# Shoppers' perceptions of retail developments: Suburban shopping centres and night markets in Singapore

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## Abstract
Over the last decade, *pasar malam* or night markets have been making their presence felt within the suburban public housing estates in Singapore. Similarly, suburban shopping centres have been sprouting up within public housing estates and situated next to mass rapid transit (MRT) and light rail transit (LRT) stations, bus stops and interchanges. Both *pasar malam* and suburban shopping centres belong to different components of the retail marketing system: the former belong to the bazaar sector while the latter belong to the firm-centred sector. In view of their differences, using a sequential mixed method approach involving a qualitative/quantitative sequence, this paper examines the different profiles of the shoppers and the link to their perceptions of different types of retail development. The findings suggest that property developers and retailers need to have a better understanding of their local markets in order to develop an appropriate 'experience'/product mix to cater for the shoppers within the catchment area.

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## BACKGROUND
The economies operating in the world can be generally classified into either firm-centred economies or bazaar economies. The firm-

**Firm-centred and bazaar economies**

centred economy is 'where trade and industry occur through a set of impersonally defined social institutions which organise a variety of specialised occupations with respect to some particular production or distributive end'.[1] The bazaar economy is one in which the total flow of commerce is fragmented into a very great number of unrelated person-to-person transactions. This sort of economy is based on the independent activities of a set of highly competitive commodity traders who relate to one another mainly by means of an incredible volume of *ad hoc* acts of exchange.[2]

The main distinction between the two sectors is that the firm-centred sector is capital intensive whereas the bazaar sector is labour intensive. Another significant distinction is that the former is, by organisation and character, sedentary, while the latter is mobile. By definition, mobility in the bazaar sector is a mark of differentiation that distinguishes it from its sedentary firm-centred counterpart.[3]

Depending on the stage of economic development, a country can have both these components of the economy existing in equilibrium, or with one in decline and the other thriving.

**McGee's three-stage model**

According to McGee's three-stage model,[4] the third stage of the model will see the firm-type sector overriding the bazaar sector in an economy. Singapore has arrived at this 'third stage' as its bazaar sector is almost completely subordinated by the firm-type sector save for periodic staging of bazaar-sector retailing entities during festive holidays and/or for the purpose of attracting tourists.

The dichotomisation of the marketing system in Singapore into a firm-centred economy and a bazaar economy has been taking place since the earliest days when commerce began on the island.[5] The bazaar sector on the island is manifested in the form of travelling

**Night markets**

night markets or *pasar malam*, as they are locally and frequently called. The first travelling night market was set up in the early 1950s. In 1978, however, a ban was imposed on the travelling night markets, but in 1991 they made a comeback to the local marketing scene within public housing estates and have since been a common feature in public housing estates.

Over the last decade, an element from the firm-centred sector has become a common sight within public housing estates in Singapore. About 85 per cent of Singaporeans live in high-rise public housing estates. The standard and quality of public housing in Singapore has risen over the years, to the extent of reaching a standard close to that of the private housing estates. Over the years, many modern

**Suburban shopping centres**

shopping centres have sprung up beside MRT stations in the suburban public housing estates. Northpoint shopping centre in Yishun New Town was the first such modern shopping centre to make inroads into the housing estates.

Hence, within the last decade, elements from both the firm-centred sector (suburban shopping centres) and the bazaar sector (*pasar malam*) are being introduced into public housing estates in Singapore. Given the two diametrically different sectors that

suburban shopping centres and *pasar malam* belong to, this research aims to investigate whether the various socio-economic backgrounds of shoppers have an effect on their perception of *pasar malam* and suburban shopping centres.

## THE DEVELOPMENT OF *PASAR MALAM* AND SUBURBAN SHOPPING CENTRES IN SINGAPORE

**Development of night markets**

*Pasar malam* or night markets are a form of retailing activity common to the South-East Asia region. This type of retailing activity is characterised by the mobile nature of the market/stalls, the linear alignment of stalls along streets and the occupation of private and public land for hawking which, ordinarily, is used for other purposes, such as the setting up of market/stalls in a public car park.

The first travelling night markets in Singapore were started in 1953 by a group of hawkers whose mode of operation had hitherto been associated with opera troupes and followed their itinerant performing schedules.[6] Chao[7] noted that night markets were first started in areas where British servicemen and their families were present in large numbers.

The system of the travelling night markets is characterised by a week-long spatial temporal pattern in which markets are held on sites such as car parks and open spaces. Most hawkers never trade on the same site every night. Only where exceptionally favourable conditions prevail would markets be held on the same site more than once a week. The sites for the travelling night markets are selected entirely by individual hawkers.

Such regulated and constant change of operating locations is characteristic of the mobility found in the bazaar sector. It should be noted, however, that although market sites vary, the markets are run by basically the same group of hawkers.

**Operation of night markets**

The size of the night markets ranges from a congregation of less than ten stalls to over 200 stalls arranged linearly in one or more rows depending on the shape of the site. The peak trading period for the night markets stretches from about 6.30pm to 10.30pm. Hawkers pay a licence fee to the local residents' committee managing the site or the district citizens' consultative committee on the basis of a unit pitch measuring 6 by 4 feet (1.8 by 1.2m), and one stall can occupy as many as four units. While most *pasar malam* hawkers are into full-time hawking, a great number of them also work in the day in other occupations.

The early growth of the night markets was slow. In 1960, however, there was a surge in the number of night markets; 1960 also marked the start of an era whereby night markets began to assume importance and popularity in the nightlife of Singapore City. During this time, the government adopted a light-handed approach towards such night markets which was limited to the licensing of hawkers, relocation of markets to ensure minimum traffic obstruction and policing of the market area. In all cases, the government stepped in only after the markets started to function.

**Ban on night markets**

The era of night markets being a popular activity came to an end, however, when a ban was imposed on them in 1978 due to growing public complaints of traffic congestion, noise, inconvenience and the potential problems of hygiene and sanitation posed by such activity.

**Revitalisation of night markets**

In the 1980s, two attempts were made to revive the night market scene as a form of tourist attraction by the Sentosa Development Corporation and the Singapore Tourist Promotion Board, but they met with failure. The turning point for *pasar malam* came in 1991 when they made their way into housing estates and hawkers set up shop at void decks, walkways and other enclosed spaces selling clothes, fruit, toys, snacks such as steamed peanuts, foods such as Taiwanese sausages, tea, eggs and local delicacies, shoes, watches, compact discs, potted plants, mobile telephone accessories and other sundries.

This inroad of *pasar malam* into the housing estate heartland was originally conceptualised to revive older public housing estates, but over time it has become an easy and effective vehicle for grassroots organisations to raise much-needed funds for their community activities. This fund-raising capability of *pasar malam* has endeared them to grassroots organisations and thus contributed to their continued presence in public housing estates today.

Although *pasar malam* were revived in the 1990s, the process was not without changes. Today's *pasar malam* are heavily regulated by the authorities, whereas in the past the authorities adopted almost a 'hands-off' policy towards the night markets, especially with regard to the occupation of sites by the markets and the type of goods and services being sold.

**Development of suburban shopping centres**

As for the development of modern suburban shopping centres in Singapore, the 1990s saw 12 such centres making inroads into the heart of public housing estates within a span of eight years from 1992 to 1999. The impetus for such a surge in suburban shopping centre projects by developers is attributed in no small part to the 1991 Revised Concept Plan which aims to decentralise commercial activities to the suburbs.[8] All these suburban shopping centres were developed by the private sector but are planned in that they are built on state land offered through the Housing and Development Board (HDB)'s sales of sites programme. Dale[9] noted that the success of Northpoint shopping centre, which was the first modern suburban shopping centre, has created a formula of developing suburban shopping centres as part of the HDB's new town centres and in close proximity to MRT stations. Hence, suburban shopping centres that came up after Northpoint shopping centre were developed along this formula. These suburban shopping centres are usually four- to five-storeys high and their tenant mix usually includes a major department store, a supermarket, a food court, a multiplex cinema and speciality shops. Their aim is to provide a one-stop shopping experience, bringing shopping virtually to the doorsteps of residents in housing estates.

**Sequential mixed method**

## METHODOLOGY

In this study, a sequential mixed method involving firstly qualitative research followed by separate quantitative research was adopted as the methodology. Data from the qualitative research were used as the basis in the quantitative phase of the study to investigate shoppers' perceptions of *pasar malam* and suburban shopping centres.

### Qualitative research

**In-depth interviews**

The term 'qualitative research' has often been used to refer to some forms of marketing research such as unstructured research, exploratory research, in-depth interviewing, motivation research, opinion and attitude research etc. Malhotra[10] noted that unlike quantitative research, which attempts to quantify data, qualitative research provides insights and understanding of the research problem.

The qualitative research in this study was carried out by way of in-depth interviews,[11] also known as 'interest surveys'. Burgess[12] states that in-depth interviews provide opportunities for the researcher to probe deeply, to uncover new clues, to open up new dimensions of a problem and to secure vivid, accurate, inclusive accounts that are based on personal experience.

During the 'interest surveys' the researchers asked the respondents about their perceptions regarding *pasar malam* and suburban shopping centres. The in-depth interviews were conducted outside a suburban shopping centre (Jurong Point shopping centre) and at the site of an ongoing *pasar malam* in Jurong West.

Qualitative studies that are undertaken as a preliminary to quantitative studies should consist of between 20 and 40 in-depth interviews.[13] Hence, the researchers carried out a total of 40 in-depth interviews, with half of the interviews being conducted with shoppers at the suburban shopping centre and the other half with shoppers at the *pasar malam*.

From the qualitative research, the researchers were able to obtain rich descriptive data pertaining to respondents' perceptions of *pasar malam* and suburban shopping centres. The analysis and interpretation of such data were carried out using a nine-step process comprising reading and re-reading the data, categorisation, abstraction, comparison, dimensionalisation, integration, iteration, refutation and relating to literature.[14]

### Quantitative research

**Questionnaire**

Malhotra[15] states that quantitative research aims to quantify the data and generalise the results from a sample to the population of interest. The questionnaire which was adopted in this study required the respondents to rank perception attributes pertaining to *pasar malam* and suburban shopping centres on a Likert scale ranging from 1 to 5 (1 stands for 'very poor' and 5 stands for 'very good').

This research adopted a sample size of 500, which is good enough to add a certain degree of robustness to the research. A personal door-to-door interviewing method was adopted by the researchers as the method of administering the questionnaires for the quantitative research. All in all, the researchers took six weeks in the months of November and December 2001 to complete the interviews with the aid of four helpers.

**Interviews**

The interviews were conducted in the public housing estates of five areas in Singapore as demarcated by the Urban Redevelopment Authority of Singapore (URA) for its preparation of development guide plans (DGPs). The five areas as demarcated are the western area, the northern area, the north-eastern area, the eastern area and the central area. Jurong West, Woodlands, Yishun, Tampines and Bishan were the respective housing estates singled out for the interviews in each area. In total 100 questionnaires were administered in each housing estate.

## FINDINGS OF THE QUALITATIVE RESEARCH

Table 1 lists the individual attributes for both *pasar malam* and suburban shopping centres in descending order in terms of the number of times they were mentioned by respondents in the qualitative research.

Generally, product-related attributes such as 'price level' and 'variety of goods' were mentioned frequently for *pasar malam*. Similarly, product-related attributes in the form of 'quality of goods' and 'variety of goods' were also mentioned frequently for suburban shopping centres. These attributes, coupled with those identified via the literature review, were adopted in the questionnaire for the quantitative phase (Table 2).

**Table 1:** List of mentions of *pasar malam* and suburban shopping centre attributes

| *Pasar malam* | | | Suburban shopping centre | | |
|---|---|---|---|---|---|
| **Attributes** | **No.** | **%** | **Attributes** | **No.** | **%** |
| Price level | 19 | 18.6 | Quality of goods | 20 | 12.9 |
| Variety of goods | 17 | 16.7 | Variety of goods | 19 | 14.3 |
| Crowd level | 12 | 11.8 | Entertainment facilities | 19 | 14.3 |
| Shopping temperature | 11 | 10.8 | Eating outlets/restaurants | 14 | 10.0 |
| Eating outlets/restaurants | 10 | 9.8 | Latest fashion/model | 14 | 10.0 |
| Ambience | 10 | 9.8 | Number of stores | 14 | 10.0 |
| Number of stalls | 7 | 6.9 | Service quality | 14 | 10.0 |
| Entertainment facilities | 4 | 3.9 | Shopping temperature | 12 | 8.6 |
| Service quality | 3 | 2.9 | Level of cleanliness | 9 | 6.4 |
| Noise level | 3 | 2.9 | Price level | 5 | 3.6 |
| Protection from weather | 3 | 2.9 | Ambience | 0 | 0 |
| Level of cleanliness | 3 | 2.9 | Crowd level | 0 | 0 |
| Latest fashion/model | 0 | 0 | Noise level | 0 | 0 |
| Quality of goods | 0 | 0 | Protection from weather | 0 | 0 |
| Total | 102 | 100 | Total | 140 | 100 |

**Note:** Listing is in descending order in terms of number of times the attributes were mentioned during the qualitative research phase.

## FINDINGS OF QUANTITATIVE RESEARCH

### Perception ratings of *pasar malam* and suburban shopping centres

**Mean score perception ratings**

In the questionnaire, the respondents were asked to rate a list of 27 attributes pertaining to *pasar malam* and suburban shopping centres using a scale of '1' (very poor) to '5' (very good). Table 2 shows the mean score perception ratings of the 27 dimensions of *pasar malam* and suburban shopping centres. More than half (17) of the dimensions of the *pasar malam* fall in the 'poor' region of the scale, ie less than 3. The dimension 'ability to bargain' has the highest mean score, while the dimension 'an ideal place to spend the day' scored the least. *Pasar malam* recorded an overall mean score of 2.92. Hence, the respondents have an overall poor perception of *pasar malam*.

On the other hand, besides the variables 'availability of festive/carnival atmosphere', 'availability of local snacks/desserts/food' and 'ability to bargain', the rest of the dimensions of the suburban shopping centre fall in the 'good' region of the scale. The dimension 'adequate protection from weather' has the highest mean score. Suburban shopping centres recorded an overall mean score of 3.66. Hence, respondents have an overall good perception of suburban shopping centres.

**Paired sample *t*-tests**

Paired sample *t*-tests were conducted to shed additional light on the differences in the perception ratings of respondents. This specifically aims to compare the mean scores of each dimension of *pasar malam* and suburban shopping centres.

Table 2 also highlights the comparative mean scores of dimensions that attained a higher mean score for suburban shopping centres than for *pasar malam*. On the other hand, Table 3 highlights the comparative mean scores of dimensions that attained a higher mean score for *pasar malam* than for suburban shopping centres.

The null hypothesis (Ho) is that there is no significant difference between the mean scores. On the other hand, the alternative hypothesis denotes that a significant difference exists between the mean scores.

From Table 2, suburban shopping centres recorded higher mean scores than *pasar malam* for 22 dimensions. For the dimension 'high service standard of sales staff', there is no significant difference in the mean scores of *pasar malam* and suburban shopping centres.

Table 3 shows that the *pasar malam* recorded higher mean scores than suburban shopping centres for five dimensions: 'ability to bargain', 'availability of local snacks/desserts/food', 'affordable prices of goods/services', 'availability of festive/carnival atmosphere' and 'adequate number of stalls/stores'. Out of these five dimensions, suburban shopping centres recorded mean scores in the 'poor' region of the Likert scale (less than 3) for dimensions relating to bargaining, local products and festive atmosphere.

**Table 2:** Comparative mean scores (paired samples t-test) for dimensions with higher mean scores in suburban shopping centres than in *pasar malam*

| | Mean | | Sig. |
| --- | --- | --- | --- |
| | **Suburban shopping centre** | ***Pasar malam*** | |
| Adequate protection from weather | 4.33 | 2.26 | 0.000 |
| Comfortable shopping temperature | 4.27 | 2.56 | 0.000 |
| Acceptable level of cleanliness | 4.13 | 2.20 | 0.000 |
| A wide variety of goods/services being sold | 4.01 | 3.25 | 0.000 |
| Availability of eating outlets/restaurants | 4.00 | 1.92 | 0.000 |
| Availability of entertainment facilities | 3.99 | 2.53 | 0.000 |
| Reasonable crowd level | 3.98 | 2.91 | 0.000 |
| Easy to find ways/directions to shops/stalls | 3.97 | 2.64 | 0.000 |
| Availability of latest fashion/model | 3.97 | 2.64 | 0.000 |
| Availability of high-quality goods/services | 3.89 | 2.71 | 0.000 |
| An ideal place to spend the day | 3.89 | 1.89 | 0.000 |
| Good after-sales service | 3.88 | 2.84 | 0.000 |
| A place for a family outing | 3.88 | 3.06 | 0.000 |
| Convenient and tidy layout of stores/stalls | 3.82 | 2.47 | 0.000 |
| Ability to meet shopping needs all the time | 3.80 | 2.14 | 0.000 |
| Availability of adequate parking spaces | 3.78 | 2.68 | 0.000 |
| Designs of stores/stalls are appealing | 3.70 | 2.51 | 0.000 |
| High service standard of sales staff | 3.70 | 3.63 | – |
| Reasonable noise level | 3.62 | 2.78 | 0.000 |
| Ease of travel to shopping destination | 3.62 | 3.17 | 0.000 |
| A substitute for downtown shopping | 3.59 | 1.98 | 0.000 |
| Comfort of travel to shopping destination | 3.57 | 3.44 | 0.000 |

## Results of independent sample *t*-tests and ANOVA on shoppers' mean perception ratings of *pasar malam* and suburban shopping centres

**Hypothesis testing**

This section presents the results of hypothesis testing via the independent samples *t*-tests and analysis of variance (ANOVA) to analyse the effects of the various socioeconomic groups on the mean perception ratings of the respondents (see Table 2). Please refer to the Appendix for details of the independent samples *t*-tests and ANOVA.

### Pasar malam

Table 4 shows that the male respondents have higher perceptions of *pasar malam* than female respondents for atmosphere, store, price and needs-related attributes. On the other hand, female respondents

**Table 3:** Comparative mean scores (paired samples t-test) for dimensions with higher mean scores in *pasar malam* than in suburban shopping centres

| | Mean | | Sig. |
| --- | --- | --- | --- |
| | ***Pasar malam*** | **Suburban shopping centre** | |
| Ability to bargain | 4.33 | 1.63 | 0.000 |
| Availability of local snacks/desserts/food | 4.31 | 2.40 | 0.000 |
| Affordable prices of goods/services | 4.17 | 3.25 | 0.000 |
| Availability of festive/carnival atmosphere | 4.02 | 2.56 | 0.000 |
| Adequate number of stalls/stores | 3.85 | 3.71 | 0.000 |

**Socioeconomic characteristics**

rated *pasar malam* higher than male respondents for travel, service and ancillary-facilities-related dimensions.

For the variable 'age', old and middle-aged respondents have higher mean scores than young respondents for a large number of *pasar malam* dimensions. Relating to the variables 'marital status' and 'educational level', respondents who are married and have non-tertiary education recorded higher perceptions for *pasar malam* for more than half of the attributes.

Together, low-skilled respondents and homemakers rated highly more than two-thirds of the dimensions of *pasar malam* for the variable 'occupation'. Relating to the variable 'monthly income', low- and middle-income respondents recorded higher ratings for a majority of the dimensions.

Respondents who own a car have higher mean scores for most of the dimensions than those who do not own a car. Respondents who do not own a car recorded higher perceptions of *pasar malam* for dimensions relating to layout, protection from weather, comfort of travel and adequate parking spaces.

### Suburban shopping centres

**No significant differences**

The majority of the statistical results recorded no significant differences among the means of the different groups of socio-economic characteristics. More than half of the dimensions relating to the variable 'gender' recorded no significant differences in the mean scores among males and females. Male respondents rated suburban shopping centres higher for the number of stores, service standard and ability to meet shopping needs.

Relating to the variable 'marital status', singles have higher perceptions for suburban shopping centres relating to the dimension 'affordable prices of goods/services'. For the variable 'educational level', non-tertiary-educated respondents recorded higher mean scores for the dimension relating to variety of goods/services. Homemakers recorded higher mean scores than all other occupations for the dimension 'a place for a family outing'. Non-car owners rated the dimension 'affordable prices of goods/services' higher than car owners. All the dimensions relating to the variables 'age' and 'monthly income' recorded no significant difference in the mean scores among the subgroups.

### CONCLUSION AND IMPLICATIONS

**Qualitative and quantitative research**

Using both qualitative and quantitative research, this study has provided an insight into shoppers' perceptions of *pasar malam* and suburban shopping centres. The study has shown that the suburban shopping centres recorded higher ratings for many of the dimensions relative to the *pasar malam*. The *pasar malam* were rated significantly higher for the 'ability to bargain', 'availability of local snacks/desserts/food', 'affordable prices of goods/services' and 'availability of festive/carnival atmosphere'. These aspects of the *pasar malam* should be further enhanced to position *pasar malam* differently from the suburban centres.

**Table 4:** Summary of independent samples *t*-tests and ANOVA for *pasar malam*

| Dimension | Gender | Age | Marital status | Educational level | Occupation | Monthly income | Car |
|---|---|---|---|---|---|---|---|
| Availability of festive/carnival atmosphere | – | M | m | T | L | M | – |
| Reasonable crowd level | – | Y | – | T | O | M | – |
| Reasonable noise level | F | M | m | N | L | – | Y |
| Comfortable shopping temperature | M | O | – | T | L | L | Y |
| Acceptable level of cleanliness | M | O | – | N | HM | L | – |
| Convenient and tidy layout of stores/stalls | – | – | m | – | – | – | N |
| Easy to find ways/directions to shops/stalls | – | Y | S | T | O | L | Y |
| Adequate number of stalls/stores | M | O | M | N | L | M | – |
| Designs of stores/stalls are appealing | M | O | M | N | H | L | Y |
| A wide variety of goods/services being sold | – | Y | M | N | HM | M | Y |
| Adequate protection from weather | M | O | M | N | H | M | N |
| Comfort of travel to shopping destination | F | M | M | N | L | M | N |
| Ease of travel to shopping destination | F | M | M | N | L | L | – |
| Availability of adequate parking spaces | F | O | – | N | HM | L | N |
| High service standard of sales staff | F | M | – | T | L | M | Y |
| Good after-sales service | – | M | – | T | H | M | – |
| Affordable prices of goods/services | M | M | M | n | HM | M | – |
| Ability to bargain | M | O | M | N | L | L | Y |
| Availability of high-quality goods/services | – | O | M | N | HM | L | – |
| Availability of latest fashion/model | – | M | M | N | L | – | Y |
| Ability to meet shopping needs all the time | M | O | M | N | L | L | – |
| A substitute for downtown shopping | M | O | n | N | L | M | Y |
| A place for a family outing | – | M | M | N | L | L | n |
| Availability of local snacks/desserts/food | – | Y | M | T | L | L | – |
| Availability of entertainment facilities | F | O | – | – | L | L | – |
| Availability of eating outlets/restaurants | F | M | M | – | HM | M | y |
| An ideal place to spend the day | M | O | M | N | L | M | Y |

**Notes**

Gender (M/F): greater among males/females (*t*-tests)

Age (Y/M/O): greater among young/middle-aged/old respondents (ANOVA)

Marital status (S/M): greater among singles/married (*t*-test)

Educational level (N/T): greater among non-tertiary/tertiary-educated respondents (ANOVA)

Occupation (L/M/H/HM/O): greater among lower/middle/higher occupation groups/homemaker/others (ANOVA)

Monthly income (L/M/H): greater among lower/middle/higher income (ANOVA)

Car (Y/N): greater among owners/non-owners (*t*-test)

Significance level: capital letters indicate: $p < 0.05$; lower-case letter indicates: $p < 0.10$; not significant is indicated by –.

## Create own niches

Although both the *pasar malam* and the suburban shopping centre co-exist in the suburban housing estate, they have their very own niches that attract different shoppers to patronise them respectively. Incidentally, the factors which create the niches are consistent with the classical marketing price/product/place triangle for retail development. Many studies as far back as those in the 1960s, such as Huff[16] and Berry,[17] and thereafter Arnold *et al.*,[18] Nevin and Huston[19] and Bell,[20] have confirmed the significance of these factors for the success of any retail development. Similarly, in this study the *pasar malam* has strength in affordable prices through bargaining, local snacks/desserts/food and the festive/carnival atmosphere. On the other hand, the suburban shopping centre is preferred for its comfortable and protected atmosphere, wide variety and quality of products and services.

The different attributes of the *pasar malam* and suburban shopping centres are likely to attract shoppers with different

**Table 5:** Summary of independent samples *t*-tests and ANOVA for suburban shopping centres

| Dimension | Gender | Age | Marital status | Educational level | Occupation | Monthly income | Car |
|---|---|---|---|---|---|---|---|
| Availability of festive/carnival atmosphere | – | – | – | – | – | – | – |
| Reasonable crowd level | – | – | – | t | – | – | – |
| Reasonable noise level | – | – | – | t | – | – | – |
| Comfortable shopping temperature | m | – | – | – | – | – | – |
| Acceptable level of cleanliness | f | – | – | – | – | – | – |
| Convenient and tidy layout of stores/stalls | – | – | – | – | – | – | y |
| Easy to find ways/directions to shops/stalls | – | – | – | – | – | – | – |
| Adequate number of stalls/stores | M | – | – | – | – | – | – |
| Designs of stores/stalls are appealing | – | – | – | – | – | – | – |
| A wide variety of goods/services being sold | m | – | – | N | – | – | – |
| Adequate protection from weather | – | – | – | – | – | – | – |
| Comfort of travel to shopping destination | – | – | – | – | – | – | – |
| Ease of travel to shopping destination | f | – | – | – | – | – | – |
| Availability of adequate parking spaces | – | – | – | – | – | – | – |
| High service standard of sales staff | M | – | – | – | l | – | n |
| Good after-sales service | – | – | – | – | – | – | – |
| Affordable prices of goods/services | – | m | S | – | – | – | N |
| Ability to bargain | – | – | – | – | – | – | – |
| Availability of high-quality goods/services | – | – | – | – | – | – | – |
| Availability of latest fashion/model | – | – | – | – | – | – | – |
| Ability to meet shopping needs all the time | M | – | – | – | – | – | – |
| A substitute for downtown shopping | – | – | – | – | – | – | – |
| A place for a family outing | – | – | – | – | HM | – | – |
| Availability of local snacks/desserts/food | – | – | – | – | – | – | – |
| Availability of entertainment facilities | – | – | – | – | – | – | – |
| Availability of eating outlets/restaurants | – | – | – | – | – | – | – |
| An ideal place to spend the day | – | – | – | – | – | – | – |

**Notes**

Gender (M/F): greater among males/females (*t*-tests)
Age (Y/M/O): greater among young/middle-aged/old respondents (ANOVA)
Marital status (S/M): greater among singles/married (*t*-test)
Educational level (N/T): greater among non-tertiary/tertiary-educated respondents (ANOVA)
Occupation (L/M/H/HM/O): greater among lower/middle/higher occupation groups/homemaker/others (ANOVA)
Monthly income (L/M/H): greater among lower/middle/higher income (ANOVA)
Car (Y/N): greater among owners/non-owners (*t*-test)

Significance level: capital letters indicate: $p < 0.05$; lower-case letter indicates: $p < 0.10$; not significant is indicated by –.

## Impact of socioeconomic characteristics

profiles. Through the independent samples *t* and ANOVA tests, it is shown that the different socioeconomic characteristics of respondents have an impact on their perceptions of *pasar malam* and suburban shopping centres. Suburban shopping centres recorded relatively smaller significant differences among the respondents from the different socioeconomic backgrounds, however.

## Price-related attributes

In general, the research has shown that price-related attributes recorded high ratings among respondents who are single, and with a growing number of singles among Singaporeans, shopping centre management would do well to offer goods and services which are within the comfortable spending level of singles if they are to tap into the growing singles market.

The research has shown that respondents with one or more of the characteristics of being old and middle-aged, married, non-tertiary-educated, in low-skill occupations, homemakers and having low and middle income ranges generally perceive *pasar malam* in a

**Profile of night-market shoppers**

better light. Hence, *pasar malam* operators should consider bringing in stallholders who provide goods and services that meet the needs of such socioeconomic backgrounds as they are more likely to patronise *pasar malam*.

Respondents who have a low level of skills and are from low and middle income ranges rated highly most of the characteristics of *pasar malam*. This suggests that shoppers of such socioeconomic backgrounds take to *pasar malam* and in a way depend on them for a large part of their shopping needs. Hence, policy makers may consider the need to modify the licensing and other restrictive rules such as the duration and frequency of *pasar malam* in order to cater to the needs of such shoppers, especially during an economic downturn when wages are depressed and spending declines.

The attribute 'an ideal place to spend the day' is rated highly by old respondents for *pasar malam*. Hence, *pasar malam* qualify as places which the aged considered conducive to spending their time in. This may be due to the nostalgic feelings experienced by the aged as *pasar malam* were very popular back in the 1950s, 1960s and 1970s. Hence, policy makers may consider making *pasar malam* into places in which to engage the aged leisurely, mentally or even productively in addition to existing grassroots facilities and support for the aged so as better to promote active ageing.

**Need to understand local markets**

The above findings show the different profiles of the shoppers and the link to their perceptions of different types of retail development. This infers that property developers and retailers need to have a better understanding of their local markets to develop an appropriate 'experience'/product mix to cater to the shoppers within the catchment area. While this study forms an initial attempt to understand the bazaar sector, more research should be carried out to enhance the bazaar sector as a retail form as well as to develop a niche for it to co-exist with the firm-centred sector.

## APPENDIX: DETAILS OF INDEPENDENT SAMPLES T-TESTS AND ANOVA

The independent samples *t*-tests are used to determine if there is a statistically significant difference between two population means of independent samples. The independent samples *t*-tests will compare the two population means of independent samples by computing the *t*-value and its *p*-value (sig. (two-tailed)).

ANOVA is used to determine if there is a statistically significant difference between three or more groups of population means. ANOVA compares the means of the three or more groups by computing the F statistics and their significant value.

The null hypothesis (Ho) states that there is no significant difference in the means of the various groups of the respondents in the sample. On the other hand, the alternative hypothesis indicates that a significant difference exists in the means of the various groups of the respondents in the sample. The results of the hypothesis testing will be represented by the significance level

indicated in Table 4. In this section, *p*-values greater than 0.100 are reported as not significant; in such cases the probability that the difference is a result of pure chance is greater than 10 per cent. Where *p*-values fall within the range of 0.100–0.050 they should be treated with caution. For the purpose of interpretation, a *p*-value of 0.05 will be used as a benchmark.

The respective dimensions of *pasar malam* and suburban shopping centres are tested against the subgroups of seven socio-economic variables. The results of the *t*-test and ANOVA for *pasar malam* and suburban shopping centres are shown in Tables 4 and 5 respectively. Essentially, the tables indicate the subgroups in each of the socioeconomic variables that have a greater mean score and their respective level of significance.

The subgroups of the socioeconomic variables have been abbreviated to facilitate the tabulation of the results. Table 6 shows the labelling of the subgroups of all the variables.

**Table 6:** Subgroups of the socio-economic variables

| Variable | Subgroups | Abbreviation |
| --- | --- | --- |
| Gender | Male | M |
| | Female | F |
| Age | Young | Y |
| | Middle-aged | M |
| | Old | O |
| Marital status | Single | S |
| | Married | M |
| Educational level | Non-tertiary | N |
| | Tertiary | T |
| Occupation | Low | L |
| | Middle | M |
| | High | H |
| | Homemaker | HM |
| | Others | O |
| Monthly income | Low | L |
| | Middle | M |
| | High | H |
| Car ownership | Yes | Y |
| | No | N |

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