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Investigating the Motivations and Preferences of Chinese Cruise Travelers Amid COVID-19

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ABSTRACT

The literature on cruise tourism is primarily Western-focused, which could differ compared to those in Asia Pacific. To address this gap, this study combines motivation and cruise preferences for a better understanding of repeated Chinese cruisers amid COVID-19 via the use of conjoint and cluster analysis. The findings revealed that shore activity is more important than cabin price and duration. Sight-seeing is the most strongly preferred shore excursion, followed by visiting natural scenery. This study contributes by providing insight into the current views of the Chinese travel market, and provides suggestions to cruise companies on target segments, product design, and marketing strategies in preparation for travel recovery.

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关键词

属性; 新冠疫情; 邮轮旅游; 动机; 营销策略; 中国



新冠疫情下中国邮轮旅游者的动机和偏好调查

摘要

目前有关邮轮旅游的文献主要以西方为主, 而亚太地区的邮轮旅游可能会有所不同。为了弥补这一研究空白, 本研究通过联合分析和聚类分析, 结合旅游者的动机和邮轮偏好深入了解在新冠疫情期间的中国邮轮旅游重游者。调查结果表明, 岸上游览活动比船舱价格和航行时间更重要。此外, 观光是最受欢迎的岸上游览活动, 其次是参观自然风光。本研究主要贡献在于对中国旅游市场的现状做出了一个深入的了解, 并为邮轮公司提供了有关目标细分市场, 产品设计和营销策略方面的建议, 以帮助他们为旅游复苏做好准备。

1. Introduction

Cruise tourism has boomed in recent decades. The global cruise ship passengers grew from 3.77 million in 1990 to 27.5 million in 2019 (Cruise Market Watch, 2021). In Asia, the number of passengers grew from 775,000 in 2012 to nearly 4.28 million passengers in 2018. Mainland China was the main driver of the growth, representing about 56% of all Asian passengers (CLIA, 2021). In response to this, cruise companies have designed ships specifically for the Chinese market; yet, this effort failed and a major reason for this failure is the misinterpretation of Chinese tourists' preferences and consumption behaviors (Xie, 2018).

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The literature on cruise tourism, however, remains largely Western-dominated with only a few studies on Chinese cruise tourists (Hung, 2018; Josiam et al., 2009). Besides, findings from western perspective could differ compared to those in Asia Pacific (Radic et al., 2021); for example, the imbalance of power between travel agents (i.e. distribution channel) and cruise companies may affect business practices and preferences in China (Chu & Hsu, 2021). This suggests that cruise tourism products could be adapted to cater to Chinese travelers' preferences, perceptions, and expectations (Sun et al., 2014). Additionally, existing studies about Asian cruise tourists are single-focused. These studies tend to be either about motivation (Fan & Hsu, 2014; Josiam et al., 2012) or preferences toward cruise ship attributes (Lyu et al., 2017; Zou & Petrick, 2016). Yet, instead of examining travel motivations and preferences separately, there is potential to investigate both aspects alongside each other as tourists' motivations could drive the type of attributes that companies may wish to develop on cruise ships.

The COVID-19 pandemic devastated travel and tourism. The outbreak brought cruise tourism almost to a complete halt and the industry is preparing to rebuild after the shut-downs. Global passenger volumes significantly dropped by 74.2% in 2020 (Cruise Market Watch, 2021). As a result, several recent studies have sought to investigate the impact of the pandemic on cruise tourism. Again, however, these studies were primarily aimed toward a western context despite the comparatively rapid recovery of Chinese tourism. Repeated cruisers can be the first market for recovery from pandemics. Cruisers' knowledge and experience can lead to different expectations (Fan & Hsu, 2014), decisions (Xie et al., 2012), and behavior (Fan et al., 2015; Hung, 2018). Repeated cruisers are less price-sensitive in comparison to the new cruisers (Lebrun, 2015). They tend to book further in advance and more willing to spend on higher cabin categories (Sun et al., 2018). Therefore, cruise companies may prioritize first target these high-value customers to speed up their recovery process.

To address these research gaps, the objective of this study is to investigate both the attributes of cruise ships *and* travel motivations from the perspective of *repeat* Chinese cruise tourists in light of travel recovery from COVID-19. In doing so, the authors first examined the cruise package and interviewed industry experts for the utmost cruise ship attributes for the survey. Data was collected from 600 repeat Chinese respondents during the pandemic and analyzed via conjoint (to reveal the preference of the cruise ship attributes) and principal component analysis (to examine the cruiser's motivations). Finally, cluster analysis was implemented to segment the cruisers based on both preference and motivation. This study contributes by providing insight into the current views of the Chinese travel market, and by offering suggestions to cruise companies on product design and marketing strategies in preparation for travel recovery.

2. Literature review

2.1 Cruise attributes

Cruise ship travel is a holistic experience that bundles transportation, accommodation, and activities in an enclosed environment, and service is essential for making sure this experience meets travelers' preferences. The attributes of a cruise ship influence the decision-making of cruisers. Xie et al. (2012) studied how first-timers and repeat cruisers

viewed ship attributes. They found that potential cruisers generally perceived recreation and sport attributes, fitness and health attributes, and supplementary attributes (i.e. library, educational classes, computer room, and laundry) as more important than repeated cruisers. Based on the attribute knowledge theory, they argued that the reason was that passengers' knowledge of the product varied depending on their experience. However, they were focusing on American cruisers.

Sun et al. (2014) reported how the cruise industry development in China and compared to the North American market. Chinese cruisers preferred shorter cruises, average duration is 4.5 nights, with a maximum of 6 nights. In addition to facility, food and beverage, and entertainment, cruisers indicated that staff are important to them. This suggests that managers need to pay attention to enhance staff performance to maintain competitiveness (Ye et al., 2020). They revealed that friends/relatives are the most influencing sources in decision to cruise, followed by websites and travel agents. But there is no identification of what is their motivation to cruise.

Reviewing the cruise attributes importance to Chinese, Park et al. (2019) examined previous research on cruise attributes, which include room type, onboard programs, onboard shopping items, shore excursion activities (include sight-seeing, historical sites, and shopping), traditional Chinese food, and price. Results showed that Chinese passengers valued shopping most highly and preferred variety and luxury products. Lyu et al. (2017) identified 6 dimensions of facilities, natural scenery, onshore excursions, onboard entertainment, social interactions, and dining service, in the order of importance without specifying for repeated or first-timers. They developed an assessment framework for the servicescape of cruise tourism for Chinese tourists based on the ships' attributes including the on-board facilities, services, and onshore excursions.

Culture plays an essential role (Chang et al., 2020). Hung (2018) photo-interviewed 20 Chinese cruisers to understand their cruising experience and found most of them had a positive experience, yet there were shortcomings (such as a lack of authentic Chinese food, language barriers with the crew, etc.) because of cultural differences. Park et al. (2019) also found that culture and tourism behavior are closely related in that preferences and behaviors are shaped by passengers' distinctive cultural backgrounds. They examined 244 potential Chinese tourists' preferences for cruise attributes using a choice experiment to identify ways in which Korean cruise lines could attract Chinese travelers. Zou and Petrick (2016) studied potential Chinese cruisers based on travel constraints, cruising images, and intentions. They found that difficult to get cruise information, safety concerns, and expensive prices are the main constraints.

Cruise market evolves drastically, particularly China market. The above-mentioned studies (Lyu et al., 2017; Sun et al., 2014; Xie et al., 2012; Zou & Petrick, 2016) were conducted at least 5 years ago. Although Park et al. (2019) examined Chinese cruisers through choice experiment, their selected attributes are replicated from previous studies. This study provided a more comprehensive cruise attribute through cruise packages content analysis and expert review.

2.2 Chinese cruise motivation and scale

Motivation is a critical variable in explaining a tourist's behavior or intention to travel. Josiam et al. (2009) examined ethnic repeated Chinese travelers' motivations, perceptions, and satisfaction concerning North American cruise tours. Josiam et al. (2012) further segmented Taiwanese cruisers who went on cruises in North America based on their motivation and satisfaction. Fan and Hsu (2014) investigated potential Chinese cruise travelers' expectations, motivations, and intentions. The authors aim to focus to understand Chinese cruiser's motivations, satisfaction, and intention to cruise.

Cruising is very different from other forms of travel, and it is inappropriate to adopt generic travel motivations as an explanation (Hsu & Li, 2017). Hung and Petrick (2010) were the first to develop a measurement scale for cruising. They explained that the design should be specific for the selected population or leisure setting because each individual's experience can differ, and travel constraints may not be similar across groups or activities. Therefore, items must reflect a specific context.

Chen et al. (2016) studied cruisers' motivations in China, Taiwan, Hong Kong (HK), and Japan by extending Hung and Petrick's (2011) cruise measurement items and formulated a 'motivation–preference–intention' structural path model to test the validity of the regression relationship. However, Hung and Petrick (2011) based their measurement scale on the North American context. Therefore, Hsu and Li (2017) developed a cruise measurement scale specifically for the Asian market (i.e. mainland China and HK cruisers), which is used in this study. Hsu and Li (2017) explained that the US market is already in a mature stage, and hence a scale designed for that market is inapplicable to emerging markets (i.e. Asia) because of cultural and experiential differences.

2.3 Cruise industry and COVID-19

The COVID-19 pandemic has a dramatic impact and shutdown of the cruise industry, which many scholars intend to learn how this outbreak affects the future cruise industry. Holland et al. (2020) interviewed UK and Australian non-experienced and experienced cruisers on their intention to travel and intention to cruise after the pandemic. All four groups reflected negatively about the intention to cruise again unless the virus was defeated with a vaccine and destinations with effective virus control. Radic et al. (2021) focused on how female cruisers perceived the cruise dining experiencescape during pandemic. They utilize perceived crowdedness, atmospherics, and interactions with others as the main constituents of stimulus process toward emotion and behavior. Results revealed that positive feelings with authentic memories can bring positive emotions and behavior.

Pan et al. (2021) studied the perceptions of cruise travel during pandemics in North America for both potential and repeated cruisers and their intention to cruise. 'Safety' and 'price and cost-related items' are the key factors that have directly impacted to cruise. They found over 51% are willing to cruise if there is a deep discount, 25% are uncertain, and 22% will not cruise. Lu and Zheng (2021) reviewed Twitter public sentiment on cruise and COVID-19 pandemic between 1 February and 18 June 2020. Results showed that people are more eager to travel and explore due to the restricted travel policies, and public interest in cruises has shifted from mass cruise to niche

cruisers. Both Pan et al. (2021) and Lu and Zheng (2021) studied were different from Holland et al.'s (2020) finding that travelers are unlikely to cruise again but with conditions. None of these studies investigated the Chinese market in the Asia Pacific. Overall, Table 1 summarizes the selected cruise studies related to motivations, attributes, and COVID-19.

3. Methodology

This study used a multi-stage approach. One hundred online cruise travel agency packages were examined. A list of identified key attributes and attribute levels were shared with the industry experts (i.e. travel agents and cruise companies) for verification. The final list of attributes and levels were used to conduct the conjoint analysis (CA). CA's utility scores and importance values reveal the cruisers' preference. To further understand cruise ship passengers' latent variables (i.e. motivations), principal component analysis (PCA) was performed. Finally, the cruisers were clustered according to their characteristics, including sociodemographic, other traveling behavior, and motivation variables.

3.1 Identifying the key attributes and levels

One hundred online cruise packages were randomly selected in June 2019 from travel companies listed in the HK Tourism Board Cruise Directory (HKTB PartnerNet, 2019). Content analysis was used to identify the key components of a cruise package. Nine attributes were identified: price, duration, cruise capacity, cabin category, dining options, destination and itinerary, port and shore excursion arrangements, facilities and activities, and loyalty club membership. Each attribute had two to four levels. The list was given to 25 industry experts for validation and comments in November and December 2019. Twelve of the experts were from the cruise industry, 10 from travel agencies, and 3 from cruise-related industries such as consulting and shipbuilding. The subjects included revenue analysts, managers, and senior executives.

All interviewees viewed all attributes as important and predefined the attributes relating to customers' motivation, knowledge level, sociodemographic behavior, and ship type. For example, interviewees commented that first-timers aim for new, mega-ship, and shorter duration cruises, whereas experienced cruisers tend to look for a luxury brand and international destinations and do not mind taking a longer vacation. They also suggested that it depends on the traveler's age and traveling companions. The preferences of groups or families, especially three-generation families, are somewhat similar to those of first-timers. Couples' and high-end customers' preferences are similar to that of experienced cruisers, they aim for the luxury class. 'New' and 'ship size' are the key attributes.

The interviewees advised that the recent mega-ship design caters to luxury customers, offering a 'luxury ship within the ship' to capture all clientele. Additional benefits are provided to these luxury guests, such as more free dining options (free meals in some specialty restaurants), exclusive lounge access, and ability to make reservations for some onboard activities (i.e. seats for theater shows). The CA scenario was based on this luxury ship-within-a-ship concept.

Table 1. Summary of the selected cruise studies related to COVID-19, motivation, and attributes.

Topic	Objective	Key findings	Sample location	Methodology	Reference
COVID-19 and cruise industry	To explore the impact of COVID-19 on willingness to cruise and attitudes toward cruising for both cruisers and non-cruisers living in Australia and United Kingdom.	Australians were less positive about cruising compares to UK respondents. Both experienced and non-experienced cruisers felt anxieties about taking cruise trips in the future.	613 participants responded in June 2020 Australian cruisers = 283 Australian non-cruisers = 181 UK cruisers = 86 UK non-cruisers = 63	In-depth interviews	Holland et al. (2020)
COVID-19 and cruise industry	Reports time-series dynamics of Twitter public sentiment on cruise tourism and its driving factors during the COVID-19 pandemic.	Widespread quarantine, isolation, and limits on travel due to COVID-19 can make people even more eager to travel and explore. The public's interest in cruise tourism may shift from mass cruises to niche cruises. Trust in cruise travel would increase when travelers could perceive more crisis management or communication from cruise companies.	Each tweet must contain one or more of the nine general cruise hashtags: #Cruise, #Cruising, #CruiseLife, #Cruiser, #Cruises, #CruiseTime, #CruiseShip, #InstaCruise, and #CruiseCritic.	Sentiment analysis by adopting Latent Dirichlet Allocation (LDA) topic model	Lu and Zheng (2021)
COVID-19 and cruise industry	To identify consumer perceptions of the cruise industry amid the COVID-19 pandemic and seeks to provide market recovery strategies for cruise businesses.	Trust in cruise travel would increase when travelers could perceive more crisis management or communication from cruise companies.	759 North America travelers	Exploratory factor analysis, Structural equation modeling, and word frequency	Pan et al. (2021)
COVID-19 and cruise industry	To explore how under the influence of the COVID-19 pandemic, cruise ship dining environment stimuli dimensions are evaluated by female cruise travelers.	Perceived crowdedness as stimulus did not have a positive effect on the guests' emotional responses. In the stimuli domain dining atmosphere and interaction with other guests showed positive effect on the guests' emotional responses.	402 Female respondents 88% from North America and 12% from Europe	A cross-sectional survey and covariance-based SEM	Radic et al. (2021)
Cruise attributes	To develop a comprehensive framework for assessing servicescape of cruise tourism and provides practical suggestions to improve the perception of Chinese tourists toward cruise servicescape.	The cruise tourism servicescape construct was identified with six dimensions in the order of importance: facilities and decor, natural scenery, onshore excursions, onboard entertainment, social interactions, and dining services. Culture and tourism behavior are closely related in that preferences and behaviors are shaped by passengers' distinctive cultural backgrounds.	300 on-site at Shanghai Wusongkou International Port in April 2015 and 317 QQ Survey China online research	Grounded theory, EFA, and CFA	Lyu et al. (2017)
Cruise attributes	To examine potential Chinese tourists' preferences to cruise in Korea using a choice experiment for cruise attributes using a choice experiment with different cruise attributes.	Culture and tourism behavior are closely related in that preferences and behaviors are shaped by passengers' distinctive cultural backgrounds.	Chinese online survey platform (WenJuanXing) = 244 potential Chinese cruisers	Choice experiment	Park et al., (2019)

(Continued)

Table 1. (Continued).

Topic	Objective	Key findings	Sample location	Methodology	Reference
Cruise attributes	To provide a snapshot of the cruise industry in China and make a comparison to the North American market.	Chinese cruisers preferred shorter cruises. Facility, food and beverage, entertainment, and staff are the most important factors to them.	China and North America	Literature review	Sun et al. (2014)
Cruise attributes	To examine the different attributes of a cruise ship that influence the decision-making of cruisers and potential cruisers.	Potential cruisers generally perceived recreation and sport attributes, fitness and health attributes, and supplementary attributes (i.e. library, educational classes, computer room, and laundry) as more important than did repeat cruisers.	North America 254 cruisers and 153 potential cruisers	Exploratory factor analysis, and independent samples T-test	Xie et al. (2012)
Cruise behavior	To exploring behavioral differences between new and repeat cruisers to sustain a cruise business.	Compared with repeat cruisers, new cruisers booked their cruises closer to the departure date, were more price-sensitive, traveled farther to embarking ports, were more likely to choose shorter cruises, and were more likely to purchase less expensive cabin types.	Proprietary reservation data from one cruise brand company.	Using binary comparison, independent t-test analysis for continuous variables. Chi-square analysis for categorical variables.	Sun et al. (2018)
Cruise constrains	To study potential Chinese cruisers based on travel constraints, cruising images, and intentions.	Difficulty in getting cruise information, safety concerns, and expensive prices are the main constraints.	15 Chinese students and parents of the students 309 Chinese tourists at the hall of Baiyun International Airport	Semi-structure interview EFA, Cluster analysis, MANOVA, and ANOVA	Zou and Petrick (2016)
Cruise experience	To photo-interview 20 Chinese cruisers to understand their cruising experience.	Most participants had a positive experience, yet there were shortcomings (such as a lack of authentic Chinese food, language barriers with the crew, etc.) because of cultural differences.	20 interviews were conducted in four first-tier cities in mainland China, namely Beijing, Shanghai, Guangzhou, and Shenzhen.	Photo-interviewing, interviews with the aid of photos/pictures were used in this study to gain a full picture of the research topic.	Hung (2018)
Cruise motivation	To explore the preferences of potential Chinese cruisers and their expectations, motivations, and intentions to taking an outbound cruise.	The top expectation items were 'see some beautiful sceneries,' 'spend time with friends and family,' 'relax,' 'have fun,' and 'experience different cultures.'	Focus group of 5 Chinese respondents Survey N = 242 respondents from Beijing and Shanghai	A focus group interview was conducted to explore the attributes of the main constructs. Followed by questionnaires to conducted SEM.	Fan and Hsu (2014)

(Continued)



Table 1. (Continued).

Topic	Objective	Key findings	Sample location	Methodology	Reference
Cruise Motivation	To develop and estimate an integrated structural path model of the determinants of cruise demand based on the nexus of motivation, preference, and intention of cruise tourists.	'Escaping' and 'bonding' have significant positive motives; 'self-esteem' and 'learning' have significantly lower preferences for nearly all cruise facilities.	Asian Markets = 575, breaking down into 128 mainland China, 69 HK, 150 Taiwan, 138 Japan, and 90 other Asian travelers N = 575	To compare markets of mainland China, HK, Taiwan, Japan, and other global regions via an ANOVA.	Chen et al. (2016)
Cruise motivation	To explore how the motivation and intention of potential cruise consumers differ in terms of their demographic background.	Different ages, income levels, and marital statuses are significantly different from one another. Cruise motivation, particularly the factors of relaxation, family, and enjoyment, are positively affected cruise intention.	Focus group of 5 mainland Chinese residences Survey N = 242 respondents from Shanghai and Beijing	Focus group was conducted to explore the motivations and intention items. Followed by questionnaires and adopting PCA, T-Test, and ANOVA to identify the difference of motivation and intention of various demographic groups.	Fan et al. (2015)
Cruise motivation	To examine ethnic repeated Chinese travelers' motivations, perceptions, and satisfaction about North American cruise tours.	Core motivating push factors are Discovery, Enjoyment, Social/Esteem Need, Escape, and Family Time. Media and people's influence are the two most important factors when making a cruise decision.	Taiwanese travelers who have completed North American cruise ship tours within the past 10 years. N = 352	One-way ANOVA tests comparing means and correlations were conducted to identify any significant differences or relationships between demographic groups and other user segments.	Josiam et al. (2009)
Cruise motivation	To segment Taiwanese cruisers based on their involvement level, motivation and to compare the involvement segmentation approach with the cluster segmentation approach to demographic differences, pull-push motivations, and influential factors.	When using the involvement construct, cruisers are highly involved in the cruise activities. Two distinct Taiwanese segments are cruise traditionalists (mature and family-oriented) and chuppies (younger).	Taiwanese travelers who have completed North American cruise ship tours within the past 10 years. N = 352	Cluster analysis	Josiam et al. (2012)
Cruise motivation	Applied 'motivation-preference-intention' structural path model to explore the role of self-congruity, functional congruity, perceived travel constraints, constraint negotiation, and self-efficacy on travel intentions.	The congruity between self-images and affective destination images influences people's travel intentions. Functional congruity is positively affected by self-congruity. Travel constraints negatively influence travel intentions.	North America = 564 cruisers	An online panel survey was conducted with cruisers.	Hung and Petrick (2011b)

(Continued)

Table 1. (Continued).

Topic	Objective	Key findings	Sample location	Methodology	Reference
Motivation Scale (Cruise)	To develop the motivation scale specifically for the emerging markets in Asia.	Eight factors are identified, namely, Novelty, Escape, Nature, Leisure, Social interaction, Relaxation, Relationship, and Isolation.	Mainland China = 680 HK = 565	Followed Churchill (1979) asserted that 8 steps would be necessary to develop a scale.	Hsu and Li (2017)
Motivation Scale (Cruise)	To develop a measurement scale for constraints to travel.	Non-cruisers are more intrapersonal (i.e. fear) and interpersonal (i.e. relationships) constraints than cruisers; cruisers reported more structural (i.e. time) constraints.	53 interviews at the Port Everglades. North America N = 897 (333 non-cruisers and 564 cruisers)	Followed Churchill (1979) asserted that 8 steps including qualitative (semi-structured interview 53 cruisers at the Port terminal in Florida) and quantitative (EFA, CFA)	Hung and Petrick (2010)
Motivation Scale (Cruise)	To develop a measurement scale for motivation to cruising and to examine the role of cruising motivation on intention to cruise.	Positive relationship between cruising motivation and cruising intentions. 'Escape/Relaxation' was found to be the strongest motivation in both the interviews and survey.	32 interviews at the Port Everglades. North America N = 897 (333 non-cruisers and 564 cruisers)	The motivation measurement scale was developed by following the procedures recommended by Churchill (1979).	Hung and Petrick (2011a)

Many attributes are interlinked; for instance, onboard facilities and number of dining options are associated with ship size and capacity. To ensure a realistic setting, some of the attributes were predefined as control variables so that all participants had the same perceived background and understanding of the scenario. Because this study focuses on the Asian market, the homeport was defined by the traveler's place of residence. The selected destination was in Asian country. The ship was new and large (capacity of 2,000 passengers). It included all essential onboard facilities and entertainment such as swimming pools, fitness centers, spa, a large theater, skating arena, casinos, outdoor facilities, and shopping areas. Service level interlinked with cabin type. The balcony had a crew-to-passenger ratio of one-to-three. The suite guests received one-on-one service and included exclusive access to designated areas. The added-on benefits and service included personal butler and priority access to the entertainment shows and facilities and the specialty restaurants. Guests who booked suites have the same experience as the luxury or premium ship types but with greater capacity and theme-park-like entertainment. Table 2 presents the final list of attributes and levels.

3.2 Conjoint analysis (CA) and process

Products comprise multiple options with conjoint features. Marketing a hospitality product requires measuring both tangible attributes (product features) and intangible attributes (services), which are difficult to measure. Consumers make choices and evaluate products in a context including other similar options. Each decision/choice is influenced by various price points and features/attributes. CA can calculate the trade-offs between choices and infer preferences through utility score (i.e. enjoyment) and has greater predictive power due to its greater accuracy, realism, and validity (Hensher et al., 2015). This utility score of the CA is derived from the utility theory.

Utility theory is typical regarding the preference, the potential outcomes of a decision (Fishburn, 2013). It focuses on utility maximization, which can be the tradeoffs among the attributes or a product/service or selecting the alternatives that

Table 2. Final list of attributes and levels.

Key attributes	Definition	Attribute levels/options
Cabin Types, Service Level & Price (based on per passenger per night)	<ul style="list-style-type: none"> ● Balcony – as a regular guest, need to pay for some activities & entertainment. <ul style="list-style-type: none"> ○ 1 crew to 3 passengers. ● Suites – include some 'free' onboard facilities and 'priority' access to some entertainment. <ul style="list-style-type: none"> ○ one-on-one service, 'ship within a ship' concept. 	<ul style="list-style-type: none"> ● Balcony HK\$1,500 (RMB1,330) ● Balcony HK\$3,000 (RMB2,660) ● Suite HK\$3,500 (RMB3,100) ● Suite HK\$6,500 (RMB5,780)
Duration	<ul style="list-style-type: none"> ● Preferred travel nights 	<ul style="list-style-type: none"> ● 4-to 5-nights ● 6-to 7-nights ● 8+ nights
Shore Excursion	<ul style="list-style-type: none"> ● Tours and preferred activities at the ports of call. 	<ul style="list-style-type: none"> ● Shopping ● Tasting local food ● Sight-seeing (includes visit places of historical interest, such as palaces, churches, monuments, etc.) ● Visiting nature scenery (such as national parks)

give the highest utility scores/values (Arenoe et al., 2015). This utility maximization suggests rational decisions or decision rules when choosing a product/service from alternatives. Hence, the utility-based choice theory will have chosen options (i.e. A option) utility is greater than the alternative option (i.e. B option). Alternative attributes are the substitution for such attributes, such as hotel room category: standard room vs. suite option. Each attribute/feature may have different weights or parameters for each attribute for estimation. Therefore, it is necessary to identify the direction and importance of the effectiveness of each attribute. The choice experiment is designed to seek respondent tradeoff between the cruise attributes, which reflects the attribute importance toward the rational decision (Mahadevan & Chang, 2017). Figure 1 illustrates this study's CA process.

The design matrix is based on a linear design concept that relies on the variance-covariance matrix of the part-worth (independent) for the optimal variables (features) of the product (Paczkowski, 2018). The number of possible combinations is the product of the number of attributes and levels. Only key attributes were used to avoid excessively complicated scenarios for the participants to rank.

To reduce the number of scenarios in the questionnaire, SPSS Conjoint provides the full profile in an orthogonal design, which helps reduce the number of profiles to a manageable size while maintaining the survey's reliability and validity. The output profile was used for developing the questionnaires. After data collection, syntax was used to calculate the utility score for each attribute and level. The output included the utility scores, which are important for both individual-level and overall outcomes. Individual-level importance values were calculated based on the utility scores for each attribute level over the sum of all attributes' utility scores.

To identify the product preference, each attribute's utility was summated, with the highest score selected as the most strongly preferred product choice set. Comparing the total utility can help identify the trade-off of each attribute level. It can also reveal how it affects customer enjoyment and indirectly affects the purchase decision.

3.2 Sample and survey design

Shanghai and HK ranked third and fourth highest scheduled port calls after Singapore and Taiwan according to the Asia cruise development and capacity report (CLIA, (2019).); therefore, HK and Shanghai were selected for data collection. The survey was divided into three main parts: the conjoint scenario for ranking, motivation, and socio-demographic and travel-related questions.

Other than those who have cruised before, the local standard of living and income level are different between markets. Hong Kong residents tend to have higher incomes than mainland Chinese due to higher living costs. These household income levels are defined based on the country's national bureau's statistics. Hong Kong's income status is obtained from the HK Census and Statistics Department under Wages and Labor earnings. Mainland China's income varies depending on the tier cities. Since the port location is in Shanghai and cruising is a luxury activity; therefore, Shanghai Statistic Bureau of average income has used. The traveling spends price range is conducted based on the preliminary analysis of 100 TA packages. The original questions were prepared in English, then translated into traditional and simplified Chinese.

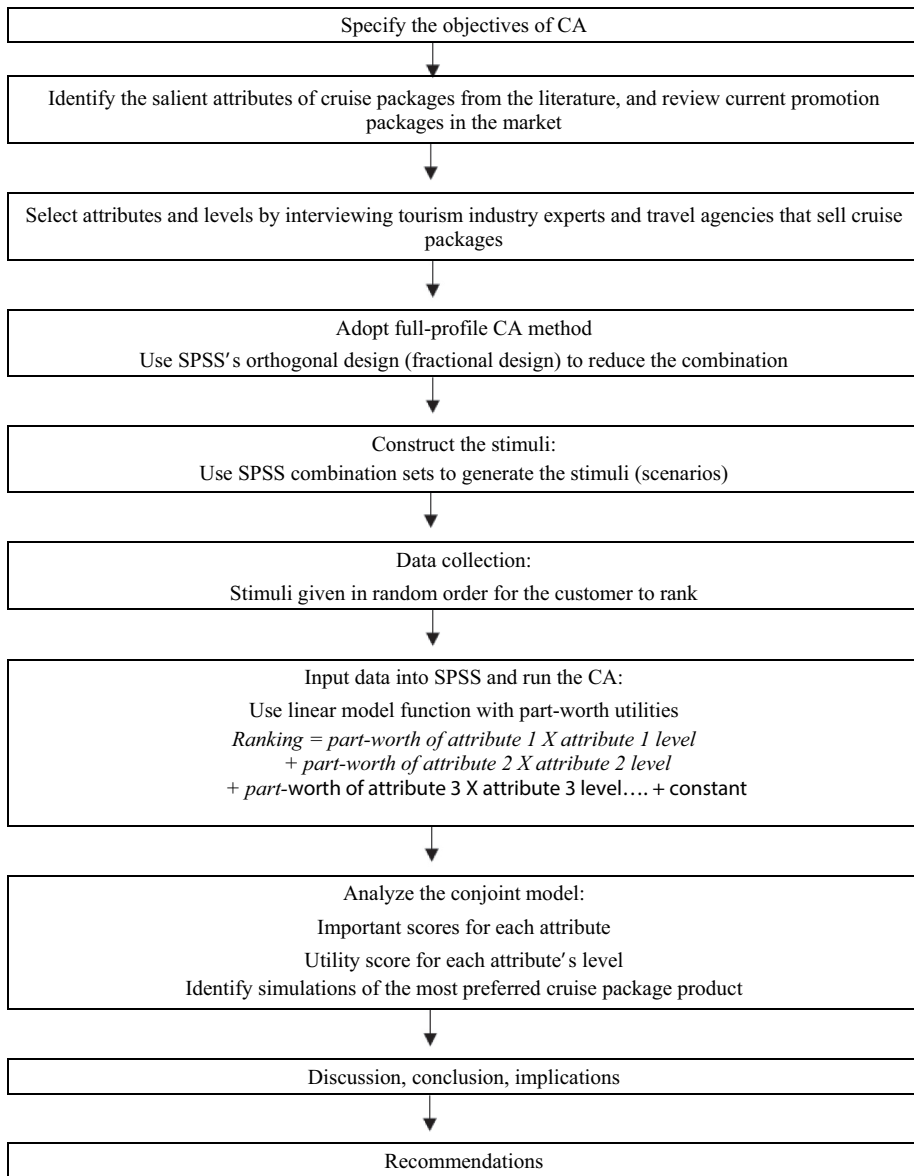


Figure 1. CA process.

The final survey was distributed by two third-party survey companies in May. Kantar–Lightspeed was hired to collect 300 useable HK respondents and another 300 Shanghai respondents by a Shanghai-based survey company (Wen Juan Xing). Other than the locate-specific, another selected criterion was those who have cruised at least once within the past 5 years. A gender-balanced sample was requested, and any surveys with incompleteness or the scenario ranking question showed in a sequent order were disregarded.

3. Findings

4.1 Respondents' profiles and their travel experience

Table 3 shows a descriptive analysis of the respondents' profiles related to their socio-demographic characteristics and travel experience. Most respondents were 30–49 years old (42%), highly educated (60.8% undergraduate degree or above), employed full time (88.7%), had a mid-range monthly household income, and had a household size of three to four persons (76.2%). About 47.7% of the respondents had two or more cruise experiences within the past 5 years.

Table 4 provides information related to the respondents' cruise travel experience. About 59.3% of respondents booked their cruise package through third-party channels. Majority of them (75.5%) booked their cruise trip at least 1 month in advance and about 53.2% spent HK\$1,701 to \$2,800 (or RMB\$1,501 to \$2,500) per person per day.

Table 3. Sociodemographic of respondents and travel experiences.

Demographic information	N	%
Gender		
Male	295	49.2%
Female	305	50.8%
Age		
Below 19 years old	4	0.7%
20 to 29 years old	93	15.5%
30 to 39 years old	252	42.0%
40 to 49 years old	155	25.8%
50 to 59 years old	78	13.0%
60 years old & above	18	3.0%
Education Level		
High School	76	12.7%
College	159	26.5%
Undergraduate	273	45.5%
Post-graduate	92	15.3%
Past 5 years of Cruise Experience		
1 time	314	52.3%
2 to 3 times	261	43.5%
4+ times	25	4.2%
Leisure travel per year		
1 to 2 times	314	52.3%
3 to 5 times	261	43.5%
6+ times	25	4.2%
Monthly Household Income		
Below HK\$30,000	38	12.7%
HK\$30,001 to 45,000	49	16.3%
HK\$45,001 to 70,000	128	42.7%
HK\$70,001 to 100,000	67	22.3%
HK\$100,001 & above	18	6.0%
	300	100%
Below RMB\$9,500	1	0.3%
RMB\$9,501 to 15,000	9	3.0%
RMB\$15,001 to 25,000	64	21.3%
RMB\$25,001 to 35,000	102	34.0%
RMB\$35,001 to 45,000	82	27.3%
RMB\$45,001 & above	42	14.0%
	300	100%

Note: The highest percentage of each character is shown in bold.

Table 4. Respondents' cruise travel-related information.

Cruise related travel information	N	%
Booking Channel		
<i>Direct</i>	244	40.7%
<i>Third-party</i>	356	59.3%
Booking Window		
<i>Within 1 week</i>	19	3.2%
<i>2 to 3 weeks</i>	128	21.3%
<i>1 month</i>	292	48.7%
<i>2 months or more</i>	161	26.8%
Companion		
<i>Alone</i>	16	1.9%
<i>Partner or Couple</i>	321	37.4%
<i>Family</i>	236	27.5%
<i>Family with kids</i>	128	14.9%
<i>Friends</i>	146	17.0%
<i>Parties & special occasion</i>	12	1.4%
Spent per person per day		
<i>Below HK\$1,200 (or RMB\$1,000)</i>	52	8.7%
<i>HK\$1,201 to \$1,700 (or RMB\$1,001 to 1,500)</i>	59	9.8%
<i>HK\$1,701 to \$2,250 (or RMB\$1,501 to 2,000)</i>	159	26.5%
<i>HK\$2,251 to \$2,800 (or RMB\$2,001 to 2,500)</i>	160	26.7%
<i>HK\$2,801 to \$3,400 (or RMB\$2,501 to 3,000)</i>	111	18.5%
<i>HK\$3,401 & above (or RMB\$3,000 & above)</i>	59	9.8%
Duration		
<i>2 to 3 nights</i>	54	9.0%
<i>4 to 5 nights</i>	159	26.5%
<i>6 to 7 nights</i>	282	47.0%
<i>8 to 10 nights</i>	54	9.0%
<i>11 to 13 nights</i>	33	5.5%
<i>14 nights+</i>	18	3.0%

4.2 Results from CA

CA was conducted to answer the research question concerning consumers' selection criteria and the trade-offs they were willing to make between different cruise attributes. Table 5 shows the partial utility score for each attribute level and each key attribute's importance values. The results are considered reliable based on Pearson's R-value (0.860, $p < 0.01$). Shore excursion activity has the highest importance value of 39.340%, followed by cabin price of 35.194%. Duration ranked last with an importance value of 25.466%. The utility score, also called part-worth, was used to measure the respondents' overall preference for a product. The higher the utility scores indicate mostly preferred attribute levels. Results revealed that sight-seeing has the highest utility score of 0.971, followed by visiting natural scenery, tasting local food, and shopping. The optimal scenario was a 6- to 7-night cruise, staying on the balcony level for HK\$1,500 (or RMB1,330) per night per passenger, with sight-seeing as the preferred shore excursion activity; the total utility score is 10.362.

4.2.1 Importance values and travel characteristics

Table 6 illustrates the average importance value of sociodemographic and travel-related characteristics and the levels. Multiple-group analysis with one-way ANOVA was used to identify the statistical differences between groups; Games-Howell post hoc test was

Table 5. Partial utility scores and relative importance value.

Attributes & levels	All <i>n</i> = 600	
	Importance values (%)	Utility
Duration	25.466	
4 to 5 nights		-0.135
6 to 7 nights		0.281
8+ nights		-0.147
Shorex	39.340	
Shopping		-0.774
Tasting local food		-0.324
Sight-seeing		0.971
Visiting nature scenery		0.127
Cabin & Price	35.194	
Balcony HK\$1,500 (or RMB\$1,330)		0.576
Balcony HK\$3,000 (or RMB\$2,660)		-0.084
Suite HK\$3,500 (or RMB\$3,100)		0.277
Suite HK\$6,000 (or RMB\$5,780)		-0.769
Constant		8.534

conducted to identify the difference between categories, with p-values of 0.10, 0.05, and 0.001. Results revealed that some characteristics, including gender, age, amount of cruise experience, number of leisure trips per year, booking channel, and time spent on previous cruises, had a statistically significant difference in attributes.

Gender showed a statistical difference in cabin price (p-value = 0.003). Males tended to consider cabin price and duration more important than females. Young cruisers, in general, felt that duration was more important than older cruisers, especially those below 29 years old and over 50 years old. As cruise experience increased, the importance of cabin prices decreased. As the number of trips per year increased, the importance of cabin price decreased, and the importance of shore excursion activity increased. Spending on a cruise vacation also had a statistically significant difference in duration.

4.3 Motivation

PCA with varimax rotation was performed to reduce the variables to factors. The identification of factors and elimination of items was based on the standard of (1) factor loading equal to or greater than 0.40; (2) eigenvalues equal to or greater than 1.0, according to Kaiser's criterion (Pallant, 2011). A reliability α (Cronbach's alpha) was computed to verify the internal consistency of the items in each dimension.

The preliminary result showed a Kaiser-Meyer-Olkin measure of 0.95 (>0.60), which demonstrates that the distribution of values was adequate for conducting PCA. The subsequent Bartlett's test of sphericity was significant, rejecting the possibility of no difference between the identity matrix and the correlation matrix. One item, 'To do things my own way,' was eliminated after the initial PCA because the coefficient value (factor loading) was below 0.4. PCA resulted in four components with robust reliability, and all Cronbach's alphas were above 0.84. The four extracted factors accounted for

Table 6. Average importance value of sociodemographic and travel-related characteristics.

Variables & levels	Size	Cabin & price		Duration		Shorex	
		Importance value	p-value	Importance value	p-value	Importance value	p-value
Gender							
Male	295	0.375	**	0.221	*	0.404	
Female	305	0.352		0.237		0.410	
Age							
Below 29 Years Old	97	0.344		0.254	1–4*	0.403	
30 to 39 years old	252	0.362		0.226		0.412	
40 to 49 years old	155	0.379		0.227		0.395	
50 years & above	96	0.363		0.216		0.421	
Education Level							
High School	76	0.348		0.222		0.430	
College	159	0.367		0.226		0.407	
Undergraduate	273	0.367		0.227		0.406	
Post-graduate	92	0.360		0.247		0.394	
Job Status							
Full-time	532	0.362		0.231		0.407	
Part-time	19	0.332		0.226		0.442	
Others	49	0.394		0.211		0.395	
Travel-Related Variables							
Past 5 years of Cruise Experience							
1 time	314	0.371	1–3**	0.231		0.398	
2 to 3 times	261	0.359	2–3*	0.225		0.417	
4+ times	25	0.310		0.256		0.433	
Leisure travel per year							
1 to 2 times	314	0.384	1–2**	0.216	1–2**	0.400	1–3**
3 to 5 times	261	0.354	1–3*	0.241		0.405	2–3*
6+ times	25	0.337		0.207		0.456	
Booking Channel							
Direct Call	28	0.397		0.184	1–2**	0.419	
Direct Website	216	0.357		0.241		0.402	
TA	211	0.357		0.233		0.410	
OTA	145	0.375		0.215		0.409	
Booking Window							
Within 1 week	19	0.321		0.253		0.425	
2 to 3 weeks	128	0.370		0.229		0.401	
1 month	292	0.371		0.224		0.404	
2 months or more	161	0.348		0.236		0.416	
Spent per person per day #							
Below HK\$1,200 (or RMB\$1,000)	52	0.368		0.217	2–6*	0.415	4–6*
HK\$1,201 to \$1,700 (or RMB \$1,001 to 1,500)	59	0.370		0.225	3–6*	0.405	
HK\$1,701 to \$2,250 (or RMB \$1,501 to 2,000)	159	0.359		0.230	6***	0.412	
HK\$2,251 to \$2,800 (or RMB \$2,001 to 2,500)	160	0.378		0.235	6**	0.386	
HK\$2,801 to \$3,400 (or RMB \$2,501 to 3,000)	111	0.370		0.221		0.409	
HK\$3,401 & above (or RMB\$3,000 & above)	59	0.313		0.243		0.444	

Post-Hoc Test: Games-Howell

*** < 0.01; ** < 0.05; * < 0.10

exchange rate: 1 HKD = 0.888 RMB, based on Jan 2020 (source: xe.com)

The highest utility score of each variables' subgroup is in bold.

The error indicates the changes of important value in a sequent (either upward or downward) order.

Table 7. PCA for cruisers' motivation.

Factors	Factor loading	Mean	Eigen-value	Variance explained (%)	Cronbach's alpha (α)
Novelty (9 items)		4.628	10.980	36.599	0.881
To observe other people in the area	0.820	3.988			
To meet people with similar values/ interests	0.770	4.625			
To meet the locals	0.747	4.408			
To experience thrills (as depicted in some movies)	0.734	4.412			
To develop my personal interests	0.590	4.920			
To follow the current trend of cruising	0.589	4.795			
To enjoy isolation	0.556	4.630			
To have a daring/ adventurous experience	0.528	4.877			
To gain a new perspective on life	0.448	4.997			
Nature (6 items)		5.198	2.766	14.986	0.850
To be harmonious with nature	0.769	5.433			
To be close to nature	0.752	5.497			
To get a better appreciation of nature	0.721	5.667			
To explore the unknown	0.571	5.160			
To view the scenery	0.561	4.408			
To go to places that are otherwise difficult to reach	0.498	5.022			
Relationship & Social Interaction (8 items)		5.548	1.850	13.528	0.840
To strengthen relationships with my family/ friend(s)	0.714	5.550			
To strengthen relationships with my companion(s)	0.692	5.490			
To treat my family to a relaxing and restful vacation factor.	0.607	5.888			
To rest and relax	0.527	5.893			
To satisfy my curiosity	0.523	5.325			
To have diverse experiences	0.474	5.527			
To enjoy shows and entertainment	0.458	5.195			
To experience open space	0.454	5.518			
Escape (6 items)		5.328	1.165	12.394	0.844
To get away from the usual demands of life	0.739	5.403			
To get away from daily psychological stress/ pressure	0.722	5.252			
To be away from my daily routine	0.718	5.167			
To reduce stress	0.699	5.473			
To get away from daily physical stress/ pressure	0.667	5.080			
To give my mind arrest	0.494	5.595			
<i>Total variance extracted = 55.868%, KMO = 0.950</i>					
<i>Bartlett's test of sphericity = 8892.442 (df = 435, p < 0.001)</i>					
<i>Note: 1 = extremely unimportant, 7 = extremely important</i>					

55.868% of the total variance. These four factors represent the specific dimensions (or core components) of motivation for going on cruises: (1) novelty; (2) nature; (3) relationships and social interaction; and (4) escape.

Table 7 presents the details of each motivation factor. The first factor, *Novelty*, exhibits the greatest variance (36.599%) with a reliability coefficient of 0.881. It incorporates nine items primarily relating to new experiences as well as host–tourist interactions, such as *observing other people, meeting locals, following the cruising trend, gaining a new perspective on life* (Tse & Tung, 2022; Tung, 2019). All items are related to *Nature*, which accounted for approximately 14.986% of the variance in the data, making it another major theme in motivation. The third factor, *Relationships & Social Interaction*, contains eight items that

are mainly related to strengthening relationships, and it explains 13.528% of the variance; Cronbach's alpha is 0.840. *Relationships & Social Interaction* is one of the most important motivational factors, with the highest average mean of 5.548. The last factor, *Escape*, contains eight items and is the second most important factor, with an average mean of 5.328, and it represents 12.394% of variance explained with an alpha of 0.844.

4.4 Segmentation

Cluster analysis was implemented to understand cruise ship passengers' preferences and characteristics. Two perspectives were revealed to be essential for a full understanding: (1) motivations and characteristics and (2) the importance values of attributes.

4.4.1 Motivation factors

A two-step cluster analysis was conducted. Euclidean distance (Ward method) is the most common measure of distance (Mazzocchi, 2008). Ward's hierarchical classification method was initially used to establish the number of clusters. By analyzing the agglomeration scheme in terms of the squared Euclidean distance between the clusters, six clusters were identified. Given the rigidity of the hierarchical clustering method, the nonhierarchical k-means method was adopted to reclassify all units through the number of iterations. Four clusters were identified, with cases ranging from 87 to 145 responses and suitable for profiling (see, Figure 2). A positive score indicates that the motivation is above the mean, whereas if the score is negative, the motivation is below the mean.

Cluster 1: Nature-lover and relationship enhancers

This segment was mainly from those who live in Shanghai (70.59%) with an even spread of gender. About 28.68% had monthly household income ranging from RMB25,001 to 35,000. Generally, they enjoyed going on cruises with their partners

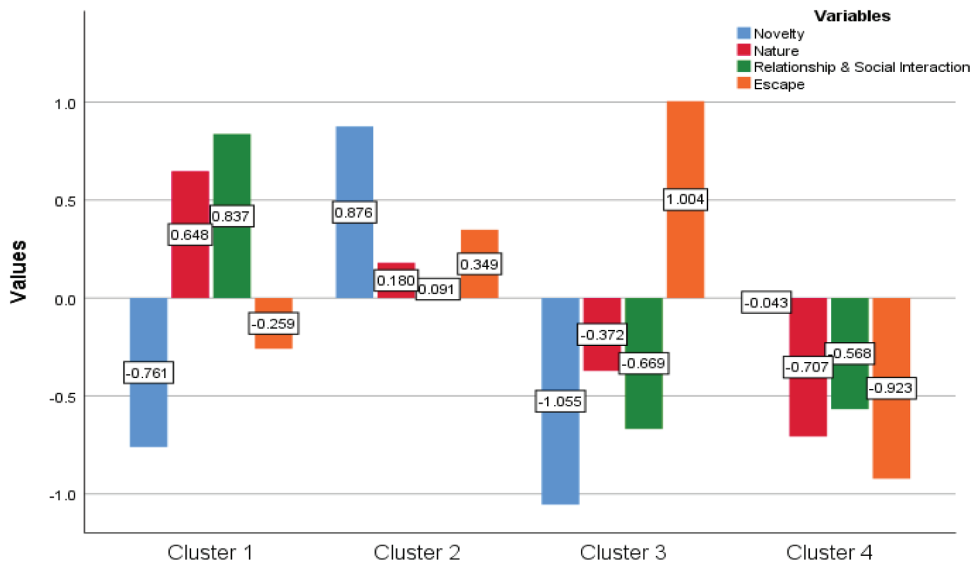


Figure 2. Motivation final cluster center.

(43.40%), and many of them booked cruises at least 1 month in advance (76.47%). About 33.82% spent RMB2,001 to 2,500 per night per person. About 64.7% of them booked cruises through third-party channels. Compared with other clusters, these travelers were more focused on enhancing relationships and appreciating nature. They scored 0.837 and 0.648 above average, whereas novelty and escape scored below average, -0.761 and -0.259 .

Cluster 2: Voyagers

Most respondents were from Shanghai (73.28%) with high income (34% with household income over RMB35,001). About 75% booked trips at least 1 month in advance and 45% booked through direct channels. They were frequent travelers, with over 74.66% travel 3-to 5-times per year. Many of them enjoyed going on cruises with their partners (40.87%), followed by family (39.13%) and friends (15.65%). All motive scores (novelty, nature, escape, and relationship & social interaction) were above average; hence, they are voyagers and keener to cruise.

Cluster 3: Escapers

This segment was mainly from HK (83.91%), and 60.92% were female travelers. Their motivations to go on a cruise were to relax and escape from daily stress and routine (1.004). They cared less about novelty (-1.055), relationship or social interactions (-0.669), and nature (-0.372). They tended to be younger; about 64.37% were below the age of 39. They preferred to book through third-party channels (67.82%). More than half (58.62%) had gone on a cruise at least once, and none of them had cruised more than six times within the past 5 years. Compared with other segments, they tended to be less frequent leisure travelers; about 52.87% of them traveled 1-to 2-times per year.

Cluster 4: Family-oriented travelers

Travelers from this segment cared less about novelty, nature, escape, relationships, and social interaction. All motives were below average, particularly escape (-0.923), nature (-0.707), relationship enhancement (-0.568), and novelty (-0.043). This implies that they had no penchant for cruises but had a ‘no harm to try something new’ attitude. About 86.21% were HK residents, and over 50% went on cruises with family. They were generally older: about 44.83% were over 40 years old. Their monthly income level tended to be low (16.55% below HK\$30,000). About 29.65% spent below HK\$1,200 per person per day and the highest percentage of one-time cruisers (60.69%).

4.4.2 Importance value of attributes

A further examination was conducted focusing on attributes’ importance. All clusters had shore excursion activity as the highest value, followed by cabin price, and duration. After running a 2-step cluster analysis, three, four, and five cluster profiles were investigated, and the three-cluster profile was selected as the best fit. Cluster 1 has duration as the most important value, cluster 2 is shorex, and cluster 3 is cabin price. Although there were statistical differences based on other variables (i.e. city, gender, traveling 6 times or more per year, booking within 1 month, traveling with friends, and monthly household income between HK\$2,251 to \$2,800 and above HK\$3,401), these characteristics were still not sufficient for segmentation.

5. Discussions

This study aims to understand Chinese cruisers and learn about their preferences and motivations to benefit practitioners and policymakers. Combining conjoint and cluster analysis to examine market segmentation helps to gain a better understanding of Chinese cruise ship travelers.

Three key attributes namely duration, cabin type and price, and shore excursion were selected to conduct the CA scenario. Results revealed that shore activity is more important than cabin price and duration. Sight-seeing is the most strongly preferred shore excursion, followed by visiting natural scenery, and shopping ranked last. This may associate with the amount of time onshore and the similar itinerary/destination within Asia that was mentioned by the interviewees. The highest utility score on duration is 6-to 7-nights, followed by 4-to 5-nights and 8+ nights. The result is similar to Sun et al. (2014)'s report on Chinese preferred duration of a maximum of 6 nights. This may relate to China's statutory annual leave entitlement which ranges from 5 to 15 working days depending on the employee's cumulative work years (Shira, 2018).

Our sample has 59.4% booked through third-party channels, which is lower than previous studies that about 75% of travelers booked trips through travel agents (Rose, 2018). It may relate to the sample's young age, high education level, and cruise experience, as the survey was conducted online. In other words, the subjects were highly tech-savvy and comfortable searching and booking online. This denotes the potential of shifting the booking channel from third parties to direct communication. It suggests providing more added-value to encourage direct booking, such as one free meal at the specialty restaurant, depending on the group preference.

Sight-seeing is the most preferred shore excursion activity for Chinese cruisers which reaffirms Park et al.'s (2019) finding that Chinese enjoy learning new things by visiting new destinations. Lee and Yoo (2015) analyze Chinese travelers' preferences to cruise in Korea based on duration, accommodation, services, and cost. They found that respondents favored short trips (i.e. 4-to 5-nights), which differs from this study's results (preferred a longer duration). This difference may be related to the selection of homeport. In Lee and Yoo's (2015) study, it is a fly-cruise, travelers required to fly to the destination to cruise. Hence, they may prefer shorter cruise duration and save some time to explore on land as an extension of trip. This proposes that living/residence city may have led to different preferences for the Chinese market, in this study, the duration.

From clustering, four segments were identified. The first two segments '*nature-lover*' and '*voyagers*' are mainly Shanghai residents; '*escapers*' and '*family-oriented travelers*' are mainly HK residents. This suggests there are some differences between HK and Shanghai cruisers which may be related to the designed cruise itinerary and the openness of the two cities. The given scenario specified that the homeport is at their hometown and cruise destination is within Asia. HK is a Special Administration Region and an international hub, and there are plenty of options traveling to other parts of Asia. In China, there were about 30 million ordinary passports issued by the Chinese government in 2018, representing 21.54% of the total population (Textor, 2020). This also explains the '*voyagers*' Shanghai residents are more eager to explore through cruising, whereas HK '*escapers*'

prefer a 'hassle-free' getaway voyage. Besides, these 'escapers' are young, female cruisers who care less about relationships or social interactions. This solo female travel market is growing in China, which can be an enormous potential cruise segment.

5.1 Theoretical implications

This study contributes to the literature in a number of ways. First, the application of CA provides insights on the importance of attributes and their preferred attributes' levels, as well as the attribute levels and the average importance value of sociodemographic and travel-related characteristics. Related to the utility theory, when cruise ship passengers are satisfied (with the shore excursion activities, in this study), they are more willing to pay a premium. This suggests that price is not always the most influential attribute in deciding. Also, based on Sun et al. (2014) and CLIA's (2019) Asia cruise deployment and capacity report, both mainland Chinese and Hong Kongers prefer shorter duration of an average 4.5 days. This is different from our findings which shows that 6- to 7-nights duration has the utility score whereas 4- to 5-nights and 8+ nights negative utility score. It reflects the enjoyment in cruising for Chinese market, which implicates a positive trend of longer duration for cruising for post-COVID since data is collected during pandemic.

Additionally, this study provides evidence to the idea of '3-generations' travel in China. This infers that couples struggle to find time to bond with both side of their families; therefore, this multi-generational travel becomes popular which can be identified as a potential cruise segment. This traveling together helps to create memorable experiences that will last across generations (Wong, 2020).

This also contributes by providing an understanding into how COVID-19 impacts cruise tourism in China. Although the impact of COVID-19 pandemic outbreaks has drastically affected the cruise industry globally, interestingly, there is no significant difference in Chinese motivations compared to the previous studies (pre-pandemic). According to Chen et al. (2016), 'escaping' and 'bonding' are the factors that most influence Asians to go on a cruise. Their finding echoes this study that 'relationship' and 'escape' are the important motivation factors. Another study by Fan and Hsu (2014) related to motivation for potential Chinese cruisers also found that escape and relationship are key factors. Qu and Ping (1999) identified the major factors in the HK market as 'escape,' 'social gathering,' and 'beautiful environment and scenery,' similar to this study. These attributes are commonly recollected in travel memories. This study contributes by reinforcing the Chinese view on the importance of family, which significantly impacts travel motivations and decision to travel. As highlighted by Lu and Zheng (2021), the restricted travel policies may create eagerness to travel again.

5.2 Practical implications

This study contributes by providing a single feature joining motivation and cruise attributes, which provides a more complete understanding. This study focuses on Chinese cruisers, whereas previous research was from Western perspective. The evidence of rapid recovery in China since last May conveys the Chinese confidence and their eagerness to travel again. Culture influence motivation explains the

unexpected result of no significant difference in motivation compared to pre-pandemic era. A few potential segments are recognized, including ‘cruise-cation’ for domestic travel, multi-generation travels, and solo female travelers. A tailor-made marketing strategy is essential based on the respected targets’ motivation and preferences. To speed up the recovery, cruise companies need to take immediate action in marketing and communication plans, so that to be the first in capturing these opportunities. They could put into consideration of various market sources when marketing and designing a cruise package even within China. For example, designing cruise package to include pickup service from airports or train stations. Cruise companies could also emphasize how a cruise vacation provides activities and facilities to cater all ages and fulfilling both desires of quality family engagements and personal free times.

Last May holiday, only in the first three days, there were already 85 million trips (CGTN, 2020). This May, domestic trips were up by 119% compared to the same time last year, which had recovered to the pre-pandemic level (Cheng, 2021). This strong confidence to travel domestically may impose the consideration to promote ‘cruise-cation’ for the Chinese domestic travelers. This can be remarketed as ‘cruise-to-nowhere’ itinerary.

Although COVID-19 has no impact on the Chinese cruisers’ motivation, cruise companies still need to emphasize the safe and hygienic environment to cruise with confidence again. For instance, how cruise may provide a ‘state-of-mind’ with medical supports. This may include transparency of the cleaning procedures in rooms and public areas, number of certified doctors (or medical teams) are on board, crew’s health condition (i.e. fully vaccinated), and crowd controlling procedures. Cruise company may also consider to add insurance plan into the ticket price.

Another unexpected result was that neither price nor onboard facilities are the most important selection criteria for Chinese cruisers; shore excursions are more important to them. Therefore, when designing an itinerary, it is important to consider what sort of onshore activities are available at the destinations. Shopping is the least preferred shore excursion, and visiting natural scenery is preferred. This contradicts the perception that Chinese prefer shopping due to the amount of time onshore for cruising and similar itinerary/destination within Asia. Therefore, cruise companies need to explore new destinations within Asia. They could design an exclusive itinerary that is only available through the individual cruise ship company to gain competitive advantages. For instance, the exclusive itinerary could include visiting marked trails to see nature, which would appeal to young explorers on the cruise.

5.2 Limitations and future studies

About its limitations, this study could be improved in two aspects. First, the research design focused on experienced cruise ship passengers, so that those who had not previously gone on a cruise were eliminated. Future studies could focus on marketing to non-experienced travelers and examine their preferences and motivations. COVID-19

pandemic is likely to have affected data collection, especially on the psychology of tourists (Cheung et al., 2021). Data collection during the pandemic period may suggest that during pandemic motivation is considered. Unexpectedly, the result is similar to the pre-pandemic studies. Further research is recommended to investigate the post-pandemic intention to cruise again, potentially using user-generated data in the future, which could open new research avenues for scholars (Hsu & Li, 2017; McKercher & Tung, 2016; Tung & McKercher, 2017).

The attributes identified from this research may not fully cover some emerging attributes especially with new variants. For example, there could be emerging attributes such as the importance of 'air flow' since Omicron is highly contagious as well as the need for negative air pressure that could minimize possible transmissions. The situation evolves faster than expected and it would be difficult for researchers to capture all the possible attributes as they arise in one study. Although this study emphasized the need for cruise companies to provide a safe and hygienic environment, future research could consider airflow and negative air pressure as examples of possible additional attributes in the future. The survey was conducted online based on self-reported responses, which could illicit response bias, especially related to items that measure potential negative host-guest interactions (W. T. S. Tse & Tung, 2020; Tse & Tung, 2021). It could also potentially miss some segments (i.e. less tech-savvy travelers). The chosen area for sample collection in China was Shanghai. Those who live inland or further away from the homeport require additional transportation and may have different expectations of cruise ship products. Therefore, further research could investigate those who live in inland cities within China and other Asian residents. This study also focused on mega-ship size. Therefore, its findings cannot be generalized to other types of cruises, such as river cruises or small or luxury cruises that may cater to different types of passengers seeking different experiences.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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