



Exploring family travel motivation, preference, and decision-making with children of different ages

Explorando a motivação, preferências e tomada de decisão em viagens em família com crianças de diferentes

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Abstract

Family tourism has seldom been explored beyond the consideration that families that travel with children are a homogeneous group. This lack of studies is particularly true concerning the exploration of the differences among families with children of different ages. Therefore, this study aims to explore whether differences exist among travel motivations, travel preferences, key travel considerations, and travel characteristics of families with children of different ages. This study also sought to uncover whether differences exist in modes of decision-making concerning family tourism, travel frequency, travel length, dining outlets, accommodation, and modes of transportation among families with children of different ages. A questionnaire based on the literature was applied to Taiwanese families, and 608 valid responses were obtained. The results revealed that the different ages of the children determine travel motivation, decision-making, tourism activities, travel length, safety and hygiene, dining options, and accommodation. These results, which are novel in tourism literature, are discussed, and practical implications are drawn.

Keywords: Family travel motivation, travel with children of different ages, family travel preferences, family travel decision-making, family travel experience.

Resumo

O turismo familiar raramente foi explorado além da consideração de que as famílias que viajam com crianças são um grupo homogêneo. Essa falta de estudos é particularmente verdadeira no que diz respeito à exploração das diferenças entre famílias com crianças de diferentes idades. Portanto, este estudo tem como objetivo explorar se existem diferenças entre as motivações para viajar, preferências de viagem, considerações-chave e características de viagem de famílias com crianças de diferentes idades. Este estudo também tentou aferir se existem diferenças nos modos de tomada de decisão no que diz respeito ao turismo familiar, frequência de viagem, duração da viagem, opções de refeições, alojamento e modos de transporte entre famílias com crianças de diferentes idades. Um questionário com base na literatura foi aplicado a famílias taiwanesas e foram obtidas 608 respostas válidas. Os resultados revelaram que as diferentes idades das crianças determinam a motivação para viajar, tomada de decisão, atividades turísticas, duração da viagem, segurança e higiene, opções de refeições e acomodações. Esses resultados, que são inovadores na literatura de turismo, são apresentados e discutidos em pormenor, e são extraídas implicações práticas.

Palavras-chave: Motivação para viagens em família, viagens com crianças de diferentes idades, preferências de viagens em família, tomada de decisão em viagens em família, experiência de viagens em família.

1. Introduction

Burgeoning tourism markets around the world have led to an increase in research on travel-related topics among different population groups, including elderly people (Horneman, Carter, Wei, & Ruys, 2002; Jang & Wu, 2006; Parreira, Pestana, Santos, & Fernández-Gómez, 2020), adults (Kim, 2010), students (Bywater, 1993), young people (Carr, 1999; Yousaf, Amin, & Santos, 2018), women (Cockburn-Wooten, Friend, & McIntosh, 2006), and children (Li, Lehto, & Li, 2020; Feng & Li, 2016; Jen, Lu, & Tseng, 2010). One topic that has thus far received relatively little attention is family tourism (Schänzel, Yeoman, & Backer, 2012; Lin & Ho, 2013; Chang, Lin, & Hu, 2015). Recent changes in demographic and social structures and immigration, longer life expectancies, and low birth rates have diversified the patterns in family tourism (Schänzel & Yeoman, 2015). In fact, family tourism has emerged as a large and constantly growing market that accounts for 30% of the worldwide leisure travel market. Its growth rate is projected to exceed that of other population groups, and it is poised to become one of the most

important components of customer operations in the tourism industry (Schänzel et al., 2012; Li et al., 2020).

Family tourism refers to a form of tourism in which parents and children leave their residence and visit unfamiliar places to partake in travel or leisure activities. Shaw and Dawson (2001) pointed out that family tourism has both educational and recreational implications, as parents often hope to use this leisure family time to maintain intra-family communication and bonds, teach their children about values and healthy lifestyles, enable the children to acquire knowledge through travel, and help them learn and develop their characters and values (He, Chen, & Huang, 2013). The family life cycle influences the travel behaviors of consumers; different family life cycles lead to different travel preferences and needs (Lin, 2016) and influence customers' choices regarding their destinations, travel length, dining options, accommodations, and shopping behaviors (Yen, 2010).

During the family holiday, family members spend quality time and create collective memories and social capital (Carr, 2011; Lehto, Choi, Lin, & MacDermid, 2009; Li et al., 2020) while



gaining other benefits. Zhang and Zhang (2009) indicated that Chinese parents travel with their children to increase their children's communication skills, allowing them to gain knowledge and form long-lasting happy childhood memories. Exciting and interactive entertainment activities, which, optimally, parents and children can both participate in, can be appropriately included in family tourism for 5-year-olds and above. Traveling with 6- to 12-year-olds allows more flexibility in scheduling a family's travel distance and length, and families with 13- to 18-year-olds tend to gravitate toward group tours arranged by travel agencies.

Wu, Wall, Zu, and Ying (2019) proposed that family tourism research has thus far focused on three major streams: family travel decision-making, the benefits of travel, and family travel experiences. However, families' safety needs, travel expectations, accommodation and dining needs, travel distance, travel length, and method of travel differ according to children's ages. To the best of our knowledge, no study has explored the differences among travel motivations, travel preferences, and key travel considerations in family tourism in the context of families with children of different ages. Some studies on family tourism have regarded families as a single population group and neglected to consider children's growth stages. A child's travel needs in terms of dining, accommodation, recreation, and purchasing differ by age; therefore, the first aim is to explore whether differences exist among the travel motivations, travel preferences, key travel considerations, and travel characteristics of families with children of different ages. This study also sought to uncover whether differences exist in modes of decision-making concerning family tourism, travel frequency, travel length, dining outlets, accommodation, and modes of transportation among families with children of different ages.

2. Literature review

2.1 The benefits of family travel

The family is the primary unit through which humans form important intimate affective bonds. Family tourism is beneficial for family members as it provides an opportunity for them to unite, develop bonds, maintain the liveliness of the family, create memories, improve parent-child relations, and enhance family functioning (Zabriskie & Kay, 2013). Parents attach great importance to family engagement, and family tourism, defined here as a family-oriented leisure activity with a destination, is often used to achieve short- and long-term goals (Shaw & Dawson, 2001). Sharing activities or touristic experiential activities in family tourism can improve bonding and attachment between family members; it can also teach children how to share and interact with others and build strong connections with their families (Smith, 1997). Durko and Petrick (2013) showed that travel is a means to help improve communication within a relationship, reduce the possibility of divorce, strengthen lifelong family bonds, and increase a sense of well-being in adults and children. Recently, Miyakawa and Oguchi (2022) proposed that a memorable tourism experience

and children's skill development through family tourism were positively associated with changes in parents' well-being. Family tourism also allows family members to gain a sense of accomplishment and well-being, create meaningful memories, and promote family harmony. Furthermore, scholars have found that family tourism strengthens family bonds, cohesion, communication, and adaptability (Kluin & Lehto, 2012), broadens a child's view of life, increases their practical tourism experiences, and enhances their interpersonal relations and social skills. Engaging in simple interactions when traveling together provides family members with an opportunity to alleviate negative emotions such as work-related stress, academic stress, and anxiety; it also allows family members to pass their free time without feeling bored (Chang et al., 2015) and increase their satisfaction with family life.

The various benefits of family tourism can also affect the motivation, decision-making, and different considerations of parents or children prior to travel. In particular, collectivist Confucian values regarding family and education (Khoo-Lattimore & Yang, 2020) will affect what "children want to achieve" at different ages during family holidays. In terms of Maslow's hierarchy of needs (1943), family traveling meets belongingness and love needs, self-esteem needs, and self-actualization needs. Examples include education, cultural experience, and collecting stamps in various spots). In addition, family tourism meets basic physiological needs and safety needs, with some examples being exercise and family reunions.

2.2 Motivations and preferences of family tourism

Iso-Ahola and Allen (1982) described tourism motivation as the driving force that pushes tourists to escape from routine or stressful environments and pursue opportunities for personal psychological rewards such as self-challenge, exploration, learning, and recreation. In other words, such people wish to change their monotonous routines by satisfying their curiosity and changing their lives (Mayo & Javis, 1981). There are many theories on tourism motivations, most of which are based on the push and pull theory posited by Dann (1977) and Crompton (1979). Thomas (1964) stated that recreation motivations consist of different dimensions: education and culture, relaxation and entertainment and ethnic traditions.

Preferences refer to an individual's intrinsic emotions and tendencies and their degree of partiality to a particular set of choices. Preferences differ significantly among individuals. Acker, Wee, and Witlox (2010) suggested that travel preferences are generated from external environment and intrinsic individual factors, including habits, attitudes, enjoyment, interests, preferences, and feelings. Crawford and Godbey (1987) defined travel preferences as the product of an individual's socialization and learning or of the outcomes of the interactions between an individual's personality traits and society.

Lu (2017) identified four factors behind tourism motivations: intellectual learning, affective interaction, scenic enjoyment and stress relief, and mental and physical health. This study also



defined three dimensions of travel preferences: transportation and location, outdoor and natural sceneries, and interior arts and literature guidance. Lu's (2017) results revealed that all dimensions of tourism motivations and travel preferences were significantly and positively correlated. In another study, Chen (2017) classified four dimensions of family tourism motivation: intellectual learning, affective interaction, scenic enjoyment and stress relief, and mental and physical health. This research also determined three dimensions of family tourism: transportation and location, outdoor and natural sceneries, and interior arts and literature guidance. Chen's (2017) study results showed that tourism motivations had partially significant and positive effects on travel preferences.

With regard to key travel considerations, Wu (2011) examined negative family tourism experiences before, during, and after the tourism activities. The results of this research showed that family members' different needs resulted in different experiences of tangible infrastructure use. Females, for example, emphasized restroom hygiene, while males emphasized parking convenience. Elderly people focused on functioning and conveniently accessible infrastructure, while parents valued the availability of facilities and equipment for infants and children and environmental safety.

Previous studies have also indicated that interviewees enjoyed using the facilities and equipment provided at attractions to pursue physical health, sports, and relaxation (Jonathan & Grace, 1987). Furthermore, it has been shown that families with small children tend to emphasize their children's intellectual growth (Lin & Ho, 2013). Parents will help their children develop a passion for learning and experiencing different cultures and customs by engaging in educational experiential activities during family travel (Lu, 2017). Traveling helps children learn and practice the concepts and skills taught in the classroom; it also broadens their global perspective—hence, traveling has positive educational implications (Byrnes, 2001). In other words, family tourism has both educational and entertainment benefits, increases cohesion and intimacy between family members, and creates many happy memories (Neumann, 2006). Keeping in mind that families with children of different ages have different considerations, this study proposes Hypothesis 1 as follows:

H1: Differences exist in travel motivations among families with children of different ages.

2.3 Family travel decision making

A tourist's destination choice is shaped by their travel intentions and preferences, driven by their individual needs, and influenced by the destination's features (Nuraenia, Arrub, & Novanic, 2015). Tourists will generally choose to travel to the destination that best benefits them, while parents must also consider environmental factors and the needs of family members when selecting the most suitable destination. Meanwhile, travel preferences significantly predict intentions to revisit a location.

Zhang and Zhang (2009) indicated that children act as the catalyst for family tourism. Because parents attach great importance to the satisfaction of their children, they are likely to exclude places their children would be less willing to visit. Previous studies have shown that family tourism activities differ according to key considerations that depend on the various stages of the family life cycle. Families with small children stress the intellectual growth of the children (Lin, 2013); and family leisure not only entails visits to amusement parks, but also integration of educational concepts into the travel itinerary that will enable children to learn new things, acquire information, and broaden their perspectives through recreational activities or leisurely settings (Ritchie, Carr, & Cooper, 2003). Furthermore, family tourism increases a child's geography knowledge (Jen et al., 2010). Based on the characteristics above, this study proposes Hypothesis 2 as follows:

H2: Differences exist in travel preferences among families with children of different ages.

2.4 Family travel experience and key considerations

Research has demonstrated that parents who travel with their children base their choices on six major dimensions of tourism consumption: dining, accommodation, transportation, sightseeing, purchasing, and entertainment (Xu, 2016). Furthermore, Wu (2011) interviewed families about their negative travel experiences and found that parents emphasized child safety above all other considerations. Concerning tangible infrastructure, parents with infants preferred to visit attractions that provide breastfeeding rooms, diaper changing tables, accessible infrastructure (pathways, restrooms, and elevators), drinking fountains, and clean restrooms. They also feel that it is important that their choice of accommodation provides amenities for infants and children. To examine whether the key travel considerations of parents change according to their children's ages, this study proposes Hypothesis 3 as follows:

H3: Differences exist in key travel considerations among families with children of different ages.

Early tourism-related studies often considered the "man of the house" to be the primary decision-maker because the husband's education level, income, and occupational level was perceived to be higher than those of the wife (Jenkins, 1978). Over time, gender equality in marriages has become much more valued, and spouses nowadays seldom make decisions without considering each other's opinions; in today's society, joint decision-making by both spouses is the most common mode of decision-making in family tourism (Fodness, 1992). Children's preferences also account for a significant part of the decision-making process in family tourism—parents' decisions are primarily influenced by their children, and the children's opinions and ideas are considered. Research has demonstrated that children's preferences ultimately affect a family's final decision (Thornton, Shaw, & Williams, 1997) and will have direct and indirect effects on a family's consumption choices (Ahuja & Stinson, 1993; Nickerson & Jurowski, 2001; Kaur & Singh, 2006;



Kozak, 2010; Blichfeldt et al., 2011). Based on the arguments above, this study proposes Hypothesis 4 as follows:

H4: Differences exist in travel characteristics (i.e., the mode of decision-making in family tourism, travel frequency, travel length, choice of dining outlet, choice of accommodation, and modes of transportation) among families with children of different ages.

3. Materials and Method

3.1 Participants and sampling

Taiwan's Protection of Children and Youths Welfare and Rights Act defines children as individuals below the age of 12. Children can further be categorized based on their educational ages, either as infants (0 to 2 years old), preschoolers (3 to 6 years old), and school-age children (7 to 12 years old). In this study, we used the above information to classify children according to their age range, which takes into account a child's speech and cognitive abilities as well as their emotional and psychological needs.

Between April and June 2019, we administered a web-based questionnaire to participants recruited via convenience sampling. The participants were parents with children aged 12 and under who had previously engaged in family vacations. The study participants came from various regions of Taiwan and were willing to complete the questionnaire.

3.2 Measurement tools

3.2.1 Basic personal information

The basic personal information we collected from the participants included their age, gender, region of residence, marital status, the number of children who engaged in family tourism, as well as respondent's relationship with children, educational level, occupation, and mean annual household income.

3.2.2 Travel motivation, preference and travel characteristics measurement

We based the items of the questionnaire that concerned tourism motivations on the work of several researchers (Lee, Graefe, & Burns, 2008; Lehto et al., 2009; Neumann, 2006; Schänzel & Smith, 2014; Shaw, Havitz, & Delemere, 2008; Smith, 1997; Lu, 2017; Lin & Ho, 2013; Chang et al., 2015). Seventeen tourism motivation items were included in the questionnaire; they were rated on a five-point Likert scale (1 = highly disagree, 5 = highly agree). We developed the questionnaire items that examined travel preferences based on the main leisure activity contents and common activities for children listed in the Survey of Travel by R.O.C. Citizens of the Tourism Bureau of the Ministry of Transportation and Communications (MOTC, 2017). We included 18 items addressing travel preferences, and they were rated on a five-point Likert scale (1 = never, 5 = always). We based the questionnaire items that investigated key travel considerations on Wu's (2011) research. We included 11 items

that addressed travel considerations, and these were also rated on a five-point Likert scale (1 = not at all important, 5 = very important).

LaMondia, Snell, and Bhat (2010) mentioned the important effects of nationality, traveler demographics, travel companionship arrangement, traveler preferences and values, and trip/destination characteristics on holiday destination and travel mode choice. Therefore, we included six self-developed items that concerned tourism/traveling characteristics, including the mode of decision-making in family tourism, travel frequency, travel length, choice of dining outlet, choice of accommodation, and modes of transportation when traveling. These items were measured on a nominal scale.

4. Results

4.1 Descriptive statistics of the sample

630 respondents completed the questionnaire in this study, and we received 608 valid responses. With regard to age, 44.41% of the respondents were aged 39 years and under, while 49.34% were between 40 and 49 years of age. Most of the respondents were female (77.30%), while males accounted for 22.70%. A majority of the respondents were married (94.74%), while single parents, divorcees, and widows/widowers accounted for 5.26% of the sample. In terms of region of residence, most of the respondents (47.70%) lived in northern Taiwan, followed by the central region (27.96%), the southern region (10.03%), the eastern region (5.26%), and the outlying islands (0.82%). The distribution of respondents is similar to the actual regional population distribution in 2022, which comprised 43% in the North, 23% in the Central region, 27% in the South, 4% in the East, and 1% in outlying islands (Department of Household Registration, M. O. I., Taiwan, 2023). In addition, among Taiwanese aged 25-55, the average divorce and widow rate is 6.62%, which is not much different from the 5.26% of single-parent respondents.

Hollingshead's (1957) two-factor index of social position served as an index in this study. We found that the percentages of respondents with low, middle, or high socioeconomic status was 1.48%, 16.94%, and 81.58%, respectively, which reveals that most of the respondents had a high socioeconomic status. In terms of the age range of the children in the family, 11.84% of the respondents had 0- to 2-year-olds, 33.22% had 3- to 6-year-olds, and 54.94% had 7- to 12-year-olds. In terms of mean annual household income, the most respondents are in the middle range (53.29% earn from US\$20,000 to no more than US\$40,000 per year).

4.2 Exploratory factor analysis

To reduce and classify the items of travel motivation, travel preferences, and main travel considerations, we use exploratory factor analysis (EFA) to extract the concepts of travel motivation, travel preferences, and main travel considerations.



4.2.1 Travel motivations

There were 17 questionnaire items included to examine this dimension. We extracted common factors; we then rotated via the Varimax orthogonal rotation method. The common factors we found were “learning or experiencing,” “cultivating affection,” “stress relief or sports,” and “compensation or rewards,” with eigenvalues of 3.48, 2.57, 2.55, and 2.00, respectively. The explained variance of the factors was 20.46%, 15.14%, 15.01%, and 11.74%, respectively, and the cumulative explained variance was 62.35%. Based on the mean of the four factors, the most prevalent tourism motivation among the respondents was “cultivating affection,” followed by “learning or experiencing,” “stress relief or sports,” and lastly, “compensation or rewards.” The Cronbach’s α for the overall scale was 0.87, which indicates good internal consistency.

4.2.2 Travel preferences

18 items were included in this dimension. Again, we used EFA to extract common factors and then rotated them via the Varimax orthogonal rotation method. The common factors we found included “enjoying natural sceneries and recreation,” “festivities and cultural education,” “participating in dynamic activities,” and “shopping and savoring delicacies,” with eigenvalues of 3.81, 3.05, 2.80, and 1.72, respectively. The explained variance of the factors was 21.16%, 16.94%, 15.58%, and 9.53%, respectively, and the cumulative explained variance was 63.21%. Based on the mean of the four factors, the most preferred travel preference was “shopping and savoring delicacies,” followed by “festivities and cultural education,” “enjoying natural sceneries and recreation,” and lastly, “participating in dynamic activities.” The Cronbach’s α for the

overall scale was 0.91, which indicates a good internal consistency among the factors.

4.2.3 Key travel considerations

There were 10 items included in this dimension. The extracted common factors were “safety and hygiene,” “amenities for children and child-friendly spaces,” and “family-friendly dining options and activities,” with an eigenvalue of 4.16, 2.29, and 1.62, respectively. The explained variance of each factor was 41.56%, 22.89%, and 16.19%, respectively, and the cumulative explained variance was 80.64%. The most prioritized key travel consideration was “safety and hygiene,” followed by “family-friendly dining options and activities,” and lastly, “amenities for children and child-friendly spaces.” The Cronbach’s α for the overall scale was 0.86, which indicates a good internal consistency among the factors.

4.3 Differences among families with children of different ages

4.3.1 Differences in relation to tourism motivations among families with children of different ages

As can be seen in Table 1, the factors of “learning or experiencing” ($F = 3.36$) and “stress relief or sports” ($F = 24.18$) attained a level of statistical significance ($p < 0.001$) for tourism motivations among families with children of different ages. The post-hoc Scheffe test results revealed that in terms of “learning or experiencing,” the families with 7- to 12-year-olds had a higher mean than those with 0- to 2-year-olds; in terms of “stress relief or sports,” families with 3- to 6-year-olds and 7- to 12-year-olds both had higher means than those with 0- to 2-year-olds.

Table 1 - Analysis of differences in relation to travel motivations among families with children of different ages

| Factor level | Age range of children | N | M | df. | F | p | Scheffe test results |
|--|-----------------------|-----|------|-----|----------|-------|---|
| Motivation 1: Learning or experiencing | 0 to 2 years | 72 | 4.33 | 605 | 3.36* | 0.035 | 7 to 12 years > 0 to 2 years |
| | 3 to 6 years | 202 | 4.46 | | | | |
| | 7 to 12 years | 334 | 4.49 | | | | |
| | Total | 608 | 4.46 | | | | |
| Motivation 2: Cultivating affection | 0 to 2 years | 72 | 4.68 | 605 | 0.99 | 0.372 | |
| | 3 to 6 years | 202 | 4.58 | | | | |
| | 7 to 12 years | 334 | 4.60 | | | | |
| | Total | 608 | 4.60 | | | | |
| Motivation 3: Stress relief or sports | 0 to 2 years | 72 | 3.48 | 603 | 24.18*** | 0.000 | 3 to 6 years > 0 to 2 years; 7 to 12 years > 0 to 2 years |
| | 3 to 6 years | 201 | 4.04 | | | | |
| | 7 to 12 years | 333 | 4.05 | | | | |
| | Total | 606 | 3.98 | | | | |
| Motivation 4: Compensation or rewards | 0 to 2 years | 72 | 3.36 | 605 | 1.96 | 0.141 | |
| | 3 to 6 years | 202 | 3.54 | | | | |
| | 7 to 12 years | 334 | 3.55 | | | | |
| | Total | 608 | 3.52 | | | | |

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

4.3.2 Differences in relation to travel preferences among families with children of different ages

As shown in Table 2, the “festivities and cultural education” ($F = 8.03$), “participating in dynamic activities” ($F = 9.52$), and “shopping and savoring delicacies” ($F = 3.66$) factors attained a

level of statistical significance ($p < 0.05$) for travel preferences among families with children of different ages, whereas “enjoying natural sceneries and recreation” did not attain a level of statistical significance despite having a high mean. This signifies that regardless of age range, all families with children enjoyed natural sceneries and recreation. The post-hoc Scheffe



test results found that in terms of “festivities and cultural education,” families with 3- to 6-year-olds and 7- to 12-year-olds both had higher means than those with 0- to 2-year-olds, while for “participating in dynamic activities,” families with 3- to 6-

year-olds and 7- to 12-year-olds both had higher means than those with 0- to 2-year-olds. With regard to “shopping and savoring delicacies,” families with 0- to 2-year-olds had a higher mean than those with 3- to 6-year-olds.

Table 2 - Analysis of differences in relation to travel preferences among families with children of different ages

| Factor level | Age range of children | N | M | df. | F | p | Scheffe test results |
|---|-----------------------|-----|------|-----|---------|-------|--|
| Preference 1: Enjoying natural sceneries and recreation | 0 to 2 years | 72 | 4.44 | 605 | 0.63 | 0.534 | |
| | 3 to 6 years | 202 | 4.38 | | | | |
| | 7 to 12 years | 334 | 4.43 | | | | |
| | Total | 608 | 4.42 | | | | |
| Preference 2: Festivities and cultural education | 0 to 2 years | 72 | 4.15 | 605 | 8.03*** | 0.000 | 3 to 6 years > 0 to 2 years; 7 to 12 years > 0 to 2 years |
| | 3 to 6 years | 202 | 4.41 | | | | |
| | 7 to 12 years | 334 | 4.35 | | | | |
| | Total | 608 | 4.35 | | | | |
| Preference 3: Participating in dynamic activities | 0 to 2 years | 72 | 2.88 | 605 | 9.52*** | 0.000 | 3 to 6 years > 0 to 2 years; 7 to 12 years > 0 to 2 years |
| | 3 to 6 years | 202 | 3.15 | | | | |
| | 7 to 12 years | 334 | 3.28 | | | | |
| | Total | 608 | 3.19 | | | | |
| Preference 4: Shopping and savoring delicacies | 0 to 2 years | 72 | 3.90 | 605 | 3.66* | 0.026 | 0 to 2 years > 3 to 6 years |
| | 3 to 6 years | 202 | 3.63 | | | | |
| | 7 to 12 years | 334 | 3.75 | | | | |
| | Total | 608 | 3.73 | | | | |

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

4.3.3 Influences in relation to key travel considerations among families with children of different ages

As Table 3 indicates, “safety and hygiene” ($F = 5.46$), “amenities for children and child-friendly spaces” ($F = 1193.61$), and “family-friendly dining options and activities” ($F = 13.15$) attained a level of statistical significance ($p < 0.01$) for travel preferences among families with children of different ages. The post-hoc Scheffe test results revealed that families with 0- to 2-

year-olds had a higher mean for “safety and hygiene” than those with 7- to 12-year-olds, while families with 0- to 2-year-olds had a higher mean than those with 3- to 6-year-olds. Families with 3- to 6-year-olds had a higher mean for “amenities for children and child-friendly spaces” than those with 7- to 12-year-olds. Concerning “family-friendly dining options and activities,” we found that families with 0- to 2-year-olds and 3- to 6-year-olds both had higher means than those with 7- to 12-year-olds.

Table 3 - Differences in relation to key travel considerations among families with children of different ages

| Factor level | Age range of children | N | M | df. | F | p | Scheffe test results |
|---|-----------------------|-----|------|-----|------------|-------|---|
| Key consideration 1: Safety and hygiene | 0 to 2 years | 72 | 4.74 | 605 | 5.46** | 0.004 | 0 to 2 years > 7 to 12 years |
| | 3 to 6 years | 202 | 4.66 | | | | |
| | 7 to 12 years | 334 | 4.55 | | | | |
| | Total | 608 | 4.61 | | | | |
| Key consideration 2: Amenities for children and child-friendly spaces | 0 to 2 years | 72 | 4.52 | 605 | 1193.61*** | 0.000 | 0 to 2 years > 3 to 6 years; 3 to 6 years > 7 to 12 years |
| | 3 to 6 years | 202 | 2.96 | | | | |
| | 7 to 12 years | 334 | 1.06 | | | | |
| | Total | 608 | 2.10 | | | | |
| Key consideration 3: Family-friendly dining options and activities | 0 to 2 years | 72 | 3.73 | 605 | 13.15*** | 0.000 | 0 to 2 years > 7 to 12 years; 3 to 6 years > 7 to 12 years |
| | 3 to 6 years | 202 | 3.78 | | | | |
| | 7 to 12 years | 334 | 3.38 | | | | |
| | Total | 608 | 3.55 | | | | |

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

4.4. Differences in travel characteristics among families with children of different ages

4.4.1 Differences in mode of decision-making in family tourism among families with children of different ages

A chi-square test is deemed unsuitable if more than 20% of the expected counts (expected values) have a sample size smaller than five. The resultant p -value from the Fisher's exact test (Upton, 1992) was 0.00, and the overall model attained a level of

significance ($p < 0.05$), which indicates that differences exist in the mode of decision-making in family tourism among families with children of different ages. Joint decisions made by both spouses were the most prevalent mode of decision-making among all families with children. Still, we found that as the children grew older, their parents gave them relatively more authority to participate in decision-making. The proportion of decisions made jointly by parents and their children was higher in families with 7- to 12-year-olds than in those with 3- to 6-year-olds.



4.4.2 Differences in travel frequency among families with children of different ages

Similar to the decision-making results, we used the chi-square test method for analysis, which revealed that differences exist in travel frequency among families with children of different ages. Our results showed that with regard to going on at least one or two trips per month, families with 3- to 6-year-olds traveled more frequently than those with 0- to 2-year-olds, whereas those with 7- to 12-year-olds traveled the least.

4.4.3 Differences in travel length among families with children of different ages

We also used the chi-square test method to analyze the data regarding travel length. Since at least 80% of the expected counts had a sample size greater than five, we used the Pearson's chi-squared test (Pearson, 1990) for this factor. The resultant significance was 0.26, and the overall model failed to attain a level of significance. These results demonstrate that no differences exist in travel length among families with children of different ages; they also showed that all families mostly preferred day trips.

4.4.4 Differences in choice of dining outlet among families with children of different ages

For this factor's chi-square test, the resultant p -value from the Fisher's exact test was 0.00, and the overall model attained a level of significance ($p < 0.05$), which indicates that differences exist in the choice of dining outlet in family tourism among families with children of different ages. A majority of the families preferred to savor local delicacies, while families with 0- to 6-year-olds preferred to dine at family-friendly restaurants more than families with 7- to 12-year-olds.

4.4.5 Differences in choice of accommodation among families with children of different ages

The resultant p -value from the Likelihood ratio chi-square test for this factor was 0.02, and the overall model attained a level of significance ($p < 0.05$), which indicates that differences exist in the choice of accommodation among families with children of different ages. Families with 0- to 2-year-olds preferred one-day trips (with no overnight stays), while families with 3- to 12-year-olds preferred to stay in hotels. Furthermore, more families with 7- to 12-year-olds preferred camping compared to families with 3- to 6-year-olds; it seemed that those with 0- to 2-year-olds excluded camping.

4.4.6 Differences in mode of transportation among families with children of different ages

For the mode of transportation factor, the resultant p -value from the Pearson's chi-squared test was 0.28, and the overall model failed to attain a level of significance. This shows that no differences exist in the mode of transportation among families with children of different ages, and for the most part, all of the families preferred to drive their own vehicles.

5. Conclusions and recommendations

5.1 Discussion

Our study results revealed that there were no differences among families with children of different ages in the "cultivating affection" and "compensation or rewards" travel motivations-related factors. This demonstrates that all the families went on family vacations to create memories or reward family members. This finding aligns with several works (Schänzel & Yeoman; 2015; Kluin & Lehto, 2012), who found that family tourism entails large amounts of affective investments. Moreover, family tourism is not merely limited to family members' participation in leisure activities, but also has the benefit of creating collective memories as a family (Neumann 2006; Carr, 2011; Lehto et al., 2009; Shaw et al., 2008). Our findings also revealed that families with 7- to 12-year-olds attached greater importance to learning and experiences than families with younger children. Parents tend to hope their children can learn from educational and experiential tourism activities, enlightening them and enhancing their imagination and creativity. Similar to Byrnes' (2001) arguments, tourism can enable children to learn and put into practice the concepts and skills they have acquired in the classroom and broaden their global perspective. Therefore, tourism has positive educational implications (Falk, Ballantyne, Packer, & Benckendorf, 2012). Families with 3- to 12-year-olds attached greater importance to stress relief or sports than families with younger children. Children in this age range tend to have higher activity levels, and engaging in leisure activities allows them to relieve stress, improve their physical fitness, strengthen interpersonal relations, and elevate their learning efficiency.

Families with 0- to 2-year-olds included more shopping and dining activities in their travel itineraries than families with older children, likely because children in this age have longer nap times, and the naps can be taken in strollers. Furthermore, parents must buy more items to care for younger children. Our findings also showed that families with 3- to 6-year-olds and 7- to 12-year-olds gravitated toward festive and culture-oriented educational tourism. These parents reported that they would sometimes take their children to cultural heritage sites and buildings, participate in festive activities and rural experiential activities, or visit zoos and science museums. These findings reflect the revelations of previous studies, which showed that families with children attach greater importance to intellectual growth and experiential learning (Lin & Ho, 2013; Falk, Ballantyne, Packer, & Benckendorf, 2012).

Recreational activities or leisurely settings that allow children to connect with their surroundings can pique their interest in learning new things, acquiring information, and broadening their perspectives (Ritchie et al., 2003). Family tourism can also enhance a child's knowledge of geography and sense of place (Jen et al., 2010) and promote environmental protection behavior (Tseng, Shen, & Chen, 2018). These results are similar to Chang et al.'s (2015) findings that families with children enjoy



natural and scenic tourism regardless of age. Mostly, families prefer attractions with safe and secure environments and good recreational facilities that enhance interactions between humans and nature. Lin and Ho (2013) agreed that most families prefer to visit scenic tourist attractions when engaging in ecotourism and that enjoying natural or humanistic sceneries is one of their primary tourism motivations. As 3- to 12-year-olds' families all prefer to participate in dynamic tourism activities, parents generally seek to include amusement parks, water parks, and cycling activities in their travel itineraries. Tourism activities for this age should entail a wide range of entertaining, sports-based, or interactive dynamic experiences. This finding reflects the work of Zhang and Zhang (2009), which suggested that tourism activities for families with 5-year-olds and above should include suitable levels of excitement and entertainment. Schänzel and Yeoman (2015) also mentioned that families increasingly seek adventure travel experiences. There is a trend families trying to be active together and having more authentic experiences when traveling.

Safety and hygiene, which refers to an attraction's safety, cleanliness, and hygiene, was an issue with which families with 0- to 2-year-olds were significantly concerned. In addition, as this stage of growth is important for developing children's immune systems, parents often emphasize environmental hygiene. However, 7- to 12-year-olds typically have basic safe-care skills, so parents are more likely to allow them more freedom. Our results indicated that parents emphasize safety more when traveling with children—especially younger children; this finding supports Zhang and Zhang's (2009) findings. Parents will often avoid taking routes with complex terrains and underlying safety concerns; they will also tend to eschew scenic areas that are undeveloped or hazardous. Families with 0- to 2-year-olds stressed the importance of amenities for children and child-friendly spaces. These parents often considered several factors, including the convenience of changing diapers and breastfeeding at a particular attraction, the availability of strollers for rent, how accessible the activity or attraction is for strollers, the availability of high chairs at dining outlets, and the availability of cribs and baby bathtubs at accommodations. These results are in line with general perceptions and expectations.

Family tourism decisions are mostly made jointly by both spouses. Parents give children more authority to participate in the decision-making process as they age to express their opinions and ideas regarding dining, accommodation, transportation, sightseeing, purchasing, and entertainment. This finding reflects the results found by Fodness (1992); joint decisions made by both spouses remain the most common mode of decision-making in today's society, though children also play an influential role in the decision-making process. Thornton et al. (1997) agreed that children's preferences play an important role in and account for a considerable portion of a family's tourism decision-making process. Therefore, children do possess a degree of power to influence their parents in the context of the family's tourism decisions.

Families with 0- to 6-year-olds traveled more often than those with 7- to 12-year-olds, possibly because younger children have more free time, making it easier for parents to schedule family vacations. On the other hand, older children are often busy with schoolwork or attending after-school programs, which may make it more difficult for parents to schedule family vacations. Regarding travel length, most families preferred day trips, followed by two-day trips, while trips that lasted four days or longer were the least preferred. However, there were no significant differences in travel length among families with children of different ages. This finding is in line with that of the Survey of Travel by Taiwanese Citizens of the Tourism Bureau, MOTC (2019).

We also found that regardless of their region of residence, Taiwanese citizens preferred to visit attractions located within their region of residence. In terms of dining outlets, all of the families reported that they preferred to taste local delicacies, followed by dining at family-friendly restaurants. Parents with 0- to 6-year-olds likely preferred to dine at family-friendly restaurants because children have poorer control of their emotions at these ages, and family-friendly restaurants have staff with stronger empathy and higher tolerance levels. Furthermore, younger children are often happy to meet playmates at these restaurants, which double as leisure spaces. This finding is similar to the results of Tsai's (2017) study. A variety of family-friendly restaurants have opened in recent years, and many of these incorporate child-friendly elements, colors, or cartoon designs into their interiors and have child-friendly themes or layouts. These restaurants provide high chairs, play areas, breastfeeding rooms, and family restrooms, and they serve children's meals. Some even organize family activities and courses to promote parent-child interaction.

Finally, our results indicated that families with 0- to 2-year-olds preferred day trips to overnight trips, and camping did not seem to be an option for them. Meanwhile, families with 3- to 6-year-olds preferred to stay in hotels or go camping; families with 7- to 12-year-olds preferred staying in hotels or going camping more than families with 3- to 6-year-olds. These results support the findings of Zhang and Zhang's (2009) study, which found that families with children who were 3 years old or younger gravitate toward family vacations that are nearer and shorter due to the children's physiological characteristics. Our findings are also in agreement with Lin's (2016) study, as we found that camping is more appealing to families with school-age children and adolescents, whereas families with infants do not find camping appealing. This is not surprising, as 7- to 12-year-olds also have higher activity levels, a desire to explore, and more developed self-care skills.

With regard to mode of transportation, we found that families prefer to drive or ride in their own vehicles, followed by taking public transportation. This is in line with the findings of Yen's (2010) study, which showed that families mainly engage in domestic family tourism by driving their vehicles.



5.2. Recommendations

5.2.1 Practical recommendations for the tourism industry

▪ Dining considerations

This study found that savoring local delicacies was the most preferred dining option among families, followed by family-friendly restaurants. Therefore, this study suggests that stallholders who produce local delicacies and operators of family-friendly restaurants should strive to include more child-friendly designs on their premises. Family restaurants can also incorporate local delicacies into their menus, and they should also provide children's facilities and organize activities for children.

▪ Accommodation considerations

This study suggests that hotel operators should provide complimentary cribs and baby bathtubs for families with children. It would also benefit them to designate play areas or child-friendly spaces. In addition, hotel operators should design activities such as parent-child DIY courses, featured delicacies DIY courses, local sightseeing activities, local ecological activities, stargazing or nighttime activities, featured performances, fruit harvesting, or experiential activities organized with nearby store owners to enhance the uniqueness of their accommodations. These measures would help families seeking to gain unforgettable memories.

▪ Transportation considerations

Most families preferred to travel by their own vehicles, followed by taking public transportation. This highlights the need to construct and plan parking lots at tourist attractions. Taking public transportation or opting for low-carbon vehicles when traveling benefits the environment, which suggests that it would be of benefit for the Tourism Bureau to devise affordable public transportation (transfer service) combo tickets. Furthermore, travel agencies should design featured family tourism packages that allow families to visit tourist attractions as part of a tour group.

▪ Leisure and recreational considerations

The intellectual growth of children is emphasized in family tourism. As a result, educational, learning, and experiential concepts should be incorporated into family tourism activities whenever appropriate. This study suggests that the tourism and leisure industry should design in-depth and content-rich tourism activities that incorporate local features (such as traditional industries, historical cultures, leisure agriculture, family-friendly DIY, and experiential courses) based on the people, culture, place, industry, and scenery of the area, thus providing families with learning-oriented tourism experiences that combine education and entertainment.

5.2.2 Recommendations for subsequent studies

One limitation of this study is that it did not explore family tourism across different countries. Different regions are

composed of population groups with varying incomes, education levels, environments, and cultures, and these factors may interact with one another. Second, this study only explored domestic family tourism in Taiwan, and our findings highlight the need to explore international family tourism engaged in by families with children of different ages. According to Schänzel and Yeoman (2015), international tourism provides more novel or grand experiences than tourism closer to home, and the likelihood of overseas travel generally increases with the age of the children (Blichfeldt, 2007). Recent studies have also mentioned that the research sites of family tourism have shifted from Europe and the United States to Asian countries (Li et al., 2020). These geographical differences may correspond to differences in children's travel motivation and demand considerations.

The participants of this study were members of Taiwanese families with children who were recruited via online convenience sampling. Therefore, caution is advised in the application of our results to other countries. Subsequent studies can validate this study's results by comparing cross-cultural and cross-country. In addition, the quantitative survey limited our ability to explore the tourism behaviors of families in an in-depth manner. Future studies can overcome this shortcoming by conducting focus group interviews or using qualitative methods in order to explore the needs of families with children of different ages. Web questionnaires are mainly directed at those who have access to and use the internet, and therefore this approach lacks population representativeness, sampling frames, and volunteer samples (Li, 2004). Cross-validation should be performed in subsequent studies by means of other survey methods. Finally, this study takes healthy children as the research object; the tourism needs of children with disabilities would be a fruitful area for future research (Li et al., 2020).

Credit author statement

All authors contributed to the study's conception and design. Hsiu-Wen Chien performed material preparation, data collection, and analysis under the supervision of Tzuhui Angie Tseng and Ching-Cheng Shen. Chien authored the initial manuscript, with all authors offering input and contributions to subsequent iterations. All authors read and approved the final manuscript.

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