



Conceptualising In-Flight Experience: An air Traveller Perspective

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Keywords:

In-flight experience,
Air travel,
Airline choice,
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Abstract.

The aviation industry has evolved rapidly in recent years, and so have consumer expectations with regard to air travel. This study examines how air travellers conceptualise in-flight experience. Using a mixed-methods approach, this study is divided into two phases. First, semi-structured qualitative interviews were undertaken with 32 members of the flying public and analysed using thematic analysis. Second, based upon the key themes identified in the first phase, a questionnaire (with both quantitative and qualitative questions) was developed and administered to 151 participants. The first phase identified the different ways air travellers conceptualise in-flight experience, with the most important elements being food and drinks, flight attendants, entertainment, seat comfort, and leg room. In the second phase these important elements are shown to have statistically significant effects upon in-flight experience (using a t-test and chi-squared goodness of fit test), however, the size of their effects varied. A Friedman test (with post-hoc Wilcoxon signed-rank test) demonstrates that air travellers rank the contribution of each of these elements towards in-flight experience differently. The findings allow airline managers to prioritise different aspects of in-flight experience based upon their relative importance to air travellers.

Kata Kunci:

Pengalaman dalam penerbangan,
perjalanan udara,
Pilihan maskapai,
Manajemen maskapai.

Abstrak.

Industri penerbangan telah berkembang pesat dalam beberapa tahun terakhir, dan begitu pula ekspektasi konsumen terkait perjalanan udara. Studi ini mengkaji bagaimana pelancong udara mengkonseptualisasikan pengalaman dalam penerbangan. Dengan menggunakan pendekatan metode campuran, penelitian ini dibagi menjadi dua tahap. Pertama, wawancara kualitatif semi-terstruktur dilakukan dengan 32 anggota masyarakat terbang dan dianalisis menggunakan analisis tematik. Kedua, berdasarkan tema-tema kunci yang diidentifikasi pada fase pertama, sebuah kuesioner (dengan pertanyaan kuantitatif dan kualitatif) dikembangkan dan diberikan kepada 151 peserta. Fase pertama mengidentifikasi berbagai cara pelancong udara mengkonseptualisasikan pengalaman dalam penerbangan, dengan elemen terpenting adalah makanan dan minuman, pramugari, hiburan, kenyamanan kursi, dan ruang kaki. Pada fase kedua, elemen-elemen penting ini terbukti memiliki efek signifikan secara statistik pada pengalaman penerbangan (menggunakan uji-t dan uji kecocokan chi-kuadrat), namun, ukuran efeknya bervariasi. Tes Friedman (dengan tes peringkat bertanda Wilcoxon post-hoc) menunjukkan bahwa pelancong udara memberi peringkat kontribusi masing-masing elemen ini terhadap pengalaman dalam penerbangan secara berbeda. Temuan ini memungkinkan manajer maskapai untuk memprioritaskan berbagai aspek pengalaman dalam penerbangan berdasarkan kepentingan relatifnya bagi pelancong udara.

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1. Introduction

Consumer experiences are crucial in many industries and are highly subjective. The experience from consumers affects the reputation of the companies as well as word of mouth from individuals may affect purchase behaviours of the others. Complete customer satisfaction is only possible when an organisation has a complete understanding of customer needs and demands (Arif *et al.*, 2013). Fodness and Murray (2007) stated that passenger behaviour and expectations of the experience depends on the type of traveller, the purpose of the travel and individual circumstances. Similarly, the type of traveller and their purpose of travel may also affect the overall travel experience obtained during flight, which is affected by the in-flight services and other internal and external factors experienced on board. Carreira *et al.* (2014) stated that the travel experience is formed by passenger interactions with the mode of transport, service provider and other aspects in the moments beyond the actual trip.

This may result in a different view towards each individual's overall travel experience after a flight, depending on how much expectations were being met during the flight. It is important that airlines understand how individuals view in-flight services and how the services provided affect the customer's overall in-flight experience. The elements impacting overall in-flight experience are essential to help airlines better understand the true needs and opinions of their customers. Therefore, this study aims to understand how consumers conceptualise in-flight experience and the important elements affecting the in-flight experience of the consumers through a mixed method approach. While there have been past studies on in-flight experience, there is little in the way of open-ended qualitative approaches (i.e., quantitative survey instruments are usually created at the outset). This raises the issue of self-generated validity and means that a number of common assumptions have not been verified using real air traveller narratives. The results will allow airlines to better prioritise resource allocation to different components of in-flight experience.

2. Literature Review

According to Park (2007), service quality affects the choices made by passengers and is often subjective. It is also seen as indicating the passenger's overall impression of the relative quality and services provided by the airlines. Passenger's satisfaction is also a feeling based on the experience of the passenger's most recent flight. It allows a company to gain a competitive advantage through repeated patronage, gains in market shares and increased profits for the airline (Park *et al.*, 2006). Similarly, Han and Hwang (2017) stated that customer satisfaction is an important focus for efficient marketing and service programmes, as it is shown to have an effective driving force in purchases and loyalty. Customer experience drives brand success by generating a brand-based customer experience that can be distinguished from its competitors and for which the customers are willing to pay thus delivering revenues, profits, and growth (Laming & Mason, 2014). Different individuals will exhibit different needs and emotions, with the assumption that consumers would want to travel free of worries and anxieties in a way that is relaxing and enjoyable (Le Bel, 2005). A positive service experience contributes to building the brand reputation in organisations (De Jager *et al.*, 2012) and is the key to promoting differentiation (Carreira *et al.*, 2014).

Wang *et al.* (2011) stated that customers assess the service quality by comparing what they expect with what they perceive in getting, thus airlines with good service quality retain their original customers. Kim and Lee (2011) suggested that the tangible dimension of perceived quality is made up of seating comfort, seat space, legroom, in-flight entertainment, the appearance of the crews, and in-flight meals. Other dimensions included reliability, responsiveness in helping passengers, assurance in ensuring safety and empathy that focussed on individualised attention. From ground handling to check-in services and in-flight services, consumers may compare the different services they experience between airlines.

Airlines need to strengthen their research efforts through surveys, focus groups or interviews to understand how customers perceive their quality (Bowen *et al.*, 1992). For example, Singapore Airlines has an extensive feedback mechanism, taking all compliments and complaints as a resource to improve ideas (Heracleous & Wirtz, 2014). However, consumers may have a set of expectations of the services provided by the airlines depending on the price paid. An and Noh (2009) claimed that people with higher income and positions within the organisation tend to experience higher quality service and are more sensitive to the evaluation of service quality. According to (Anderson *et al.*, 2008), elderly individuals accept lower levels of satisfaction because searching for alternatives is more costly and satisfaction among consumers declines as income rises.

In-flight services include multidimensional experiences such as innovative food services, entertainment, facilities and flight attendants' appearance and customer service (Kim *et al.*, 2015). Similar findings exist for other transport modes. Kwortnik (2008) reported that modern cruise ships are a combination of a floating resort hotel, a sightseeing vessel, a gourmet restaurant, an entertainment complex and a shopping centre. In a study by Ettema *et al.* (2012), it was stated that the involvement in activities made the trip more enjoyable. The study also reported that travellers become less enthusiastic and less relaxed over longer durations and availability of entertainment options results in a more enjoyable and relaxed trip, as the need for entertainment is related to an experience of insufficient relaxation.

According to van de Westelaken *et al.* (2011), during a long-haul flight, the unusual environment in the cabin such as air pressure and continuous noise causes physical and psychological discomfort for a big group of passengers as well as the aircrews. It was also stated that most of the airlines provide in-flight entertainment to their passengers in order to provide a mental distraction that may result in reducing psychological stress. Le Bel (2005) also stated that the in-flight entertainment (including magazines) could help make the experience more enjoyable. Similarly, in other modes of transport, entertainment also influences consumer's pleasure and overall experience. According to Hosany and Witham (2009), entertainment is likely to be one of the oldest forms of experience and it involves a passive involvement of the individual. The study also claimed that most cruise liners provide a variety of entertainment and are designed to appeal to various age groups.

Alamdari (1999) stated that the in-flight entertainment systems include screen-based video systems, audio and communication systems. The entertainment systems also include air map display, exterior-view cameras, destination information and shopping catalogues. In-flight entertainment enhances the airline service, image and brand. Also according to Alamdari (1999), in-flight entertainment is not a factor that affects passenger's choice of airlines but it is a provision that meets the needs of the passengers during long-haul flights. It is also stated that passengers appreciate the provision of in-flight entertainment during long-haul flights but many are not prepared to pay, as many airlines do not charge for in-flight entertainment. However, with some low-cost carriers consumers need to pay if they want the airline to provide in-flight entertainment (for example, Scoot, Jetstar and Air Asia). In-flight shopping is another element of inflight-experience that can have an advantage over traditional shopping such as duty-free, as it involves lower or no handling fees and faster transaction speeds. The higher the tax reduction, the more willing travellers are to switch from traditional store shopping to in-flight shopping (Liou, 2011).

In-flight food and ambience may also be affecting the purchase intentions of consumers. Food allergies and food restrictions, for example, vegetarian or halal certified foods might also affect the airline choices of the consumers. According to Mohsin *et al.* (2016), there is an increase in Muslim travellers, with Halal tourism worth US\$137 billion in 2013 and expected to be worth US\$181 billion by 2018. Thus, airlines will need to ensure that Halal foods and non-alcoholic beverages are available to Muslim travelers (Oktadiana *et al.*, 2016). Zahari *et al.* (2011) mentioned that passengers commonly select the airline that offers the best meals with Singapore Airlines, Cathay Pacific and Emirates actively promoting their in-flight meals through social media and websites. Similarly, Air New Zealand flights from Los Angeles to Auckland served an award-winning plant-based burger,

'Impossible burger' on the business premier menu, as well as bite-sized burgers on flights from San Francisco to Auckland, aiming to give consumers a taste of the future (Air New Zealand, 2018).

According to Han and Hwang (2017), the relationship between services and satisfaction remains unclear though some studies showed that satisfaction can serve as a predictor in explaining the decision-making process of the consumers. The study also stated that the physical surroundings in the international air industry may be important as the passengers are more inclined to comfort and in-flight safety while spending hours in the limited space of the cabin. Kim *et al.* (2017) mentioned that the available personal space influences the satisfaction of travellers, with the age and cultural differences making a difference in the amount of space required by each individual. Additionally, Lee *et al.* (2009) investigated and claimed that seat comfort and personal fatigue before boarding the train affects the perception of comfort, combined with personal factors such as vulnerability to motion.

There are also other contributing factors that may affect the experiences from in-flight services, such as the services provided by the cabin crews, the knowledge and language spoken by the crews on board and the physical appearance of the crews. Hussain *et al.* (2015) stated that passengers often come from different backgrounds and cultures, and the airline should ensure that the flight attendants communicate with the passengers using a language that passengers feel comfortable with. Additionally, Söderlund and Julander (2009) mentioned that physical attractiveness also had an impact on customer satisfaction. Hosany and Witham (2009) and Gibson (2008) stated that the staff to guest ratio and the level of contact between the guests and employees are more prolonged on cruise ships, which results in a greater opportunity for interactions. Putting on a smile as a gesture may also improve the overall in-flight experience of a passenger. According to Andrzejewski and Mooney (2016), the customer may feel that the service provider went above and beyond their job expectations when the service provider displays positive emotion.

Service excellence achieved in Singapore Airlines is what many others dream to achieve and it is derived from stringent selection and hiring, extensive training and retraining, as well as motivating the employees that helped keep levels consistently above the competition in the market (Wirtz *et al.*, 2008). De Jager *et al.* (2012) mentioned that an internal marketing strategy must be developed as loyalty is created through meeting the brand promise and a positive service experience contributes to building the brand reputation.

The different contributors to in-flight experiences differ for each individual. Carreira *et al.* (2014) said that experience elements are the perceptions of the service provided that influence the experience components, which are customer cognitive, sensorial and emotional responses. There are differences between how customers form experiences and impressions as a result of a service offering. According to Kurtuluşoğlu *et al.* (2016), it is impossible to meet all the needs of a customer but the companies need to determine the most important expectations. Therefore, this study aims to understand in-flight experience elements and their relative importance. This study begins with the following research questions: (a) How do consumers conceptualise in-flight experience?; (b) Which elements of in-flight experience are the most important to consumers?

3. Method

This study consists of two phases. A mixed method design was used in this study whereby phase 1 uses a purely qualitative research design to explore the themes of how consumers conceptualise in-flight service and study 2 collects quantifiable data on the effects of the themes, as well as qualitative data to support and explain the quantitative results. Morton *et al.* (2016) mentioned that the use of qualitative methods such as interviews, along with applications of quantitative measurements can enhance the understanding to specific problems surrounding the perceptions of service quality in different settings. The use of mixed methodology through collecting both qualitative and quantitative data will allow a better understanding of consumer's subjective opinions. The process used in this study follows combines both exploratory and explanatory sequential mixed methods. Exploratory

mixed methods are useful to identify important variables to study quantitatively when the variables are unknown (Creswell, 2014). With the qualitative data collected, opinions are used as the basis for questionnaire development.

3.1. Phase 1

3.1.1. Participants

The first phase consisted of 32 participants, divided into 21 females and 11 males. The mean age was 33, with a range of 18 – 69 years. Other demographic variables are shown in Table 1.

Table 1. Demographic variables for phase 1

Demographic variables	Total number of respondents
Nationality	
New Zealanders	21
Foreigners	11
Occupation	
Waged	18
Unwaged (students and retired persons)	14
Purpose of travel	
Leisure	10
Business	4
Visiting friends and family	9
Other	9
Most recent flight	
Within the last week	7
Within the last month	6
Within the last 3 months	10
Within the last year	7
Within the last 3 years	0
More than 3 years ago	2
Average use of airline services	
More than 3 times a year	18
2 – 3 times a year	6
Once a year	5
Less than once a year	3
Class of travel	
Economy class	28
Premium Economy class	2
Business class	2

3.1.2. Materials

A semi-structured interview format was used for phase 1, with all questions available in Appendix A. The use of open-ended questions was to avoid an issue known as self-generated validity, where a participant creates attitudes, beliefs, opinions or the like as a result of doing the study (Feldman & Lynch, 1988; Forbes & Avis, 2020). Because these observations did not exist in participant's long-term memory prior to participation, the research is not observing a reality by creating one.

3.1.3. Procedure

This study used convenience sampling within the city of Palmerston North, New Zealand. This involved standing in public areas and asking passers-by to participate in the study. Participants had to be at least 18 years of age, must have flown on an airline and could not be employed by an airline in order to be able to participate. It was hoped that the sample would represent a useful and pragmatic

cross-section of the flying population. Once informed consent had been obtained from participants, the questions were asked verbally and conversations were recorded and then transcribed at a later date. This study was deemed to be low-risk and was therefore registered as such on the Massey University Human Ethics Database.

3.1.4. Analysis

The data was analysed through thematic analysis, allowing the development of a questionnaire to further understand the concept of in-flight experience. The elements selected for the questionnaire were those mentioned by a minimum of 25% of the participants during the interviews (in any stage of questioning). According to Braun & Clarke (2006), thematic analysis is a method used for identifying, analysing and reporting themes or patterns within the data. Thematic analysis can report experiences, meanings and reality of participants. This is important for this study as the in-flight experience provided by the participants reflects the concepts they have in mind and are not the results of explicit probing by the researcher. The opinions given by individuals reflect and explain the existing needs of individuals during flight.

3.2. Phase 2

3.2.1. Participants

The second phase consisted of 151 participants, divided into 96 females and 55 males. The mean age was 36, with a range of 18 – 78 years. Other demographic variables are shown in Table 2.

Table 2. Demographic variables for phase 2

Demographic variables	Total number of respondents
Nationality	
New Zealanders	87
Foreigners	64
Occupation	
Waged	106
Unwaged (students and retirees)	45
Travel companion	
Yes	34
No	117
Purpose of travel	
Leisure	72
Business	19
Visiting friends and family	55
Other	5
Most recent flight	
Within the last week*	29
Within the last month*	37
Within the last 3 months*	41
Within the last year	36
Within the last 3 years	11
More than 3 years ago	7
Average use of airline services	
More than 3 times a year^	58
2 – 3 times a year	43
Once a year	24
Less than once a year	26
Class of travel	
Economy class	151
Premium economy class	3

* Grouped together as “recent travellers” for statistical analyses.

^ Considered as “frequent travellers” for statistical analyses.

3.2.2. *Materials*

A questionnaire was administered for phase 2, with all questions available in Appendix B. The questionnaire is based upon the results of phase 1 and aims to quantify their effect. According to Creswell (2015), such an approach will provide insights into whether the initial results can be generalised to a larger sample. The questionnaire was structured to collect both quantitative and qualitative data and hence uses an explanatory sequential mixed method. This method collects the quantitative data, which is explained with the qualitative data collected to draw an inference (Creswell, 2015). Data collected uses nominal and ordinal scales through yes or no questions, questions to determine the effects of the elements, as well as ranking questions.

3.2.3. *Procedure*

This study used convenience sampling within the cities of Palmerston North and Wellington, New Zealand. This involved standing in public areas and asking passers-by to participate in the study. Participants had to be at least 18 years of age, must have flown on an airline and could not be employed by an airline in order to be able to participate. It was hoped that the sample would represent a useful and pragmatic cross-section of the flying population. Once informed consent had been obtained from participants, the questions were asked verbally and conversations were recorded and then transcribed at a later date. This study was deemed to be low-risk and was therefore registered as such on the Massey University Human Ethics Database.

3.2.4. *Analysis*

For analysing the effect the elements have on the participants, the chi-square goodness of fit test and one sample t-test were carried out. The scales are considered ordinal measurement but it can also show properties of continuous measurement, which is why two different tests were carried out as the scale of measurement to ensure that the results and significance level were similar.

For the three ranking questions about the most recent flight encounter, their future international flight, and their next domestic flight, a Friedman test was used to test the differences between the mean ranks of the groups when the dependent variable being measured is ordinal. In order to check where the differences occurred, a post hoc test was carried out separately by using the Wilcoxon signed-rank test to check on the different combinations possible of the related group. To avoid type 1 error, a Bonferroni correction was applied according to the number of tests being carried out. Reducing the minimum level of statistical significance from 0.1 to 0.02. 14 responses from the survey were removed from the ranking test, as they were incomplete. Therefore, the tests were carried out with a sample of 140 participants.

4. **Results**

4.1 *Phase 1*

The semi-structured interview questioned the opinions and how the participants conceptualise in-flight experiences, the important elements contributing to the overall travel experience, as well as the differences between airlines. Table 3 represents the concept of in-flight experience, showing the number and percentage of the participants for each of the themes identified in the thematic analysis.

Table 3. Elements of in-flight experience conceptualisations

Element	N	Percentage*
Cleanliness	1	3.1%
Efficiency	1	3.1%
Entertainment	10	31.3%
Flight attendants	10	31.3%
Food and drinks	17	53.1%
Pricing	2	6.3%
Seat comfort	8	25.0%

* Does not add up to 100% as participants can be grouped into more than one theme.

Table 4 represents the number and percentage of the participants for each of the themes identified for opinions on differentiating between airlines. Similar to Table 3, food and drinks and flight attendants were most commonly mentioned.

Table 4. Differences between airlines' in-flight experiences

Element	N	Percentage*
Entertainment	4	12.5%
Flight attendants	9	28.1%
Food and drinks	10	31.3%
Legroom	4	12.5%
Seat comfort	1	3.1%
No differences between airlines	4	12.5%

* Does not add up to 100% as participants can be grouped into more than one theme.

Table 5 shows the number and percentage of the participants who considered each element as important as part of their in-flight experience.

Table 5. Important elements of in-flight experience

Element	N	Percentage*
Efficiency	3	9.4%
Entertainment	9	28.1%
Flight attendants	10	31.3%
Food and drinks	9	28.1%
Legroom	9	28.1%
Safety	1	3.1%
Seat comfort	10	31.3%

* Does not add up to 100% as participants can be grouped into more than one theme.

4.2 Phase 2

Table 6 shows the effect of each element from Phase 1 upon in-flight experiences. These are derived from the survey data using Likert scales, which are analysed using both chi-squared goodness of fit tests and single-sample t-tests as the data can be treated as either ordinal or continuous in nature. The chi-squared goodness of fit test shows whether the balance between the distribution between the categories (i.e., no effect, small effect, medium effect and large effect) is statistically significantly different from what would be expected by chance alone. For the single-sample t-test, the mean is tested against a hypothetical mean of 0 (no effect) to see whether the effect was statistically significant or not.

Table 6. The effect of elements on in-flight experience

Element	Chi-squared goodness of fit	Single-sample t-test
Entertainment	$\chi^2(3) = 45.530, p < 0.001$ Mode = Large effect	$t(150) = 27.549, p < 0.001$ Mean = 2.093
Flight attendants	$\chi^2(3) = 94.960, p < 0.001$ Mode = Large effect	$t(150) = 40.086, p < 0.001$ Mean = 2.371
Food and drinks	$\chi^2(3) = 37.477, p < 0.001$ Mode = Medium effect	$t(150) = 22.763, p < 0.001$ Mean = 1.636
Legroom	$\chi^2(3) = 104.179, p < 0.001$ Mode = Large effect	$t(150) = 39.932, p < 0.001$ Mean = 2.411
Seat Comfort	$\chi^2(3) = 70.503, p < 0.001$ Mode = Large effect	$t(150) = 48.200, p < 0.001$ Mean = 2.550

Table 7 indicates the differences in the rankings of the in-flight experience elements. Results from the Friedman test showed that there were statistically significant differences between the major elements through different combinations, $\chi^2(4)=72.177, p<0.001$. Based on the results shown in Table 7, it can be deduced that the level of importance of each element upon in-flight experience can be ordered as (from lowest to highest importance): entertainment < food and drink < flight attendants ≈ legroom < seat comfort.

Table 7. Rank-order of in-flight experience elements

	Flight attendants	Entertainment	Seat comfort	Legroom
Food and drinks	-7.386***	-5.088***	-8.321***	-7.157***
Flight attendants		-3.033**	-2.523*	-0.659
Entertainment			-5.507***	-3.705***
Seat comfort				-2.530*

Note: *p<0.02, **p<0.01, ***p<0.001 (significance levels adjusted due to Bonferroni correction)

Table 8 shows the differences in the ranking of importance of in-flight service elements for choosing between airlines for the participants’ next international flight. Results from the Friedman test showed that there were statistically significant differences between the major elements through different combinations, $\chi^2(4)=86.154, p<0.001$. Based on the results of Table 8, it can be deduced that the level of importance of each element upon domestic in-flight experience can be ordered as (from lowest to highest importance): entertainment ≈ flight attendants ≈ food and drinks < legroom < seat comfort.

Table 8. Rank-order of the importance of in-flight experience elements for airline choice (international flight)

	Flight attendants	Entertainment	Seat comfort	Legroom
Food and drinks	-0.995	-0.665	-7.269***	-4.615***
Flight attendants		-0.186	-6.311***	-3.572***
Entertainment			-6.154***	-3.407***
Seat comfort				-3.618***

Note: *p<0.02, **p<0.01, ***p<0.001 (significance levels adjusted due to Bonferroni correction)

Participants were asked whether their rankings for the importance of in-flight experience elements would change for a domestic flight (<2 hours duration). 49 participants indicated that they would change their rankings (and did so), while 101 participants did not feel that their ranking would change.

A chi-squared goodness-of-fit test showed this difference to be statistically significant, $\chi^2(1)=22.400$, $p<0.001$, mode = no. Table 9 shows the ranking of the elements by the level of importance for choosing the next domestic flight by the participants. Results from the Friedman test showed that there were statistically significant differences between the in-flight experience elements, $\chi^2(4)=65.177$, $p<0.001$. Based on the results shown in Table 9, it can be deduced that the level of importance of each element upon international in-flight experience can be ordered as (from lowest to highest importance): entertainment \approx flight attendants \approx food and drinks < legroom < seat comfort. While ordinally, these are the same as for international flights, there were statistically significant differences between the ranking of entertainment and seat comfort between international and domestic flights, where entertainment was more important on international flights ($t(139) = 1.781$, $p < 0.1$), and seat comfort was more important on domestic flights ($t(139) = -1.654$, $p < 0.1$).

Table 9. Rank-order of the importance of in-flight experience elements for airline choice (domestic flight)

	Flight attendants	Entertainment	Seat comfort	Legroom
Food and drinks	-0.323	-1.099	-6.092***	-4.055***
Flight attendants		-0.851	-6.202***	-3.722***
Entertainment			-5.320***	-3.015**
Seat comfort				-3.663***

Note: * $p<0.02$, ** $p<0.01$, *** $p<0.001$ (significance levels adjusted due to Bonferroni correction)

5. Discussion

From the findings in this study, there are five key elements that affect passenger in-flight experience. This study confirmed that the elements had medium to large effects on in-flight experience and compared these results against demographic variables. The in-flight experience of travellers is an important consideration for airlines as it can affect purchase behaviour and airline reputation (Ahmed, Zairi, & Almarri, 2006; Zins, 2001). The five elements identified in this study have been found in other studies examining slightly different topics. For example, Vink, Bazley, Kamp, and Blok (2012) find that the most important elements of in-flight comfort are legroom, hygiene, crew attention and seat/personal space.

5.1 Food and drinks

In-flight food preferences are commonly made available on the airline's website when consumers book their flight. Passengers can usually select between dietary requirements that may be due to medical conditions (e.g., coeliac disease) or for ethical reasons (e.g., halal or vegetarian). As a point of differentiation, Singapore Airlines trains flight attendants to help passengers with on-board food requests (Heracleous & Wirtz, 2014) and allows economy passengers the choice of other meals as an optional add-on (instead of restricting the gourmet menu to premium economy, business and first-class passengers) through their "book the cook" programme (Singapore Airlines, 2018). The importance of food and drink in air traveller experiences shows similarities with other tourism-related entities, such as airports (Chao, Lin, & Chen, 2013; Heung, Wong, & Qu, 2000), cruise ships (Hwang & Han, 2014) and hotels (Kandampully & Suhartanto, 2000).

5.2 Flight attendants

According to Lin (2015), flight attendants should show a warm and inquiring attitude at all times, be patient and understanding towards difficult passengers, as well as take an active interest in the well-being of all passengers. The results of this study showed that flight attendants had a large effect on in-flight experience and that this importance did not vary according to any demographic variable.

This suggests that flight attendants play a universally important role in creating in-flight experience. Flight attendants can be seen as someone that passengers will interact with the most during a flight and the hospitality received can make a difference to the overall in-flight experience. As with other industries involving service encounters, positive emotional displays by employees (in this case flight attendants) translate to positive emotions for consumers (Pugh, 2001). Positive expressive displays from flight attendances have been shown to significantly effect overall service satisfaction and intention to repurchase (Gountas, Ewing, & Gountas, 2007). Equally, negative experiences with flight attendants have been shown to drastically reduce perceived in-flight comfort and accordingly lower the likelihood of flying again with the same airline again (Vink *et al.*, 2012). This study accordingly validates the importance of flight attendants towards in-flight experience.

5.3 Entertainment

From the results in this study, entertainment did have a large effect for the participants for their in-flight experience but was ranked as the least important in-flight service element in participants' recent flights and for choosing their next international or domestic flight. However, entertainment on an international flight was more important when compared to a domestic flight. This is consistent with a previous study by Alamdari (1999), who stated that in-flight entertainment is not a factor that affects the choice of airlines but rather a means of meeting the needs of the passengers during long-haul flights. There is a small group of participants who felt that entertainment was crucial for long flights, as one participant put it: "I can enjoy movies when I travel and it helps to pass time". It is reasonable that entertainment is ranked the least important on a domestic flight, as most domestic flights do not provide in-flight entertainment system due to the short turn-around. Nonetheless, magazines are seen available on domestic flights, such as on Air New Zealand, which could make the trip more enjoyable (Le Bel, 2005).

5.4 Seat comfort and legroom

As stated by van de Westelaken *et al.* (2011), long flight duration and limited space cause physical and psychological discomfort. One participant commented that seat comfort and legroom were important because "for long-haul flights, the ability to rest and sleep comfortably is very important". Others commented that "since you are sitting down throughout the flight, the seat plays a big role", and "it is important to be comfortable and the idea of having more space makes it easier". The results in this study confirmed that seat comfort and legroom play big roles in in-flight experience. Both seat comfort and legroom had a large effect on in-flight experience, and they were ranked the most important, and second most important, respectively. Interestingly, seat comfort on a domestic flight was more important when compared to seat comfort on an international flight. The duration of the flight may have resulted in an increase to the importance of tangibles, while cabin interior for domestic flights may also have contributed to the importance of seat comfort. However, these are the limitation in this study, as these factors were not covered and can be considered for future research. In this study, the results showed that seat comfort is associated with the purpose of travel of the participants, whereby leisure travellers cared more about seat comfort when compared to business and other travellers. The ability to rest comfortably in-flight for long hours is crucial as it can affect individuals when they disembark at their destination as Grujicic *et al.* (2009) mentioned that individuals may be in a constrained sitting posture that can lead to discomfort and health disorder such as back and shoulder pain. The number of seats and the space between the seats in the economy class is designed according to the airlines with the greatest number of seats possible while meeting the safety standards of the regulators. However, airlines may review the seat comfort and space between seats in the economy class to cater to the needs of individual that may improve the overall in-flight experience, for example, increasing the legroom for the single class seating low-cost carriers by reducing the number of seats or offering business class options on selected long-haul flights that are currently available with Scoot, Jetstar and Air Asia. Airline managers can also make use of social

media as a platform to gather insights for continual incremental improvements (Hudson & Thal, 2013).

6. Conclusion

In this study, the consumer's conceptualisation of in-flight experience and the important factors that contribute to the overall in-flight experience were studied and analysed. The results of this study showed that food and drinks, flight attendants, entertainment, seat comfort and legroom had an effect on in-flight experience and were shown to be statistically significant. The ranking of the elements showed the level of importance of the elements in this study. This study also concluded that entertainment has an effect on in-flight experience but was the least important element contributing to the in-flight experience.

In conclusion, this study contributes in the following way: (1) to understand the concepts of in-flight experience by travellers in New Zealand; (2) to identify the importance of the different elements contributing to the in-flight experience; (3) to provide insights for airline managers to work on the cabin space, improving the seat comfort and legroom for improving the in-flight experience; and (4) to guide airline managers in making effort on improving the entertainment system, which may distract them from the external discomfort thus improving the in-flight experience.

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