Collegiate Aviation Review International

Volume 41 | Issue 2 Peer Reviewed Article #4

11-9-2023

Strengthening the Understanding of the Context for Airport City Planning: A Case Study on Airport City Parafield

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Airport Cities have gained momentum all over the world in the last decades. However, Airport City planning often follows a one-size-fits-all blueprint approach, with many elements incompatible with the regional, economic, and cultural context. Using a general aviation Airport City in Adelaide in South Australia as the case context, we survey the retail choices of airport users and compare them with existing facilities and those retail facilities at Airport Cities of large commercial airports from the literature and industry examples. We found that desired retail facilities at Airport City Parafield are widely different from those at large-scale commercial hub airports and commonly promoted in the Airport City literature. The results indicate that preferences for retail facilities in the Airport City differ depending on the airport user groups, which are determined by the role of the airport. These findings suggest that the often practised one-size-fits-all approach in Airport City planning should be reconsidered. In summary, this study helps to augment both knowledge and practice by reinforcing the importance of planning retail facilities in Airport Cities in alignment with the airport role, the airport user groups, and the regional, economic, and cultural context.

Recommended Citation:
Tse, N. L. H., Wiedemann, M. & Xing, K. (2023). Strengthening the understanding of the context for Airport City planning: A case study on Airport City Parafield. *Collegiate Aviation Review International*, *41*(2), 55-77. Retrieved from http://ojs.library.okstate.edu/osu/index.php/CARI/article/view/9542/8524

Introduction

Airport Cities are retail and commercial developments on airport land outside the terminals (Freestone, 2011). In Australia, Airport Cities are found in commercial airports, such as Brisbane and Canberra airports, and general aviation airports, such as Parafield, Jandakot, and Essendon (Walker & Stevens, 2008). The rise of Airport City developments in Australia is closely related to airport privatisation through the *Airports Act 1996* (Walker & Stevens, 2008). The *Airports Act 1996* is the only legislation governing land uses within airport land. It grants Airport Cities a wide range of development rights with minimal restrictions on land use types (Walker & Stevens, 2008).

Airport Cities are strategically located commercial sites with fast air connectivity that are intended to serve the ancillary, everyday needs of travel-intensive airport users (Kasarda & Appold, 2010). Not directing the business towards airport users but the demands of the wider urban area may deviate from the concept of an Airport City and will end up being an exchangeable business location and not worthy of the appellation 'Airport City' (Kasarda & Appold, 2010; Leeuw, 2019). Furthermore, it is suggested that Airport Cities could generate higher profits and enhance social welfare if they specialise in goods or services oriented toward airport users and avoid consumer goods for non-airport users (D'Alfonso et al., 2017).

An early conceptual paper on Airport City planning from Dr. John Kasarda in 2006 demonstrates a blueprint list of facilities that an Airport City should comprise, including restaurants, retail stores, hotels, and convention centres. This blueprint and similar variants from Kasarda gained massive popularity among Airport City practitioners to the extent that many Airport Cities directly imitated the blueprint (Wiedemann, 2017). If those Airport Cities that copied the blueprint are successful, it is questionable.

In the following years, some conceptual studies and best practices testimonials (for example, Alvendal, 2014; Kasarda & Appold, 2014; Wiedemann, 2014; Nikolova et al., 2018) have started to acknowledge that there is no such thing as one-size-fits-all. Instead, they emphasise the importance of choosing facilities that are suitable to the socioeconomic context of their respective airport users. These studies and industry examples were mainly written in the context of large commercial Airport Cities that serve high-income business employees in professional industries such as engineers, business consultants, and software programmers. These business employees are labelled as the 'creative class' by Florida (2012) as their work heavily involves using creativity for problem-solving and developing innovative artefacts. Based on interviews and focus groups, Florida (2012) discovers that self-expressive and experience-oriented cultural and active lifestyle amenities, such as discos and nightclubs, arts festivals and galleries, punk music venues, gyms, and health clubs, are preferred by the creative class. This is because the creative class enjoys being challenged intellectually and physically in these chic

cultural and leisure amenities; besides, these chic amenities serve as stimulants for creativity and allow the creative class to structure themselves (Florida, 2012). Studies on the creative class conducted by other authors, such as Bille (2010), Bereitschaft (2017), Esmaeilpoorarabi et al. (2018), and Zandiatashbar and Hamidi (2018), confirm the same preference towards chic cultural and leisure amenities. Subsequently, apart from standard retail facilities such as restaurants, upscale cultural and leisure attractions are often suggested in the context-driven Airport City planning literature as they have unique importance in the daily life of their airport users, who are mainly the creative class.

One may wonder if tailoring facilities according to airport users' context should be an obvious principle to Airport City developers. However, Hirsh's (2019) recent study conducted in more than 50 Airport Cities worldwide finds that most projects remain obstinate in blindly copying common facility elements and do not plan facilities according to context. This suggests that the importance of context for Airport City facility planning still needs further investigation to gain wider acceptance. A case study methodology based on an extreme case of a single airport user group is well-suited to this purpose (Flyvbjerg, 2006). Hence, instead of the large commercial Airport Cities, a general aviation Airport City at Parafield Airport in Adelaide, Australia, is chosen as the study case.

Parafield Airport in Adelaide is one of Australia's busiest pilot training airports (Parafield Airport Limited, 2017; Airservices Australia, 2021). Flight training activities are the dominant aviation activity at Parafield Airport, and flight school staff and students are reported as the overwhelmingly largest group of airport users (Parafield Airport Limited, 2017), resulting in a clearly coherent airport user group that allows other factors to be controlled to a minimum. Thus, conclusions about Airport City Parafield can be easily drawn. This study investigates the retail facility preferences of flight school staff and students through a survey and interviews and compares the empirical case study results with the facility elements that are found in the Airport City literature and Airport City master plans globally.

The research question of this study is: When the airport context changes, should Airport City retail facilities change?

Since the context, defined as the job type and income of airport users, of a general aviation Airport City is different from the context in large Airport Cities at commercial airports (hands-on lower-paid jobs versus high-paid jobs of the creative class), the proposition is that:

If the *context* does matter, the retail facility preferences of airport users in general aviation Airport Cities will not be the same as in large commercial Airport Cities. This leads to rethinking the one-size-fits-all blueprint of Airport City master plans, thus contributing to broader implications to the Airport City planning literature and practice.

The rest of the paper is structured in six sections. The next section clarifies the concept of an Airport City by fencing it off against closely related business models. The third section reviews the literature on planning Airport Cities based on the airport user context. The fourth section describes Airport City Parafield and explains the methodology used in this case study. The fifth section presents the retail facility preferences of airport users of Airport City Parafield.

The sixth section discusses the need for context-driven Airport City development by comparing this study's findings to the literature on large commercial Airport Cities and giving recommendations for Airport City planners, architects, and owners. The paper concludes by highlighting the importance of context in Airport City planning and ideas for future research.

Clarifying the Airport City and its Related Concepts

In recent decades, airport land and near-airport land uses have become increasingly diversified. Real estate developments such as hotels, shopping complexes, office buildings, conference centres, logistics and distribution facilities, residential development, and industrial plants are common in airport areas (Stangel, 2018). As a result, various models have emerged since the beginning of the 21st century to describe airport-centred development of different spatial scales and functions, including Airport City, Aerotropolis, Airport Corridor, Airport Region, and Airea (Schlaack, 2010; Corrêa Pereira et al., 2023). Airport City and Aerotropolis, conceptualised by Dr John Kasarda have received the most attention in literature and practice (Mokhele, 2018). Sometimes, the terms Airport City and Aerotropolis are 'misused' interchangeably because of unfamiliarity with these two newly developed terminologies (Corrêa Pereira et al., 2023). This section aims to clarify and compare the key concepts of Airport City and Aerotropolis.

Airport City

An Airport City is an airport-linked commercial development on the landside or immediately adjacent to the airport property, anchoring aviation-enabled trade in goods and services (Kasarda & Appold, 2014). Typically, the airport develops the Airport City to increase revenue for the airport itself (Stangel, 2018; Wiedemann, 2020). Revenues from Airport Cities through retail, offices, car parking, restaurants, and hotel leases contribute 60%–70% of airport revenue on average (Baker & Freestone, 2012). An Airport City surrounding the airport terminal is analogous to a metropolitan central business district surrounding its urban central square (Kasarda, 2010). It often has no residents (Poungias, 2009; Wach-Kloskowska, 2020). The facilities in an Airport City have to be targeted at airport users and serve their daily needs (Kasarda & Appold, 2010).

Aerotropolis

When an Airport City evolves, it draws more aviation-oriented businesses toward the airport along the surrounding transportation corridors. Eventually, a larger airport-centred urban form with a radius of up to 30 km emerges (Aerotropolis Business Concept LLC, n.d.). The Airport City becomes 'the multi-modal, multi-functional commercial and logistics core' of the wider Aerotropolis (Kasarda, 2020, p. 36). Branching out from the Airport City core are 'outlying corridors and clusters of aviation-linked businesses and associated residential developments that benefit from each other and from their accessibility to the airport' (Kasarda, 2019, p. 1). In an Aerotropolis, there are industries dependent on airport accessibility, such as precision and time-critical manufacturing and high-tech industries, in which their workers travel by air 60%–400% more frequently than the general labour force (Kasarda, 2000). However, there are also all sorts of other regular commercial offerings like wellness and medical facilities and

large mixed-use residential developments that serve a dual customer base of air travellers and locals (Kasarda, 2006). Hence, an Aerotropolis is usually more of a tool for wider regional economic development driven by the government (Wiedemann, 2020).

In summary, an Airport City is highly focused on airport-linked commercial facilities for airport users. In contrast, an Aerotropolis is a much bigger and diversified development with parts reserved for urban life and targeted toward both airport users and residents of the regional catchment area.

Airport City Planning Based on Context

Early literature on Airport City planning focuses mainly on generic advice, with little to no consideration of the geographical context. For example, Kasarda (2006) suggests that Airport Cities can successfully increase non-aeronautical revenue by establishing the following facilities:

- duty-free shops
- restaurants and specialty retail
- cultural attractions
- hotels and accommodation
- business office complexes
- convention and exhibition centres
- leisure, recreation and fitness facilities
- logistics and distribution
- light manufacturing and assembly
- perishables and cold storage
- catering and other food services
- Free Trade Zones and Customs Free zones
- golf courses
- factory outlet stores
- personal and family services such as health and child daycare (Kasarda, 2006, pp.2-3)

However, Kasarda (2006) does not provide an explanation regarding why such facility elements, but not others, are recommended.

Schaafsma et al. (2008) recommend four generic development directions for Airport Cities: shopping malls concentrated on terminals, corporate offices, air freight facilities, and facilities for tourism, leisure, and health. They do not directly link those recommendations to context, but they discuss the importance of market opportunities, pointing to the necessity of demand for those kinds of developments. These early conceptual papers provided practitioners with a 'blueprint' for Airport City facility planning without much consideration of the regional and local context.

Schlaack (2010) points out that almost every Airport City is homogeneous, featuring more or less the same generic components, such as hotels, conference centres, and offices. For example, Airport Cities of large international airports, such as The Square in Frankfurt and The

Circle in Zurich, have developed large-scale office buildings and hotels. SkyCity in Hong Kong has more than 90,000 square metres of retail, offices, and hotels and an exhibition and trade centre with 140,000 square metres. Airport Cities look alike because developers often copy the blueprint without considering the regional, economic, and cultural context (Wiedemann, 2017). Airport City developments filled with out-of-context facilities often fail to achieve a significant return on investment as they struggle to attract tenants (Hirsh, 2019).

As a result, in recent years, more academic studies and industry projects have started to realise the need to plan Airport City facilities according to the airport users' context. For example, it is proposed that an Airport City should incorporate high-quality schools, high-end shopping, upscale dining, bustling nightlife, and various cultural and leisure retail facilities to cater for the preferred lifestyle of creative class business employees (Kasarda & Appold, 2014).

Airport City Stockholm is one of the first movers in context-driven Airport City planning. Its management clearly recognises that too many 'Airport Cities have been planned with only aircraft, distribution, logistics, and other traffic in mind (and, on occasion, the passenger!). But very seldom are the people who actually work and spend almost every day there taken into consideration (Alvendal, 2014, para.6). To avoid the pitfall of its counterparts, Airport City Stockholm prioritises human aspects in its urban design strategy (Alvendal, 2014). Subsequently, Airport City Stockholm is targeted towards smart, metropolitan, educated, and rational creative class business employees who are looking for an engaging urban milieu with opportunities to socialise in public spaces and access convenient services during their lunch break or after work. Hence, Airport City Stockholm plans pedestrian-friendly streets, plazas, and parks lined with ground-level shops and eateries to create a high-quality urban environment for its airport users (Alvendal, 2014).

Based on recommendations and good practices identified by high-level Airport City professionals, The Base in Schiphol Airport City is used as an example to demonstrate facilities successfully planned to satisfy the demand of one main airport user group: The creative class (Nikolova et al., 2018). Its high-quality urban atrium space has a public library, a 24/7 childcare facility, a gym, a lounge, two cafes, and a restaurant, as well as events such as exhibitions, after-work get-togethers, and food trucks, which are expected to be attractive to the creative class in Schiphol Airport City.

The first empirical evidence comparing the facility preferences of airport users who work in Airport Cities in Germany and the United Arab Emirates (UAE) discovered that the perceived importance of facilities varies according to the social and regional context. For example, religious facilities in Airport Cities are very important to airport workers in the UAE but not to airport workers in Germany. However, the gym is frequently mentioned as an important Airport City facility in both countries, reflecting the typical needs of air-mobile, highly skilled, and higher-income creative-class employees working in large commercial Airport Cities (Wiedemann, 2014).

Most of the context-driven Airport City planning literature and projects focus on big commercial hub airports whose Airport Cities regularly try to attract knowledge-intensive firms and their creative class workforces. Consequently, their retail facility choices are more or less

consistent because they have the same creative class airport user group. But for smaller airports, market intelligence has to be improved so they can effectively serve their airport users' needs (Kasarda & Appold, 2014). Little research has discussed the Airport City model in the general aviation context (Freestone & Wiesel, 2014). An exception is a case study on Essendon's general aviation Airport City, which suggests that supermarkets and small specialty stores in Essendon's Airport City serve airport employees mainly from transport and property groups (Freestone & Wiesel, 2014).

Summarising, the Airport City literature has morphed from a generic list of facilities for Airport Cities to recognising the importance of planning retail facilities according to its airport users' context. Nevertheless, the literature on context-driven Airport City planning is mainly conceptual or concerned with sharing industry best practices that understand airport users' facility preferences through predictions and assumptions. Very few studies have collected empirical data to understand airport users' preferences in Airport Cities. Moreover, studies on context-driven Airport City planning mainly concern large airports and key themes of attracting high-income, highly skilled business employees belonging to the creative class, who have a high standard of quality of life and are looking for chic, upscale lifestyle-oriented amenities in their daily life (Kasarda & Appold, 2014; Wiedemann, 2014). To our knowledge, only Freestone and Wiesel (2014) have provided some first findings on airport user retail facility preferences in the context of general aviation Airport Cities. Hence, the influence of airport users' context on Airport City retail facility preferences still needs further investigation to gain deeper knowledge of relationships and synergies. Subsequently, this study investigates the retail facility preferences of flight school staff and students at the general aviation Parafield Airport City through a survey and interviews and compares the empirical case study results with the facility elements that are found at Airport City Parafield in the Airport City literature and Airport City master plans globally to evaluate how much the socioeconomic context of airport users impacts retail choices in Airport City planning.

Case Study Methodology

This study was a case study that used Airport City Parafield as the single case context. A mixed-methods approach employing various data collection methods, including desk research, site visits, an online survey, and follow-up interviews, was conducted in Airport City Parafield to develop an in-depth understanding of the implications and limitations to inform Airport City planning practices. This study was conducted in late 2020 and early 2021 during the COVID-19 pandemic (but with no local lockdowns imposed) as part of a student summer research project at the University of South Australia. The study has been approved by the Human Research Ethics Committee (HREC) of the University of South Australia. The protocol number is 203557.

Parafield Airport in Adelaide is a major international-standard training airport (Parafield Airport Limited, 2023a). It has one of the largest flight movements among Australian airports, mainly because of the pilot-training activities (Parafield Airport Limited, 2017). Parafield Airport is a privatised airport on an operating lease located on Commonwealth-leased land operated by Parafield Airport Limited, a wholly-owned subsidiary of Adelaide Airport Limited (Parafield Airport Limited, 2023a).

Parafield Airport is 18 km north of Adelaide's central business district, within a 35-minute drive (Parafield Airport Limited, 2017). It is surrounded by the suburbs of Salisbury South, Parafield Gardens, Para Hills West, and Mawson Lakes (see Figure 1).

Airport City Parafield (see Figure 2) is the retail and commercial real estate within airport land, managed by Parafield Airport Limited. Airport City Parafield includes the Airport Business Precinct (68 ha) and Commercial Precinct (48 ha) and will eventually expand to the undeveloped Bennett Precinct (13 ha) and Enterprise Precinct (82 ha) (see Figure 3) (Parafield Airport Limited, 2017).

Figure 1
Location of Airport City Parafield

Note. Parafield Airport (labelled) is surrounded by residential suburbs of Salisbury South, Parafield Hills West, Parafield Gardens, and the transit-oriented Mawson Lakes precinct (Plan SA, n.d.).

Figure 2
The Logo of Airport City Parafield

Figure 3
Zone and Precinct Plan for Parafield Airport

Note. (Parafield Airport Limited, 2017, p. 65)

The Airport Business Precinct of Airport City Parafield mainly encompasses the office premises of the flight schools and aviation supply companies (Parafield Airport Limited, 2023b).

Most retail facilities in Airport City Parafield are located in the Commercial Precinct (see Figures 4, 5 and 6). They are dominantly bulky goods retail stores, including many home improvement centres, tool shops, automotive supply shops, and furniture shops such as South Australia's largest Bunnings (Bunnings is Australia and New Zealand's leading retailer of home improvement products) (Parafield Airport Limited, 2023b). Airport City Parafield has only a few retail stores outside the bulky goods category, including a petrol station with a convenience store, two restaurants, a liquor store, a tavern, a gym, a fast-food outlet, a suit store in the Commercial Precinct, and one cafe in the Airport Business Precinct (Parafield Airport Limited, 2023b).

A brand outlet centre development is planned for the Commercial Precinct (Devwest, n.d.). The development plans to have a 14,000 square metres gross floor area and 10,700 square metres lettable area, comprising 65 outlet tenancies and a food court.

Figure 4

Commercial Precinct's facilities facing Main North Road

Note. A shop selling vehicles and home batteries, a carpet shop, a curtain shop, a gym, a bedroom furniture shop, a signage featuring the Airport City Parafield logo, and advertisements for more furniture shops in the Commercial Precinct.

Figure 5
South Australia's largest Bunnings in the Commercial Precinct

Figure 6 *Commercial Precinct's facilities at the intersection of Kings Road and Main North Road*

Note. From left to right are a store selling air conditioners and heaters, a suit store, and a model plane showcasing the aviation theme of the Commercial Precinct of Airport City Parafield.

After the desk research and site visits to understand the composition of retail facilities at Airport City Parafield, an online survey created on SoGoSurvey was distributed via email to all

staff and students at UniSA Aviation Academy, asking them to provide data about the range of their weekly income and retail spending behaviour.

Since the purpose of Airport Cities is to serve the ancillary everyday needs of airport users (Kasarda & Appold, 2010), this survey analysed the retail facility preferences of the main airport users of Airport City Parafield by studying their routine retail spending behaviour. Among the six flight schools at Parafield Airport, the UniSA Aviation Academy was chosen as the school from which to sample research participants as other flight schools at Parafield were operating at idle capacity at that time due to the COVID pandemic (Parafield Airport Limited, 2020a, 2020b). The Aviation Academy comprised 145 students, of whom 67.5% were domestic students and 32.5% were international students. The distribution of the students who answered the survey replicates this breakdown.

In total, 24 students (16.5%) and two staff members responded to the survey. Survey participants were asked to indicate the retail products and services categories they had consumed during the week before they completed the survey in all shopping places they had been to, including but not limited to Airport City Parafield.

Closed-ended options of retail products and services categories were:

- groceries
- meals, snacks, and drinks
- liquor
- aviation products
- clothes and shoes
- chemist products
- beauty, hair, and massage
- leisure and electric goods
- jewellery and accessories
- homewares
- medical services
- sporting goods and fitness
- movies, music, and events.

An open-ended option was provided to list other retail products that participants had bought. The only finding from the ‘other’ option was automobile parts.

Participants were also asked to think back how frequently they would typically spend on each retail product and service. The frequency was ranked on an ordinal scale. Options were:

- daily
- several times a week
- once a week
- several times a month
- once a month
- seldom
- and one-off purchase.

In addition to the survey, six follow-up interviews with UniSA Aviation Academy students were conducted, exploring the reasons behind survey answers. The interviews shed light on why certain retail facilities and types and pricing of products and services would be more relevant to airport users of Airport City Parafield than airport users at other Airport Cities.

Retail Spending Patterns of Parafield Airport's Users

This section presents the weekly income of surveyed flight school staff and students, i.e., airport users of Airport City Parafield, and findings on their preferred retail facilities obtained by documenting flight school staff and students' retail spending patterns. Qualitative results indicate that retail spending choices of airport users are linked to their socioeconomic context, such as having a low to average income versus being a high-income earner in professional industries, as is typically the case for the creative class in large commercial Airport Cities.

Survey responses showed that the cohort had low average incomes (see Figure 7). More than 60% of the survey participants earned less than $300 per week, and none earned more than $1,500 per week.

Figure 7
Weekly Income of the Surveyed Flight School Staff and Students (n = 26)

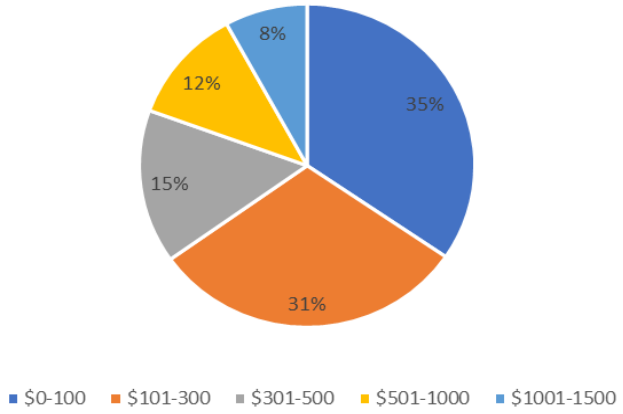
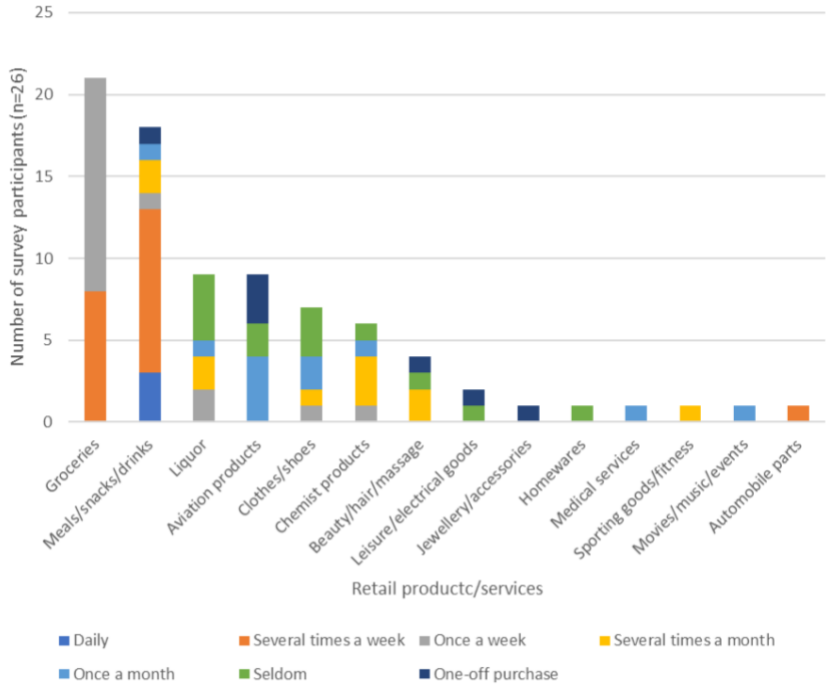


Figure 8 shows how frequently survey participants typically purchase various retail categories. Overall, survey participants purchase groceries, meals, snacks and drinks, liquor, aviation products, clothes and shoes, chemist products, beauty, hair and massage, leisure and electric goods, jewellery and accessories, homewares, medical services, sporting goods, and fitness, movies, music and events, and automobile parts.

Figure 8

Frequency of Consumption of Each Retail Product/Service in all Places at all Times



Note. Survey participants were asked to think back about how frequently they typically buy such products).

Surveyed flight school staff and students had the highest demand for groceries, followed by meals, snacks, and drinks. In addition, survey participants typically consume these goods and services very frequently: among the grocery shoppers, 62% buy groceries once a week, and 38% shop for groceries several times a week. This suggests an opportunity for a supermarket in Airport City Parafield, as also emphasised by one of the participants:

> *I generally have 2-3 flights per week in Parafield Airport. After training, I usually purchase groceries in Mawson Lakes. I do not spend in Parafield Airport [City] because there are no Woolies or Coles [Australian supermarket chains]. (Z4ACD)*

Of those who ate out, 56% consume food and drinks several times a week; 17% eat out daily (see Figure 8). However, currently, there is only one coffee shop in Airport City Parafield, and interviews with flight school students suggest that they might prefer fast-food chains:

> *My routine is to buy food in Hungry Jacks before flight … I will only find a good restaurant and dine out in Adelaide City if there are special events, such as a friend's birthday party. (Y6BCD)*

> *After flying, I usually buy food in McDonald's and Hungry Jacks if I don't have food at home. (Z3ACE)*

Four surveyed flight school staff and students purchase reasonably priced clothes and shoes regularly, and four regularly spend on chemist products (see Figure 8). Two participants consume beauty, hair, and massage services several times a month, while another 2 consume them less often (see Figure 8). However, retailers for clothes, shoes, chemist products, beauty, hair, and massage are absent in Airport City Parafield. Moreover, it was found that survey participants had very little interest in the home improvement centres, furniture shops, tool shops, or automotive supply shops that currently dominate the landscape of Airport City Parafield. Only one out of 26 survey participants consumed homewares, and only one participant bought automobile parts (see Figure 8).

Interest in fitness activities and entertainment was very low as well, in stark contrast to findings in the Airport City literature and availability at Airport City Parafield (see Figure 4). Only one participant spent on sporting goods or fitness, typically consuming them several times a month, and only one participant spent on movies, music, or events, typically engaging in entertainment once a month (see Figure 8). The following interview extracts illustrate the lack of importance of cultural and leisure retail facilities to the airport user cohort of Airport City Parafield resulting from low income:

> *I have not had entertainment, such as movies, for a long time because I want to save money for university. The last time I watched a movie was in November last year. (Z3ACE)*

> *I rarely visit the amusement arcades, cinemas, and bowling alleys in mega shopping complexes because I don't have money. (Y5ACD)*

In summary, surveyed flight school staff and students were most interested in consuming normally priced groceries, meals and drinks, liquor, clothes and shoes, chemist products, and beauty, hair, and massage services. Most of those products cannot be bought at Airport City Parafield. In contrast, they showed little interest in existing retailers in Airport City Parafield, such as fitness activities and home and furniture shops.

Discussion

The retail spending patterns from the previous section show that retail facility preferences at the general aviation Airport City Parafield of the sampled airport users are vastly different from the preferences of creative class employees in large commercial Airport Cities. Many retail facilities that creative class employees use routinely, thus being viable for big commercial Airport Cities, appear irrelevant in the socioeconomic context of Airport City Parafield. For instance, gyms (Wiedemann, 2014), exhibitions (Nikolova et al., 2018), and nightlife (Kasarda & Appold, 2014) have been found to be important to the creative class in large Airport Cities. Nevertheless, they were not important to the sampled airport user group at Airport City Parafield. Only one survey participant spent on fitness or sporting goods, and only one survey participant spent on movies, music, or events (see Figure 8). Moreover, instead of upscale dining targeting creative class employees in large Airport Cities (Kasarda & Appold, 2014), affordable food offerings like fast-food chains like McDonald's seemed to be more

suitable for Airport City Parafield and its flight school staff and students, as seen in the interviews.

The difference in retail facility preferences between airport users in Airport City Parafield and those in large commercial Airport Cities could be explained by the differences in socioeconomic context in terms of their job types and income, and thus the different hierarchy of needs associated. The sampled flight school staff and students receive a lower income than high-income creative class knowledge workers such as engineers, business consultants, and software programmers in large commercial Airport Cities. Of the surveyed flight school staff and students, more than 60% earned less than $300 per week, and none earned more than $1,500 per week (see Figure 7). Several interviewees mentioned that they did not have much money to spare for leisure shopping, presumably due to lower income and the need to save up to pay the considerable amount of university tuition as well as the additional flight training course fees. Therefore, they only look for simple, ordinary retail facilities to ensure their basic physiological needs. On the other hand, creative-class employees in large commercial airports have obtained a higher socioeconomic status with more disposable income. The creative class has not only basic physiological needs but also higher-level pursuits in mind, body, and soul to achieve esteem and self-actualisation, so they engage in cultural and leisure facilities to challenge themselves intellectually and physically, as explained by Florida (2012). Hence, cultural and leisure facilities are important in the daily life of creative-class employees in large commercial airports.

The finding of *Airport City retail facility preferences changes with airport users' context* strengthens the message to Airport City developers that tailoring facilities for the distinct context is paramount and negates a one-size-fits-all approach. Retail consumers in Airport Cities should be airport users (Leeuw, 2019), but depending on airport functions, airports operating under the Airport City model can still have different airport user groups. Not all airports serve the creative class like the large commercial airports such as Amsterdam International Airport Schiphol. For instance, in our case context, Parafield Airport has a main airport user group of students studying aviation who have lower socioeconomic status and flight school staff with hands-on jobs with rather low salaries. Some other examples of airports with lower socioeconomic status include the logistics hub Memphis Airport in the USA, with blue-collar cargo handlers as their main airport user group (Antipova & Ozdenerol, 2013), and regional gateway airports in developing countries like Durban in South Africa with blue-collar manufacturing workers as their main airport group (Ngwenya, 2020). If Airport City developers use a one-size-fits-all approach and plan chic, upscale cultural and leisure facilities at Airport Cities with lower socioeconomic status like Parafield, Memphis, and Durban, it is not hard to imagine that little spending will occur in these Airport Cities due to the lack of purchasing power to consume in those cultural and leisure facilities, resulting in underutilised facilities and low return on investment (Hirsh, 2019).

Context-driven Airport City facility planning has clear benefits to both customers and businesses because airport users can have their ancillary needs well-satisfied at their favourite stores (Alvendal, 2014; Nikolova et al., 2018) and Airport Cities tenants and developers can thus also have sustained revenue (Wiedemann, 2014). Nonetheless, the organisational culture in the airport industry and the lack of government regulations might hinder the voluntary implementation of context-driven Airport City facility planning.

On the one hand, the psychological profile of airport management professionals might inherit a favour for copy-and-paste Airport City facility planning because Byers's (2012) mass survey on airport executives finds that they are dominantly categorised as 'divergers' and 'accommodators', meaning that executives across the airport industry are individuals with strong preferences of learning from others' concrete experience as passive observers.

On the other hand, the *Airports Act 1996*, the only legislation that governs land uses within airport land in Australia, lays minimal guidance on Airport City facility planning (Walker & Stevens, 2008), not to mention requiring developers to support their retail facility choices by documented market and demand studies. The same limitation appears in the better-known Airport-City-related legislations internationally. The United States *The House of Representatives Bill 658 Aerotropolis Act* is mainly concerned with defining an Aerotropolis and acknowledging its economic significance (Wang et al., 2018). The policy framework previously used by Bestuursforum Schiphol was mainly concerned with eligibility (airport-relatedness) assessment for companies' admission into Schiphol Aerotropolis (van Wijk et al., 2014).

Hence, to effectively promote context-driven Airport City development, it is recommended that instead of voluntary implementation, governments should consider amending the Airport-City-related legislation to explicitly regulate Airport City facility planning and requiring Airport City developers to submit thorough market and demand studies on the city's socioeconomic, regional and cultural context as well as the airport's role, function and form to justify their retail facility choices.

Conclusion

This study strengthens the importance of context-based Airport City planning by finding that low-income earning airport users of a general aviation Airport City have different retail facility preferences from creative class airport users of large commercial Airport Cities. A mixed-method spending behaviour study was conducted with the main airport users of Airport City Parafield, i.e., flight school staff and students. Data has shown that the sampled flight school staff and students have little interest in gyms, cultural and leisure retail facilities, or upscale dining; however, these retail facilities are considered to be attractive to the high-income creative class business workers in large commercial Airport Cities (Kasarda & Appold, 2014; Wiedemann, 2014; Nikolova et al., 2018). The difference in retail facility preferences between airport users in general aviation and those in large commercial Airport Cities might be due to the different socioeconomic contexts.

This finding strengthens the notion that a one-size-fits-all approach in Airport City planning should not be promoted because airport users' context changes and Airport City retail facilities should be selected.

We call on all practitioners to use Kasarda's blueprint or other existing benchmark references only as a first point of reference. The actual Airport City facility planning, however, should be based on a thorough understanding of the Airport City concept and thorough market and demand studies on the city's socioeconomic, regional, and cultural context as well as the

airport's role, function, and form. Substantial time should be spent on the strategic planning elements before any master planning exercise.

Despite being limited to one case, and results could have been impacted by the pandemic and small sample size, this study provides some empirical evidence of the importance of context-based Airport City facility planning. Future research could develop criteria and tools to analyse in-depth the relationship between different elements of the context of Airport Cities and their impact on successful Airport City planning. Future studies should also expand on sample sizes and explore different airport user groups, such as fixed-based operators and specialised aviation service operators, although there is a small presence of those in the airport of this particular study.

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