

DESIGN DECODED 2021

Proceedings of the 2nd International Conference on Design
Industries & Creative Culture

Kedah, Malaysia
24-25 August 2021

EDITORS

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DESIGN DECODED 2021

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Preface

We are delighted to introduce the proceedings of the second edition of THE 2nd INTERNATIONAL CONFERENCE ON DESIGN INDUSTRIES AND CREATIVE CULTURE: “DECRYPT YOUR VISUAL CREATIVITY” (DESIGN DECODED 2021). DESIGN DECODED 2021, is an extension from the previous event (Design Decoded 2019), which it allows participants to present their research, but also, they will be given an opportunity to exhibit their artwork virtually. It is heartening to note that the fraternity of Universiti Teknologi MARA (UiTM) Kedah, particularly the Faculty of Art and Design, have deemed it worthy of their time and resources to host a virtual academic conference to all participants, from home and abroad, to delve and debate with the theme of “Decrypt Your Visual Creativity”.

THE 2nd INTERNATIONAL CONFERENCE ON DESIGN INDUSTRIES AND CREATIVE CULTURE: “DECRYPT YOUR VISUAL CREATIVITY” (DESIGN DECODED 2021), has possibly made available the necessary platform from where ideas and initiatives can be translated into deliverables, with diligence and commitment to attain societal well-being and culturing knowledge, transcending geographical boundaries and ideological differences. Indeed, we all have a role to play in making the 21st century better than the past millennium, whatever our station in life, whichever part of the globe we hail from.

Besides, DESIGN DECODED 2021 is one such avenue from where researchers, academics, practitioners, policymakers, and other stakeholders can make a difference to our communities and nations if we choose to celebrate diversity and rejoice in commonality, whatever our creed of colour. The conference is to be the launching pad for better future performances - ideally in art and design areas such as Sustainable Art and Design, Design Practice, Design Management, Design Education, and many more.

There are a total of 71 presenters for the conference and a total of 175 participants for the virtual art exhibition. The participants are locally and internationally (Indonesia, Pakistan, Philippines, Australia, Cambodia, Indonesia and Malaysia). The conference and virtual art exhibition, will substantially contribute to the universal debut on finding the best, practical and effective ways to embrace the new norms of knowledge and practice especially in art and design backgrounds. This noble effort to share experiences and strengthen linkages, to lend expertise and exchange knowledge, to explore and discover in the name of lifelong academic research for the common good of mankind. This event will be a leading platform in knowledge sharing and building more associations through Memorandum of Understanding (MoU) and Memorandum of Agreement (MoA), pertaining to art and design be it in local or international arena.

Aside from the high-quality technical paper presentations, the technical program also featured four keynote speeches, they were the honourable Emeritus Prof. Dr T.W. Allan Whitfield from Swinburne University of Technology, Australia, the honourable Prof Dr Khairul Aidil Azlin Abdul Rahman from University Putra Malaysia, Malaysia, the honourable Dr Nurul ‘Ayn Ahmad Sayuti from Royal College of Art (RCA), England and the honourable Mr Firdaus Khalid from SAE Institute, United Kingdom, who have shared their thoughts in art and design areas.

The line-up of guest speakers for art exhibition were the honourable Ms. Attieh Mohebali from Melbourne, Australia, the honourable Mr Syahrulfikri Razin Salleh from Phnom Penh, Cambodia, the honourable Shahr a/l Koyok from Malaysia and the honourable Ms. Izyan Syamimi from Malaysia, who have presented their outstanding artworks.

The effortless contribution from Asst. Prof. Dr. Pibool Waijitragum from Suan Sunandha Rajabhat University, Thailand, Emeritus Prof. Dr. T.W. Allan Whitfield from Swinburne University of Technology Australia, Prof. Dr. Khairul Aidil Azlin Abdul Rahman from Universiti Putra Malaysia, Malaysia, Dr. Harold John Delavin Culala from Far Eastern University, Philippines, Mr. Firdaus Khalid from SAE Institute United Kingdom and Dr. Zahidah Abdul Kadir from Higher Colleges of Technology, Sharjah's Women Campus, United Arab Emirates, as the esteemed steering chairs committees were appreciated. It was also a great pleasure to work with such an excellent organizing committee team for their hard work in organizing and supporting the conference.

We strongly believe that the conference and virtual art exhibition, will substantially contribute to the universal debut on finding the best, practical and effective ways to embrace the new norms of knowledge and practice especially in art and design backgrounds. This noble effort to share experiences and strengthen linkages, to lend expertise and exchange knowledge, to explore and discover in the name of lifelong academic research for the common good of mankind. We also expect that the future DESIGN DECODED conference will be as successful and stimulating, as indicated by the contributions presented in this volume.

Juaini Jamaludin and Normaziana Hassan

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Measuring Facilities Management Practice and Consumers' Satisfaction: A Case Study of Shopping Malls in Sarawak

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Abstract. This article intends to impart a clearer perception on the satisfactory on consumers' experiences in shopping malls from the facilities management (FM) practices perspective. In achieving commercial prosperity, shopping malls often neglect their obligation to fulfill consumers' satisfaction experience. Therefore, an integration between Mall and the FM is crucial in order to create functionality and provide significant value to the business and meet consumers' expectations. This study is designed to evaluate the physical facilities of selected shopping malls in Sarawak and to determine the aspects which contribute to the malls' success in meeting consumer needs. Visits to two selected malls and thorough observation of their facilities were documented as findings. A survey on facility management methods in malls was distributed to consumers who visits the selected malls and the results were analysed to determine the study's significance. The findings revealed that physical facilities of the mall, as well as consumer satisfaction, play a role on the reason people prefer one mall over another.

Keywords: Facilities management, shopping mall, physical facilities, consumer, design, Sarawak.

1 Introduction

A shopping mall is a collection of independent business establishments which are managed in the same building. Designed as a business space, it has doubled into a social and community hub (Ng, 2003). Shopping malls in Malaysia have becoming a popular entertainment and socialising venue. It is a central with a lot more of exposure to a broader audience such as relating to culture, lifestyle and education. The rise of shopping malls has heightened competition among businesses, drawing customers' attention to other methods of purchasing by assessing the quality of the physical environment. According to reports cited by Foo Gee Jen, the Managing Director of CH Williams Talhar & Wond Sdn. Bhd. (2014) stated that a minimum of 20% of Malaysian urbanites patronage shopping centres during their personal offdays. As a

result, the physical atmosphere of shopping malls evolves favourable emotions in visitors in order for them to feel at ease.

The physical environment of a company - be it a retail space, restaurant or office building - says a lot about who it is and how it works. Production management ensures that premises are in good working order by carrying out scheduled and scheduled maintenance. A well-maintained system ensures a safe environment, reduces energy costs, and ensures that all business functions run smoothly. Floor cleaning and maintenance services can be part of good room management. These services can help you attract and keep you together, which will increase consumer satisfaction. Equipment management is important as it can help prevent breakdowns. Repairing critical systems in the event of a failure can be costly and inconvenient. Preventive maintenance can help you avoid these extra costs and minimise downtime in your shopping center. Asset management is very important in any company or organisation. As for asset management, the security and day-to-day maintenance of the mall's facilities and equipment is improving. But repair and injury costs are reduced.

Over the years, the facility management (FM) industry has risen to prominence as one of the fastest expanding sectors. As mentioned by Noor and Pitt (2009), Facilities Management (FM) can be summarised as creating an environment that is cohesive to carry out an organisation's primary operations, taking an integrated view of the infrastructure services and use it to give customer satisfaction and value for money through support for an enhancement of the core business. The breadth and identity of FM, on the other hand, remain ambiguous, as indicated by the definitions and concerns that attempt to define it. Indeed, FM is a cross-disciplinary field of labour that encompasses a diverse variety of actions, responsibilities, and expertise. What's more, FM appears to pervade every facet of an organisation. If the building is regarded as one of the most important property aspects, the supervision of the facility is an important component of the building, which the FM team must capitalise on.

From a facilities management standpoint, it is critical that practitioners comprehend the thrust of this new management approach to develop broader business management proficiency and be able to determine whether, where, and how such an approach might impact or even be used within the practise of facilities management in a corporate setting.

Facility Management (FM) Definition

Facility management, by definition, is a multi-skilled process that promotes an organisation's core business by integrating the physical workplace and its people (Barrett P,2004). This demonstrates a facility management's supportive function in serving the needs of the organisation's primary activities or business's demand and supply (Wanlaya Patanapiradej, 2006) while reconciliation of both factors is sustained for the long-term. In other words, in order to function successfully, FMs must have both facility and governance expertise. A workplace that promotes smooth operational productivity while reducing costs without compromising quality defines accomplished facility management. In Malaysia, attempts to define FM must begin by examining the definitions that have been employed during the previous practice in the country in this subject. Definition adopted by The International Facility Management Association (IFMA) is:

“Premise maintenance is an operational procedure of incorporating the function of multiple disciplines into the physical environment and reducing the effect on its community and the place of work.”

At the national level, the main aim is to improve the physical structure and logistics for commercial operations and communal activities in all segments; its main aim for the community is to provide shells to support us all; businesses, work teams, special task groups and singular persons. (Nutt, 2000).

FM should not only work to minimize premise operating expenses, but also to make space and other asset management relevant to people and processes more efficient and appropriate. The goal of the organisation is to ensure that productivity, value and standards are combined optimally. In countries like Japan, Australia, New Zealand, Hong Kong and Singapore, FM has been successfully implemented and in existence. In these countries, it is acknowledged in support of the overall goals of an organisation as an activity able to improve the management of the structures, services and related work force. Professional affiliations and organisations namely the International Facility Management Association and the British Institute of Facilities Management have been established to recognise FM as a distinct subject.

The management of facilities is sometimes defined as the management of tangible and intangible facilities, including unforeseen market demands. This is a critical aspect for all professionally managed business organisations to achieve their goals. Technically, facilities management and responsibilities encompass activities previously performed by building designers, landscapers, interior decorators, builders, property evaluator, property estimation, and construction value measurement, and so forth. Additionally, FM includes professional assistance, building conservation, building refurbishment, housekeeping, protection services, carpark, electricity, telecommunication, fire protection system, temperature control, lift compartments, and designed gardening.

Definition of Consumers' Satisfaction

The term "consumers satisfaction" is used in a variety of contexts. There are two forms of definitions, each emphasising consumers pleasure as a result or a process.. Consumer pleasure is defined by some definitions as an effect of consumption experiences. These have been stated by Howard and Sheth (1969) "the buyer's cognitive state of being adequately or inadequately rewarded for the sacrifices he has undergone" while Westbrook and Reilly (1983) defined consumers' satisfaction as "an emotional response to the experiences provided by, associated with particular products or services purchased, retail outlets, or even molar patterns of behaviour such as shopping and buyer behaviour, as well as the overall marketplace". According to Oliver (1981), "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumers; prior feelings about the consumption experiences".

There is a concept of needs and how they are met at its core. Different interpretations of needs and the emotional states that go along with them lead to different approaches to satisfaction treatment and measurement. A demand for specific goods and services is defined as consumer satisfaction. In agreement to J. Senyszyn in the article written by Dick and Basu (1994), “Consumer need is a state of indispensability of products possession or use, being a result of achieved level of development of the human environment and his requirements as a bio-psycho-

social structure". Consumers' satisfaction or also known as consumers' pleasure, emphasises offering satisfaction and receiving profits in return to customers, not just in terms of products, but also in terms of general quality of life.

Consumers' satisfaction is sometimes described as an assessment of whether the consumption experience was at least as excellent as it should have been "as an evaluation that the chosen alternative is consistent with prior beliefs with respect to that alternative" (Engel and Blackwell 1982) as a consumer's reaction to the perception of a disparity between prior expectations or norm performance and the actual achievement of the merchandise as experienced after use. These definitions imply that an evaluating process is a critical component of customer's satisfaction.

Over the last two decades, as people have realised how important it is, consumer satisfaction research has proliferated. Numerous studies and annual conferences on consumer satisfaction, dissatisfaction, and complaining behaviour have been conducted in an attempt to make a significant contribution to understanding this important area.

Statement of Research Problem

In Malaysia, the shopping mall sector is confronted with new issues, including the lack and insufficient performance of physical facilities, an overstock of business operating outlets, low number of occupied properties, severe rivalry between shops, and change in consumer demands and habits. Additionally, the rise of e-commerce has decreased shoppers' visits to malls. As mentioned by Magherio (1998), with the emergence of the Internet and World Wide Web (WWW) as a medium for commercial transactions, it has thrust e-commerce into the spotlight, becoming the main focus of the international community. Compared to traditional value-added private networks, the Internet and the World Wide Web have simplified, simplified, cheaper and affordable for companies of all sizes and consumers to interact and conduct business transactions electronically. To adapt to the changing retail landscape and to keep up with the convenience of internet purchasing, shopping centres proprietors as well as operatives need to offer experience satisfaction reasons for physical shopping that the internet cannot deliver. Such as the interior design of the shopping mall or the stores itself, the aura that constantly welcome and comfort shoppers and visitors who come by providing them the space so they can gather but also with privacy and the purchasing deals that does not being offered online. The focus of this study is to maintain the mall's present physical performance in accordance with the FM standard.

To put it succinctly, facility management is centered on the coordination requirements between facilities (physical facilities) and users. It must be tweaked and balanced to ensure that it satisfies the standards. In order to perform the most efficient FM possible and to ensure quality and effective management of facilities, similar to shopping malls, several disciplines for example engineering, business, building design and management are needed. In the 1st edition of Facilities Management Theory and Practice by Alexander (1996) stated "that the function of facilities management is really a bridge between the changing workplaces and users". It focuses on and produces action plans for facility owners, managers, and tenants to cope with existing and future key environmental challenges in the workplace for consumers. Land or real estate, buildings or structures, process machinery, and support equipment, both stationary and mobile, are examples of tangible fixed assets essential for an organisation to function. Therefore, facilities are defined as the infrastructure that supports people in the organisation in their

endeavours to achieve business goals and they are the tools which people in the business have at their disposal to carry out their tasks (McGregor, 1999). Managing an establishment is therefore painstaking because a person who manages must possess the technical abilities, knowledge and operational capabilities necessary for management and maintenance of a building. The same occurs in management of shopping malls, which are constantly confronted with a wide range of consumer wants and desires as they visit the mall and use its facilities.

Facilities management is also not only about establishing a cohesive environment in which an organisation's primary operations can take place; it further highlights issues such as faulty air conditioning, a broken escalator, a leak in the ceiling, a non-functioning elevator, and unclean areas, particularly restrooms. These are just a few of the characteristics that draw consumers and shoppers to shopping malls.

FM challenges, according to Ballesty, S. (2007) and Syed Mustapa et al. (2008), include an inadequacy of appreciation, vocational training needs, professional qualifications, professional development, information standards, performance measurement, investment cost against gain or return of investment, and FM corporate and community contribution.

In Malaysia, office buildings are an epitome pertaining to FM practices. In a study by Syahrul Nizam and Emma Marinie (2010), this building category in general are managed by a team to supervise the building's maintenance. The team is usually led by a Maintenance or Building Manager who oversees the condition upkeep, cleanliness, greenery, illumination, insulation, airflow, and climate control (HVAC), elevators or escalators, mechanical / electrical, hygienic and piping, entrances, public information displays, and carparks, among others (Nik-Mat et al. 2011).

By examining the abounding FM-related difficulties described previously, this study will determine the true state of the field, with a particular emphasis on shopping malls. This is due to the fact that the shopping mall is also a popular destination and attraction, and the consumer is the mall's primary source of revenue.

Krishna and Giri, 2018; Syzmanska and Plaziak, 2017; Kesari and Altukar, 2016; Kim, Lee, and Suh, 2015; and Nik-Mat, Kamaruzzaman, and Pitt, 2011 are some examples of studies on consumer satisfaction towards shopping malls. According to a recent study conducted by Kushwaha et al. (2017), the elements that influence shopping mall selection include service experience, internal environment, convenience, utilitarian characteristics, acoustics, proximity, and demonstration.

According to facilities management focal point, providers or suppliers must meet all of the demands or requirements of the organisation, which are divided into three stakeholder categories: i) Owner, ii) Customer, and iii) User. One of the main purposes of FM is to satisfy consumers, users, or owners in order to achieve business organisation goals and objectives. Improving consumers' satisfaction illustrates one of the important contributions arising from the strategic facilities management process, as well as having strong influences and being extremely important to the organisation or institution.

2 Literature Review

FM is a relatively recent field of study. Around 1978, it began to take shape. Over the past two decades, the expansion of this facilities management reflects a growing awareness of the relevance of physical surroundings for organisational development (Yusoff, Lepkova, Vilutiene, Pitt, Tucker, 2008). FM as a discipline arose from practise, much like the big established professions. Property management, property operations and maintenance, and office administration (Pitt and Tucker, 2008) were the three main strands of activity that came together. According to Murdrak (2004), FM is the "integrated management of the workplace to enhance the performance of the organisation". Facility management is defined as the host and it supports the core business activities of an organization by continuously providing value to interested parties. FM is therefore a fundamental function in managing facility resources, support services, and the working environment in order to support an organisation's core business in the long and short term.

Companies win or lose based on their ability to retain a certain percentage of their consumers. The retention of consumers is crucial to success, which is determined by their degree of contentment. It would be extremely beneficial to be able to completely measure product and service quality by linking quality measures to actual consumers behaviour. Certain organisations collect feedback on customer service by looking at the proportions of complaints, while some don't measure customer service at all. As stated by Chotipanich (2004), it is due to "the system would not add anything useful and is very time-consuming". Measurements of consumers satisfaction allow for the discovery of key elements that influence service satisfaction or discontent. Once they've been identified, suitable steps can be made to reduce the negative causes. In other words, an organisation resources can be managed well.

Considering facilities management focused on providing a service, its value to an organisation can be tough to quantify as there is no end result that can be held up to the consumer. The ramifications of this imperceptible can be extensive, particularly in terms of the consumer's evaluation of the facilities department's performance. The consumer's opinion of the service obtained against the consumer's expectation of the service is likely to be essential to the evaluation of facilities services. As a result, the facilities department can focus on two distinct areas: managing the consumer's initial expectations and managing the consumer's opinion of the service (Barrett and Baldry, 2004).

According to Juhari et al (2012), an appraisal of the shopping mall is required, which involves the management of the shopping mall's service prospect, physical environment, or shopping mall service perspective. These measurements from a service perspective can help identify a specific facility or location that requires attention. The rationale behind this claim is that customer satisfaction requires a comprehensive, beautiful and well-functioning shopping center with a variety of amenities and services. Satisfaction is a measure of how well a product or service meets your demands at the end of the purchase process (Puccinelli, Goodstein, Grewal, Price, Raghubir & Stewart, 2009). Hui, Zhang, and Zheng (2013) investigated the service dimensions of shopping mall amenities that influence consumer satisfaction. The data showed that the administration and maintenance of utilities such as toilets, shopping center cleanliness and security services contribute to overall consumer satisfaction in shopping centers.

After analysing the secondary information on shopping malls, it became clear that surveys on consumer satisfaction and loyalty to shopping centers are underrepresented. As the number of shopping centers increases, buyers are becoming more and more selective about the choice of shopping centers they visit. As a result, mall managers need to determine the level of customer satisfaction and loyalty in a mall to improve performance where the gap exists and stay competitive.

3 Research Objective

1. Identify the importance of Facilities Management in Malls
2. Identify the factors in facilities management that triggers the consumer's satisfaction
3. Determine strategies for maximising consumers' satisfaction through facilities management

4 Study Significance

The goal of this research is to look into the role of facilities management in improving customer satisfaction. Through this study, we can see how important facilities management is in affecting consumer shopping satisfaction, particularly in Kuching, Sarawak. Furthermore, this research reveals the advantages of expanding facility management in all malls. This research focuses on the consumers' satisfaction of Kuching, Sarawak. Facilities Management's mission is to provide excellent service to its clients, customers, and users.

Buildings and facilities are frequently among the most expensive aspects of a company, second only to the cost of hiring employees. With this in mind, FMs are frequently tasked with reducing a company's costs while also increasing profitability. It's crucial to give it a thought, though, that cutting costs shouldn't come at the expense of providing good service. Poorly maintained, dirty, and unkempt premises may be detrimental to a company's image in some cases, but even in those cases where image isn't as important, cutting costs at the expense of service quality can have costly consequences in terms of morale, productivity, and staff retention. As a result, it is up to the FM to find cost-cutting measures that do not have a negative impact on the organisation as a whole.

Other than that, facilities management play a critical role in ensuring business continuity and should be involved in the development, testing, and evaluation of the company's business continuity plan.

5 Methodology of the Research

A case study methodology is used in the research, and Aeon Mall in Kuching and Summer Mall in Kota Samarahan have been chosen for this purpose. According to Sturman (1997), "a case study is a general term for the exploration of an individual, group or phenomenon". As a result, a case study is a detailed description and analysis of a specific case. The study commences by determining consumers' perceived value of shopping malls, analyses of the mall's physical

amenities, and identification of elements that contribute to the mall's effectiveness in serving consumers' needs.

This quantitative method used the distribution of questionnaires to respondents in two selected shopping malls. Also collected data from the websites of local government bodies. These are the primary and secondary data that are analysed. An observation method and a questionnaire survey of 100 randomly selected respondents have been chosen for both location which is Aeon Mall, Kuching and Summer Mall, Kota Samarahan, constituted the primary data. The questionnaire examined consumer satisfaction, shopping mall physical facilities and other attributes related. The results were determined using the average number of customers surveyed during the research. On most days, the estimated average number of consumers in Summer Mall was less than half that of Aeon Mall. The sample was restricted to the Aeon Mall in Kuching and the Summer Mall in Kota Samarahan.

This study is analysed using both descriptive and inferential statistics (cross-tabulation and frequency, and percentages are all examples of descriptive statistics) that summarise and show data. A chi square test is used to compare the physical facilities, environmental, spatial, and satisfaction level.

Aeon Mall and Summer Mall were subsequently benchmarked for FM standards, which define the requirements for coordination between facilities and customers. Thereafter, a new FM suggestion for both shopping malls is proposed by the study to narrow the gap between consumer perception and reality. This will help to contribute a guidance to mall owners and operators on the pertinence and sustainability in the sector.

6 Result and Discussion

Result and discussion starts with a deliberation of the socio-economic analysis of consumers in the two malls in Sarawak. This describes the type of consumers at each mall, and the implications of those profiles in the context of satisfaction. It summarises the key findings and examines their implications for consumer satisfaction with physical facilities, spatial characteristics, and the shopping experience at the sampling mall. Analysis of cross-tabulations are used to illustrate all the findings.

The next section explores and analyses the physical facilities, environmental qualities, and spatial characteristics of Aeon Mall, Kuching and Summer Mall, Kota Samarahan. The final section contrasts consumer pleasure in malls and the impact of facilities management on shopping consumers chosen.

6.1 Analysis of socioeconomic characteristics

This section will discuss the characteristics of shopping mall consumers according to their financial status, as indicated by Table 1. It's unsurprisingly that more women than men visit shopping malls for shopping or other recreational activities. The table indicates that more women were recorded at Summer Mall than at Aeon Mall.

Respondents with a university degree stated 40.2 percent in Summer Mall, compared to only 29 percent in Aeon Mall. This is presumably as a result of Kota Samarahan is regarded as the "City of Knowledge," with two universities, Universiti Malaysia Sarawak (UNIMAS) the nearest from Summer Mall, and Universiti Teknologi Malaysia (UITM) Sarawak Branch. Maktab Perguruan Kota Samarahan is also located nearby. One may reasonably assert that the majority of responses are students at these three public universities.

In comparison to Summer Mall, Aeon Mall stated that its end consumers included individuals with diplomas (34%), and for those with degrees (29 per cent). Following that, a study of job classifications indicates that whereas 32% of Summer Mall consumers are public servants, only 22% of Aeon Mall consumers are. This effect may be bolstered further by the high concentration of government offices and public universities in Kota Samarahan and near proximity to the Summer Mall. As a result, it's foreseeable that the majority of consumers to Summer Mall, Kota Samarahan, are government personnel.

In terms of income, respondents who visit Summer Mall earn on average less than RM500, whereas those who visit Aeon Mall earn more than RM10,000. This could be by virtue of the Summer Mall's consumers are primarily high school kids and teenagers. This comparison is supported by the fact that Summer Mall receives 23.5 percent of consumers aged 15-19 years old, while Aeon Mall receives only 15%. Aeon receives 27% of consumers aged 20-26, whereas Summer Mall receives 49%.

Table 1. Socioeconomics analysis of consumers

	Variable		Aeonmall (100 Respondents)	Summer Mall (50 Respondents)	Chisquare (P Value)
1	Gender	Male	43	47.1	.381
		Female	57	52.9	
2	Education	Primary	8	11.8	.006
		Secondary	29	31.4	
		Diploma	34	17.6	
		Degree	29	40.2	
3	Occupation	Civil servant	22	32	.011
		Student	14	2	
		Retiree	6	29	
		Business	11	2	
		Artisan	5	2	
		Housewife	18	26,4	
		Other formal	21	7,6	
		Mechanic	3	0	
4	Religion	Islam	65	96.1	.000
		Christianity	4	3.9	
		Budhha	25	0	
		Hindu	5	0	
		Others	1	0	
5	Income	<500	11	47.1	.012
		501-1000	3	5.9	
		1001-2500	25	21.6	
		2500-3000	18	11.8	
		3001-5000	93	9.8	
		5001-7500	3	0	

		7501-10000	2	0	
		>10000	29	3.9	
6	Age	15-19	15	23.5	.001
		20-26	27	49	
		27-35	27	23.5	
		36-45	19	3.9	
		>45	12	0	
7	Length of stay (years)	<1	5	9.8	.000
		<5	20	49	
		5-10	9	11.8	
		11-20	27	25.5	
		21-30	23	3.9	
		>30	16	0	
8	Average time spent in mall (minutes)	<20	11	7.8	.027
		20-59	28	33.3	
		60-90	26	27.5	
		91-180	21	17.6	
		181-300	11	0	
		>300	3	13.7	

Following that, a comparison is conducted to identify the birthplace of mall consumers, as shown in the table below. According to the data, majority of the people visit Aeon Mall (61 percent) are from Kuching Sarawak, whereas the number of customers to Summer Mall (25.5 percent) are from Kota Samarahan. This result is predicted as Aeon Mall is in the centre of Kuching City, meanwhile Summer Mall is in Kota Samarahan.

Nonetheless, the number of consumers from other countries is recorded in Samarahan. Kuching, Serian, Kedah, Terengganu, Kuala Lumpur, Sabah, Penang, Melaka, and other cities are included. This is most likely due to the fact that the consumers going to the Summer Mall are those who reside in the vicinity of Kota Samarahan, which considered as a home to a large number of outsiders who come to study and work. This comprises IPTA students, University lecturers, and other government employees.

The residence choice of people who visit Summer Mall also support this rationale, since the majority of those who visit Summer Mall live in Desa Ilmu, Kota Samarahan (84%), followed by Riveria, Kota Samarahan (5%). While the findings for visitors to Aeon Mall, Kuching reveal that the majority of consumers are from the Kuching City area. This includes 36.3 percent from the Matang area, 7.8 percent from Stutong, and 5.9 percent from Tabuan, followed by other places such as Bayu Kawa, Malihah, Sukma, and others.

Table 2. Place of birth and residence

Variable	Town/House	Aeon Mall	Summer Mall	Chisquare (P Value)
Place of birth	Kuching, Sarawak	61	13.7	.000
	Kota Samarahan, Sarawak	5	25.5	
	Serian	0	7.8	
	Kedah	6	5.9	
	Terengganu	3	9.8	

		KL	1	5.9	
		Sabah	2	5.9	
		Penang	5	3.9	
		Melaka	4	7.8	
		Pahang	2	0	
		Selangor	0	5.9	
		Perak	1	3.9	
		JB	3	0	
		Kelantan	7	3.9	
	Place of residence	Desa Ilmu, KS	2	74	.000
		Serian	2	2	
		Uni Cental, KS	0	5	
		Uni Alam, KS	0	2	
		Uni Garden, KS	2	6	
		Batu Kawa, Kuching	3.9	0	
		Malihah, Kuching	3.9	0	
		Demak, Kuching	2	0	
		BB Semariang, Kuching	2	0	
		Sukma, Kuching	2	0	
		Taman Hijrah, Kuching	2	0	
		Matang, Kuching	36.3	0	
		Kopodim, Kuching	0	0	
		Taman Putri, Kuching	0	1	
		Stutong, Kuching	7.8	3	
		Simpang Tiga, Kuching	3.9	0	
		Riveria, KS	0	5	
		Tabuan, Kuching	5.9	0	
		Kenyalang Park, Kuching	3.9	1	
		Stampin	11.8	0	
		BDC, Kuching	7.8	1	

6.2 Shopping selection factors

The table below shows the factors that influence consumers to show up to the shopping mall. The shopping mall as a gathering place for friends, family, and new acquaintances is one of the factors taken into account. In addition, shopping malls that are easy to reach by using their own vehicles became the choice of the average consumer when 94% of respondents cited this factor, and 86 percent of respondents from Summer Mall cited this factor.

Apart from that, shopping malls that have high security rate, as well as comfort is also a factor in choosing a shopping mall. Shopping malls that have varieties of comfortable and clean dining options also help the selection of a shopping mall. Amidst the other determining factors that are also the selection factors of consumers is the availability of various facilities and shops offered in the shopping mall. These include supermarkets that are the main choice for shopping, food courts, game arenas, cinemas, groceries, and also pharmacies.

While the physical facilities submitted by consumers in this survey show that consumers demand for good and managed facilities. This includes all facilities while shopping or doing social activities, parking facilities, child care, food and rest areas, and others.

Table 3. Consumer's characteristics

	Variable	Facilities	Aeon Mall	Summer Mall	Total	Chisquare
1	% used mall to meet friends/ family		46	62	51.7	.103
2	% met new friends in mall		39	39.2	39.1	.558
3	Means of accessing mall	Car	94	86	91.4	.196
		Grab	3	3.9	3.3	
		Others	3	9.8	5.3	
4	Presence of safety	Safe and comfort	65	56.2	6.5	.014
5	Presence of preferred eatery	Comfortable and clean	63	72.5	66.2	.423
6	Preffered area (Inside mall)	Supermarket	46	31.4	41.1	.011
		Food Area	16	23.5	18.5	
		Game Area	6	25.5	12.6	
		Cinema	23	11.8	19.2	
		Pharmacy	2	3.9	2.6	
		Others	7	3.9	6	
7	Preferred area (General)	Mall Lobby	5	3.9	4	.000
		Supermarket	7	3.8	6	
		Game Area	11	22.5	14.6	
		Food court	21	40.2	27.2	
		Open space	26	27.5	27.2	
		Others				
8	Significance of mall to users	Social/ entertainment	17	7.8	24.8	.013
		Parking	5	2	7	
		Food Variety	6	3.9	9.9	
		Many shops	11	7.8	18.8	
		Child care	18	25.5	43.5	
		Air condition	21	5.9	26.9	
		Pleasure/ relaxation	18	39.2	57.2	
		Noise	2	3.9	5.2	
		Escalator function	1	0	1	
		Others	1	0	1	

Visits to shopping malls are also driven by the diversity of exciting eateries accessible in a shopping mall that cater to the interests of numerous nations and cultures. Moreover, it was said that a varied assortment of food firms served to consumers, accounting for 41 percent of mall visitors. Unfortunately, there have been complaints that this shopping environment is both boisterous and poorly managed.

6.3 Physical facilities, environmental and space characteristics

Table 4 below shows the analysis performed on 20 parts of physical facilities, environmental and space characteristics found in the two shopping malls studied. The overall analysis shows

that the performance of Aeon Mall is better than Summer Mall in all aspects of facilities except for floor characteristics. Analysis from other aspects such as toilets, ventilation, lighting, landscape and so on all show that Aeon Mall's performance is better than Summer Mall.

The most obvious comparison example is in terms of restroom, i.e. Aeon Mall recorded a total of 301 per cent compared to Summer Mall's 245 per cent. While in the form of design and furniture offered at Aeon Mall by 272 percent is much higher than Summer Mall which only recorded a total of 171 percent only. Another comparison is in terms of mall waiting area in Aeon Mall by 260 percent, surpassing Summer mall which is only 173 percent. Other comparisons such as shops, elevator, entrance design, sanitation, bank service, wall characteristics, security service, mall maintenance and customer service for Aeon Mall surpass the amount recorded by Summer mall as a whole.

Table 4. Physical facilities, environmental and space characteristics

	Facilities part	Aeon Mall	Summer Mall	X²
1	Mall Restroom	301	245	0.000
2	Mall Ventilation	297	245	0.003
3	Mall Lighting	301	253	0.004
4	Landscape	254	231	0.168
5	Lobby Space	245	215	0.066
6	Design/ Furniture	272	171	0.001
7	Mall waiting area	260	173	0.001
8	Mall Parking Space	246	167	0.068
9	Mall Entertainment area	296	221	0.001
10	Mall game shop/ Playground	251	171	0.001
11	Shopping Shop	310	253	0.004
12	Elevator	270	215	0.000
13	Entrance Design	275	245	0.101
14	Sanitation	241	233	0.154
15	Bank Service	290	230	0.005
16	Floor Characteristics	195	206	0.903
17	Wall Characteristics	253	224	0.137
18	Security service	294	216	0.001
19	Mall maintenance	244	239	0.183
20	Consumer service	217	205	0.000

A casual inquiries of Table 4 summarises the mall's important physical attributes, reveals that the mall in Aeon, Kuching is rated superior in many ways than Summer Mall, Kota Samarahan. However, Aeon Kuching is preferable to Summer Mall Kota Samarahan. The highlight is that the mall's physical facilities, spatial configuration, and ambient qualities all play a role in why individuals favour one mall with another mall.

6.4 Consumer's satisfaction

The following information was gathered through the use of the questionnaire distribution to respondents in Aeon Mall and Summer Mall. Respondents (100 from Aeon, Kuching, and 50

from Summer Mall, Kota Samarahan) were asked to answer all the questions on each of the variables listed in the table.

Table 5 shows the satisfaction rates shown by consumers for both malls. Overall, the consumers satisfaction rate for Aeon Mall is greater than the consumers satisfaction rate for Summer mall, except for the following four aspects, which is the distance to parking lots, universities and school and the competition for parking spaces. In addition, consumers who come to Summer Mall are also comfortable shopping alone compared to consumers to Aeon Mall.

Table 5. Consumer's satisfaction

	Components	Aeon Mall	Summer Mall	X²
1	Near to city centre	166	123	.362
2	Near to home	263	114	.067
3	Near to markets	241	111	.413
4	Near to parking area	100	103	.000
5	Near to universities	102	130	.901
6	Near to school	221	224	.022
7	Near to recreation area	227	117	.383
8	Near to bank	221	101	.121
9	Near to police station	215	97	.451
10	Near to cinema	126	125	.000
11	Feeling of privacy	108	101	.734
12	Queue at cashier	176	93	.893
13	Large outside space for may activities	228	195	.921
14	Beautiful scene	109	100	.755
15	Space for social activities	216	96	.471
16	Busy environment	277	182	.103
17	Calm environment	213	200	.104
18	Competition for parking	89	213	.198
19	Ease of meeting new	195	100	.261
20	Price expectation	214	103	.537
21	Noise	121	98	.050
22	Building design	223	207	.823
23	Near to home	291	116	.002
24	Clean environment	264	108	.004
25	Cleanliness of the entire mall	133	77	.041
26	Mall's convenience	165	95	.017
27	Security in the entire mall	126	67	.282
28	Shopping alone?	88	145	.420

7 Summary of Results

Three main groups of variables were used to make comparisons on the the facilities management and consumers satisfaction of the shopping mall at Aeon Mall, Kuching and Summer Mall, Kota Samarahan.

Table 6. Findings summary

VARIABLES	AEON MALL	SUMMER MALL
Mall Facilities Characteristics	439.3	392.0
Public Space	393.4	287.5
Consumer's Satisfaction Result	455.5	315.6

Table 6 above as a whole concludes that the performance of Aeon Mall is better than Summer Mall from three aspects, namely mall facilities characteristics, public space and consumer's satisfaction. All the results of the analysis show that Aeon Mall is outperforming Summer mall in all three aspects. Aspects of facilities characteristics in Aeon Mall recorded a rate of 439.3 compared to Summer Mall which recorded a parameter of 392.0 only.

While public space Aoen mall recorded a rate of 393.4 and Summer Mall 287.5 parameters. This is followed by consumer's satisfaction result with Aeon Mall stating a total of 455.5 compared to Summer Mall's 315.6 parameters.

8 Conclusion and recommendations

The purpose of this study is to examine the satisfaction dimensions of consumers based on the standard management services provided by shopping malls. Sarawak's two commercial centres have given us vital knowledge. These knowledge may also apply to other states or countries, particularly those in development. Shopping malls, in general, can help to sustain development provided assuming that they are appropriately planned, constructed, and operated. Along with shoppingoptions, the multiple spaces used enable consumers to alleviate stress, save time, and conserve financial resources.

According to this study, one of the reasons on Aeon Mall'ssuperior performance is that the physical facilities offered are superior, safe, comfortable, and attractive to visitors. Thus, it is apparent that efficient facilities management is critical for the comfort and safety of guests, while also piquing their interest on visiting the shopping mall. AEON Mall efficient retail facilities management, led by sound rules, resulted in a higher level of satisfaction for visitors/consumers than Summer Mall in Kota Samarahan.

The survey discovered that many mall patrons visit for the entertainment, including the facilities on offer; shopping comes second. For example, Aeon Mall features a children's play area, a cinema, and a variety of gaming centres, and all of the physical amenities are superior to those at Summer Mall in Kota Samarahan.

8.1 Limitation of the study

Based on this research, there are various recommendations for future researchers to overcome the study's limitations. To begin, one of the drawbacks of this study is that it focused exclusively on respondents who had visited a particular shopping mall in Kuching or Kota Samarahan, Sarawak, limiting future researchers' ability to replicate the findings based on visits to other

malls. This provides more precise data for audiences to compare in order to gain a better understanding of how it affects consumer's choice of shopping mall in the Sarawakian context.

Acknowledgments. This research is supported by the Fundamental Research Grant Scheme for Research Acculturation of Early Career Researchers, Ministry of Higher Education Malaysia (RACER/1/2019/SSI11/UNIMAS//2), Project ID 16436.

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Proceedings of the 2nd International Conference on Design Industries & Creative Culture (DESIGN DECODED 2021)

24-25 August 2021, Kedah, Malaysia

DESIGN DECODED 2021

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