EXAMINING POTENTIAL CRUISE PASSENGERS' LOYALTY TO THE CRUISE INDUSTRY POST COVID-19

A Thesis

by

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ABSTRACT

The purpose of this thesis project is to investigate past cruise passengers' loyalty to the cruise industry post-COVID-19. Specifically, the intent is to examine how well the investment model explains cruise passengers' loyalty with the inclusion of information satisfaction in the model. Hence, the roles of (a) information satisfaction, (b) their satisfaction with the cruise industry, (c) the perceived quality of alternatives, and (d) the investment they have with the cruise industry will be used to explain past cruise passengers' current loyalty to the cruise industry.

The conceptual model proposed that information satisfaction positively correlates with satisfaction with the brand. Satisfaction with the brand, quality of alternatives and investment positively correlates with brand loyalty. The results suggested that the research was supported, cruise passengers' loyalty to a cruise brand had a significant and positive influence on their satisfaction with information (β=.301) followed by quality of alternatives which had a signification negative influence (β=-.030). Consistent with previous findings, the current research found that investment size played a significant and positive role in a cruise passengers' loyalty to a cruise line (β=.94). However, satisfaction with the brand did not significantly predict brand loyalty (β=.207). The result also reviewed that information satisfaction had an indirect impact on brand loyalty (β=.052).

The theoretical implications of the current research suggests that information satisfaction should be included in the determination of the overall customer satisfaction. The practical implication aims at offering the cruise industry and cruise brands insights on how to capture their customers' investment.

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TABLE OF CONTENTS

Page

Page

LIST OF FIGURES

FIGURE page

LIST OF TABLES

TABLE Pages

CHAPTER I INTRODUCTION

Study Background

Historically, the cruise industry has been committed to delivering quality service to its customers (Chiou, Chao, & Hsieh, 2020). Nonetheless, service failures are unavoidable due to the industry's vulnerability to potential crises (Chiou et al., 2020). This commitment to delivering quality service will likely be more critical than ever when cruisers start to travel post-COVID-19. The cruise industry is especially vulnerable to crisis, as the ripple effect can go beyond the particular cruise line affected and affect the entire industry. Unfortunately, the nature of cruise travel (with many travelers from different countries interacting in an enclosed space) makes infectious diseases such as the COVID-19 virus easily transmittable (Dahl, 2020). Thus, both service recovery and repair of the industry's image will likely be challenging in a post-COVID-19 pandemic environment.

The Coronavirus pandemic (COVID-19) took the tourism industry by surprise and disrupted travel globally (UNWTO, 2020). The industry started to shut down as early as January 2020 (sailings out of China), with most cruise lines shutting business completely down in March 2020 when directed to do so by the CDC (Clarke, 2020, Jang & Wen, 2020). COVID-19 impacted most of the travel and tourism industry, which was exacerbated by social distancing rules and travel bans (Gössling, Scott & Hall 2020).

Even though there was some optimism that tourism might bounce back at the announcement of the first COVID-19 vaccine on November 9, 2020 (CNN, 2020), the industry's outlook remains uncertain. The World Tourism Organization has predicted that tourism will not

return to 2019 levels in terms of international arrivals until 2021-24 (UNWTO, 2020). Many countries have promoted domestic travel in the interim to help cushion the pandemic's adverse effects on the tourism industry (OECD, 2020).

There are multiple examples of how crises can impact the tourism industry and the cruise segment in particular. The Ebola case of 2014/2015 (Novelli et al., 2018), the 'Costa Concordia' grounding 2012 (Ryschka et al., 2016), and the outbreak of the (COVID-19) pandemic on board the 'Diamond Princess' cruise ship are just a few that have received worldwide media coverage. Additionally, the case involving United Airlines' overbooking crisis of 2017 lacked timely, accurate, and consistent information to customers, which triggered the spread of negative word of mouth (Ma et al., 2019). According to agenda-setting theory, reporting of a particular news item repeatedly by the news media can control what the public thinks and negatively impact the image of the affected brand(s) (Schroeder et al., 2018). It has also been argued that the media engage in sensational and negative reporting of tourism-related disaster events (Wahlberg & Sjoberg, 2000), while others have refuted this argument (Walters, Mair, & Lim, 2016).

Research on crisis and recovery is abundant. While some have identified the important role of service employees in service recovery (Skaalsvik, 2011), others have suggested using social media as a communication channel during service failure (Han, Sung & Kim, 2018). The existence of a gap in the communication strategies often employed by the industry can also pose a challenge to cruise passengers seeking travel-related information (Liu-Lastres et al., 2019). Despite the increasing research focusing on service failure, it has remained unclear which approach will best result in service recovery. Some have identified that the most affected aspect is the relationship between the service provider and customers and have called for efforts to maintain future relationships (Edvardsson & Strandvik, 2000). Others have applied "justice

theory" to service failure and suggested that the most effective recovery strategy involves compensation (Migracz, Zhou & Petrick, 2018).

Based on this premise, the current research aims to examine the role of brand loyalty in service recovery by focusing on the cruise industry. This study will be guided by the Investment Model (Rusbult, 1980). The model states that satisfaction with a relationship depends on comparing the value attached and costs/benefits to the individual's expectation, while commitment to the relationship depends on the quality of the best available alternatives and the relationship's investment. This model is an extension of the interdependence theory that analyzes relationship commitment as a function of (1) relationship satisfaction, (2) quality of alternatives, and (3) investment size (Rusbult, Martz & Agnew, 1998).

Purpose of Study

Research has consistently found that service failures negatively impact the relationship between the service provider and customers (Bolkan, Goodboy & Bechman, 2012). Though research focusing on service recovery is abundant, the effectiveness of the actions of service providers in addressing service needs further research (Skaalsvik, 2011). In addition, not much is known about how the information provided by the company impacts potential customer loyalty. Hence, this thesis attempts to identify the determinants of brand loyalty during the COVID-19 pandemic.

Objectives

The current research employed the investment model, to determine to what extent information satisfaction as an antecedent of satisfaction with the brand accurately predicted brand loyalty (cruise passengers' loyalty to the industry). According to the investment model, commitment to

relationships depends on satisfaction, quality of alternatives, and investment size (i.e., invested resources) (Rusbult, 1980; Rusbult et al., 1998). This model has been utilized by multiple areas of study, including the determination of tourists' customer brand loyalty (Li & Petrick, 2008).

Research conducted by Spreng, MacKenzie & Olshavsky (1996) revealed the importance of consumers' satisfaction with information provided in determining overall satisfaction with products and/or services (Spreng, MacKenzie & Olshavsky, 1996). Hence the current study postulated:

Hypothesis 1: A cruise passenger's satisfaction with a cruise brand will be significantly and positively influenced by information satisfaction.

As discussed above, the investment model has been used across multiple disciplines to explain relationships. The model has consistently shown that: (a) satisfaction with the relationship, (b) investment, and (c) quality of alternatives are strong predictors of relationship loyalty. Hence the current study will examine the following hypotheses:

Hypothesis 2: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by satisfaction with the brand.

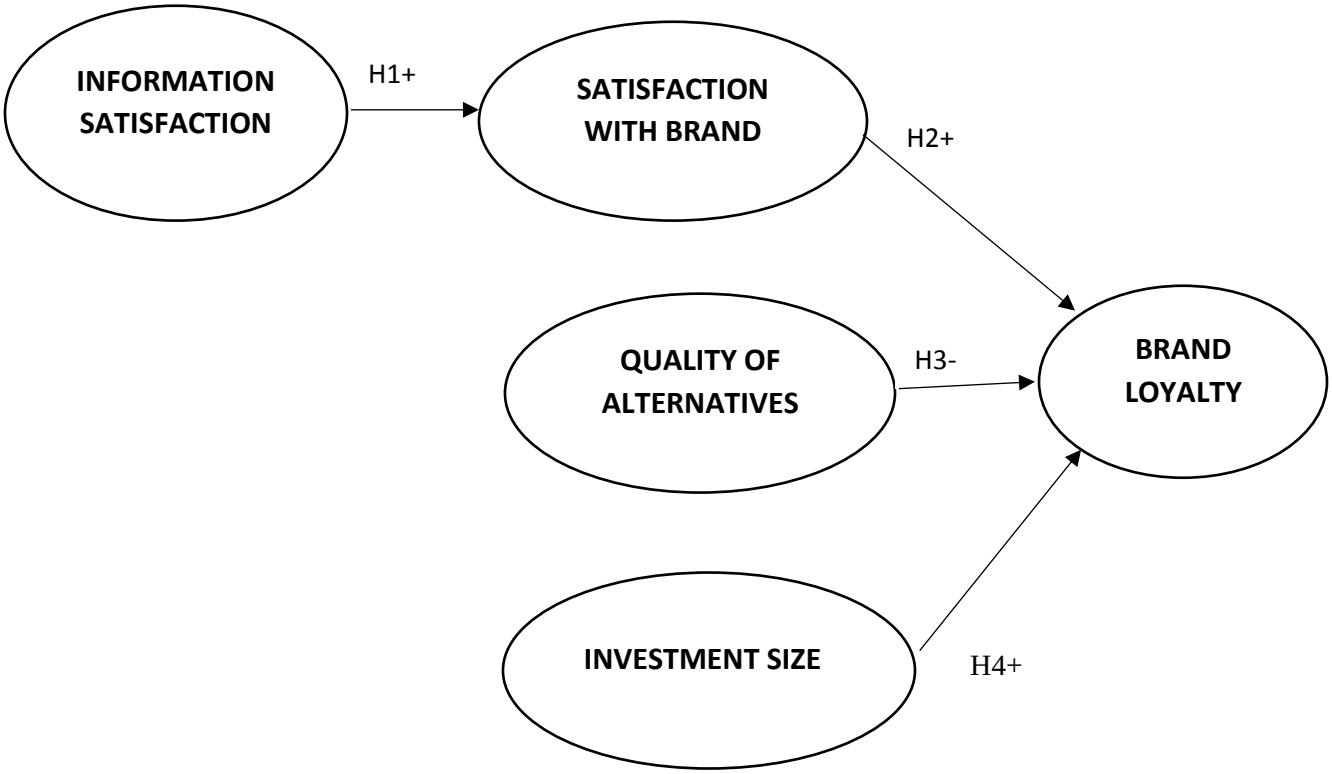
Hypothesis 3: The perceived quality of alternative options will significantly and negatively influence a cruise passenger's loyalty to a cruise line, and

Hypothesis 4: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by his or her investment size.

Based on the literature discussed above, the proposed conceptual model is presented in Figure 1.

Figure 1

Proposed Conceptual Model



Delimitations

This research is subject to the following delimitations:

1. This study will be delimited to the American cruise market as there are likely large differences in perceptions between passengers from other areas of the world.
2. This study will delimit the population to those 25+ years of age, $40,000+ household income size as that is the target market for the U.S cruise industry (Cruise Line International Association, 2011).

Limitations

This research is subject to the following limitations:

An online panel survey was used for collecting the data because online survey has a quicker response rate compared to other forms of survey (Dolnicar, Laesser and Matus, 2009) and has become a sophisticated survey method in tourism and hospitality studies (Hung and Law, 2011). Since an online panels are made up of those who have registered with an online panel company or have access to the internet, those with limited internet access or who are not part of an online panel will be excluded. Therefore, the result will not be representative of the whole U.S. population. The study only examines brand loyalty in service recovery for U.S. residents; hence it is context-specific and might not be able to be generalized to other cruise settings. The result of this research is deemed limited in scope as the survey focused on the names of the 3 leading cruise lines (Royal Caribbean Cruise line, Norwegian Cruise Line and Carnival Cruise Line (Antonellini, 2021), while the rest of the cruise lines were classified as “others.”

Definitions

For this research, *Information Satisfaction* is defined as "a subjective satisfaction judgment of the information used in choosing a product" (Spreng, MacKenzie & Olshavsky, 1996, p. 18).

Satisfaction level refers to the positive versus negative affect experienced in a relationship (Rusbult, Martz & Agnew, 1998, p. 359).

Quality of Alternatives “refers to the perceived desirability of the best available alternative to a relationship" (Rusbult, Martz & Agnew, 1998, p. 359).

Investment Size "refers to the magnitude and importance of the resources that are attached to a relationship" (Rusbult, Martz & Agnew, 1998, p. 359).

Service Recovery "is about using tools to turn a mistake into a positive and profitable situation" (Gustafsson, 2009, p. 1220).

Loyalty is defined as the "pledging or binding of an individual to his/her brand choice" (Bloemer & Kasper, 1995, p. 314).

A cruise passenger is defined as anyone who has taken or expressed interest in taking a cruise within a three years period (CLIA, 2011) and indicate an average cruise duration of up to 3 days to 21 days plus (CLIA, 2019).

Organization of the Thesis

This thesis will examine information satisfaction, satisfaction with the brand, perceived quality of alternatives, and investment size. Chapter I introduced the study's purpose, conceptual

model, delimitations, limitations, and operational definitions. Chapter II will review research relevant to the current study, while III discusses theories which have been used to guide the study. Chapter IV explains the methodology applied to explore the research propositions. Chapter V has the details of the descriptive results of the study. Chapter V1 details the result of the hypotheses tested. Concluding, Chapter V11, summarizes the findings and provides practical implication to the field with suggestions for future research.

CHAPTER II

LITERATURE REVIEW

This chapter reviews literature that pertains to the current investigation by synthesizing the relevant findings related to each of the study's variables. The first section reviews the exogenous variables, while the second section reviews the endogenous variable.

Information Satisfaction

Information satisfaction has been defined as a subjective satisfaction judgment of the pre-purchase information used in choosing a service (Spreng, MacKenzie, and Olshavsky, 1996). Satisfaction with the information consumers receive about products and services has been found to be related to whether the information meets their expectations (Spreng, MacKenzie, and Olshavsky, 1996). Further, satisfaction with information has been found to play a critical role in consumer satisfaction (Anderson, 1973).

In the context of travel, tourists seeking travel-related information often use search engines such as Google, and social media websites (Xiang & Gretzel, 2009), including virtual communities, to aid their search for information (Shim et al., 2001). Kin, Lee and Hiemstra (2004) described virtual communities as groups of people with similar interests built on the exchange of information, relationship, and even for economic exchange and self-identification through the means of information technology (Kin, Lee and Hiemstra, 2004). In a descriptive analysis, Xiang & Gretzel (2009) found that virtual communities represented 40% out of 1,150 social media sites surveyed (p. 184). Also, Alcántara-Pilar et al. (2018) found that 74% of

tourism-related information searches were conducted via the internet. Hence, the internet and social media play important roles in tourists' decision-making processes.

Information dissatisfaction can cause individuals to compare and weigh alternatives and can play a critical role in information-related travel decisions because tourism is known as an information-intense industry (Xiang & Gretzel, 2009). It has further been found that individuals search for information to minimize cost and maximize benefits in making travel decisions (Shim et al., 2001). According to the economics of information principle, customer satisfaction results when the costs of information equals the benefits of the information search (Stigler, 1961). Furthermore, the higher the purchase perceived risk, the more information people will likely seek (Shim et al., 2001).

Spreng, MacKenzie, and Olshavsky (1996) examined the role that information satisfaction has in determining overall satisfaction with a brand. They found that the satisfaction consumers had with the information received was a strong antecedent of their overall satisfaction. Similar to Spreng, MacKenzie, and Olshavsky (1996) the current study will measure information satisfaction with four items on a seven-point scale anchored by "very dissatisfied" and "very satisfied," with indifferent (neither satisfied nor dissatisfied) as the midpoint. The cruise lines that respondents were most loyal to were incorporated into the statements (i.e. the cruise line that respondents chose as most loyal to were carried forward into the questions to remind them of their choices as they responded to the statements in each construct of interest). The scale is made up of the following questions:

How satisfied are you with the QUALITY of information you received from {{name}} during the COVID-19 pandemic?

How satisfied are you OVERALL with the information you received from {{name}} during the COVID-19 pandemic?

How satisfied are you with the extent to which the information you received from {{name}} during the pandemic MET YOUR NEEDS for information about cruising with that cruise line?

How satisfied are you with the FREQUENCY with which you received information from {{name}} during the pandemic?

Satisfaction with the Brand

The marketing literature is replete with research on satisfaction because of the fundamental role satisfaction can play in customer retention (Spreng, MacKenzie, and Olshavsky, 1996). The satisfaction-commitment relationship explained by the investment model might help our understanding of satisfaction in other domains and the overall satisfaction measurement. Satisfaction has been suggested to be the consumer's sense that consumption provides outcomes against a standard of pleasure versus displeasure (Oliver, 1999). Much of the literature has shown that satisfaction influences future purchases, which depends on the consumer's pre-purchase expectations and whether the product or service meets, exceeds, or performs to their expectations (Oliver, 1980). Lee Kim and Pan (2013) suggest that satisfaction is either cognitive or emotional. Cognitive satisfaction results in the consumer's evaluation based on prior expectation with the actual product or service performance, while the emotional satisfaction is the short-term customer expectation with the evaluation of a single product or service encounter (Lee, Kim and Pan, 2013). It has been shown that consumers use various aspects of products and services in evaluating their experience (Kang, Kwan & Hahm, 2020). Particularly, cruise passengers use the physical attributes and services (e.g., food, entertainment, physical environment, and facilities) onboard the cruise ship in evaluating their experience with the brand and their satisfaction will be elevated when their experience exceeds corresponding expectations (Kang, Kwan & Hahm, 2020).

Bloemer and Kasper (1994) suggested that consumer satisfaction is of two types; (1) latent satisfaction and (2) manifest satisfaction. They further argued that the relationship between satisfaction and brand loyalty involves commitment, which is necessary for true brand loyalty to emerge which is different from spurious loyalty, which does not involve a commitment to the brand (Bloemer & Kasper, 1994).

The measurement of overall satisfaction with brand in the current study was adopted from Spreng, MacKenzie, & Olshavsky (1996). Spreng et al. measured overall satisfaction on a four-item-seven-point scale anchored by very satisfied to very dissatisfied. The cruise lines that respondents were most loyal to, was incorporated into the statements by means of pipped question (i.e. the cruise line that respondents chose as most loyal was carried forward into the questions to remind them of their choices as they responded to the statements in each construct of interest). Satisfaction with the brand scale are:

How satisfied are you in choosing {{name}}?
Are you satisfied with your decision in choosing {{name}}?
How would you rate your experience with {{name}}?
How would you rate your overall satisfaction with {{name}}?

Quality of Alternatives

Quality of alternatives refers to the perceived desirability of the best available alternatives to a relationship. Hence, quality of alternatives is based on the extent to which the individual's most important needs could effectively be fulfilled "outside" the current relationship (Rusbult, 1998, p. 359). Similarly, consumer buying behavior studies have revealed that consumers evaluate competitors against the quality of alternatives prior to purchasing a product or service (Moon & Bonney, 2014). Consumers' evaluation of the resources needed to switch products has

been regarded as switching costs, while the constraints to switching has been defined as switching barriers (Han, Back & Kim, 2011). They suggested that high switching costs and low quality of alternatives may trap customers into a loyal relationship with their current brand (Han, Back, & Kim, 2011).

The current study measured quality of alternatives on a "global item" scale that Li & Petrick (2008, 2010), modified from the Rusbult (1998) scale. The scale includes five items measured on a five-point Likert-type scale anchored by (1) strongly disagree to (5) strongly agree. The cruise lines that respondents were most loyal to, was incorporated into the statements by means of pipped question (i.e. the cruise line that respondents chose as most loyal was carried forward into the questions to remind them of their choices as they responded to the statements in each construct of interest). The scale is comprised of the following items:

Cruise lines other than {{name}} are very appealing to me.

Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising, etc.) are available to me.

If I weren't cruising with {{name}}, I would do fine-I would find another equally good cruise line.

Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising etc.) are close to ideal.

My cruising needs could easily be met by a cruise line other than {{name}}.

Investment Size

Like satisfaction and quality of alternatives, investment size has been found to aid in understanding relationship loyalty. Investment size refers to the resources attached to a relationship (Rusbult, 1998). Investments can be either direct or indirect. Direct investments include: time, emotions, and sacrifices made on account of the relationship. On the other hand, indirect investments cannot be directly linked to the relationship but are in some way connected

to the relationship, such as sharing mutual friends, shared memories, and possessions (Rusbult & Buunk, 1993). As a result of investments, persons are likely to exhibit particular behaviors towards sustaining the relationship, such as tolerance, patience, willingness to make sacrifices, and forgiving others' shortcomings (Rusbult & Buunk, 1993).

Resource investments have been shown to cushion service failures' outcomes (Bolkan et al., 2012). While investment size was originally conceptualized in the social psychology literature (Rusbult, 1998b), it has also been used in the relationship marketing (Day, 2000; Sung & Choi, 2010; Moon & Bonney, 2014; Popp et al., 2015; Schlosser, White & Lloyd, 2006) and tourism literatures (Li & Petrick, 2008; Qiu & Cai, 2021).

Investment size has consistently been found to be an antecedent of tourists' loyalty and interpersonal relationships (Han & Hyun, 2019; Zillifro & Morais, 2004). Zillifro and Morais developed subscales, Providers' Perceived Resource Investment (PPRI), and Customers Reported Resource Investment CRRI). These subscales were used to measure information investment between customers of a whitewater rafting outfitter and the service provider (Morais, Backman, & Dorsch, 2003). Their results reviewed that the more the information was exchanged between the customer and provider (i.e., investment of information), the higher the trust in the service provider.

The current study measures investment size adopted from the scales developed by Rusbult (1998). The scale includes five items measured on a five-point Likert-type scale anchored by (1) strongly disagree to (5) strongly agree. The cruise lines that respondents were most loyal to, was incorporated into the statements by means of pipped question (i.e. the cruise line that respondents chose as most loyal was carried forward into the questions to remind them

of their choices as they responded to the statements in each construct of interest). The scale includes the following questions:

I would lose my relationship with {{name}} if I moved to another cruise line.
I will always use {{name}} because of my relationship with this cruise line.
My future vacations are firmly attached to {{name}}.
Compared to other cruise lines, I have invested substantially more time and money in {{name}}.
I will continue to invest time and money traveling with {{name}} because I receive a special treatment.

Brand Loyalty

Research has consistently shown the importance of understanding how individuals form loyalty to brands (Pritchard & Howard, 1999). Brand loyalty has been defined as "a deeply held commitment to re-buy or re-patronize a preferred product/service consistently in the future, despite other situational and marketing factors that have the potential to induce switching behavior" (Oliver, 1999, P. 34). The current study aims to understand the concept of loyalty in a post-COVID-19 environment.

While multiple loyalty dimensions have been studied, most scholars have agreed that it is composed of both attitudinal loyalty and behavioral loyalty (Li & Petrick, 2008; Pritchard & Howard, 1999; Amina, 1998). Attitudinal loyalty has been defined as an affective disposition or intention to repurchasing a brand, while behavioral loyalty has been defined as consistently patronizing a brand (Dick & Basu, 1994).

Multiple researchers have classified consumers into a four-quadrant typology based on their attitudinal and behavioral loyalty (Backman & Crompton, 1991; Dick & Basu, 1994; Pritchard and Howard, 1997). These researchers defined loyal travelers as those who demonstrated a high degree of attitudinal attachment and behavioral patronage with a service

provider. Spurious loyal travelers indicated a high level of behavioral patronage but with a low degree of attitudinal attachment. Latent loyal travelers were those who had a strong attitudinal attachment to the travel service, but factors such as price, location led to their low patronage. They referred to loyal travelers as individuals who exhibited both low attitudinal loyalty and behavioral patronage (Backman & Crompton, 1991; Dick & Basu, 1994; Pritchard & Howard, 1997).

Migacz, Zou & Petrick (2018) investigated the effect of service failure on airlines and found that loyal participants had much higher repurchase intentions than disloyal participants and that service recovery could be a firm's "last defense" at discouraging customer defection in the event of service failure (p. 84). Additionally, in the cruise industry, loyalty has been suggested to moderate service recovery (Chiou, Chao & Hsieh, 2020). As mentioned previously, since cruises place thousands of individuals in a small space and receive heavy media coverage (Liu, Pennington-Gray & Krieger, 2016), a single mishap can spread in a matter of seconds (Migacz, Zou, & Petrick, 2018).

Failures not mitigated effectively have been found to result in a loss of customer loyalty and market share (Migacz, Zou & Petrick, 2018). Hence, it has become important for cruise providers to understand how to manage service failures effectively. One of the main criticisms of loyalty measurements has centered on adopting only behavioral loyalty measures, which some argue lacks a conceptual basis and does not consider the underlying elements behind consumer decisions (Bloemer, Ruyter & Wetzels, 1998). In tourism contexts, the measurement of loyalty as both behavioral and attitudinal loyalty has been widely accepted (Backman & Crompton, 1991; Iwasaki & Havitz, 2004; Petrick, 2005). The current study measure of loyalty is adapted from (Pritchard & Howard, 1997). They measured brand loyalty as behavioral (purchase-related)

and attitudinal loyalty, using four-item anchored on a seven-point scale of agreement (1 = Very strongly disagree, 7 = Very strongly agree) to a set of statements that reflect either purchase-related or attitudinal aspect of brand loyalty. The cruise lines that respondents were most loyal to, was incorporated into the statements by means of pipped question (i.e. the cruise line that respondents chose as most loyal was carried forward into the questions to remind them of their choices as they responded to the statements in each construct of interest). The brand loyalty scale are:

I will sail with {{name}} the next time I buy a cruise trip.
I intend to keep purchasing from {{name}}.
I am very deeply committed to {{name}}.
I would be willing to pay a much higher price for {{name}} instead of cruising with another line.

CHAPTER III

CONCEPTUAL FRAMEWORK

This chapter presents the theories which guide the current study and result in the conceptual model. In this chapter, social exchange theory and social identity theory are first introduced. Next, an explanation of the investment model grounded in social exchange theory is discussed. The proposed relationships between information satisfaction and satisfaction with the brand, quality of alternatives, investment size, and brand loyalty in the conceptual model and their subsequent hypotheses are presented. The last section describes the investment model and applies the model to the field.

Social Exchange Theory

Social Exchange Theory (SET) suggests that interactions between individuals involve some kind of exchange, be it goods, materials, and/or non-material resources. The theory states that "the more valuable the sentiment or activity the members exchange with one another, the greater the average frequency of interaction of the members" (Homans, 1953, p. 599). Exchange theory argues that people attempt to minimize their costs while maximizing profit, known as their cost/benefits. The theory has gained popularity in the understanding of the brand-customer transactions (Dorse & Carlson, 1996).

SET has also been shown to be effective in explaining organizational relationships. SET has been found to be at the core of online community participants' commitment to an online community (Jin, Park & Kim, 2010). The nature of cruise travel has also shown that passengers actively engage in forms of social exchange while onboard as they engage with fellow

passengers and the crew (Kang, Kwan & Hahm, 2020). These exchanges interactions provide opportunities for learning from other customers and employees which can contribute to the overall experience.

Social Identity Theory

Social identity is a framework that helps explain a person's knowledge or choice that he or she belongs to a social category or group (Stets & Burke, 2000, p. 225). Social identity emanates from an individual's sense of self to others based on a shared common identity (Stets & Burke, 2000). An individual develop a sense of self and define one's self by the attributes and values of the group, association or organization (Kang, Brashear-Alejandro and Groza, 2015). The theory recognizes the concept of resources (things that sustain persons and interactions) as central to group identity (Stets & Burke, 2000). In terms of customer-company identification, customers associate themselves with a company's attribute that they find desirable such as social status by participating in loyalty programs as a means to establish their distinctiveness from other customers (Kang, Brashear-Alejandro and Groza, 2015).

Some researchers have described leisure/tourism consumption to involve psychological attachment, a type of social identity (Dimanche & Samdahl, 1994). Further, customers seeking socio-psychological identification such as symbolic benefit have been shown to switch to a new brand (Lam, 2010). These consumers often associate themselves with a brand and see themselves as partners with that brand and other brand members (Sung & Choi, 2010). An example of this is sports fans' identification with sports clubs by identifying themselves with the club's symbols (Gladden & Funk, 2001) and as a form of social prestige (Dimanche & Samdahl, 1994).

Finally, social identification has been shown to motivate an individual's participation and engagement in an online brand community, which can form a social connection with like-minded

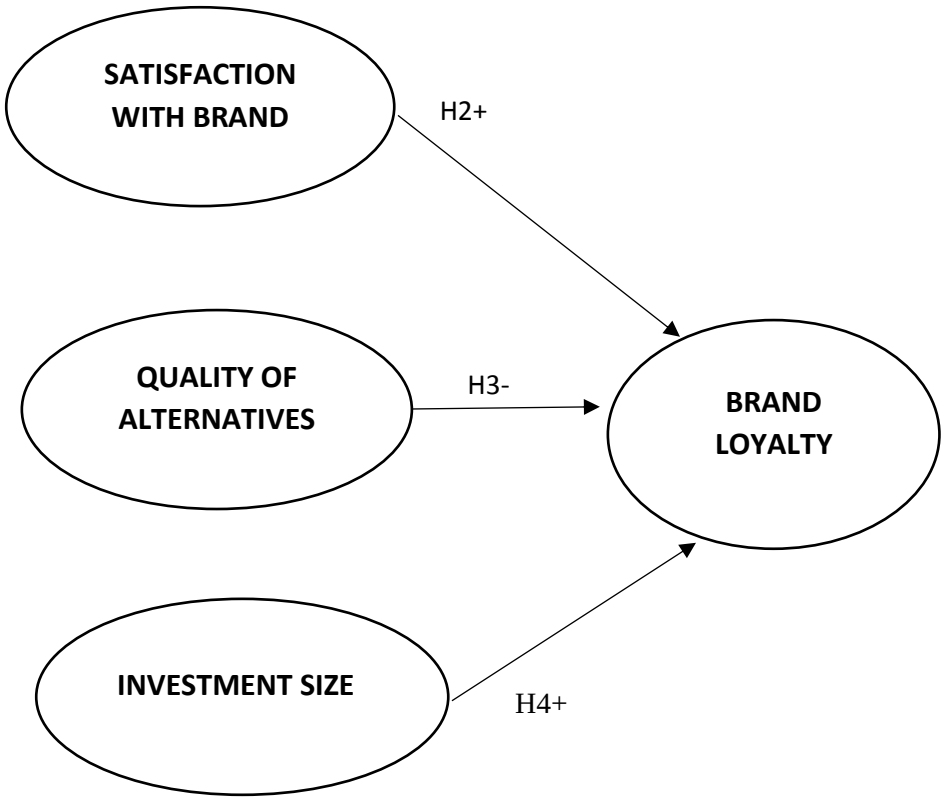
people with whom they share a joint brand affiliation (Kaur et al., 2020). In the case of cruise trips, which normally last for multiple days in a confined environment, passengers have ample opportunity to develop an emotional bond and self-identify with the brand (Kang, Kwan & Hahm, 2020).

The Investment Model

One model that is believed to be useful in explaining the development of brand loyalty is the Investment Model (IM). The IM has historically been used to explain relationships between people and suggests that satisfaction with the relationship, investments in the relationship, and the quality of alternatives one has to the relationship.

Figure 2

Structure of the Investment Model



Within the investment model, "satisfaction level refers to the positive versus negative affect experienced in a relationship, quality of alternatives refers to the perceived desirability of the best available alternative to a relationship, and investment size refers to the magnitude and importance of the resources that are attached to a relationship" (Rusbult, Martz & Agnew, 1998, p. 359). The investment model has been applied in other domains such as relationship marketing

(Ryu & Lee, 2017; Bagozzi, 1995; Day, 2000), online communities (Benoit (née Moeller) et al., 2016).

The investment model has been suggested to center on resource exchange between parties in a relationship (Day, 2000). Further, this is in line with relationship marketing principles, which refers to "all marketing activities directed toward establishing, developing and maintaining successful relational exchanges" (Szmigin, Canning & Rappel, 2005, p. 481).

The investment model is an off-shoot of 'interdependence theory' (Rusbult & Buunk, 1993). The theory has a fundamental notion that individuals engage in a relationship and maintain the relationship's continuity because of the rewards and costs associated with the relationship (Rusbult & Buunk, 1993). According to Rusbult & Buunk (1993), the investment model, which is linked to social exchange, provides a universal explanation of why people commit to relationships and make an effort to maintain them. The investment model proposes that relationships can still thrive even for individuals who are not satisfied in their relationship, if the quality of the available alternatives to the relationship are low and the investments made in the relationship are high (Rusbult & Buunk, 1993).

Several fields of study have sought to understand the notion of investment, such as relationship marketing (Ryu & Lee, 2017; Moon & Bonney, 2014; Shemwell, Yavas & Bilgrin, 1998), organizational behavior (Anderson & Naru, 1990; Moon & Bonney, 2007) and leisure and tourism (Meyers & Allen, 1984). In the tourism literature, the investment model has been found to be useful in examining traveler's relationship satisfaction (Durko & Petrick, 2016), brand loyalty (Li & Petrick, 2008), travel motivations (Han & Hyun, 2019), and tourist behavior (Qiu & Cai, 2021).

Rusbult and Farrell (1983) applied the investment model to examine job satisfaction. It was shown that individual's evaluation of their job satisfaction was based on whether the job provided a higher reward and a low cost to the individual (Rusbult & Farrell, 1983). Job satisfaction was found to depend on the reward and not necessarily based on the job itself. Hence, the investment model has helped to explain how consumers form a relationship with a brand (Lee, Kim & Pan, 2013).

Similarly, consumer equity has been shown to influence consumers' relationship with their service provider (Dorsch & Carlson, 1996). Customer's equity is typically based on the consumers' belief that they are investing in the provider and that such investment will be rewarded. As satisfaction increases, the relationship between the parties gets strengthened (Dorsch & Carlson, 1996).

Similarly, customers' investment of resources in the provider has been found to depend on the perceived special treatment received from the provider, by which the customer feels obligated to reciprocate by repeating their purchase (Morais, Kersteter & Yarmal, 2006). As these customers make more investments, they become bonded and dependent on the provider to protect their investment (Morais, Kersteter & Yarnal, 2006).

Hypotheses

As travelers seek ways to maximize benefits and minimize costs by reducing choices (Bagozzi, 1995), the benefits of accurate information searches have become more important (Cho & Jang, 2008; Bieger & Laesser, 2004). Customers search for information by seeking available alternatives to a given product or service (Cho & Jang, 2008), consider information as having a premium value in unpredictable circumstances and by which they evaluation a service

(Jeong & Hyun, 2019). Thus, a consumer's satisfaction with a brand will likely be based on the benefits that the consumer seeks and the information they search. Hence, the current study postulates:

Hypothesis 1: A cruise passenger's satisfaction with a cruise brand will be significantly and positively influenced by information satisfaction.

The literature has consistently shown a strong relationship between satisfaction and loyalty (Rusbult and Farrell, 1983; Sung and Campbell, 2007; Li & Petrick, 2008), and satisfaction has even been suggested to be the strongest determinant of loyalty. Further, satisfaction with a relationship (whether with another person or a company) has consistently been found to explain much of the variance in the loyalty to that relationship (Rusbult, 1980; Anderson and Naru, 1990; Moon and Bonney, 2014, Durko and Petrick, 2016). It is therefore proposed:

Hypothesis 2: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by satisfaction with the brand.

Cruise passengers have multiple different cruise lines from which to choose. Thus, there is a high quality of alternatives offered. Research using the investment model has consistently shown that the quality of alternatives helps to explain relationship loyalty (Rusbult, 1980; Meyer and Allen, 1984; Rusbult and Buunk, 1993), vacation satisfaction to relationship commitment (Durko and Petrick, 2016), and tourism brand loyalty (Li and Petrick, 2008). Hence the current study postulates:

Hypothesis 3: The perceived quality of alternative options will significantly and negatively influence a cruise passenger's loyalty to a cruise line.

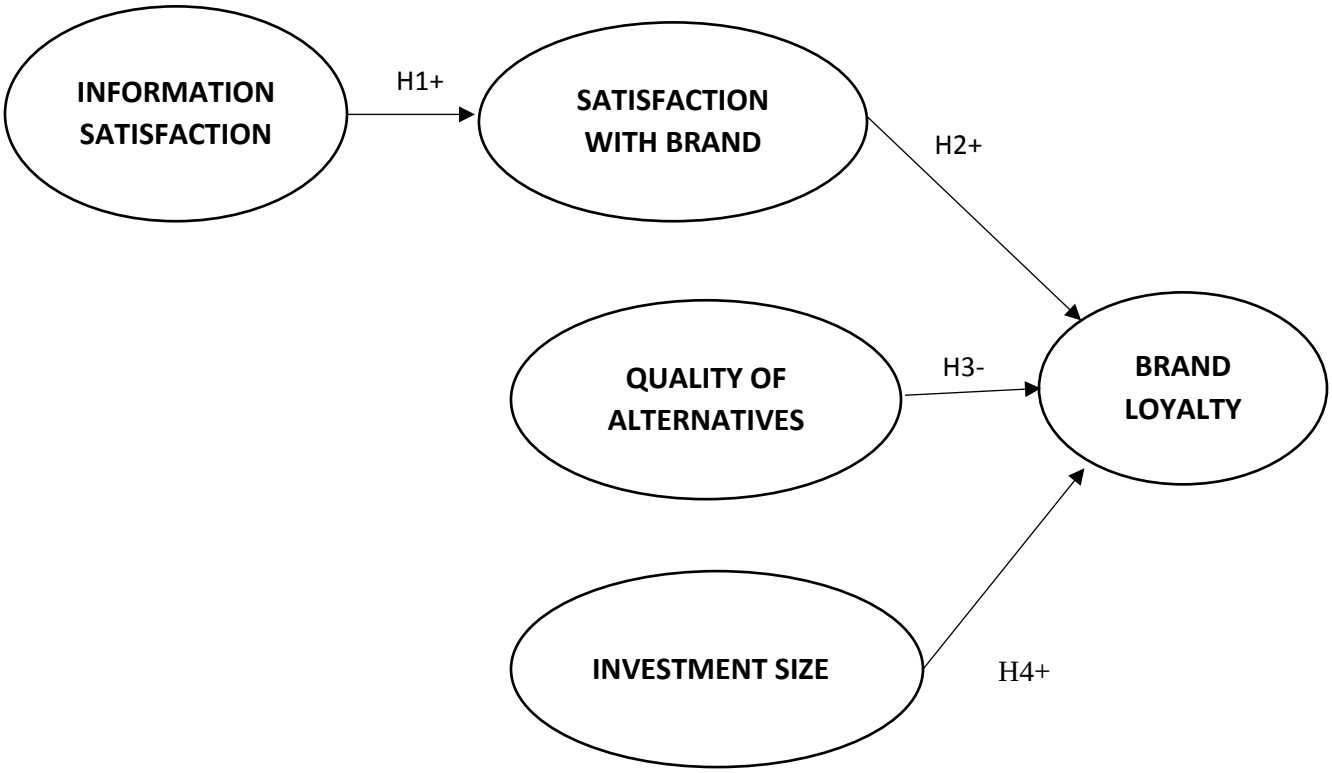
Social exchange theory has shown that benefits are an important aspect of consumer-brand relationships (Ryu & Park, 2020). The investment of resources by the brand and the customer's perceived level of investment hence significantly impact consumers' attitudes towards the brand. Parallel to the principle of reciprocity, the consumer will likely feel obligated to purchase due to their investments and the investments provided by the brand, thereby resulting in mutual benefits (Mitchell, Cropanzano & Quisenberry, 2012; Bagozzi, 1995). It is therefore hypothesized:

Hypothesis 4: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by his or her investment size

The four hypotheses above result in the study's proposed conceptual model presented in Figure 3

Figure 3

Conceptual Model



CHAPTER IV

METHODOLOGY

This chapter outlines the study's methodology. The first section outlines the research design and is followed by a review of the survey techniques used for the data collection. It concludes with a discussion of the statistical methods proposed for the data analyses.

Sample

The sample for the current study was U.S cruise passengers, 25 years or older who have taken at least one cruise. A cruise passenger is anyone who has taken or expressed interest in taking a cruise within a three years period (CLIA, 2011) and indicate an average cruise duration of up to 3 days to 21 days plus (CLIA, 2019). A margin of error of 5% and a confidence interval of 95% will be deemed acceptable. Krejcie & Morgan, (1970), noted that as the population increases so also those the sample required for a research increases at a diminishing rate. Hence, given the cruise population of approximately 30 million per year. The targeted sample size remained relatively the same at approximately 385 respondents.

Survey Method

The survey method was a self-report survey design. The survey was hosted on an online survey platform, known as Survey Monkey. The survey company recruits its panel audience, using pre-selected respondent characteristics to participate in surveys. The Survey Monkey audience was compensated for their participation, which incentivized them and helped to increase the response rate (Goritz, 2008). Literature has confirmed the advantages of online

surveys to include rapid response rates, low costs, and greater willingness to respond to open-ended questions, increased data quality, faster completion time, and ease of access by participants (Dolnicar, Laesser & Matus, 2009; Hung & Law, 2011). However, there are criticisms about use of online surveys in relation to other forms of survey such as mail survey (Cole, 2005). The concerns include response bias (Goritz, 2008), coverage and the ability of web survey in obtaining a true sampling (Cole, 2005). Low rate of response has also be identified in web survey and has been associated with factors such as self-selection resulting in a biased sample (Hung & Law, 2011), reward system that only result in high response rate for panel respondents and the exclusion of those who lack access to the internet among others factors (Fan, Zheng & Yan, 2010).

Pilot Test

Before the survey was launched on Survey Monkey's website, the researcher conducted pre-tests to gain an understanding of how well the survey was developed. The pilot tests provided an avenue for corrections based on the feedback of the initial test of the survey on Qualtrics. The expert panel for this initial test consisted of 18 graduate students specializing in tourism studies. Based on the feedback received, the survey was revised and re-organized where necessary. For example, the design of the survey was not user friendly and there was difficulties taking the survey with a cell phone. This process was intended to fine-tune and improve the survey design and format, eliminate instances of double –barreled questions, and to ensure that the wording have clear and simple meaning. After this process, the survey was retested on Survey Monkey's platform with an audience panel of 50. It was deemed necessary to test the survey using the Survey Monkey audience who identified as cruisers in order to gather additional feedback based on their responses to the survey. This process was intended to help ensure that all necessary

conditions were met before the final launch of the survey. For example, by testing the survey on Survey Monkey's platform, it was identified that a qualification question needed to be included to prevent those who may not qualify from taking the survey. Finally, based on advice from Survey Monkey, experts' suggestions and feedback from the pilot test, the test's reliability and validity was assessed and measured, Cronbach alpha was calculated and all measurement were above .70. According to Churchill (1979), low coefficient alpha indicates the items did poorly in measuring the constructs i.e. alpha of .50 to .60.

Survey Flow

The first part of the survey asked all respondents for an acknowledgment of their consent to participate in the survey. The next process requested respondents to provide their age and indicate if they have cruised or planned to cruise in the two (2) years before Covid-19. Respondents who were less than 25 years old, or had not cruised the two years prior to COVID-19, were excluded from participating in the rest of the survey. The second part of the survey requested respondents to provide information about their cruise history. The last part of the survey had questions directly related to the measurement items, *information satisfaction, and satisfaction with brand, quality of alternatives, investment size, and brand loyalty*. Finally, the participants were asked to provide demographic information. Details are given below. The resultant questionnaire is shown in Appendix A.

Instrument Development

The questionnaire was developed based on an extensive review of relevant literature. Based on the literature review, all constructs were adapted (slight rewordings to adjust for the

study's context) from existing, validated scales to help ensure the validity and reliability of the collected data.

Information satisfaction was adapted from Spreng, MacKenzie, and Olshavsky (1996) and measured on a seven-point scale from "very dissatisfied and very satisfied."

Satisfaction with brand was adapted from Spreng, MacKenzie, and Olshavsky (1996) and measured on a seven-point scale from "very satisfied to very dissatisfied." Quality of alternatives was adapted from Li & Petrick (2008) modified from the Rusbult (1998) "global item" scale and measured on a five-point scale from (1) “strongly disagree to (5) strongly agree.” Investment size was adapted from Rusbult (1998) and measured on a scale from (1) “strongly disagree to (5) strongly agree” on a five-point Likert-type scale. Brand loyalty was adapted from Chaudhuri & Holbrook (2001). They measured brand loyalty as behavioral (purchase-related) and attitudinal loyalty, using four-item anchored on a seven-point scale of agreement (1 = Very strongly disagree, 7 = Very strongly agree) to a set of statements that reflect either purchase-related or attitudinal aspect of brand loyalty.

Demographic Variables

The demographic information for this study took into account several variables including gender, age, household income, relationship status, and zip code. The household income had five categories from Under $15,000 to over $150,000 based on cruise passengers’ profile for U.S cruise industry (CLIA, 2011). Finally, four categories of sexual orientation including categorical and gradational concepts were used based on the global effort to include wider range of gender diversity in survey measurement of sex and gender (Saperstein & Westbrook, 2021).

Selection of Subjects and Data Collection

The sample for this study was determined based upon statistical guidance. The cruise population approximating 30 million passengers per year was used to estimate the target sample of respondents. Krejcie and Morgan (1970) noted that as population increases, the sample size increases but at a diminishing rate. Therefore, the required sample for this study was determined to remain at 385. In studies based on structural equation modeling (SEM), a minimum sample size of 200 is recommended assuming that the data is normally distributed (Weston & Gore Jr., 2006).

The data collection followed IRB approval. The survey was hosted online by Survey Monkey, a survey company with millions of survey participants. The survey was distributed to the U.S cruise population through an initial screening question that asked respondents to identify a cruise line that they have cruised or planned on cruising in the two years before Covid-19. If "None of the above" was selected, they were prevented from moving forward with the survey participation. The survey was estimated to take 6-10 minutes to be completed but the actual survey completion time was found to take less than the estimated completion time and survey was completed between 06/21/2021 to 06/28/2021.

Data Analysis Procedure

Descriptive analysis was done prior to examining the conceptual model, the means and standard deviation of the variables were computed. The relationships (correlations) between all variables were also examined. The Cronbach alpha for all the scales were computed to help ensure the reliability of the measurement items. Following the descriptive analysis, was analysis of the model and hypotheses testing.

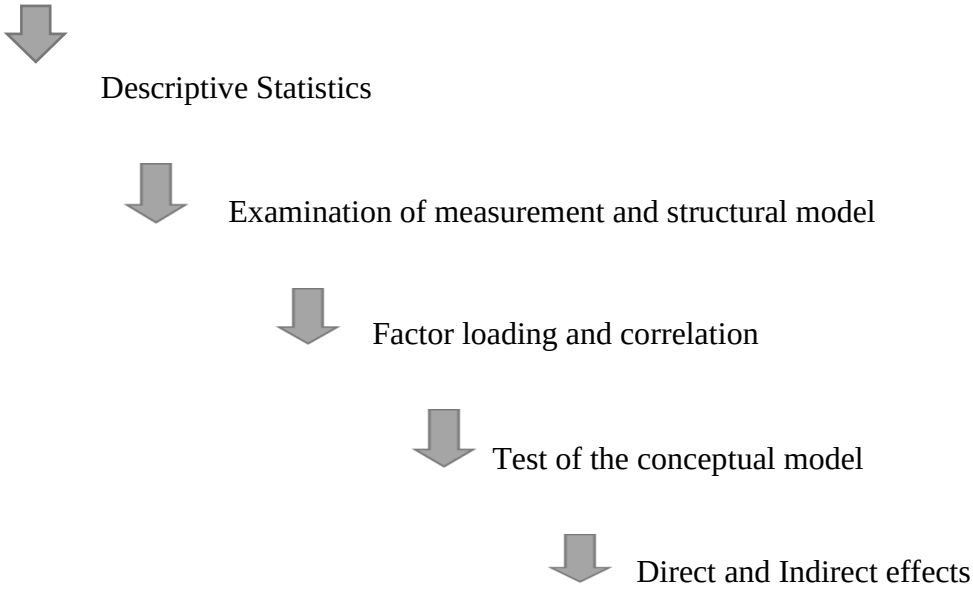
The data analysis procedure included descriptive statistics, preliminary data analysis, and the testing of the measurement and structural model. The data analysis utilized the analytical software including Statistical Package for Social Sciences 28.0 (SPSS) and Statistics for Data analysis 16.0 (STATA) were utilized.

Descriptive Statistics

The descriptive statistics preceded the data analysis, the aim of which was to establish the sample used in the data collection. Nonresponse bias was also checked. In response to the assumption regarding the credibility of online surveys, for possible incidence of response bias the demographic information of the panel was compared with that of American cruise passengers (CLIA 2011).

Figure 4

Steps in the Data Analysis



Preliminary Data Analysis

Before conducting SEM analysis, researchers are advised to consider issues concerning sample size, missing data, normality, outlier, multicollinearity, and many others (Weston & Gore Jr., 2006). Some studies have suggested that the test of reliability of SEM models before running a test is a must and the first step (Hamid, Sami, and Sidek, 2017) in order to determine how well the measurement items load on the hypothesized construct. Others recommend the test of composite reliability as a tool in selecting and equally weighting the items through coefficient alpha (Bacon, Saver and Young, 1995). Reliability and validity of measurement which is regarded as the most popular and objective measure of composite reliability was checked (Tavakol & Dennick, 2011).

Model and Hypothesis Testing

The central aspect of the data analysis was the test of the hypotheses using the structural equation modeling technique (SEM). SEM is a statistical analytical tool used among researchers to provide evidence of interrelationship among constructs (Weston & Gore Jr., 2006). Similar to other techniques such as regression, multiple regression, and ANOVA (Weston & Gore Jr., 2006); SEM requires that the hypothesized relationships be set a-priori and then test how well the proposed relationship is reflected in the data (Weston & Gore Jr., 2006). In SEM, model refers to the theorized relationships among variables, known as path coefficients. SEM research typically uses confirmatory factor analysis (CFA) to test the measurement model and the goodness of fit estimate for the variables in the model. Akin to the measurement model is the structural model, which specifies the relationship or lack of relationship among latent constructs in the model based on theory (Schreiber, Nora, Stage and Barlow, 2006). The important aspect of SEM analysis is the ability of SEM technique to control for error due to measurement.

Based on the type of analysis required for the current study, which has to do with unobserved variables, SEM was considered the appropriate tool to interpret the complex relationship that characterizes studies involving human behavior (Anderson & Gerbing, 1982). In the current study, a unidimensional measurement was observed to determine internal and external consistency of the measurement items (Anderson & Gerbing, 1982). The test of reliability also took into account the overall reliability of the scale items using the Bartlett test of Sphericity. A correlation technique, known as a measure of sampling adequacy was used to determine the factor loading and correlation in Stata 16.

The data analysis began with CFA. Specifically, the CFA was used to estimate the hypothesized relationships in the observed and unobserved variables (Schreiber, Nora, Stage, and Barlow, 2006). Part of the CFA process involved factor loading, extraction of variances and creation of paths before testing the structural model. In this case, it was hypothesized that information satisfaction is an antecedent of satisfaction with brand. Satisfaction with brand, quality of alternatives and investment size have direct association with brand loyalty.

The main task of the measurement model was to establish the hypothesized relationships and associations of the variables and their indicators. This was followed with determination of the goodness of fit of the measurement model. This process was carried out using STATA (structural equation modeling), which has a model building tool to draw the model and then estimate the model by maximum likelihood (MI), followed by estimation of the goodness of fit. Additional tools were used to ensure proposed relationships were significantly predicted. Semopy, (structural equation on python) was utilized to establish that correlations do exist among the variables of interest. Regarding fit index, literature is replete with various rules of thumb, such as Chi-square, Comparative fit index CFI, Tucker–Lewis index TLI, Root mean

square residual RMR, Standardized RMR (SRMR) and so on As recommended, the goodness of fit for the current study was determined based on CFI, TLI and RMSEA (Schreiber, Nora, Stage, and Barlow, 20006). See Table 1.

Table 1

Recommended Major Fit Indices

Indexes	Shorthand	General rule for acceptable fit if data are continuous	Categorical data
Absolute/predictive fit			
Chi-square	χ^2	Ratio of χ^2 to $df \leq$ 2 or 3, useful for nested models/model trimming	
Akaike information criterion	AIC	Smaller the better; good for model comparison (nonnested), not a single model	
Browne–Cudeck criterion	BCC	Smaller the better; good for model comparison, not a single model	
Bayes information criterion	BIC	Smaller the better; good for model comparison (nonnested), not a single model	
Consistent AIC	CAIC	Smaller the better; good for model comparison (nonnested), not a single model	
Expected cross-validation index	ECVI	Smaller the better; good for model comparison (nonnested), not a single model	
Comparative fit		Comparison to a baseline (independence) or other model	
Normed fit index	NFI	≥ .95 for acceptance	
Incremental fit index	IFI	≥ .95 for acceptance	
Tucker–Lewis index	TLI	≥ .95 can be 0 > TLI > 1 for acceptance	0.96
Comparative fit index	CFI	≥ .95 for acceptance	0.95
Relative noncentrality fit index	RNI	≥ .95, similar to CFI but can be negative, therefore CFI better choice	
Parsimonious fit			
Parsimony-adjusted NFI	PNFI	Very sensitive to model size	
Parsimony-adjusted CFI	PCFI	Sensitive to model size	
Parsimony-adjusted GFI	PGFI	Closer to 1 the better, though typically lower than other indexes and sensitive to model size	
Other			
Goodness-of-fit index	GFI	≥ .95 Not generally recommended	
Adjusted GFI	AGFI	≥ .95 Performance poor in simulation studies	
Hoelter .05 index		Critical *N* largest sample size for accepting that model is correct	
Hoelter .01 index		Hoelter suggestion, *N* = 200, better for satisfactory fit	
Root mean square residual	RMR	Smaller, the better; 0 indicates perfect fit	
Standardized RMR	SRMR	≤ .08	
Weighted root mean residual	WRMR	< .90	< .90
Root mean square error of approximation	RMSEA	< .06 to .08 with confidence interval	< .06

Adapted from (Schreiber, Nora, Stage, Barlow and King, 2006, p. 330)

CHAPTER V

DESCRIPTIVE FINDINGS

This chapter includes the profile of the sample used for the current study. Also in this section is the cruise history of the sample. Plus, the reliability of scales used in the survey as well as other descriptive information related to the findings are included in this section.

The sample referenced in chapter IV, is made up of 328 respondents, known as complete responses. The response rate was 72% and the average completion time was 5m: 45s. The current research calculated the response rate as the number of responses requested from the survey panel company and the number received minus those disqualified. A qualification rate allowed the researcher to estimate an incidence rate prior to launching the survey. The incidence rate is a criteria set by the survey company that states that because a disqualification logic is applied to the survey that disqualifies respondents, only those who qualified will be counted. As such the researcher is advised to request an audience panel with inclusion of incidence rate in order to widen the chances of getting a complete response. In this case, a 50% incidence rate was anticipated, and as a result the survey was sent to up to twice the requested number of responses needed. At the time the survey was due to be closed, the survey invitation had been sent to 760 respondents, and 328 came back completed, while 404 persons were disqualified for not meeting the qualification criteria plus 29 incomplete responses. The current research found that the high number resulting from disqualification could be attributed to the reward system, which might have attracted cruisers and non-cruisers interest in the survey.

The response pattern in this study have occurred due to factors, such as monetary compensation, length of survey, and anonymous response, which have been said to influence response rate (Roth & BeVier, 1998). As found in the literature, 77% response rate is attainable for highly salient topics. This has been collaborated by Crompton & Cole (1999), who stated that 70% criteria is achievable for special-interest groups, however it may be unlikely for those who do not have interest in the subject addressed in the survey. Overall, the response rate for this survey was within the acceptable range for surveys that may have a high response rate due to saliency of the topic to a particular group of respondents.

Looking at the data, it shows that the sample for the current study is similar to that of cruisers in general. Specifically, the panelists who took the survey were actual cruisers, who have cruised at least once in the past 2 years, 25 years or older and have a household income of $40,000 or more. This criteria was specified and used to invite respondents to the survey. As reported in the data, those who identified a cruise line or cruise lines to Q3 *"Please choose all the cruise lines, if any, with which you either cruised or had planned to cruise during the two years prior to COVID-19 pandemic (i.e., January, 2018- October, 2019)"* took part in the survey while those who answered "None of the above" were disqualified from the survey. Though there were still 29 respondents who agreed to participate but did not complete the survey and one respondent who has never been on a cruise. It was identified that this was the case because of the response that the respondent gave to the following questions, for example, Q5 "Which cruise line do you feel most loyal to?" and this respondent answered "I have not taken a cruise before and not loyal to any cruise line." This particular respondent was removed from the list which brought the total completed responses to 327.

Finally, the 327 responses were deemed valid and complete with no missing data, and the data was then used for the data analysis. The data showed that the sample was skewed towards female respondents (76.45%). The average age of the respondents was 49.4 by subtracting the current year from the years of birth. The racial diversity of the sample is tilted towards white Americans with 74.62% and those who are married accounted for the highest percentage of cruisers with 45.87%. Household income ranged in the middle from (22.32%) $30,000 and $49,999, (19.57%) $50,000 and $74,999, (15.60%) $75,000 and $99,999. The descriptive information on this sample is displayed in Table 2 below.

Table 2

Demographic Characteristics of the Sample

Variables	**Category**	**Frequency**	**Present Sample N=327**
Gender	Male	75	22.94%
	Female	250	76.45%
	Non-binary / third gender	2	0.61%
	Total	327	100%
Age	18-29	74	22.84%
	30-44	66	20.37%
	45-60	62	19.14%
	>60	125	37.65%
	Total	327	100%
	Average Age		49.1
Income	<$15,000	24	7.34%
	$15,000 and $29,999	44	13.46%
	$30,000 and $49,999	73	22.32%
	$50,000 and $74,999	64	19.57%
	$75,000 and $99,999	51	15.60%
	$100,000 and $150,000	41	12.54%
	$150,000+	30	9.17%
	Total	327	100%

	Average Income		70k
Marital Status	Single	94	28.75%
	Married	150	45.87%
	Divorced	36	11.01%
	Widowed	17	5.20%
	Cohabitating	19	5.81%
	Dating	11	3.36%
	Total	327	100%
Race	African-American or Black	43	13.15%
	Asian/Asian America	13	3.98%
	Hispanic/Latino America	21	6.42%
	Native-American/American Indian	4	1.22%
	White	244	74.62%
	Others	2	0.61%
	Total	327	100%

In addition to demographic information, question relating to cruise history were gathered, (*from the list of cruise lines below, which one have you cruised with the most frequently? With how many different cruise lines have you cruised?)* And purchase history *(Which cruise line do you feel most loyal to? How many total cruises have you taken in your lifetime? In what year did you take your first cruise?*). On the average, respondents have cruised 1.5 times with their most frequently used cruise line, 3.3 times with the cruise line they feel most loyal to, 2.4 different cruises and 5.2 years of total cruise history in their lifetime. For question related to *which cruise*

line do you feel most loyal to? Carnival Cruise Line was chosen as the cruise line that most respondents feel most loyal to with 39.01%. Also Carnival Cruise Line was the cruise line that most respondent have cruised or planned on cruising with before Covid-19, followed by Norwegian Cruise Line (23%), Royal Caribbean Cruise International (21%), and others (15%). See (Table 2.1) for information on respondents' cruise history.

Table 2.1 Respondents Cruise History

Variable	Present Sample 2018/2019	Frequency	Percentage
Top cruise choice	Carnival Cruise Line	124	39.01%
	Norwegian Cruise Line	78	23.78%
	Royal Caribbean Int.	74	21.66%
	Others	51	15.55%
Most frequently cruised	Carnival Cruise Line	157	48.18%
	Norwegian Cruise Line	52	15.85%
	Royal Caribbean Int.	72	21.95%
	Others	46	14.02%
Feel most loyal to	Carnival Cruise Line	156	47.87%
	Norwegian Cruise Line	47	14.32%
	Royal Caribbean Int.	79	24.09%
	Others	45	13.72%

How many total cruises taken	1	92	28.05%
	26	1	0.30%
How many different cruises	1	143	43.60%
taken	24	1	0.30%
Year of first cruise	2018	39	11.89%
Cruise taken in life time	1	73	22.26%
	44	1	0.30%

*Note for how many total cruises taken shows 28.05% (92) of respondents have taken at least 1 cruise, while 0.30% (1) respondent have taken 26 total cruises. 43.60% (143) of respondents have taken 1 different cruise, while 0.30% (1) respondent have taken 24 different cruises. For year of first cruise, 11.89% of respondents said they took their first cruise in 2018. Cruise taken in life time shows that 22.26% (73) of respondents have taken at least 1 cruise, while 0.30% (1) respondent have taken 44 cruises in lifetime.

Response bias

It has been suggested to researchers to check for possible response bias in survey response (Roth & BeVier, 1998). Therefore, the response pattern observed in this survey made it necessary to consider possible answers to how the response rate differed among male 22.94% and female 76.45%. The pattern of responses based on early and late response was used to check for response bias that may have occurred. The assumption is that the older and less educated normally would account for late respondents (Voigt, Koepsell and Daling, 2002).

The investigation of possible difference between the male and female respondents on the basis of early and late responses was conducted. In terms of gender (χ^2_3=0.303, p=0.959), Information satisfaction (χ^2_6=5.807., p=0.445), and Satisfaction with brand (χ^2_6=6.300, p=0.390). The result is shown in Table 2.2, below. The result showed that there was no significant difference regarding gender in terms of early and late respondents but there was different in their

response to information satisfaction and satisfaction with brand. Early responses were those that came in quickly within few days of the survey launch while late responses were those that came in rather slowly.

Table 2.2 Chi-Square Comparisons of Early and Late Respondents

Variable	Chi-Square	Df	P
Gender	0.3039	3	0.959
Information Satisfaction	5.807	6	0.445
Satisfaction with brand	6.3003	6	0.390

Table 2.3, is the t-test conducted to investigate possible differences between those who were disqualified from the survey and those who completed the survey. The researcher thought it will be necessary to report this aspect of the data collection in order to assuage the possible question regarding selection of respondents, especially in online surveys in which the identity of respondents are largely anonymous. It was possible to make this comparison, as the year of birth of those disqualifications would have been captured before they were disqualified and with that information, the survey platform was able to generate their gender and age bracket (I) <18, (2) 18-25, (3) 30-44, (5) 45-60, and (5) >60. The test result indicates that there was significant difference both in age (t_{719}=-2.732, p=0.056), and gender (t_{719}=-1.914, p=0.006) between those who identified as cruisers and those who did not identify as cruisers and hence were disqualified from the survey. Overall, there is evidence to show that there was gender bias. The response rate of female to male can be associated to how the female respondents felt about the subject of the survey. Gender different have been associated with vacation for women and men. Women were

said to have a more positive attitude towards vacation than men, as well as spending habits in tourist shopping during a vacation have shown that women have a more active tourist shopping behavior (Turner & Reisinger, 2001). The author speculates that the female respondents in the current study might be more eager to go on a cruise post Covid-19, which can be attributed to the saliency of the survey subject to this group of respondents.

Table 2.3 T-Test Comparison of Respondents by Qualification and Disqualification

Variable	T-Test	DF	P
Age	-2.732	719	0.056
Gender	-1.914	719	0.006

Finally, to determine that respondents of the current study (N=327) demographically represent American cruisers, further comparison were deemed necessary. The comparison made here are simply descriptive. *The international cruise market study for America* (CLIA, 2011), the statistical report of profile of American cruisers were 25+ years of age, $40,000 + household income. 40% have taken a first cruise, 60% have cruised in the past and 11% in the past 3years of the time of the report. Median age 48, median income 97k and 80% travel in pairs with spouse.

Similarly, respondents to this survey are 49.2 years old on average, have a median income range from $75,000 to $100,000 and an average income of $70,000. They are mostly married (45.85%), which account for majority in the sample (44%). It can be inferred that this is similar to CLIA data as those who are married accounted for almost half of the total respondents (150 out of 327). Those who have taken different cruises in the past (11.89%), and 39.01% have

either cruised or planned on cruising in the last two (2) years, which is less than CLIA data . It might be speculated that this is likely the case because their statistics is for a three (3) year period. Overall, the panel audience surveyed in the current study are similar to cruisers, are wealthier, mostly married and have cruised at least once. Therefore, they can be described as both demographically and behaviorally similar to cruisers in general.

Reliability Check

Various techniques have been introduced to check the reliability of measurement items on a scale. Cronbach alpha has been the most widely and acceptable measure of reliability and a necessary part of measuring the extent to which independent items show some degree of similarity (Churchill, 1979). The test of reliability is used to report the reliability of constructs in a structural equation model (Bacon, Sauer & Young, 1995). Construct validity involves convergent and discriminant validity (Fornell & Larker, 1981). In the current study, the first step in the test of reliability utilized the coefficient alpha to check for reliability of each measurement. Information satisfaction adapted from Spreng, MacKenzie, and Olshavsky (1999) outlined in Chapter III was tested for reliability at α =.93, while overall satisfaction also adapted from Spreng, MacKenzie, and Olshavsky (1999) was used in the current study to examine satisfaction with brand and had α =.89. Quality of alternatives was measured with scales from Li & Petrick (2008) α=.81. Investment size from Rusbult (1998) relationship investment scale α =.80. Brand loyalty scale from Chaudhuri & Holbrook (2001) scale of purchase loyalty and attitudinal loyalty was measured with α=.89. In addition to coefficient alpha, a combined reliability of all the scales together was determined in Stata using Kaiser-Meyer-Olkin Measure of Sampling Adequacy on Stata (i.e. to ensure that there were no overlapping of the factors) and the reliability coefficient

was α =0.89. This indicates that the scales of the current model are reasonably reliability and acceptable for factor correlation. (See Table 3) for scale reliability test

Table 3

Scale Reliability, Mean and Standard Deviation

	Variables	Previous α	Current α	Mean	S.D
Information Satisfaction					
		.84	.93		
Inf1	How satisfied are you with the QUALITY of information you received from {{name}} during the COVID-19 pandemic?			5.11	1.555
Inf2	How satisfied are you OVERALL with the information you received from {{name}} during the COVID-19 pandemic?			5.05	1.549
Inf3	How satisfied are you with the extent to which the information you received from {{name}} during the pandemic MET YOUR NEEDS for information about cruising with that cruise line?			5.16	1.474
Inf4	How satisfied are you with the FREQUENCY with which you received information from {{name}} during the pandemic?			5.06	1.522

		.85	.89		
Sb1	How satisfied are you in choosing {{name}}?			2.27	1.598
Sb2	Are you satisfied with your decision in choosing {{name}}?			2.09	1.442
Sb3	How would you rate your experience with {{name}}?			1.86	1.165
Sb4	How would you rate your overall satisfaction with {{name}}?			1.88	1.211
		.90	.81		
Alt1	Cruise lines other than {{name}} are very appealing to me.			3.52	.962
Alt2	Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising, etc.) are available to me.			3.91	.903
Alt3	If I weren't cruising with {{name}}, I would do fine-I would find another equally good cruise line.			3.72	.933
Alt4	Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising etc.) are close to ideal.			3.57 3.59	.923 1.029
Alt5	My cruising needs could easily be met by a cruise line other than {{name}}.			2.75	1.154

Ivs1	I would lose my relationship with {{name}} if I moved to another cruise line.	.84	80	3.41	1.101
Ivs2	I will always use {{name}} because of my relationship with this cruise line.			3.31	1.156
Ivs3	My future vacations are firmly attached to {{name}}.			3.82	1.036
Ivs4	Compared to other cruise lines, I have invested substantially more time and money in {{name}}.			3.49	1.053
Ivs5	I will continue to invest time and money traveling with {{name}} because I receive a special treatment.				
		.90	.89		
Bl1	I will sail with {{name}} the next time I buy a cruise trip.			5.17	1.450
Bl2	I intend to keep purchasing from {{name}}.				
Bl3	I am very deeply committed to {{name}}.			5.40	1.366
Bl4	I would be willing to pay a much higher price for {{name}} instead of cruising with another line.			4.83	1.598

			3.79	1.841

CHAPTER VI

HYPOTHESIS TESTING

This chapter discusses the testing of the proposed hypotheses. First, H1 is an antecedent of H2. Information satisfaction is conceptualized to lead to satisfaction with the brand. H2, H3, and H4 have an association and outcome on brand loyalty. Based on the prediction of the investment model, commitment to relationship is strengthened by level of satisfaction derived from the relationship, investment size increases satisfaction with the relationship, while the quality of alternatives weakens the commitment to the relationship i.e. COM= (SAT-ALT) +IVS (Li & Petrick, 2008). In this study, IM is conceptualized as BL= (INF+SAT-ALT) +IVS.

Measurement Model

The test of the investment model began with the testing of the measurement model. Each latent variable in the hypothesized conceptual model were examined, through CFA. The measurement model was tested to determine the overall acceptable fit index before the follow up analysis of the structural model. CFA is recommended to be conducted on the measurement model before proceeding with testing of the structural model (Weston & Gore Jr., 2006; Byrne, 2001 & Bagozzi, Yi & Nassen, 1999). The measurement model lacked an acceptable goodness $\chi 2$ (199, N=327) =800.107, $p<0.001$, CFI=.885, TLI=.866, RMSEA=.096. The statistical power was calculated to examine the probability of rejecting the null hypothesis regarding the statistical power of the study with df =199 and N=327, statistical power was shown to be strong (.95). The measurement model is shown in Figure 5 below.

Figure 5

The Measurement Model

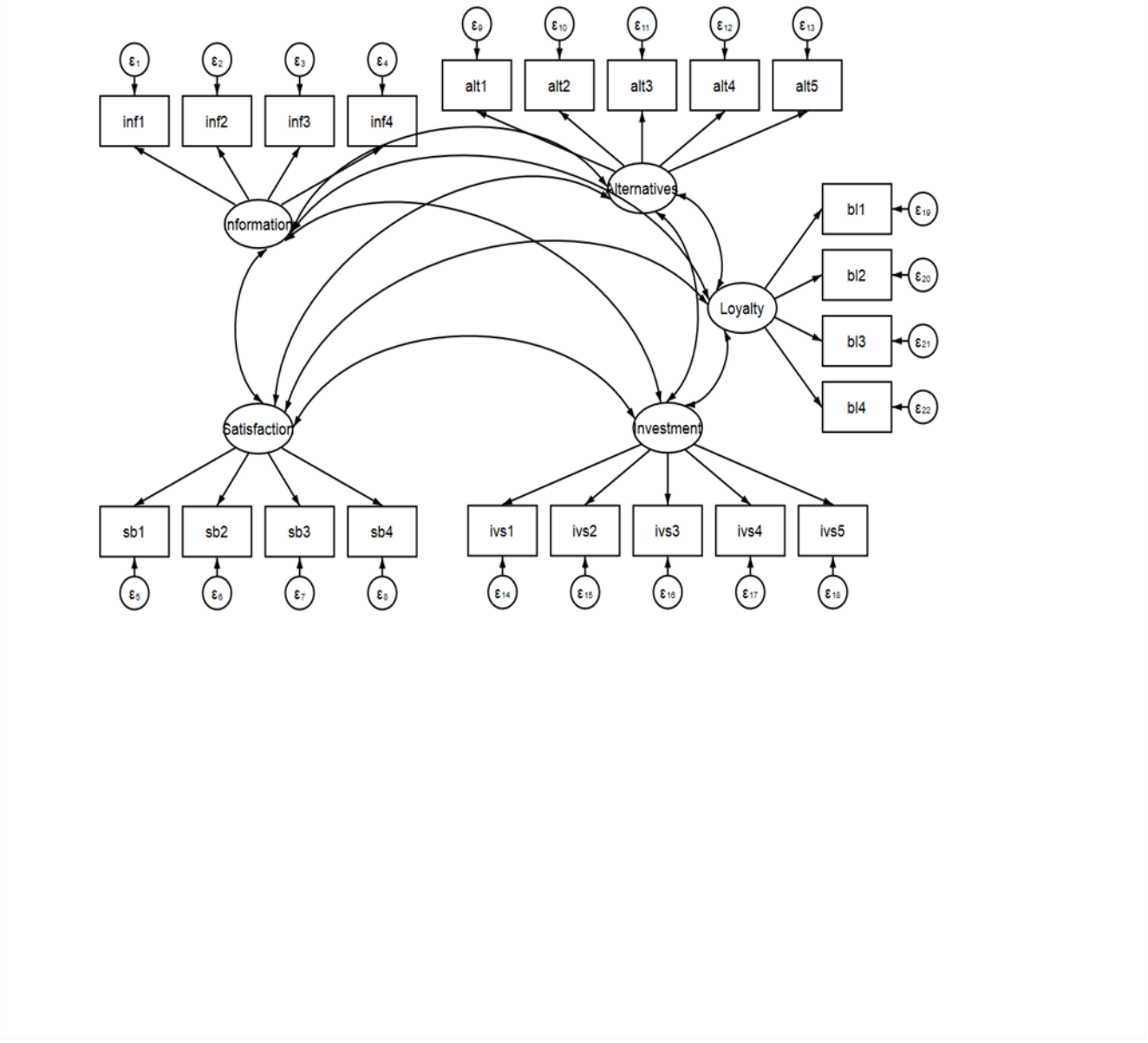


Table 4

Goodness of Fit Indices of the Measurement Model

Statistics	Result
χ^2	800.107
Degree of freedom	199
CFI	.885
TLI	.866
RMSEA	.096

Common Method Bias

The potential of shared method variance was determined as the covariance output indicated some items within a factor shared some degree of similarity. Cole, Ciesla, & Steiger (2007) "suggested that measures could correlate for various reasons not related to the underlying factor (e.g., rater, informant, scale-specific properties, response set) and are typically peripheral to the primary purpose of the study" (p. 381). In this study, it is suggested that shared method variance might have contributed to the items that had similar loadings, which were SB1 & SB4 and ALT1 &ALT2. The statements *"How would you rate your experience with {{name}}?* And SB4 *"How would you rate your overall satisfaction with {{name}}?* Also, ALT1*"Cruise lines other than {{name}} are very appealing to me),* and ALT2 *"Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising, etc.) are available to me"*.

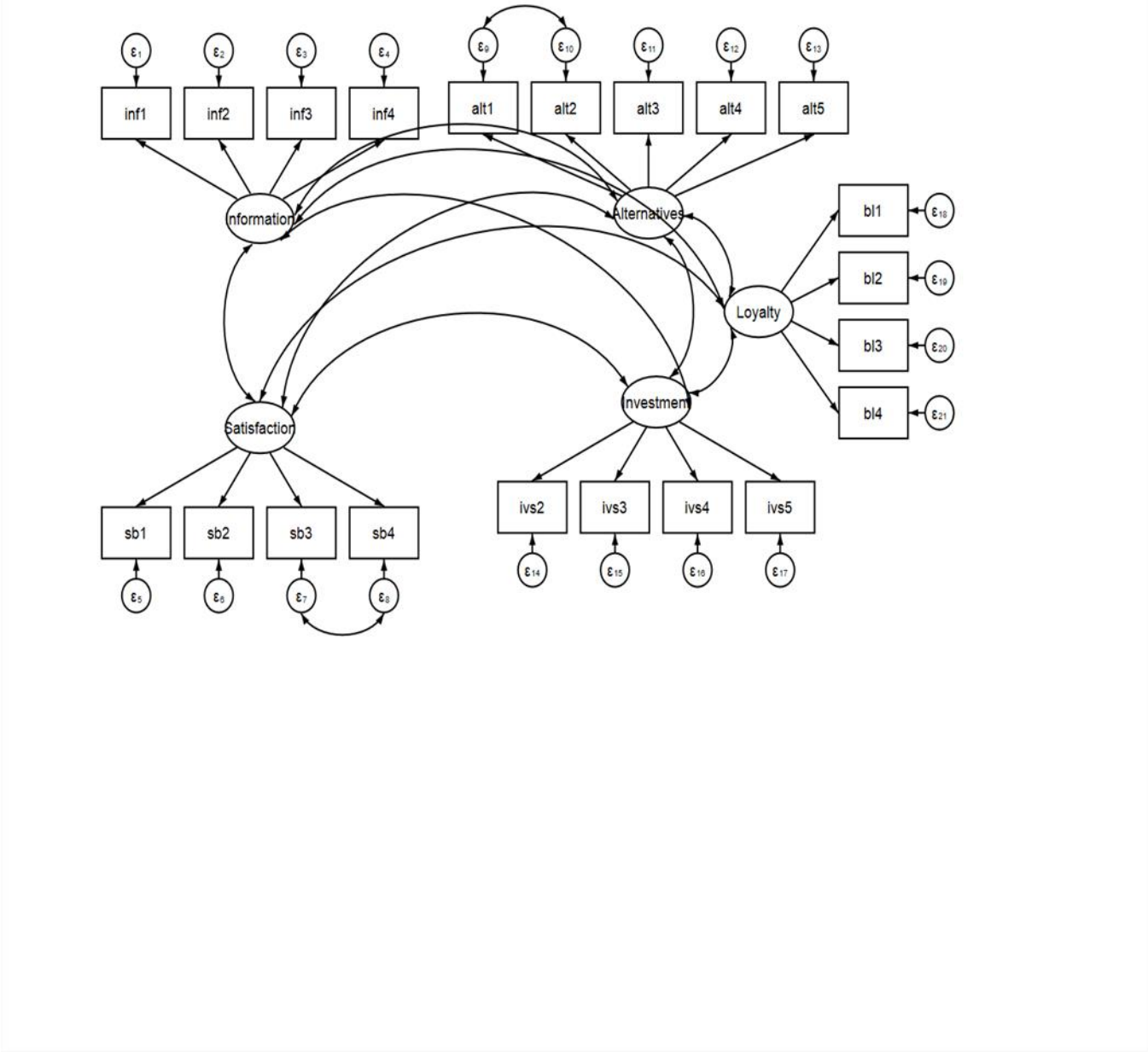
To control for the CMV, this study followed the shared variance method proposed by Cole, Ciesla, & Steiger, (2007) in determining potential CMV. Studies that have applied CMV included (Cole, Ciesla, & Steiger, 2007; Widaman, Hayes & DiMatteo, 1985; Joreskog & Sorbom, 1980; Lindell & Whitney, 2001). It has been said that CMV should not be viewed as a means of passing the goodness of fit test (Cole, Ciesla, & Steiger, 2007), nor ways of rewarding a bad scale (Hermida, 2015). These authors equally disagree on when and how CMV should be used in structural equation measurement. In particular, Cole et al. suggests that the failure to correlate the error due to shared method variance may or may not affect the fit of the model in some design but has the potential of producing a misleading result (Cole, Ciesla, & Steiger, 2007). It has been shown that CMV can be used for correcting unreliable observed measures and a 2.0 or less is said to adjust the fit of the model to fit with the data (Stacy, Widaman, Hayes & DiMatteo (1985). The reporting on the justification for the practice of correlating error in SEM measurement have been shown to be 71% driven by theory and 29% empirically (Hermida, 2015). Hermida's, meta-analysis result also reviewed that the justifications were 37% based on modification indices, 24% on post hoc construct theory, 18% based on longitudinal data, while 14% were based on post hoc method theory, and 7% were based on a-priori theory (Hermida, 2015). Bentler & Chou (1987) added that the challenge of specifying a model is that data could pose some complex challenge even to the best theory.

In a similar vein, an item was deleted from the measurement model because it was suggested that the statement might have been negatively worded leading respondent to respond the way they did reflecting the same mindset. The item IVS1 "*I would lose my relationship with {{name}} if I moved to another cruise line" hence was deleted.* Deleting items that might be redundant or improperly worded has shown to improve the measurement model without compromising the theoretical relevance of the model (Bentler & Chou, 1987; Byrne, 2001; and Moraise et al., 2003). Also, Bagizzi & Yi (2012) have

suggested that some latent variables by design are limited to few measures and allowing more indicators will result in failure of convergence. Thus, deletion of one item and allowing the error between two to correlate significantly improved the model fit and resulted in a close goodness of fit $\chi 2$ (177, N=327) =456.166, $p<0.001$, CFI=.945, TLI=.935, RMSEA=.070. The hypotheses test was then conducted using the modified model. The modified model is shown in Figure 5 below.

Figure 6

The Modified Measurement Model



Construct Validity Check

Convergent validity is a measurement technique used to establish that multiple indicators of a construct correlate together. In the determination of convergent validity, it is recommended to examine factor loading and average variance extracted (Hamid, Sami & Sidek, 2017). Some have suggested other methods by which to establish convergent validity. Fornell & Larcker (1981) added that as the correlation increases, convergent validity is established. The measurement for convergent validity is shown in Table 5.

Table 5 Standardized Coefficient, Z Value and Significance for the Measurement Model

Variable	Standardized Coefficient	Standard Error	Critical Ratio Z value	P
Information Sat1	.809	.021	37.81	<.001
Information Sat2	.925	.011	79.76	<.001
Information Sat3	.923	.011	79.49	<.001
Information Sat4	.871	.015	55.34	<.001
Sat_Brand1	.649	.033	19.14	<.001
Sat_Brand2	.689	.030	22.33	<.001
Sat_Brand3	.946	.009	98.79	<.001

Sat_Brand4	.946	.009	99.12	<.001
Quality of Alt1	.586	.042	13.78	<.001
Quality of Alt2	.478	.048	9.88	<.001
Quality of Alt3	.816	.026	30.30	<.001
Quality of Alt4	.769	.029	26.02	<.001
Quality of Alt5	.764	.030	25.44	<.001
Inv_Size1	.315	.052	6.01	<.001
Inv_Size2	.795	.023	34.13	<.001
Inv_Size3	.809	.022	36.17	<.001
Inv_Size4	608	.037	16.25	<.001
Inv_Size5	.841	.019	43.09	<.001
BL1	.863	.016	51.34	<.001

BL2	.850	.018	47.17	<.001
BL3	.893	.013	64.89	<.001
BL4	.733	.278	26.37	<.001

Furthermore, a discriminant validity was conducted to determine the extent to which each construct discriminates from all others. CFA analysis is a confirmatory technique, which provides a null hypothesis for testing the covariations amongst measures (Bagozzi, Yi & Nassen, 1999). In order to determine how well each latent variable correlate with one or more latent variables plus the error of measurement require that CFA be conducted (Bagozzi, Yi & Nassen, 1999). Maximum likelihood and goodness of fit were among the index used in specifying the measurement model (Bentler & Chou, 1987). The hypothesized factors were then measured and all AVE values for each construct were above 50%.

Table 5.1 Average Variance Extracted

Initial	Factor	Communality	AVE
Inf1	1.000	.747	.906
Inf2	1.000	.875	
Inf3	1.000	.862	
Inf4	1.000	.806	
Sb1	1.000	.720	.873

Sb2	1.000	.765	
Sb3	1.000	.780	
Sb4	1.000	.788	
Alt1	1.000	.579	.776
Alt2	1.000	.436	
Alt3	1.000	.702	
Alt4	1.000	.657	
Alt5	1.000	.675	
Ivs1	1.000	.435	.857
Ivs2	1.000	.675	
Ivs3	1.000	.741	
Ivs4	1.000	.474	
Ivs5	1.000	.728	
Bl1	1.000	.737	.778
Bl2	1.000	.730	
Bl3	1.000	.806	
Bl4	1.000	.674	
variance extracted 35%			
Eigenvalue 7.774			

Extraction Method: Principal Component Analysis

Literatures on SEM modeling has suggested that constructs should not correlate too highly with those they are supposed to differ from (Henseler, Ringle & Sarstedt, 2015). Correlation cutoffs have

been suggested to range from 0.7, 0.85 and 0.9 according to different sources (Hamid, Sami & Sidek, 2017). Fornell & Larcker (1981) recommend the criteria of average variance extracted (AVE) in the determination of discriminant validity, in which a latent variable should account for more variance in its own indicators than it shares with constructs in the model. Discriminant validity ensures that a construct measure is empirically unique and represent the variable that it is expected to represent in a structural model and different from all other construct in the model (Henseler, Ringle & Sarstedt, 2015). The extracted factors explained more of the variance in each item uniquely, thereby establishing statistical significance of the measurement items. See Table 5.2.

Table 5.2 Correlations between Major Constructs (N=327)

	INF	**SB**	**QLT**	**IVS**	**BL**
Information Satisfaction (INF)	1.000				
Satisfaction with Brand (SB)	0.439	1.000			
Quality of Alternatives (ALT)	-0.233	-0.336	1.000		
Investment Size (IVS)	0.620	0.552	-0.436	1.000	
Brand Loyalty (BL)	0.637	0.633	-0.381	0.702	1.000

*Note the diagonal values are the inter-item correlations. Below the diagonal are the square root of the inter-correlation among constructs.

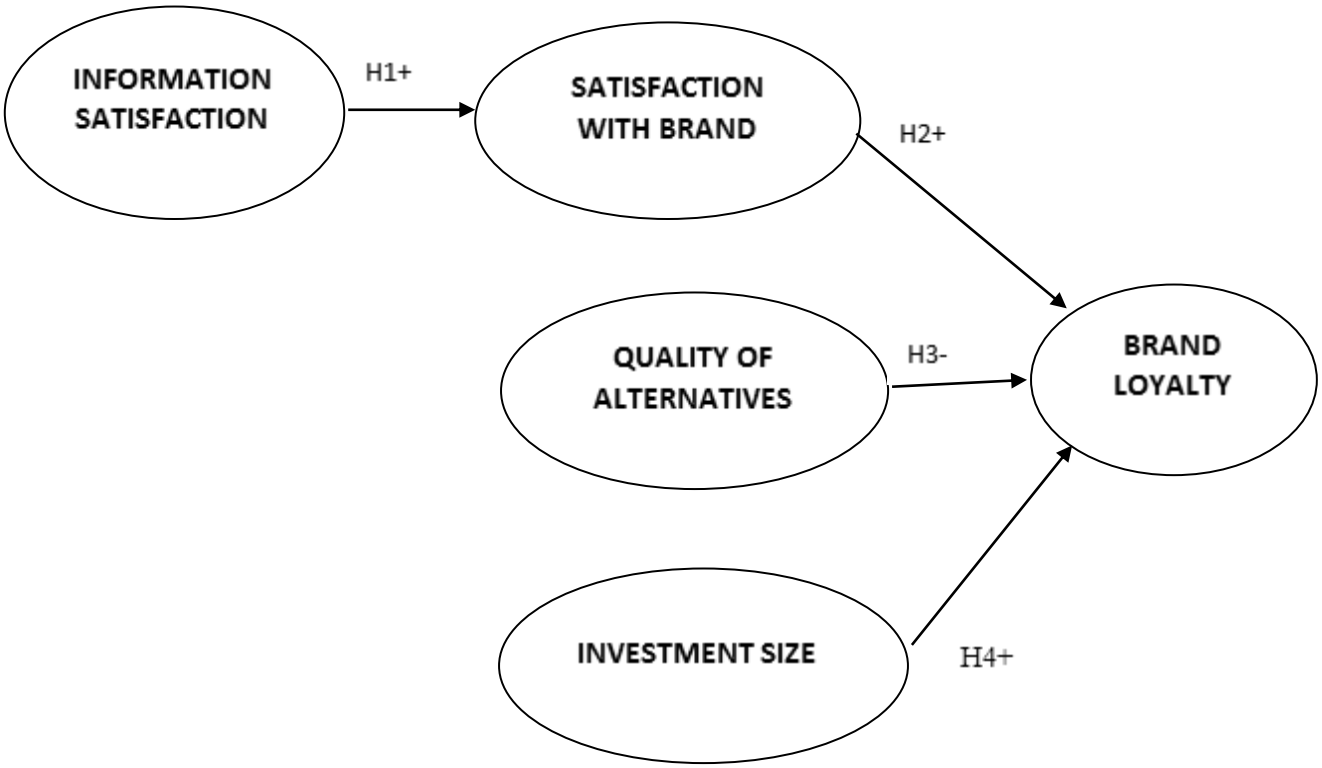
The squared correlation table indicates the strength of association between the constructs in the current study. Quality of alternatives is inversely corrected with other variables (i.e. as the quality of alternatives increases, loyalty to a brand might decrease). Information is correlated with satisfaction with brand, as well as investment size. Brand loyalty had the highest correlation with investment size 0.702. This might suggest that investment size may be a much stronger prediction of brand loyalty. This will be examined even further in next chapter. The resultant correlations in this case were needed to have met the discriminant validity criteria.

Hypothesized Structural Model

The final step in the data analysis was the test of the hypotheses, i.e. H1, H2, H3, and H4. Based on the investment model from social psychology (Rusbult, 1980, 1983, 1998), this research hypothesized that a cruise passenger's satisfaction with a cruise brand will be significantly and positively influenced by information satisfaction, a cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by satisfaction with the brand, the perceived quality of alternative options will significantly and negatively influence a cruise passenger's loyalty to a cruise line, and a cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by his or her investment size. To examine the theoretical basis of these hypotheses, the measurement model was first tested, primarily to ascertain the reliability of the measurement instrument (scale items), which was followed by the testing of the structural model (Weston & Gore Jr., 2006). The hypothesized mode is shown in Figure 7 below.

Figure 7

Conceptual Model



The test of the structural model $\chi 2$ (183, N=327) =573.708, p<0.001, CFI=.923, TLI=.912, RMSEA=0.081, demonstrated close fit. It was determined that the proposed model reasonably explained the proposed hypotheses. All paths were p<0.001. Therefore, no further adjustment was needed for the analysis of hypothesis H1, H2, H3 and H4 respectively. Figure 8 is the modified model that was used to test the hypotheses.

Figure 8

Hypothesized Model

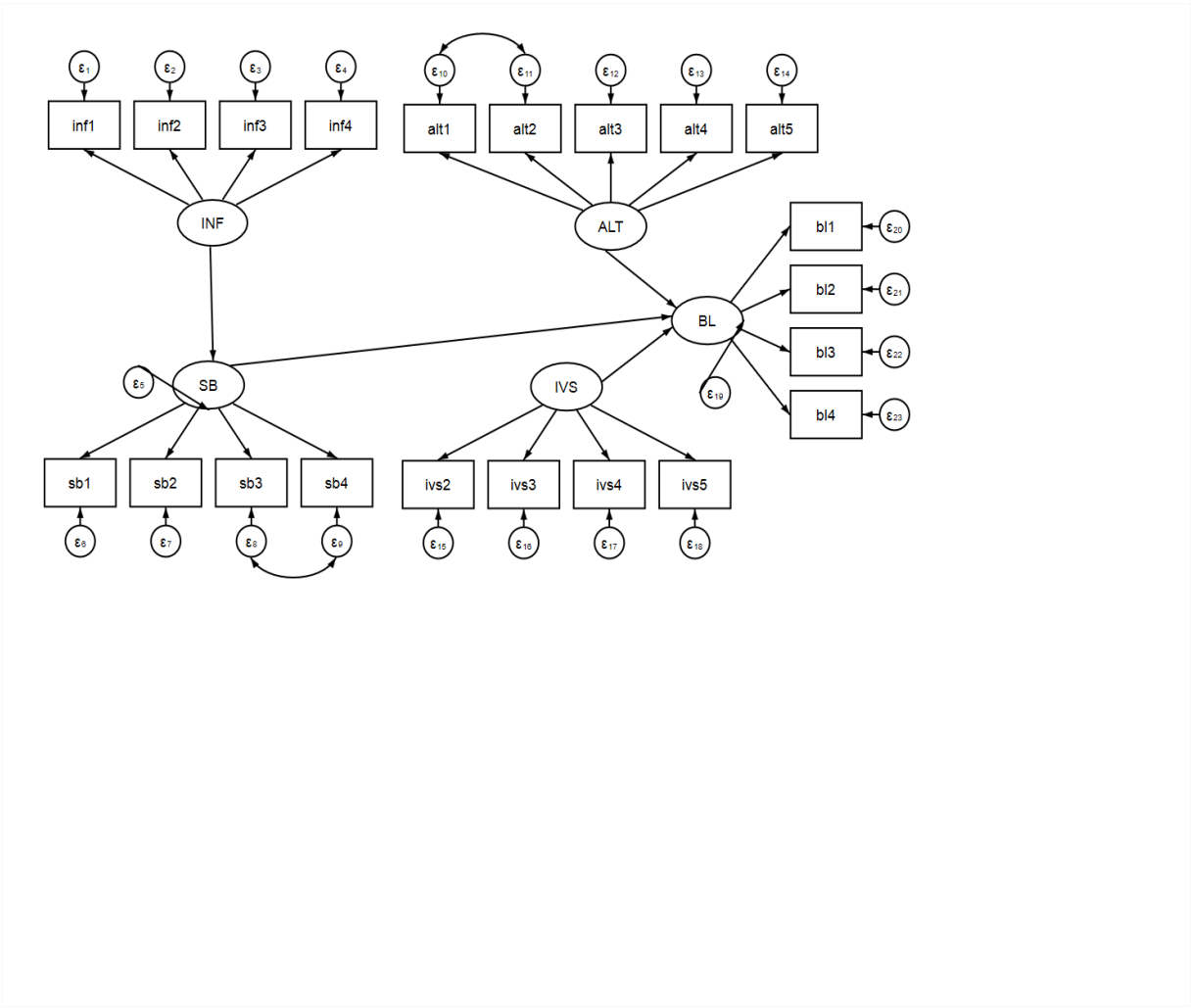


Table 6 Summary of the Fit Indices

Statistics	Original Model	Modified Model	Theoretical Model
$\chi 2$	800.107	456.166	573.708
Degree of freedom	199	177	183
CFI	.885	.945	.923
TLI	.866	.935	.912
RMSEA	.096	.070	.081

Table 6.1 Summary of SEM Analysis of hypothesized Model

Direct effect	Indirect effect	Standardized Coef. Path Coef.	Standard Error	Critical Ratio (Z value)	P	α after if item deleted
SB→INF		.267 (.301)	.055 (.066)	4.81 (4.52)	<0.001	INF=.93
BL→SB		.207 (.175)	.035 (.029)	5.85 (6.00)	<0.001	SB=.89
BL→ALT		-.030 (-.688)	.032 (.074)	-0.92 (-0.92)	>0.358	ALT=.81
BL→IVS		.943 (1.291)	.016 (.078)	57.03 (16.48)	<0.001	IVS=.84
	BL→INF	.052	.014	3.60	<0.001	BL=.89

*****Note that the values in parenthesis represent the path from the independent to dependent variables.

Hypothesis H1 states that a cruise passenger's satisfaction with a cruise brand will be significantly and positively influenced by information satisfaction, the test result supported this hypothesis (.301, $p<0.001$). It appeared information satisfaction had a moderate influence on satisfaction with brand. Previous research that has examined information satisfaction in relation to satisfaction

(Spreng, MacKenzie & Olshavsky, 1999) have concluded that information alone did not result in overall satisfaction but attribute satisfaction plus information satisfaction resulted in overall satisfaction. Since the current study did not measure attribute satisfaction, it is reasonable to conclude that information alone is insufficient in predicting a cruise passenger's satisfaction with a cruise brand. Even though the data showed that more than 70% of respondents indicated that they were satisfied with the information received related to the pandemic (Covid-19).

Hypothesis H2 states that a cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by satisfaction with the brand, the result reviewed that this hypothesis is supported but the extent to which that is true is subject to further review as it is shown that satisfaction with brand had minimal impact on loyalty (.207, $p<0.001$) compared to previous research (Li & Petrick, 2008). Studies involving consumer satisfaction have found that consumers use various aspect of a product and service in evaluating if the product meets and exceeds their expectations which in turn informs their experience and satisfaction (Oliver, 1999). As information received from the brand during the pandemic was the focus, this study did not address other variables that respondents might have factored into their responses.

In particular, cruise passengers typically use the physical attributes and services (e.g., food, entertainment, physical environment and facilities) onboard the cruise ship in evaluating their experience with the brand and their satisfaction will be elevated when their experience is exceeded (Kang, Kwan & Hahm, 2020). In this research, a determination cannot be made as to what extent satisfaction with brand had a positive and significant influence on a cruise passenger's loyalty to a cruise line without considering the other aspects of customer satisfaction such as attribute satisfaction (Spreng, MacKenzie & Olshavsky, 1999).

Hypothesis H3 states that the perceived quality of alternative options will significantly and negatively influence a cruise passenger's loyalty to a cruise line. This was supported (-.03, $p<0.5$) as the result suggests that a cruise passenger's loyalty to a cruise brand is negatively influenced by the quality of alternatives. Previous studies have suggested that consumers evaluate the quality of alternative brands prior to making a purchase (Moon & Booney, 2014), and consider the cost of switching (Thaichon & Quach, 2016). In the context of cruise passengers "level of attitudinal loyalty decreases when they perceive that the quality of alternative options improved" (Li & Petrick, 2008, p.30).

Hypothesis H4 states that a cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by his or her investment size. Consistent with previous research, a cruise passenger's perceived investment was found to positively and significantly influence loyalty to a cruise brand (.94, $p<0.001$). That is to say that the more the investment made by a cruise passenger on a cruise brand, the more likely he/she will remain loyal to the brand.

In conclusion, information satisfaction predicted satisfaction with brand, while brand loyalty was significantly correlated with satisfaction, negatively correlated with quality of alternatives, and positively and significantly correlated with investment size. Referring to the summary table, at the structural level brand loyalty had a direct effect on Satisfaction with the brand, Quality of alternatives and Investment size, while Information satisfaction had an indirect effect on brand loyalty. The results further showed that the constructs of the investment model individually and collectively accounted for ($Rsmc^2$ =.883), more than 50% of the variance in brand loyalty. The variables explained in the current research aligns with the meta-analysis study of Le & Agnew (2000). In addition, no significant difference was found between the modified model and the theoretical model (see Table 6). This analysis therefore provides theoretical support for the use of the investment model in this type of research. (See Figure 9).

Figure 9

The Final SEM Model

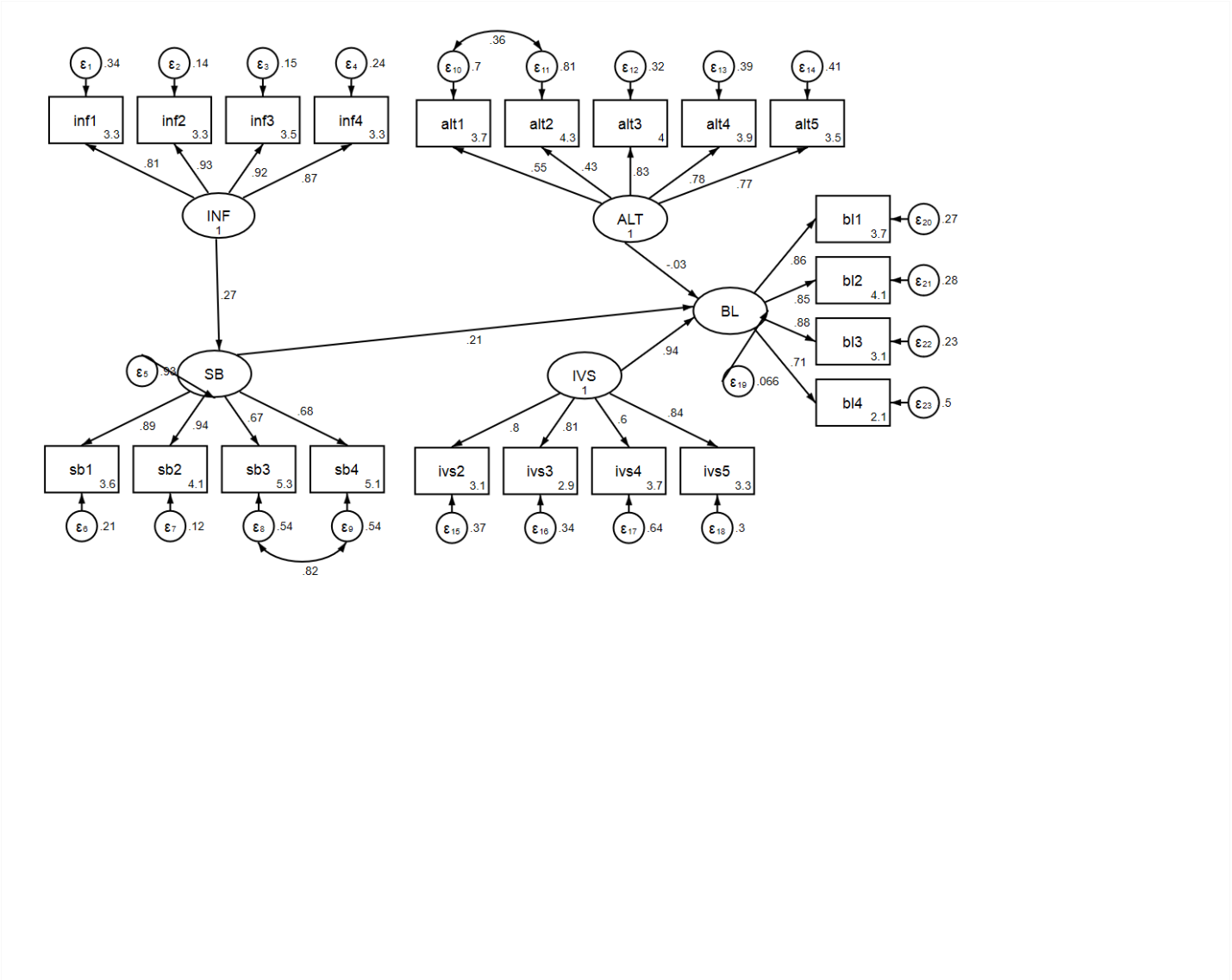


Table 7 Comparison between Theoretical and Modified Model

	Theoretical Model			Modified Model		
	Std. Estimate	Z-value	R^2	Std. Estimate	Z-value	R^2
INF1	.811	37.97		.810	37.90	
INF2	.926	78.63		.925	79.90	
INF3	.921	76.56		.922	78.79	
INF4	.870	54.00	.93	.871	55.03	.93
SB1	.887	50.06		.890	49.91	
SB2	.938	58.56		.937	57.33	
SB3	.674	20.29		.675	20.38	
SB4	.678	20.82	.88	.677	20.74	.88
ALT1	.548	12.42		.550	12.45	
ALT2	.430	8.56		.430	8.55	
ALT3	.827	30.74		.826	30.68	
ALT4	.778	26.41		.777	26.27	
ALT5	.765	25.25	.81	.767	25.27	.81
IVS1	.795	34.01		.795	34.11	
IVS2	.810	36.48		.802	35.15	

IVS3	.603	15.94		.609	16.29	
IVS4	.837	41.99	.87	.841	43.17	.87
BL1	.856	49.26		.863	51.45	
BL2	.846	46.36		.853	47.94	
BL3	.878	56.89		.891	63.65	
BL4	.709	24.29	.90	.733	26.34	.91

*Note the table compared the standard estimates, z value and R^2 of the theoretical finale model with the modified one in Stata 16 $p<0.001$.

Table 8

SUMMARY OF FINDINGS

Hypothesized association	Results
H1: A cruise passenger's satisfaction with a cruise brand will be significantly and positively influenced by information satisfaction.	***Supported***
H2: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by satisfaction with the brand.	***Supported***
H3: The perceived quality of alternative options will significantly and negatively influence a cruise passenger's loyalty to a cruise line.	***Supported***
H4: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by his or her investment size.	***Supported***

CHAPTER VII

CONCLUSIONS AND IMPLICATION

This chapter is the conclusion of the entire research study. More specifically, this section discuss the theoretical and practical implications of the research and makes recommendations for future research.

This research was intended to gain an understanding of the structure and antecedents of cruise passengers' loyalty to a cruise brand post Covid-19. Primarily, this research applied the structural equation mode (SEM) to examine the dimensions of brand loyalty, based on the investment model (Rusbult, 1980; 1983; 1998) and to examine the dimensions of brand loyalty. The dimensions of brand loyalty presented in this thesis are attitudinal loyalty and behavioral loyalty (Dick & Basu, 1994). The test of loyalty from an attitudinal and behavioral perspectives resulted in the development of constructs intended to explain the link between attitudinal and behavioral loyalty, using SEM modeling.

Theoretical Implication

The test of the hypothesis conceptualized in this thesis began with the test of the measurement model using CFA. After the reliability of the measurement was confirmed, the next step was the test of the structural model also known as the theoretical model. The structural model analysis was based on testing the hypotheses H1: A cruise passenger's satisfaction with a cruise brand will be significantly and positively influenced by information satisfaction. H2: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by satisfaction with the brand. H3: The perceived quality of alternative options will significantly and negatively influence a cruise passenger's loyalty to a cruise

line. H4: A cruise passenger's loyalty to a cruise brand will be significantly and positively influenced by his or her investment size.

The theoretical implications of this research confirm that in fact there was an association between the constructs of the investment model, for which the hypotheses were conceptualized to validate. The outcome of the statistical tests conducted theoretically connect the theory with the data. The result of the analysis provide a strong support for the investment model hypothesis that satisfaction with a brand will depend on information satisfaction, loyalty to a cruise brand will depend on satisfaction with the brand while alternative options will decrease brand loyalty and investment size will positively and significantly influence brand loyalty.

Managerial Implications

The findings of this research have some managerial implications. In order for cruise brands to increase their market share and customer loyalty, the industry needs to employ a more pragmatic approach to customer retention. In the recent past, customer retention has focused more on brand equity (Chaudhuri & Morris, 2001). In an industry such as the cruise industry, for a cruise brand to sustain its brand equity, customer value should form an integral aspect of the management process. Customers' preferences for a particular brand amidst very similar and attractive alternatives indicates that there is more to how customers evaluate their purchase decision. A cruise brand that wants a larger share of the customer base will need to understand how customers evaluate brands. Over the years, promotional programs involving financial reward have been used to attract and retain customers, however research has since shown that such tactics are no longer effective in understanding customer loyalty (Brashear-Alejandro, Kang & Groza, 2016). The downside of financial loyalty programs is that when another

competing brand offers a higher financial reward, the customers will be attracted to the new offer. As a result, non-financial loyalty programs should be a better alternative.

Besides offering loyalty programs for customer retention, having a good understanding of who customers really are, what they prefer and how they want to be treated by their brand is equally important for customer retention. Customers base their purchase decisions on anticipated value to be derived such as attributes of the product or service (Woodruff, 1997). A cruise brand that understands what customers consider as value will be in a better position of attracting customers seeking value.

Cruise passengers seeking value might be more prone to try alternatives or simply just to experiment with another brand and but may return to the current brand. It has been suggested that cruise customers often take a cruise at least once a year with a given brand, then withdraw for a year (or two, or more), before returning to the current brand (Berger, Weinberg & Hanna, 2003). It might be argued that the chances of returning would be dependent on the alternatives to cruising such as going on a different kind of vacation other than cruise trip. It could also be up to the amount of resources (e.g., time and money) that have to spend on these trips.

The findings of the current research suggests that the quality of alternative options will negatively and significantly influence loyalty to a cruise brand. Equally found in the current research was that satisfaction with the brand did not strongly influence loyalty to the brand, even though cruise travelers have rated cruise travel 98% satisfactory and the best form of tourism travel (Jian & Yuantao, 2021). This is indicative of the fact that it will take more than simply satisfied customers for a cruise brand to maintain customer loyalty in the future. Currently cruise brands are employing the traditional approach to customer loyalty such as competing with other brands offering similar products. However, for an industry that is characterized by capacity investment in new ships and facilities, competition mainly on promotions will not stop the churn rate and the increasing cost of attracting new customers as

some cruise passengers complete the life cycle, which moves from understanding of the brand to accepting the brand, then familiarity and exit (Jian & Yuantao, 2021).

Finally, this thesis intends to offer useful information to the cruise industry for managerial purposes, so far the implications of satisfaction and quality of alternatives have been highlighted. The implication of information satisfaction and investment size equally needs to be mentioned. Firstly, in the aspect of information satisfaction considering the high cost of cruise travel, it is suggested to the cruise industry to regard satisfaction with information as part of overall customer satisfaction in making management decisions regarding customer retention. Also, it was found in this research that information had an indirect effect on brand loyalty. Information cost savings, which include time, money and the psychological process of gathering and processing information by a customer have been associated with a customers' trust and favorable evaluation of a brand. A cruise brand that engages in a more personalized communication exchange with the customers will lessen the customers' sensitivity to price related information (Jeong & Hyun, 2019).

Secondly, in terms of satisfaction with the brand, as indicated in the study, customer-brand relationship has been found to significantly influence customer loyalty (Petterson & O'Malley, 2006). Brands now take on more personalized meaning for customers. Customers' sense of self-image are reinforced by the brands that they prefer and use attributes of such brands for self-identity. For instance, the luxury cruise segment, which has the advantage of giving cruise customers a distinctive self-image and esteem that is exciting and satisfying to the individual and provides the opportunity to display wealth, status and success (Han, Hwang & Lee, 2018). The cruise industry can help reinforce their customers self-identify by offering their luxury segments specialized products and services (e.g., contacting them when there are new promotions, sending them mails on special occasions like birthdays and anniversaries) that portrays them as having an exclusive membership in a specialized customer base.

Thirdly, the issue of quality of alternatives indicates the importance of preventing switching intentions. As the cruise industry operates in an intense competitive environment. A cruise brand that wants to have a competitive advantage should avoid offering similar loyalty programs (e.g., bonus points, coupons and membership cards) as competitors (O' Brien & Jones, 1995). The process involves gathering customer information in such a way that predicts the customers demand even before they conceive it. This process of getting to know the customers through communication increases the customers perceived relationship investment from the brand i.e. customers perception that the brand is investing resources beyond the core service (e.g., effort, time and attention) in maintain relationship with the customers (Lee, Kin and Pan, 2013). It has been found that customers regard such investment as benefits (e.g., recognition, special treatment) and would return the favor by patronizing the brand (Lee, Kin and Pan, 2013).

Lastly, as the findings of this research suggest, investment size had a significant influence on brand loyalty. An interesting point to note from the findings of the current research was that respondents agreed that they have invested in their most loyal brand. The implication to the cruise industry is that the industry and cruise brands needs to invest equally in the customers. From the findings, investment size was found to be the strongest predictor of brand loyalty. Research has shown that a customer chooses to invest in one brand over another on the assumption that the brand will return the investment made. This notion of customer investment in a brand by choice has been described as "customer equity", the value of the tangible and intangible resources that customers invest in a retailer. (Dorsch & Carlson, 1996). Equity and disconfirmation have been suggested to have a complementary influence on satisfaction (Oliver & Swan, 1989). Brashear-Alejandro, Kang and Groza, (2016) added relationship equity in addition to value equity and brand equity as a key driver of customer loyalty, retention and switching cost. The assumption is that without customer investment in a brand, the survival of the brand will be

susceptible to competitive actions such as price promotion and market offerings like new and improved products and services (Dorsch & Carlson, 1996).

A cruise brand that wants to gain higher market share over competitors needs to devise ways to track its customers' equity and identify those customers who are invested in the brand as all customers are not equal and reward such commitment. It has been shown that brands with higher purchase loyalty will also be higher in market share because of higher levels of repeat purchases by the brand's users based on the principle of double jeopardy (Chaudhuri & Holbrook, 2001).

Overall, these are approaches to customer loyalty that the cruise industry should take advantage of in designing loyalty programs. Such non-financial rewards as personal recognition, showing affection to customers through friendly customer service, regarding customers by offering personalized communication, providing customers a platform to socialize with other customers and the opportunity to participate in the product design (Dorsch & Carlson, 1996; Brashear-Alejandro, Kang & Groza, 2016). Based on the social exchange perspective, this sort of investment made by the brand will be reciprocated by the customer in the form of loyalty to the brand and such loyal customers are likely to recommend the brand and spread positive word of mouth about the brand. These customers will likely show more resistance to the pressure from competitors because of their desire to guard their investment in anticipation of a reciprocal gesture from the brand.

Recommendation for Future Research

Limitations of Present Study

The current study was intended to examine potential cruise passengers' loyalty to the cruise line post Covid-19. First, as mentioned in chapter 1, this research focused on American cruise passengers. The result of this research is deemed limited in scope as the survey focused on the names of the leading cruise lines (Royal Caribbean Cruise line, Norwegian Cruise Line and Carnival Cruise Line (Antonellini, 2021) while the rest cruise lines were classified as "others". Another limitation of the study is that it was limited to only the cruise passengers invited to take the survey as this does not represent the general U.S cruise population. The data collection method was another limiting factor of the study as those who were not familiar with the internet might have been excluded from the survey.

Future Research

Future studies should examine the generalizability of the theoretical implication of the current study to other cultures and regions. Future studies should include more cruise lines. In the current study, information satisfaction was added to the investment model as an antecedent of satisfaction with brand. Future studies should examine if this can be replicated in other areas not involving the cruise industry. The measurement model in the current study was modified, even though that did not in any way affect the results of the current study. Future studies should carefully examine the model. The deletion of an item also was not found to affect the result of the study, however future studies should examine the scales closely.

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APPENDIX A

FINAL SURVEY

TEXAS A&M UNIVERSITY SURVEY
CONSENT FORM

You are invited to participate in a research study. The information in this form is provided to help you decide whether to participate or not.

The study is about Potential Cruise Passengers' Loyalty to the Cruise Industry Post Covid-19.

Thinking about the pandemic (COVID-19), we want to know what you think about the cruise industry's response to the pandemic. This study invites participation from cruise travelers who have cruised in the past 24 months, and are 25 or older.

Your information will be kept confidential. This means that nothing that can identify you personally will be included. If you agree to be in this study, you will be asked to fill out the questionnaire. All your responses will be used only for the study.

Responding to this survey means that you have acknowledged that you understand that: you are freely participating in the survey; you have the right to withdraw at any time; there are no positive or negative benefits from responding to this survey; the researcher has your consent to publish materials obtained from this research.

You may contact Dr. James Petrick, PhD. if you have questions about this research at (979) 229-5290 or jpetrick@tamu.edu. For questions about your rights as a research participant; concerns about the research, you may contact the Texas A&M University Human Subjects Protection Program office at (979) 458-4067 or irb@tamu.edu.

Please check to confirm you agree to participate in this survey.

	In what year were you born? (enter 4-digit birth year; for example, 1976)	
	Please choose all the cruise lines, if any, with which you either cruised or had planned to cruise during the two years prior to COVID-19 pandemic (i.e., January, 2018-October, 2019) (Please check all that apply)	Carnival Cruise Line Royal Caribbean Cruise Line Norwegian Cruise Line Others (Specify) None of the Above
	From the list of cruise lines below, which one have you cruised with the most frequently?	Carnival Cruise Line Royal Caribbean Cruise Line Norwegian Cruise Line Others (Specify)
	Which cruise line do you feel most loyal to?	Carnival Cruise Line Royal Caribbean Cruise Line Norwegian Cruise Line Others (Specify)
	How many cruises have you taken with {{Q5}}?	
	With how many different cruise lines have you cruised?	
	How many total cruises have you taken in your lifetime?	
	In what year did you take your first cruise?	
	How satisfied are you with the QUALITY of information you received from {{name}} during the COVID-19 pandemic? How satisfied are you OVERALL with the information you received from {{name}} during the COVID-19 pandemic? How satisfied are you with the extent to which the information you received from {{name}} during the pandemic MET YOUR NEEDS for information about cruising with that cruise line? How satisfied are you with the FREQUENCY with which you received information from {{name}} during the pandemic? What information do you remember receiving from {{Q5}}?	1=Very dissatisfied to 7=Very satisfied
	How satisfied are you in choosing {{name}}? Are you satisfied with your decision in choosing {{name}}? How would you rate your experience with {{name}}? How would you rate your overall satisfaction with {{name}}?	1=Very Satisfied to 7=Very dissatisfied

Cruise lines other than {{name}} are very appealing to me.	1=Strongly disagree to 5=Strongly agree
Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising, etc.) are available to me.	
If I weren't cruising with {{name}}, I would do fine-I would find another equally good cruise line.	
Alternatives to {{name}} (e.g. cruising with another cruise line, spending my vacation on other leisure activities instead of cruising etc.) are close to ideal.	
My cruising needs could easily be met by a cruise line other than {{name}}.	
I would lose my relationship with {{name}} if I moved to another cruise line.	1=Strongly disagree to 5=Strongly agree
I will always use {{name}} because of my relationship with this cruise line.	
My future vacations are firmly attached to {{name}}.	
Compared to other cruise lines, I have invested substantially more time and money in {{name}}.	
I will continue to invest time and money traveling with {{name}} because I receive a special treatment.	
I will sail with {{name}} the next time I buy a cruise trip.	1=Very strongly disagree to 7=Very strongly agree
I intend to keep purchasing from {{name}}.	
I am very deeply committed to {{name}}.	
I would be willing to pay a much higher price for {{name}} instead of cruising with another line.	

Gender?

Male

Female

Non-binary / third gender

Prefer not to say

Which of the following best describes you?

Single

Married

Divorced

Widowed

Cohabitating

Prefer not to say

Please indicate your household annual income last year before tax:

Under $15,000

Between $15,000 and $29,999

Between $30,000 and $49,999

Between $50,000 and $74,999

Between $75,000 and $99,999

Between $100,000 and $150,000

Over $150,000

How do you describe your race?

African-American or Black

Asian/Asian America

Hispanic/Latino America

Native American/American Indian

White

Others (Please specify)

What is your 5-digit Zip Code?