, and H1d were proposed for meeting this objective. From the results of hypotheses tested under H1b, H1c and H1d form the rationale behind the following discussions.

Conceptualizing TrAWB, as a mediator in the influence of CP on service outcomes, is the major focus of this study. The rationale for including TrAWB in this framework was based on various theories such as self-determination theory (Ryan and Deci, 2000), McColl-Kennedy's framework on emotional elicitation (McColl-Kennedy et al., 2017) and feelings as information theory (Schwarz and Clore, 1996). In Study 1, the influence of CP on TrAWB was found to be positive ($\beta = 0.240$), as mentioned in the previous section. The influence of TrAWB to service outcomes was noticed to be highest for SAT ($\beta = 0.631$), followed by PV ($\beta = 0.606$), PSQ ($\beta = 0.535$) and CE ($\beta = 0.451$). Similarly, in Study 2 the influence of CP on TrAWB was found to be positive ($\beta = 0.195$ and the influence of TrAWB to service outcomes was noticed to be highest for SAT ($\beta = 0.363$), followed by PV ($\beta = 0.358$), PSQ ($\beta = 0.347$) and CE ($\beta = 0.309$).

The predictive power of CP was higher for PV in Study 1 and was higher for CE in Study 2; the effect of CP on TrAWB is lower compared to service outcomes for Study 1 and the reverse for Study 2. Combining these observations, and the effect of TrAWB on the service outcomes noticed in both studies, suggests the importance of considering TrAWB as a significant

mediator in the framework. Further, with the intervention of TrAWB, the importance of CP increases and the most important outcomes becomes customer satisfaction irrespective of the context. It implies that suitable manipulations of customer participation could achieve favourable service outcomes in every service context through the perception of TrAWB. Thus, it justifies the further investigations conducted in the research regarding the introduction of the influence of types of customer participation on TrAWB and service outcomes.

When TrAWB mediates the relationship between CP and SAT, the effect was higher in the relation of TrAWB to SAT than CP to TrAWB in the case of Study 1. In Study 2, the relation between CP to TrAWB was stronger than the relations between CP to SAT and TrAWB to SAT. Further, for all the other service outcomes in both studies, the effect of TrAWB to service outcomes is higher than the relation between CP and service outcomes. Even when the direct effect of CP on PV was highest in Study 1, in the presence of TrAWB, the indirect effect become more prominent compared to the direct effect. Similarly, in Study 2, the indirect effect of CP on PV was higher even though the direct effect of CP on PV was lowest among other linkages. The same phenomena could be noticed with respect to other outcomes.

Hence in both the study, irrespective of the cultural differences, TrAWB plays a significant role in influencing the service outcomes. The influence of CP on service outcomes in both studies could be positively modified with the development of TrAWB through effective service attributes. This observation offers support to self-determination theory (Ryan and Deci, 2000) which states that when the psychological needs were satisfied, the well-being would be enhanced. Besides, the observations corroborate with the elicitation of emotions model by McColl-Kennedy (2017), which states that a trigger event can lead to a dynamic series of subsequent emotional experiences. Also, the study offers support to the propositions put forth in feelings as information theory (Schwarz and Clore, 1996) which highlights feeling like a potential source of information to enable an individual in the judgement process. TrAWB forms a significant construct in the indirect path that could explain the influence of customer participation, and it becomes relevant and important in every service encounter. Next section discusses the moderating role of customer knowledge and task complexity in the influence of CP on service outcomes, and it will give additional clarity in understanding the moderated mediation path of CP - TrAWB - service outcome.

8.2.3 Moderation Effects of Customer Knowledge and Task Complexity

Examination of the direct and moderation effect of customer knowledge and task complexity and the mediated moderation with TrAWB falls under the scope of the third objective in this study. The hypothesis H2 and H3 were proposed for meeting this objective. The results of the hypothesis tested under H2 and H3 forms the rationale behind the following discussions.

In any service encounter the nature of the task that the customer needs to participate, and the amount of knowledge possessed by the customer to effectively participate determines the quality of service outcomes. Hence, the task characteristics and customer knowledge could likely to intervene in the relationship among the focal constructs. Literature suggested that the complexity of task affects the ease of customer participation in a service encounter. Also, customer awareness about the nature of service and the complexities related to the task of cocreation would impart a feeling of comfort in service encounters. Therefore, the inclusion of customer knowledge and task complexity as the moderating variables were justified.

The direct effect of customer knowledge (CK) and task complexity (TC) were found to be significant, and CK has a positive effect on TrAWB, whereas TC has a negative effect. However, when a multiple moderated mediation with CK and TC as moderators and TrAWB as mediator examines the strength of CP and service outcomes, in both studies CK exercise a positive moderation effect and TC exercise a negative moderation effect. Precisely, in Study 1, the effect of CK in on CP to TrAWB was positive ($\beta = 0.240$), and the moderating effect of CK on TrAWB to service outcomes in the order of importance was noticed to be highest for PV ($\beta = 0.480$), followed by SAT ($\beta = 0.290$), CE ($\beta = 0.280$) and PSQ ($\beta = 0.257$). Similarly, in Study 2, the effect of CK in on CP to TrAWB was positive ($\beta = 0.416$) and the moderating effect of CK on TrAWB to service outcomes in the order of importance was noticed to be highest for PV ($\beta = 0.140$), followed by SAT ($\beta = 0.126$), PSQ ($\beta = 0.118$) and PSQ ($\beta = 0.094$). The results also suggest the significant role played by CK by directly influencing TrAWB ($\beta = 0.344$) in Study 1, and for Study 2, the path coefficient is $\beta = 0.459$. The results are in congruence with Bruck (1985) and Bowen (1986) who suggested the positive interaction of CK with CP on service outcomes. As suggested by Bandura (1977), the customer with higher CK regarding the task and their own ability to do the task leads to a positive service outcome are seen in the results from both the studies. The positive result also suggest that knowledge regarding the services makes customers confident in using the services providing a better service outcomes as suggested by Eisingerich and Bell (2008).

CK positively moderates the mediated path of CP - TrAWB - service outcomes and the moderation effect was higher in the TrAWB - service outcomes link compared to CP - TrAWB relationship. This explains that the predictive power of TrAWB on all service outcomes improves with the increase in customer knowledge. Hence, with the increasing knowledge of the customer, the strength of a mediated relationship could be enhanced, as explained by the elaboration likelihood model (Petty and Cacioppo, 1986). As proposed in the above theory, when the customer knowledge is high, it triggers an action that is processed through the central route, whereas when the knowledge is low, the processing occurs through the peripheral route. The high knowledge persuades the customer towards action through thoughtful consideration of information, unlike the low knowledge situation confirming the empirical understanding of differential influence of customer knowledge by Alba and Hutchinsons (1987).

While considering the moderation effect of TC included in the study, in Study 1 the effect of TC on CP to TrAWB was negative (β = -0.095), and the moderating effect of TC on TrAWB to service outcomes was noticed to be negative, and the highest strength was found for PV (β = -0.164), followed by SAT (β = -0.143), PSQ (β = -0.121) and CE (β = -0.111). Similarly, in Study 2 the effect of TC on CP on TrAWB was negative (β = -0.074), and the moderating effect of TC on TrAWB to service outcomes was noticed to be negative, and the highest strength was found for PV (β = -0.108), followed by SAT (β = -0.099), CE (β = -0.099) and PSQ (β = -0.069). The results also suggest the significant role played by TC by directly influencing TrAWB (β = -0.414) in Study 1 and for Study 2, the path coefficient is β = -0.286. Hence, similar to Shalley et al. (2004) and Robinson (2001), challenging work requires high processing of cognition leading to a negative influence on service outcomes.

TC negatively moderates the mediated path of CP - TrAWB - service outcomes and the moderation impact was higher in the TrAWB - service outcomes link compared to CP - TrAWB relationship. This explains that the predictive power of TrAWB on all service outcomes decreases with the increase in task complexity. Hence, with the increasing complexity of the task, the strength of a mediated relationship could be reduced, as explained by the social cognitive theory (Bandura, 1977). The theory was used for supporting the negative moderation of task complexity as the number of information cues required for an individual to perform a complex task is high compared to an easy task. Wood (1986) states that the number of distinct cues an individual must process for successful task completion is the function of task complexity. Task complexity comprise of task that are rich in variety, identity, significance, autonomy and feedback (Gong and Choi, 2016) and hence it requires

high processing of the information to tackle with the diverse and important task and hence high complexity with weaken the strength of relationship (Coelho and Augusto, 2010; Coelho et al., 2011; Hackman and Oldham, 1980). Hence, high task complexity demands more cognitive resources due to the increase in information processing requirements and the cognitive capacity of the individual may be adversely influenced when the information processing exceeds a specific limit, leading to negative performance and it is in line with literature (Kamiz et al., 2008; Klemz and Gruca, 2003; Speier and Morris, 2003; Zirgus and Buckland, 1998; Norman and Bobrow, 1975). Therefore, the results justify the observation that task complexity is a negative moderator.

The result suggests a gradual increase in the predictive power of the model on the inclusion of additional variables in both the studies. The multiple moderated mediated model (CP - CK, TC, TrAWB - service outcomes) reports a higher r-squared value for TrAWB and the service outcomes compared to the direct (CP - service outcomes) and mediated path (CP - TrAWB - service outcomes) confirming the relevance of the variables considered in the conceptualization in the study. Having understood the importance of customer participation in TrAWB and service outcomes, the next section discusses the types of customer participation and the differential influence of CP typology on various service outcomes. It also presents the direct and interaction effects of CP typology with high and low levels of CK and TC to gain a better understanding of interactional roles (antecedent and moderation roles) played among the three variables towards TrAWB.

8.2.4 Customer Participation, Customer Knowledge and Task Complexity

Examination of direct effects of customer participation typology and its interaction with customer knowledge and task complexity on various outcomes and related investigation falls under the scope of the fourth objective proposed in the study. The hypothesis H4 and H5 were proposed for meeting this objective. The results of the hypothesis tested under H4 and H5 forms the rationale behind the following discussions.

Customer participation occurs in different levels and forms during service encounters, and it may have a differential influence on the outcomes. Literature reports the influence of CP on various outcomes as positive, neutral and negative (Ennew and Bink, 1999; Bendapudi and Leone, 2003; Chan et al., 2010; Dong et al., 2015; Zhao et al., 2018; Auh and Wang, 2019; Blut et al., 2019). As mentioned in the earlier section, the level and forms of participation would be the probable reason for the mixed results in the literature.

The current study focusses on two variables that could contribute to the activity and the actor. Task complexity is considered to explain the nature of the task and customer knowledge is included to evaluate the actor's ability or ease for service production. The task assigned and the knowledge about the task may intervene in the participation of the customer or employee while performing a task. Hence, the type of participation required for any specific encounter varies based on the complexity of the task and the knowledge about the task. In addition, the three types of customer participation discussed above interacts with CK and TC and develop variations in service outcomes depending on the typology. To understand the differential influence of CP types, the study attempted the use of scenarios to represent the types of participation. Also, CK and TC were manipulated as well based on the task considered in the study and high and low knowledge of the customers (see scenarios in Annexure).

An experimental approach was used to test the hypotheses related to the direct and interaction effects of CP (mandatory CP, replaceable CP, and voluntary CP), CK (low vs high) and TC (low vs high). Twelve scenarios were developed based on the three manipulated variables based on the service settings, and the sample was collected using a between-subject design. The hypotheses were found to be significant. In Study 1, the direct effects of CP were found to follow a pattern, for every outcome variable considered in the study the influence of participation type was found to be higher for mandatory participation followed by replaceable participation followed by voluntary participation. The results were found to be supported but in the opposite direction than proposed in the hypotheses. Nevertheless, in Study 2, the results were aligned to the hypothesized direction. Hence, the study explains the differential influence of CP types on service outcomes; however, the variation in the predictive power of one type of the CP over the other on outcomes may be due to various reasons. One of the major reasons for the differences could be the cultural difference between the two settings. This observation could be in tune with various empirical evidence with regard to the influence of culture in service literature (Sharma et al., 2018; Ang et al., 2018; Sharma and Wu, 2015; Barker and Härtel, 2004). Therefore, a detailed discussion incorporating the role of culture in the framework is presented in the next section (see section 8.2.5).

The analysis of the direct effect of CK and TC on TrAWB were positive for CK and negative for TC as expected. For Study 1, the interaction effect of CK and the types of CP on TrAWB found that, for low CK, mandatory CP ([3]M = 5.028) is greater than replaceable CP (M = 4.670)

[3] M = Mean

followed by voluntary CP (M = 3.998); for high CK, mandatory CP (M = 5.408) is greater than replaceable CP (M = 4.563) followed by voluntary CP (M = 4.597). The results suggest that when customer knowledge is higher, the participation was found to be better compared to when the low knowledge level. However, there are two important observations emanate from these results. First, for replaceable CP, it can be noticed that the value of TrAWB is higher when the knowledge was less. This explains that when CK is low, the customers will perceive replaceable participation better in developing affective well-being because customers will always have the option to do the task themselves or reach out for an employee to do it for them. When CK is high, customers can still choose replaceable CP as they would be capable of doing the task themselves and can always ask for the employee help whenever they need it as there is a choice. Second, when CK is high, there is no difference between the values of TrAWB in replaceable participation and voluntary participation showing that customers will be willing to volunteer for participation when the customer knowledge is high compared to low. At the same time, they will be equally ready to participate for the replaceable CP.

The interaction effect of TC and types of CP on TrAWB found that, for lower levels of TC, mandatory CP (M = 5.310) is greater than replaceable CP (M = 4.552) followed by voluntary CP (M = 4.503); for high TC, mandatory CP (M = 5.127) is greater than replaceable CP (M = 4.682) followed by voluntary CP (M = 4.092). The result suggests that when the task complexity is lower, the participation was found to better predict TrAWB compared to when the high task complexity. However, there are two important things to note in the result presented. Firstly, for replaceable CP, it can be noticed that the value is higher when the complexity was high. This explains that when TC is high, the customers will perceive replaceable participation as a better option because customers will always have the choice to do the task themselves or reach out for an employee to do it for them. When TC is low, customers can still choose replaceable CP as they would be capable of doing the task themselves and can always ask for the employee help whenever they need it because of the existence of choice. Secondly, when TC is low, there is no difference between replaceable and voluntary CP values showing that customers will be willing to volunteer for participation when the complexity of the task is low compared to higher values. At the same time, they will be equally ready to participate in the task with replaceable CP. Hence, both high values of CK and low values of TC suggest that customers are willing to do the task themselves, whether it is essential or non-essential.

Considering the interaction effect of CK and TC with the antecedent CP for Study 2, the interaction effect of CK and types of CP on TrAWB found that, for low CK, mandatory CP (M = 3.260) is lesser than replaceable CP (M = 4.040) followed by voluntary CP (M = 4.464); for high CK, mandatory CP (M = 3.475) is lesser than replaceable CP (M = 4.243) followed by voluntary CP (M = 4.544). The interaction effect of TC and types of CP on TrAWB found that, for lower levels of TC, mandatory CP (M = 3.653) is lesser than replaceable CP (M = 4.267) followed by voluntary CP (M = 4.584); for high TC, mandatory CP (M = 3.083) is lesser than replaceable CP (M = 4.017) followed by voluntary CP (M = 4.430). The result suggests that when customer knowledge is higher, the participation was found to predict better affective well-being compared to lower levels of customer knowledge. Similarly, when the task complexity is lower, the participation was found to predict TrAWB better compared to higher task complexity. Additional insight is that voluntary participation is perceived similarly irrespective of high or low levels of CK or TC. In all the situations, customers scored the highest value for TrAWB for voluntary CP, suggesting that they are willing to participate if it enhances their or everyone's experience voluntarily.

Hence, CK and TC interact with types of CP and develop TrAWB in varying magnitude. This section presents the interaction between the three manipulated variables, and the results were discussed to have a better understanding of the results. Next section discusses the counter directional support of Study 1 and the reasons for the differences in result between Study 1 and Study 2. It narrates the national cultural orientation and the interplay with reactance theory.

8.2.5 National Level Cultural Orientation and Reactance Theory

The last objective for the study was to examine the role of national-level cultural orientation on the direct and interaction effects of customer participation typology, customer knowledge and task complexity on various outcomes and related investigation. The hypothesis H6 and H7 were proposed for meeting this objective. The results of the hypothesis tested under H6 and H7 form the rationale behind the following discussions.

The previous section discussed the hypotheses related to the typology of customer participation and the direct and interaction effects on the mediator and outcome variables. The results of both the studies were found to be significant at a 5 per cent significance level. However, among Indian customers (Study 1) the influence of CP types on TrAWB was found to be higher for mandatory participation followed by replaceable participation and voluntary

participation, which was opposite to the hypotheses proposed; among Australian customers (Study 2) the influence of CP types on TrAWB was found to be higher for voluntary participation followed by replaceable participation and then mandatory participation as proposed in the hypotheses. Therefore, a violation of the reactance theory (Brehm, 1966) was noticed among Indian customers. The reason for the difference in behaviour was attributed to national level cultural orientation in the study. Even though extant literature was unable to understand the influence of culture in reactance (Miron and Brehm, 2006), this research attempted to understand the role of cultural orientation in shaping customer participation behaviour in service settings.

National level cultural orientation defines the cultural orientation of the entire nation, and it could be identified from Hofstede dimensions (1980, 2001). The result of Hofstede's country comparison suggests a difference in India and Australia, where the study was conducted. Along the six dimensions considered, there is a significant difference for dimensions such as power distance, individualism, long term orientation, and indulgence. The other two dimensions, masculinity and uncertainty avoidance also suggest a difference with a lesser magnitude. The corresponding measure for India, Australia for six dimensions were found to be power distance (77, 38), individualism (48, 90), masculinity (56, 61), uncertainty avoidance (40, 51), long term orientation (51, 21), and indulgence (26, 71) (Hofstede Insights, 2019).

Based on the above statistics, the power distance for Indians was high inferring the high tolerance of customers to unequal distribution of power. Indians believe in a structure of hierarchy and expect a clear direction in performing a task. This could explain the reason for perceiving mandatory CP to be preferred over the other types of participation in Study 1. Australians, on the other hand, have very low power distance suggesting their freedom to enjoy choices noticed the results as proposed based on the reactance theory. Individualism for both the countries was identified to be different with Indians being collectivist and Australians being highly individualists. The traits of the individualist are more in favour of independent decisions and hence are likely to follow voluntary participation as evident from the findings of the study.

Uncertainty avoidance deals with the tolerance of society for ambiguity. Low levels suggest a better tolerance and vice versa; individuals feel less uncomfortable in unstructured situations. For India, the values are lower, whereas Australia holds a middle stand. Since India is ready to consider ambiguity and unstructured and unusual situations, they will be less inclined towards emotions. They tend to do the task based on their curiosity towards the

newness or differences of the task. This tendency explains the possible reason for Indians to prefer mandatory participation over the other types of CP. Indians are neutral in long term orientation compared to the Australians. Australians prefer to have short term orientation and will consider service to others as an important goal whereby preferring services executed by themselves. This may be the reason for having a preference for voluntary CP compared to other types among Australians.

Indulgent society allows free gratification of basic and natural human desires, whereas restraint society controls the gratification of needs by strict social norms. Therefore, people living in society or country with higher indulgence will be inclined to have fun and enjoyment compared to the restraint people who generally less happy. Indians with lower indulgence value will be more focussed on the meeting of requirements whereas Australians being an indulgent community will be concentrating on experiences and hence will be happy in cocreating a service for gratification. Accordingly, national-level cultural orientation might form one of the major reasons for reverse directional support of the hypotheses related to CP typology.

The literature on reactance theory suggests that there exist no differences in reactance processes due to culture, but the differences can emerge due to the expectation of control (Miron and Brehm, 2006). Also, literature has limited evidence on the influence of cultural aspects of the cultural dimensions on the reactance theory. The current study relied upon the reactance theory to hypothesize the differential influence of CP typology and its interaction with the moderating variables in predicting outcome variables. However, the findings from the study present a significant deviation from the propositions based on the reactance theory. Hence, the study deciphers that the cultural orientation of the country certainly has an impact on the reactance of the individuals. This section discussed the roles played by national-level cultural orientation and reactance theory in the current study. Next section explains the contributions, limitations and future research agenda.

8.3 CONTRIBUTIONS AND IMPLICATION

The study has several contributions to offer researchers, practitioners, and society in general. The following sections present the contributions separately.

8.3.1 Theoretical Contributions

This study makes some specific contributions and many general observations based on the theoretical underpinnings considered in the study. First, the rationale behind proposing a

typology for customer participation was the anticipation of a differential effect of the typology on service outcomes. Therefore, by facilitating customer cocreation by constituting a typology that suits customer expectations can produce favourable service outcomes. However, to date, no empirical support exists for this proposition. This study is an obvious attempt to empirically examine the differential effect of CP typology on service outcome and show precisely how participation influences service outcomes (i.e. perceived service quality, customer satisfaction, perceived value) differently. On a theoretical perspective, the study could evaluate the variations in the effect of CP typology concerning the national level culture. It could prove that cultural orientation does have a significant role in the framework. The extant literature on an empirical investigation related to the role of intercultural differences in service settings has concluded that the culture plays a role in service quality, satisfaction, value, loyalty, and cocreation intentions (Auh et al., 2018; Sharma et al., 2018; Sharma and Wu, 2015, Barker and Härtel, 2004). The findings from this study offer theoretical support to confirm the role of culture in inducing cocreation intentions in technology-driven service settings.

Second, the psychological reactance theory is a well-acclaimed doctrine in behavioural studies. Even though multiple attempts are visible in the literature about the application of reactance theory in consumer behaviour (Kwon and Chung, 2010; Reinders et al., 2008; Wendlandt and Schrader, 2007; Fitzsimons and Lehmann, 2004; Lessne and Notarantonio, 1988; Clee and Wicklund, 1980; Mazis et al., 1973), the studies considering the same were limited. However, the application of reactance theory in a servicescape where they intend is to impart better customer experience by enabling multiple options for customer participation is missing. This study could successfully explain the reactance behaviour in a service setting which has provisions for facilitating co-creation through manipulation of CP. The theoretical support obtained suggests the prevalence of a reactance among customers from an egalitarian, indulgent and individualist customer segment worth further empirical investigation. Interestingly, the customers belonging to an authoritarian, restraint and collectivist, fail to exhibit reactance when their choices are restricted, and mandatory provisions limit their participation. Thus, the study explains the prevalence of a new boundary condition to the reactance theory and propose that the boundary be linked to cultural traits of the customers.

Third, the proposed relationship between customer participation and service outcomes embodies a broader number of service outcomes than those currently depicted in the literature into one concise model. Literature predominantly presents outcomes such as service quality,

customer satisfaction, performance, productivity, and value perceptions. However, with the emergence of the experience economy by Pine and Gilmore (1998), a prominent belief exists that customer participation can lead to a memorable and engaging experience for the customer. The extant empirical evidence on customer experience formation from customer participation and its typology were scant. Therefore, this study contributes to the theoretical domain of customer experience and empirically establishes the scope of CP in customer experience formation.

Fourth, the study proposed and validated the mediating role of task-related affective well-being. The conceptualization and hypotheses were built with the support of three theories, namely, self-determination theory (Ryan and Deci, 2000, elicitation of emotion framework (McColl-Kennedy et al., 2017), and feelings as information theory (Schwarz and Clore, 1996). Theoretically, the study offers evidence for the mediating role of task-related affective well-being in the influence of customer participation on service outcomes. Hence, the study contributes to the existing literature on CP, transformative service research, and sociotechnical systems theory by establishing the mediating role of task-related affective well-being. The literature on service cocreations embedded in the service-dominant logic (Vargo and Lusch, 2004) explains the role of many variables such as participation, customer citizenship behaviour, and customer engagement on favourable service outcomes. However, the role of affective well-being in this framework was ignored. Thus, this research could theoretically view service co-creation through the lens of construct that holistically captures the physical and emotional state of a customer in a service encounter.

Fifth, the literature offers evidence for the use of elicitation of emotions model in the healthcare service experience. This research could extend the application of McColl-Kennedy's elicitation of emotions model to airlines and retail sectors. Thus, this research could encapsulate the effect of trigger events through the manipulation of scenarios in this study while performing a task in the value creation process. In a similar vein, feelings as information theory and self-determination theory were used to explain further the role of task-related affective well-being in the influence of customer participation on service outcomes. The former is used widely in research related to psychology, personality, education, consumer psychology, but the use is limited in services literature. Likewise, since self-determination theory is used predominantly in healthcare to explain well-being, hence this study offers theoretical support for generalizing the application of the above theories to other service contexts.

Sixth, the role of task-related affective well-being as a mediator in the nexus between customer participation and service outcomes enables the depiction of participation to transcend into literature associated with the domain of transformative service research (TSR). The domain of TSR explore and examine well-being perception of a customer in a service encounter and is defined as "the integration of consumer and service research that focusses on creating uplifting changes and improvements in the well-being of consumer entities: individuals (consumers and employees), communities and the ecosystem" (Anderson et al., 2013, p.1204). TSR highlights that continuous interaction of the customer with services may affect their well-being positively or negatively. Hence, the current study could establish that affective well-being is an important variable explaining consumer behaviour in service encounters. To the best of knowledge, this study is one of the first studies to investigate the role of task-related affective well-being in the relationship between customer participation and service outcomes that emanate directly from a service encounter.

Seventh, the inclusion of customer knowledge and task complexity as moderators helps to extend customer participation and well-being literature. Although existing literature has depicted moderators in that relationship, this study is the first to conceptualize the role that customer knowledge and task complexity plays. Hence the conceptualization was based on various theories such as self-efficacy theory (Bandura, 1977), elaboration likelihood model (Petty and Cacioppo, 1986), and social cognitive theory (Bandura, 1977). The evidence on the moderating role of customer knowledge and task complexity in the influence of customer participation on service outcomes corroborates the theoretical perspective unlined in the above theories. This research further contributes by establishing the interplay between CK and TC and test the resultant moderated mediation. Hence, the study contributes to the existing literature on customer participation, well-being, customer knowledge, and task complexity by conceptualizing the moderating role of customer knowledge and task complexity. The study explains the role and importance of customer knowledge and task complexity in the process of service co-creation. Also, a contextual and construct level contribution was made to the literature by adopting self-efficacy theory, elaboration likelihood model, and social cognitive theory.

Finally, the overarching theory adopted by the study was the sociotechnical systems theory (Pasmore, 1988). Pasmore (1988) argued that organization "will function optimally only if the social and technical systems of the organization were designed to fit the demands of each other and the environment" (p. 1182). In a service encounter, customers or employees take part in

service co-creation, and they will use technology to help them co-create the task. In the current study, the mediation role of task-related affective well-being and the moderation effect of customer knowledge and task complexity were conceptualized and empirically tested, contributing to sociotechnical systems theory. However, to date, the sociotechnical systems theory is silent on the effect of CP typology in the interplay between the social and technical systems in a service organization. This study could extend the sociotechnical systems theory by incorporating attributes that enable CP typology, which is going to be an inevitable constituent in future servicescape design. Thus, the study offers valid theoretical insights for a joint, balanced and synergistic technical system in a service organization that caters to the needs and values of its members by effective interaction that produces positive outcomes.

In summary, the theoretical contribution revolves around 17 hypotheses, reflected in the conceptual model. Based on the self-determination theory and feelings as information theory, the study proposed the mediating role of task-related affective well-being in the influence of participation on various service outcomes. The study incorporated reactance theory to help conceptualize the influence of three types of participation on the service outcomes. With the help of self-efficacy theory, elaboration likelihood model, and social cognition theory, the influence of moderators on the mediated relationship of customer participation - task-related affective well-being - service outcomes. Like any study of this kind, the learnings shared pose several potential managerial implications, and some of these are now discussed before suggesting limitations and directions for future research.

8.3.2 Managerial Implications

The study offers multiple implications to the managers. The study confirms the role and importance of customer participation in a service context, and hence it contributes to the managers in designing services and servicescape.

First, the study presents the influence of CP on various service outcomes (i.e. perceived service quality, customer satisfaction, perceived value, customer experience) and thus offers motivation to managers to introduce mechanisms to ensure customer participation. Services have open production in the presence of customers, and hence ensuring healthy participation becomes the responsibility of managers. Confidence that positive outcomes accrue to firms from customer participation encourages the introduction of service attributes that make it comfortable for the customers to participate effectively. The findings contribute to the design thinking approach in innovative service design where emphasis rest with customer sentiments.

Innovative servicescape designs conducive for the customers encourage participation and develop positive feelings to increase experience contributing to the competitiveness of the firm. Also, the study finds evidence for the differential impact of customer participation types (i.e. mandatory participation, replaceable participation, and voluntary participation) on various service outcomes. This classification helps the managers to understand the best-suited participation type based on the service characteristics and the task expertise requirements of the customer in specific service contexts. Hence, by understanding the influence of various types of participation on service outcomes helps to design service operations and enhance service delivery leading to increased profitability.

Second, the proposed model contributes to managers' understanding of how customer participation and well-being are connected to impact the overall quality service operations potentially. Since the study highlights the central importance of task-related affective well-being in the services context and its influence on service outcomes, decision-makers need to be cognizant of the service conditions leading to improved/diminished well-being. The study depicts well-being to be primarily a function of the type of participation customers undertake, which means that the design of the service operation is critical to long-term success. From the study, managers can understand the aspects that are favourable for improving the affective well-being of the customers which will help them in designing servicescape and service process flow that contributes to the well-being of a customer. The colour, placement of artefacts, the displacement required by the customers, and the ease and comfort of doing a task have a role in well-being and hence creating such designs becomes a prerequisite for customer participation and affective well-being that improve outcomes drastically.

Third, in order to attain the desired outcomes and through that elevated levels of organizational profitability, service organizations must concurrently cater to customers that are willing to take the responsibility to participate and those that are not. In a nutshell, this potentially means minimizing mandatory participation (as far as practicable) at the expense of providing their customers with replaceable and voluntary participation options during the critical service encounter. As customers gradually become accustomed to experiencing participation for themselves (this could be through replaceable and voluntary forms), then service firms could progressively introduce more mandatory forms. However, the current study suggests that there is a difference based on the nation’s cultural orientation, at times customers will be willing to participate in mandatory participation prospecting on the value derived out of the service. Therefore, the managers need to be very careful while designing the service encounter for

various countries as there is a difference based on their cultural orientation. Accordingly, they need to focus on the type of participation. Hence, the model will help the managers in understanding the interplay between the variables of importance, the customer participation and its types, affective well-being, and various service outcomes how it could be combined to make an effective service encounter.

Fourth, since the study reveals that customer knowledge and task complexity has both a direct and indirect impact on task-related affective well-being, and both of these aspects must be factored into the service design. If the operation is too complex when customers were expected to participate, then this will negatively impact their views concerning affective well-being and thus, the service outcomes. If operational efficiencies were desired by getting customers to choose to play a role in the domains of replaceable and voluntary participation, then complex tasks might encourage customers to ask service staff to do the role, as would be the case in these two forms of participation. From an organizational perspective, this would be counterproductive to the purpose or aim of introducing mandatory participation in the service offering. Service organizations, therefore, need to ensure tasks are not complex, and in the very least ensure service staff are available during the service encounter to monitor the customers and help educate them on what to do. This is particularly critical when new services and participation tasks are being introduced into the operation. Furthermore, strategies must be employed that help improves customer knowledge about how they can participate in the process of co-creation of the service as well as the benefits their participation would provide. For example, letting customers know that pre-check-ins or self-service check-in activities of any airlines, that can be undertaken by them before taking a flight will not only provide the customer convenience benefits but in this particular example, they could ‘queue-jump’ to get their desired seat on the aeroplane. Therefore, the finding may help in developing specific strategies for that create customer knowledge and reduces task complexity for better customers’ participation.

Fifth, the need for co-creation and ensuring active co-creation is always a challenge for the service manager, and this study helps to give a perspective to the co-creation process. The study helps the managers to understand the different ways in which customers can participate. It also helps them in understanding the relationship between customer participation, customer knowledge, task complexity, and task-related affective well-being. Based on the knowledge of the customer and the complexity of the task, the manager can design the service and decide on the type of participation that enhances the customers’ affective well-being and the various

service outcomes. Hence, the research model helps to explain the reason for the failures of certain services and assist in understanding the right selection of participation for any service encounter which minimises service failure. In simple terms, a service failure can be a deviation from the expectations of a customer. Active participation reduces the scope of service failure since the customer gets timely communication about reasons for unforeseen issues. Therefore, the study helps managers in developing strategies for creating justice perceptions among customers in the advent of service failures having a significant impact on outcomes.

Sixth, a major challenge for every customer is about the uncertainty related to consumer behaviour in general. A customer approaches every service encounter with an expectation and a deviation from expectation can create an avoidance tendency which may adversely affect the firm's attempts to ensure quality participation. A typical service journey contains multiple touchpoints having the varying potential to create an experience. Always the initial touchpoints have a greater role in setting a standard for customer participation. For, optimum performance of touchpoints, a customer-centric design that allows adequate scope for participation is essential. Firms get an opportunity to unmask the complex behaviour traits by analysing the nature of participation. This study offers managers some valid insights for such explorations about consumer behaviour in service contexts.

Seventh, firms need to adopt technology prominently for service creation that is more reliable, flexible, and standardised. The trade-off between standardization and customization is a big challenge for firms. While standardisation aims for uniformity, customization thrives on providing individual touch. In many service settings, achieving customization through standardization is a big challenge. Hence, a critical evaluation of touchpoints for introducing technology that ensures participation as well as the need for replaceable mechanisms for personal touch can reduce the complexity. The findings of the study would be helpful in technology adoption decisions and in developing a strategy for change management on technology adoption.

Finally, and in general terms, our proposed model will help motivate service providers to identify the best-suited participation process to yield positive customer well-being that also accounts for the complexity of the task and the customers' knowledge about the task. This will enhance the value perceived by the customers and ensure greater quality, experience, and satisfaction to the customers, providing a net benefit to the service organization.

8.3.3 Societal Implications

An empowered and emotionally stable customer is the backbone of the economy and thus essential for social benefits. The definitive agenda of every research about the customer understand the behavioural and psychographic aspects of a customer to create the right and best-suited services. More broadly, consumer studies offer relevant, reliable, valid, and current information about a customer. With the transition from goods dominant logic to service-dominant logic, all businesses became service businesses engaging in economic and social activities that are fundamentally about the exchange of services. In service-dominant logic, the customer is the creator of value, and all activities are inherently customer oriented and relational. Besides, transformative service research examines the connections between service offerings and well-being. Well-being imparts a holistic feeling of goodness which helps individual to make rational decisions. Similarly, a customer enjoying well-being may engage in responsible consumption behaviour, eventually contributing to social benefit. The insights from the study, helps firms to increase cocreation intent and transform services to more well-being contributing.

For achieving competitiveness in an economy which is more competitive, firms require appropriate knowledge about the priorities, concerns, and characteristics of customers. This research help firms to identify factors that significantly enhance customer feelings about firm's offer and way to increase customer satisfaction which in turn are likely to and to raise performance. Apart from offering suggestions to serve current customers better, this study identifies options for attracting new customer segments for higher economic growth. A firm's social responsibility rests with profit, people and planet (Elkington, 1998). Hence, suggesting ways to increase the profit-making capability of a firm has social contributions. Economic growth can motivate a firm to behave responsibly and offer impetus to contribute to people and planet positively and thus got contributions to overall sustainability challenges of the world. This section presents the societal contribution, and the following section will describe the various limitations and future research.

8.4 LIMITATIONS AND FUTURE RESEARCH

The study raises some important questions for future research. Even though the study was successful in understanding the role played by task-related affective well-being, there are more aspects of well-being that are outside the scope of the study. The study was limited to one part of well-being where other factors could be considered for future studies. Further, the study

has not considered the existing emotional state of a customer, and by exploring this, the study would be able to bring clarity to the affective well-being due to the task in hand. The scope of the current study was limited to understanding the influence of customer participation on affective well-being. However, technology would play an important role in understanding the willingness of customers to participate and the type of participation preferred. There could be stress related to the technology that plays an important factor in the relationship considered in the study. Hence, future research can focus more on how it is influencing the well-being of the customer and the other factors which could transform the lives of the customer. The study includes one customer-specific and one firm-specific moderator, but additional moderators that can potentially be gleaned from the literature that are also likely to influence the link between constructs when empirically testing the model. Future studies can explore variables that could reduce the negative influence of customer participation on well-being and service outcomes.

The model examined in this study is for service encounters in general. However, moderators that are related to a particular service setting could be explored for contextualizing the model for specific services. Situations could also affect the way a customer participates in a service encounter, and hence further research could involve the situation-specific factors that may influence the relationship between model constructs. The study used two different service context across two culture to explain the interrelationships among the variables studied. However, multiple contexts in the same culture and multiple cultures in the same context will help in gaining a better understanding about participation in service encounters and the role played by well-being, customer knowledge, and task complexity.

On the methodology front, the study used a scenario-based survey; however, a future study could deploy a true experiment and survey method. It would be interesting to understand the perspective of well-being on a critical incident technique which would let the customer narrate about the critical incident in hand and it helps to explore many other factors related to the incident. Hence a mixed-method approach will give an additional explanation of the relationships studied. Finally, the well-being of customers in the service encounter is gaining more traction and attention in the literature, and this study could propose and empirically test the role played by customer participation in influencing their well-being. The study highlights potential avenues for further research based on the current study (see Table 8.1). Hence, any further studies highlighted in this area of growing importance will help scholars and practitioners better understand this new service domain.

Table 8.1 Proposed Directions for Future Research

Types of customer participation 1. What factors (customer, service provider, context, situation) could influence the types of participation? 2. What is the influence of three types of participation to specific outcomes? 3. How do the types of participation influence various services contexts, and what are the implications? 4. Do the types of participation co-occur? How they interact with one another? How does interaction influence the various outcomes? 5. How do the types of participation relate to other related constructs (e.g., customer involvement, engagement, and innovation, etc.)? 6. Does social media influence the types of participation, and if so, what is its influence on service outcomes?
Service Outcomes 1. What are the other service outcomes that the various types of participation influence? 2. What are the firm outcomes that could get influenced by the change in participation types? 3. What are the various employee-related outcomes for participation? How do the three types of participation influence employee-related outcomes? 4. How does the influence of participation vary with respect to the types of outcomes? 5. What are the negative outcomes of customer participation and how does it vary with respect to the types? 6. What could be the mediated service outcomes for customer participation, and what are the possible mediators? Are the mediators different for the types of participation involved?
Well-Being 1. How can participation types influence well-being? Does it partially mediate all service outcomes? 2. What are the different types of well-being, and how do participation types influence them? Will there be any difference in the types of well-being that are affected based on the types of participation? 3. Does the influence of customer participation on well-being vary with the service context? In what all context participation influences the eudaimonic well-being? 4. Does customer participation influence employee well-being? What are the positive or negative effects of this on service outcomes? 5. How long will the influence of participation on their well-being stay with the customer? Does the impact duration influence service outcomes positively?

6. How does the influence of participation on well-being transform the lives of customers? What are the outcomes of well-being that could transform the lives of customers or employees?
Intervening factors that impact the types of customer participation 1. How does the influence of different types of customer participation on service outcomes vary based on customer-specific, provider-specific factors, context-specific factors? 2. How does the situation or the individual's (customer/employees) influence the impact of types of participation on service outcomes? 3. How do the personal characteristics of an individual (customer/employee) influence the impact of participation types on service outcomes? 4. What is the influence of culture on the influence of participation types on service outcomes? How does participation types vary based on intercultural service encounter?

(Source: Ajitha et al., 2019)

8.5 CONCLUSION

Customer participation was viewed as a double-edged sword, and it always showed a mixed influence on service outcomes. It could lead to a positive or negative influence on service outcomes. Hence, the current study attempted to understand an explanation to this issue and examined the influence of customer participation typology to explain the service outcomes and the study could explain the differential influence of customer participation typology on service outcomes. In addition, the study attempted to conceptualize task-related affective well-being and found empirical evidence on the mediating role of it on the influence of customer participation in predicting service outcomes. Further, the study hypothesized the influence of two moderators in the framework, customer knowledge, and task complexity, and the study found evidence for both the moderators, customer knowledge and positive moderator and task complexity as a negative moderator. The moderation effect in the mediated path was also studied and found a significant relationship. Further, the study also attempted to compare two cultures to explore and examine the influence of national-level cultural orientation on the differential influence of customer participation types on outcome variables and found relevant support for the same. Therefore, the current study examines the mediating role of task-related affective well-being and the moderation effect of customer knowledge and task complexity in the influence of customer participation on service outcomes, and it found significant support in both the studies conducted.

The study was built on multiple theories, and all the relations found empirical support. The study results enhance the knowledge on the customer participation typology and the role of task-related affective well-being in creating a better service outcome that would help the managers to design the services better. The results of the study provide several important theoretical and practical implications. The study falls under the domain of transformative service research and hence presents the societal implications as well. This study has modelled affective well-being as the mediator, but future work can consider other well-being and individual-specific characteristics to understand the influence of customer participation in creating an everlasting, memorable and quality service experience. Most importantly, the conceptual framework, findings, and thoughts presented in this study will significantly contribute to customer participation and customer well-being literature to aid several future studies in this direction.

APPENDIX A
SCENARIO – STUDY 1

Mandatory CP

Your airline has recently changed to a fully self-check-in format, and they do not have the regular check-in counters anymore. So, you have to complete your check-in process by yourself using a self-service kiosk.

Replaceable CP

Your airline has recently changed to a fully self-check-in format, and they do not have the regular check-in counters anymore. However, they have staff available around the kiosks so you can either use the kiosks to complete the check-in process yourself or ask the airline staff to do it for you.

Voluntary CP

You completed the check-in process with your airline, and you are asked to complete a survey about your check-in experience. You can choose to fill up this questionnaire or refuse to fill it up with no adverse consequences.

Manipulations	High	Low
Customer Knowledge	You are a regular traveller with this airline, and hence, you have full knowledge about all their check-in options and how they work.	You are travelling for the first time with this airline, and hence, you have no (or very limited) knowledge about all their check-in options and how they work.
Task Complexity	To complete check-in, you need to complete all the following steps: 1. You need to place the baggage under the x-ray scanner operated by your airline. 2. You need to seal and label the baggage. 3. You need to go to a self-check-in kiosk and start the check-in process. 4. You need to check the available seats and choose your preferred seat. 5. You need to weigh your check-in bags, print the baggage tags and fix them to your bags. 6. You also need to print your boarding pass and drop your bags at the check-in counter.	To complete check-in, you just need to print your boarding card at a self-service kiosk and drop your bags at the check-in counter.

APPENDIX B
QUESTIONNAIRE – STUDY 1

Welcome Note.
Thank you for agreeing to participate in this research.

In this survey, you will be asked to respond regarding the check-in experience with a domestic airline. In total, this research survey is expected to take about 15 minutes of your time. We request that you complete the entire survey in one sitting (without taking any breaks in between) and do not discuss it with anyone else after completing it.

All answers will be kept confidential by separating the responses you give from your personal information. We request you to provide us with honest responses to all questions as the validity of our research depends critically on your honesty.

Participation in this research is completely voluntary. If there is any question you do not want to answer or if at any point you feel uncomfortable, you have the option of quitting. There will be no negative consequences for not completing the survey.

If there is anything about the research or your participation that is unclear or that you do not understand, if you have questions or wish to report a research-related problem, you may contact the Principal Investigator Ms Aswathy Asokan by e-mail at: aswathy.asokanajitha@postgrad.curtin.edu.au

If you consent to participate, please continue to start the survey.

Q1 Which airline did you take during the last domestic flight?

a. Air Asia
b. Air Costa
c. Air India
d. Air India Express
e. Go Air
f. Indigo Airlines
g. Jet Airways
h. Jet Lite
i. Jet Konnect
j. SpiceJet Airlines
k. TruJet

Q2 Mention the Departure City.

……

Q3 Mention the Destination City.

……

Please think about your EXPECTATIONS on pre-flight check-in when answering the following questions.

To what extent do you agree or disagree on the following statements.
(Strongly disagree – 1, Somewhat disagree – 2, Disagree – 3, Neither disagree nor agree – 4, Agree – 5, Somewhat agree – 6, Strongly agree – 7)

Statements	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I will spend time to provide necessary information for the check-in process							
I will have a high level of participation in check-in process							
I will be very much involved during the check-in process							
I will be worrying about what I am expected to do							
I am straining to complete the check-in process							
I cannot overcome the difficulties during check-in process							
I enjoy the check-in experience							
I lose confidence in myself during the check-in experience							
I am frustrated with the check-in experience							
I am reasonably happy with the overall check-in experience							
I am anxious during the check-in process							
I am depressed during the check-in process							
I am enthusiastic when performing the check-in process							
I know a lot about the check-in process							
My knowledge regarding check-in process is inadequate							
My knowledge about check-in process is very good							
The check-in process involves many distinct steps							
The check-in process requires processing a lot of information cues							
The order of the steps for the check-in process is confusing							
The steps involved in the check-in process are uncertain							
The quality of the check-in experience is good							

The quality of the check-in experience is excellent							
The quality of the check-in experience is above expectation							
I am satisfied with the check-in process							
I am delighted with the check-in process							
I am unhappy with the check-in process							
Although I contribute to the check-in process, I still consider the overall check-in experience to be of great value to me							
Although I contribute to the check-in process, I believe this helped to enhance the value received during this process							
Although I contribute to the check-in process, the value received during this process outweighed the time I had to expend to check-in							
Although I contribute to the check-in process, the value received during this process outweighed the effort I had to expend to check-in							
The check-in experience is engaging							
The check-in experience is enjoyable							
The check-in experience is memorable							

Please read the following scenario regarding a domestic travel pre-flight check-in and then answer the following questions in this survey.
(Randomly assign one out of twelve scenarios to the respondent. See Appendix 1 for Scenarios for Study 1)

Based on the SCENARIO to what extend do you agree or disagree on the following statements.
(Strongly disagree – 1, Somewhat disagree – 2, Disagree – 3, Neither disagree nor agree – 4, Agree – 5, Somewhat agree – 6, Strongly agree – 7)

Statements	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I would spend time to provide necessary information for the check-in process							
I would have a high level of participation in check-in process							
I would be very much involved during the check-in process							
I would be worrying about what I am expected to do							

I would need to strain to complete the check-in process							
I would not be able to overcome the difficulties during check-in process							
I would enjoy the check-in experience							
I would not lose confidence in myself during the check-in experience							
I would be frustrated with the check-in experience							
I would be reasonably happy with the overall check-in experience							
I would be anxious during the check-in process							
I would be depressed during the check-in process							
I would be enthusiastic when performing the check-in process							
I would know a lot about the check-in process							
I would have adequate knowledge regarding check-in process							
I would know everything about check-in process							
The check-in process involved many distinct steps							
The check-in process required processing a lot of information cues							
The order of the steps for the check-in process was confusing							
The steps involved in the check-in process were uncertain							
The quality of the check-in experience was good							
The quality of the check-in experience was excellent							
The quality of the check-in experience was above expectation							
I am satisfied with the check-in process							
I am delighted with the check-in process							
I am unhappy with the check-in process							
Although I contributed to the check-in process, I would consider the overall check-in experience to be of great value to me							
Although I contribute to the check-in process, I believe this helped to enhance the value received during this process							

Although I contribute to the check-in process, the value received during this process outweighed the time I had to expend to check-in							
Although I contribute to the check-in process, the value received during this process outweighed the effort I had to expend to check-in							
The check-in experience was engaging							
The check-in experience was enjoyable							
The check-in experience was memorable							

Q4. What is your gender?

a. Male
b. Female
c. Others

Q5. What is your age?

a. 21 – 30
b. 31 – 40
c. 41 – 50
d. 51 – 60
e. 61 – 70
f. above 70

Q6. What is your current marital status?

a. Married
b. Single
c. Others

Q7. What is your highest level of education (completed)?

a. Primary School
b. High School
c. TAFE/Other Vocational Courses
d. Bachelor's Degree
e. Masters/Other Postgraduate Degree
f. Others

APPENDIX C
SCENARIO – STUDY 2

Mandatory CP

One day when you arrive to shop at your regular supermarket, you notice that it has changed to a fully self-checkout format and it does not have the regular staff checkout counters anymore. So, you must now complete the checkout process all by yourself using one of the self-checkout machines. After you complete your shopping, you are asked to complete a survey about your shopping experience. You can choose to fill up this questionnaire or refuse to fill it up with no adverse consequences.

Replaceable CP

One day when you arrive to shop at your regular supermarket, you notice that it has added self-checkout machines, but it still has the regular staff checkout counters. So, you can now complete the checkout process all by yourself using one of the self-checkout machines or one of the regular staffed check-out counters. After you complete your shopping, you are asked to complete a survey about your shopping experience. You can choose to fill up this questionnaire or refuse to fill it up with no adverse consequences.

Voluntary CP

One day after you complete shopping at your regular supermarket, you are asked to complete a survey about your shopping experience. You can choose to fill up this questionnaire or refuse to fill it up with no adverse consequences.

Manipulations	High	Low
Customer Knowledge	You are a regular shopper, so you have a lot of knowledge about shopping and how to use different types of checkout methods.	You are not a regular shopper, so you have very little knowledge about shopping and how to use different types of checkout methods.
Task Complexity	You are doing your weekly grocery shopping, so you have to buy a lot of items. Some of these items have barcodes that can be scanned while others need to be weighed in order to get them billed. You also need to place these items in separate bags.	You are only buying a couple of items that you forgot to buy during your weekly grocery shopping earlier. All these items have barcodes that can be scanned to get them billed. You can place all these items in a single bag.

APPENDIX D

QUESTIONNAIRE – STUDY 2

Welcome Note.
This is a study about your experience in the retail store. By participating in this study, you agree that you have received information regarding this research. You understand the purpose, extent and possible risks of your involvement in this
project and you voluntarily consent to take part.

Please answer all the questions truthfully. There are no right or wrong answers. All your replies would be anonymous and confidential. We will not record any personally identifiable information about you and your responses would be analysed and reported only in an aggregate form.

Thank you very much for your participation in this study!

If you consent to participate, please continue to start the survey.

Q1. Which are the supermarkets you do shop? (You can select multiple options)

a. ALDI
b. Bi-Lo
c. Coles
d. Drakes
e. Farmer Jacks
f. Foodland
g. Food for Less
h. Franklins
i. Friendly Grocer
j. Harris Farm Markets
k. IGA
l. Sims Supermarket
m. Spud Shed
n. Superbarn Supermarket
o. Woolworths
p. Others

Q2. Which supermarket do you usually shop? (Please select only one option)

a. ALDI
b. Bi-Lo
c. Coles
d. Drakes
e. Farmer Jacks
f. Foodland
g. Food for Less
h. Franklins

i. Friendly Grocer
j. Harris Farm Markets
k. IGA
l. Sims Supermarket
m. Spud Shed
n. Superbarn Supermarket
o. Woolworths
p. Others

2. How frequently do you shop at <supermarket>? (Please tick only one of the following choices)
    a. Very frequently (4-5 times a week)
    b. Frequently (2-3 times a week)
    c. Occasionally (once a week)
    d. Rarely (once a fortnight)
    e. Very Rarely (once a month)
    f. Never

3. Which day(s) of the week you choose to shop at <supermarket>? (You can click more than one choice)
    a. Monday
    b. Tuesday
    c. Wednesday
    d. Thursday
    e. Friday
    f. Saturday
    g. Sunday

4. Which time of the day do you prefer to shop at <supermarket>? (Please tick only one of the following choices)
    a. 12 am – 9 am
    b. 9 am – 11 am
    c. 11 am – 1 pm
    d. 1 pm – 3 pm
    e. 3 pm – 5 pm
    f. 5 pm – 9 pm
    g. 9 pm – 12 am

Please think about your EXPECTATIONS of shopping while answering the following questions.

To what extent do you agree or disagree on the following statements.
(Strongly disagree – 1, Somewhat disagree – 2, Disagree – 3, Neither disagree nor agree – 4, Agree – 5, Somewhat agree – 6, Strongly agree – 7)

Statements	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I will spend time to provide the necessary information required for the shopping							
I will have a high level of participation in during shopping							
I will be very much involved during the shopping							
I know a lot about shopping at <supermarket>							
I have adequate knowledge about shopping at <supermarket>							
I know everything about shopping at <supermarket> that I need to know							
Shopping at <supermarket> involves many distinct steps							
Shopping at <supermarket> requires dealing with a lot of information							
Shopping at <supermarket> can be confusing due to the order of steps involved							
Shopping at <supermarket> creates uncertainty due to the number of steps involved							
The quality of service provided by <supermarket> is excellent							
The quality of service provided by <supermarket> is better than other supermarkets							
The quality of service provided by <supermarket> exceeds my expectations							
I am satisfied with my shopping experience at <supermarket>							
I am pleased with my shopping experience at <supermarket>							
I am happy with my shopping experience at <supermarket>							
I consider the overall shopping experience at <supermarket> to be of great value to me							
I believe the shopping experience at <supermarket> helped to enhance the value received by me during the process							
The value received by me during shopping at <supermarket> outweighs the time I spend for the process							
The value received by me during shopping at <supermarket> outweighs the effort I spend for the process							

I have an engaging shopping experience at <supermarket>							
I have an enjoyable shopping experience at <supermarket>							
I have a memorable shopping experience at <supermarket>							

Please read the following scenario regarding shopping and then answer the following questions in this survey.
(Randomly assign one out of twelve scenarios to the respondent. See Appendix 3 for Scenarios for Study 2)

Please answer the following questions based on your careful reading of the above scenario and assuming that you are in the situation described therein:

1. Which of the following checkout methods are available to you in this situation? (Note: This is the first manipulation check for Mandatory and Replaceable CP)
   a) Staffed checkout
   b) New self-checkout machine
   c) Both of these

2. To what extent are you likely to choose the following checkout methods in this situation?

	Not at all						Very likely
a) Staffed checkout	1	2	3	4	5	6	7
b) New self-checkout machine	1	2	3	4	5	6	7

3. **To what extent do you disagree or agree with the following statements about the checkout method you would choose in this situation?**
   (Strongly disagree – 1, Somewhat disagree – 2, Disagree – 3, Neither disagree nor agree – 4, Agree – 5, Somewhat agree – 6, Strongly agree – 7)

Statements	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I would willingly use this checkout method							
I would ask for help if needed							
I would try to complete the checkout by myself							
I would feel nervous while using this checkout method							
I would be attentive while using this checkout method							
I would be interested in this checkout method							

I would get irritable while using this checkout method							
I would be determined to use this checkout method							
I would spend a lot of time to complete the checkout process							
I would have a high level of participation in the checkout process							
I would be very much involved during the checkout process							
I would be involved while scanning the items during checkout							
I would be attentive while weighing the items without barcode during checkout							
I would spend time bagging the items during the checkout							

4. How would you describe the survey after you complete shopping? (Note: This is the second manipulation check for Voluntary CP)
   a) Voluntary
   b) Compulsory

5. To what extent are you likely to complete the voluntary survey in this situation?

   Not at all 1 2 3 4 5 6 7 Very likely

Please continue to assume that you are in the situation described in the above scenario and answer the following questions based on your probable experience in that situation.

(Strongly disagree – 1, Somewhat disagree – 2, Disagree – 3, Neither disagree nor agree – 4, Agree – 5, Somewhat agree – 6, Strongly agree – 7)

Statements	**1**	**2**	**3**	**4**	**5**	**6**	**7**
I would spend time to provide necessary information for the checkout process							
I would have a high level of participation in the checkout process							
I would be very much involved during the checkout process							
I would be worrying about what I am expected to do							
I would need to strain to complete the checkout process							
I would not be able to overcome the difficulties during the checkout process							

I would enjoy the checkout experience							
I would not lose confidence in myself during the checkout experience							
I would be frustrated with the checkout experience							
I would be reasonably happy with the overall checkout experience							
I would be anxious during the checkout process							
I would be depressed during the checkout process							
I would be enthusiastic when performing the checkout process							
I would know a lot about the checkout process							
I would have adequate knowledge regarding the checkout process							
I would know everything about the checkout process							
The checkout process involved many distinct steps							
The checkout process required processing a lot of information cues							
The order of the steps for the checkout process was confusing							
The steps involved in the checkout process were uncertain							
The quality of the overall shopping experience was good							
The quality of the overall shopping experience was excellent							
The quality of the overall shopping experience was above expectation							
I am satisfied with the overall shopping experience							
I am delighted with the overall shopping experience							
I am unhappy with the overall shopping experience							
I would consider the overall shopping experience to be of great value to me							
I believe this helped to enhance the value received during the overall shopping experience							
The value received during the overall shopping experience outweighed the time I had to expend							
The value received during the overall shopping experience outweighed the effort I had to expend							

The overall shopping experience was engaging							
The overall shopping experience was enjoyable							
The overall shopping experience was memorable							

1. What is your gender?
    a. Male
    b. Female
    c. Others

2. What is your age?
    a. Below 21
    b. 21 – 30
    c. 31 – 40
    d. 41 – 50
    e. 51 – 60
    f. 61-70
    g. 71-80
    h. Above 80

3. What is your current marital status?
    a. Married
    b. Single
    c. De facto
    d. Divorced
    e. Widowed

4. What is your household size?
    a. Live alone
    b. Two
    c. Three
    d. Four
    e. Five
    f. Six
    g. Seven
    h. More than seven

5. Who accompanies you for shopping at <supermarket>?
    a. None
    b. Family member
    c. Friends
    d. Colleagues
    e. Others (please specify)

6. What is the amount you shop at <supermarket>?
    a. Less than 50 A$

b. 50 – 100 A$
c. 101 – 150 A$
d. 151 – 200 A$
e. More than 200 A$

7. Are you a last-minute shopper?
    a. Yes
    b. No

8. Are you a loyalty member at <supermarket>?
    a. Yes
    b. No

9. In which country were you born?

10. What is your ethnic and cultural origin?

11. How long have you been in Australia?
    a. Less than two years
    b. 2 – 4 years
    c. 5 – 7 years
    d. 8 – 10 years
    e. More than ten years

12. What is your highest level of education (completed)?
    a. Primary School
    b. High School
    c. TAFE/Other Vocational Courses
    d. Bachelor's degree (this includes Honours)
    e. Masters/Other Postgraduate Degree
    f. Others (please specify)

13. What is your current occupation?

14. What is your monthly income?
    a. Less than A$1000
    b. A$1000 – A$2000
    c. A$2000 – A$3000
    d. A$3000 – A$4000
    e. A$4000 – A$5000
    f. A$5000 – A$6000
    g. A$6000 – A$7000
    h. A$7000 – A$8000
    i. Greater than A$8000
    j. I do not wish to specify

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RESEARCH OUTPUT

JOURNAL PUBLICATION

Asokan, A. A., P. Sharma, R. P. Kingshott, U. K. Maurya, and **A. Kaur** (2019). Customer participation and service outcomes: mediating role of task-related affective well-being. *Journal of Services Marketing*, **33**, 16-30. (ABDC ranking – A, Impact factor 2017 – 2.408, Citescore 2018 – 3.65)

CONFERENCE PROCEEDINGS AND PRESENTATIONS

International Held:

Asokan, A. A., P. Sharma, R. P. Kingshott, and **A. Kaur** (2020). Is affective well-being important for self-service encounters? An empirical study considering the role of task complexity and knowledge. In *49th EMAC Annual Conference* May 27 – 29, 2020, Budapest, Hungary: The European Marketing Academy. (Accepted)

Asokan, A. A., P. Sharma, R. P. Kingshott, U. K. Maurya, and **A. Kaur** (2019). To do or not to do? Exploring the focal role of affective well-being in customer participation. In *AMA Summer Academic Conference* Aug 9 – 11, 2019, Chicago, IL, USA: American Marketing Association.

National Held:

Asokan, A. A., P. Sharma, R. P. Kingshott, and **A. Kaur** (2020). Role of task-related affective well-being in customer participation. In *4th International Conference on Marketing, Technology, and Society*, Apr 17 – 19, 2020, Chennai, India: Indian Institute of Management Kozhikode. (Accepted)

Asokan, A. A., P. Sharma, R. P. Kingshott, U. K. Maurya, and **A. Kaur** (2018). Mediating role of task-related affective well-being in the influence of customer participation on service outcomes. In *12th Great Lakes NASMEI International Marketing Conference*, Dec 20-21, 2018, Chennai, India: Great Lakes Institute of Management.

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