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Decoding the Consumers of Hawker Food

By Miranda Poh

AUTHOR BIOGRAPHY

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ABSTRACT

Singapore's Hawker Culture has gained increasing attention in the last few years, not just due to its inscription on UNESCO's Representative List of Intangible Cultural Heritage of Humanity, but also due to growing concern about its preservation. A central dilemma Singapore faces is that although hawker food is acclaimed both domestically and internationally as a unique part of Singaporean cultural heritage, its practice is declining. Pre-existing studies focus on supply-side cost drivers or purely qualitative cultural narratives. In contrast, this study aims to apply quantitative methods to the lived experiences of current consumers of hawker food to better understand underlying demographic differences and their potential significance in the effort to preserve this piece of intangible cultural heritage. An online survey was conducted among Singaporean respondents, collecting data on demographics, taste preferences, and price-sensitivity scenarios to examine relationships among age, income, and price sensitivity. The findings reveal a U-shaped relationship between age and price sensitivity, driven by factors including affordability, access to home-cooked substitutes, social value, health considerations, and cultural value. Income exhibits a negative relationship with price elasticity of demand; however, even high-income consumers remain price elastic. The study also considers behavioral factors, including loss aversion, that influence consumer decision-making. These findings suggest that demographic characteristics can be used to tailor targeted preservation strategies and could provide a foundation for more consumer-centric quantitative research to sustain hawker culture.

Keywords: *Consumer Behavior, Cultural Preservation, Intangible Cultural Heritage, Singapore, Hawker Culture, Age Demographics, Income Brackets, Price Sensitivity, Survey*

INTRODUCTION

Hawker food is an assortment of traditional, street-style dishes served by dedicated food stall owners. In Singapore, hawker recipes originated from different immigrant groups who settled on the island and eventually fused with local tastes to evolve into the dishes served today (National Heritage Board, 2022, para. 1). They were initially sold by itinerant vendors, or “hawkers”, before the government consolidated these stalls into more sanitary facilities with fixed booths known as “hawker centers” (Trinidad, 2013). Today, there are approximately 110 hawker centers across the country, and the number continues to grow (National Environmental Agency, n.d.). Despite its changing forms, hawker food still reflects its origins in that it is meant to be cheap: a 2023 empirical survey found that if one ate three meals at a hawker center, they would spend an average of 16.89 SGD, or 13 USD (Key et al, 2023).

For the nation, hawker centers are deeply ingrained with cultural identity and community. They have been described as a “community dining room”, which befits how hawker centers cater to individuals from all walks of life, offering food as well as a hub for connection (National Heritage Board, 2022, para. 4). Furthermore, their varied and unique tastes are what many Singaporeans associate with home. This invaluable part of the Singaporean identity received international attention when it was inscribed on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity in 2020 (National Heritage Board, n.d.)

However, despite hawker food’s growing international recognition, the sustainability of hawker culture is under increasing pressure, prompting growing academic and public attention domestically. Most research has focused on the ‘suppliers’ in the market for hawker food. In 2021, the median age of hawkers was 60 years, with 87.3% of surveyed hawker patrons rejecting the idea of becoming a hawker, making succession a central concern (Kai & Wei, 2024). Several media publications have documented the arduous nature of hawking, raising awareness of long hours and complex preparation processes; academic sources also provide quantitative insights into the costs associated with running a hawker stall.

Less attention has been paid to consumers of hawker food. However, such knowledge is equally essential for understanding the nature and future of hawker culture. The dilemma facing hawkers is that while they are celebrated “cultural stewards”, in everyday exchanges with consumers, they face pressures to maintain low prices or risk losing business (Dorsey & Dorsey, 2026) (Lau, 2024). Thus, consumer preferences directly affect hawkers’ profitability, making demand-side behavior an important factor in preserving hawker culture.

This article examines the demographic composition of demand for hawker food to develop a more detailed understanding of how different consumers respond to changes in hawker food prices. It seeks to answer the question: “How do age and income shape Singaporean consumers’ price sensitivity toward hawker food?”

To address this question, the paper draws on an original survey of more than 90 consumers of hawker food. Respondents are grouped by age and self-reported meal budget (as a proxy for income). These demographic variables are used to compare how different consumer groups respond to changes in hawker food prices. Their responses are quantified with the price elasticity of demand (PED) and further contextualized through survey data on affordability, convenience, health, and cultural value. This approach allows the paper to examine not only whether consumers are price-sensitive, but also how demographic differences may shape that sensitivity.

The study hypothesizes that while demand for hawker food is generally price elastic, this sensitivity varies across demographic groups: older respondents are expected to exhibit greater price sensitivity, whereas higher-income consumers are expected to exhibit lower price sensitivity. To address the research question and test these hypotheses, the paper first reviews the relevant literature, then explains the methodology, presents the empirical findings, and concludes with a discussion of findings and their implications.

Literature review

Existing research on Singapore’s hawker culture generally falls into two broad categories. Some literature examines hawker food as a form of cultural heritage and social identity, while others focus on its economic characteristics.

In his nonfiction book “From Streets to Stalls”, author Ryan Kueh details the existence and development of hawker stalls, from when vendors were actually mobile to their eventual consolidation in hawker centers. In particular, his chapter “Evolving Forms and Functions of Hawking” examines the contemporary presence of hawker centers from a sociological perspective, arguing that hawker food is a basic need, second only to housing and tuition fees (Kueh, 2024). He notably raises the concept of “time poverty” in Singapore, where individuals lack the time to prepare meals and therefore consume cheap, accessible hawker food instead (Kueh, 2024). These details provide an academic basis for insights into Singaporean society.

Other research publications also chronicle the evolution of hawker food, examining Singapore’s cultural development and the complex significance of hawker food in the nation’s memory, identity, and habits (Wee et al., 2025). Platforms like Channel News Asia (CNA) cover hawker food from commentary articles and documentary format, exploring its value as intangible cultural heritage and its preservation concerns (CNA,

2025) (Hawker, n.d.). These are useful sources explaining the significance of hawker food and its value to Singapore society from the perspective of personal, lived experience.

Some quantitative studies provide important data on hawker prices and cost drivers. For example, the Singapore Ministry of Trade and Industry's feature article "Examining the Cost Drivers of Hawker Food Prices" provides a model example of multiple regression analysis (Ministry of Trade and Industry, 2015). It references factors, including but not limited to "service and conservancy charges", "rental fees", and the "import price index of raw materials", against the average food price index at a hawker stall (Ministry of Trade and Industry, 2015). These quantitative findings have been interpreted to yield fascinating insights into the rationale of price increases, such as that raw material prices are the key contributor to hawker's costs, rather than rental prices (Ministry of Trade and Industry, 2015).

Meanwhile, the Makan Index also largely bases its quantitative data on supplier conditions. Published in 2016 and 2023, it investigates the cost of hawker food across 92/123 hawker centers in Singapore, providing comprehensive datasets detailing the prices of 18 dishes over hawker centers, food courts, and kopitiam (Key et al, 2023).

Altogether, there is a comprehensive body of literature on hawker food as both a cultural artefact and an economic good. However, the relationship between these two dimensions remains underdeveloped. On the one hand, qualitative work vividly captures the lived and cultural meanings of hawker food but generally treats Singaporean consumers as a single group, lacking differentiation by demographic group. They also tend to examine hawker food and its broader societal implications, but less so the consumer decision-making process within the market itself during exchanges. On the other hand, quantitative work more accurately captures supply-side pressures and provides some insight into the prices of hawker food, but it rarely incorporates consumers' own perceptions or behaviors. In the case of the Makan Index, this notably led to perceived discrepancy between statistical conclusions and consumers' experiences (AsiaOne, 2023).

This study addresses these gaps by applying quantitative methods to better understand how consumers respond to changes in hawker food prices. This is achieved through a survey that incorporates a range of question formats, enabling both the direct calculation of PED and inferences from preference-based responses to contextualize numerical patterns. Additionally, the study examines variation across demographic groups by analyzing respondents' age and income. Overall, by adopting a more quantitatively grounded framework for analyzing consumer perceptions, this study complements prior work and offers a new perspective on the dynamics shaping hawker food consumption.

METHODS

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Survey Design

Information for this paper was gathered through a Microsoft Forms survey. There were no explicit restrictions on survey respondents besides being Singaporean. The survey was open from November 27, 2025, to December 12, 2025, and received 90 respondents over 16 days. There were 22 questions, with an average completion time of 8 minutes and 30 seconds. Respondents were automatically registered as anonymous and had the choice to opt out of any question. Additionally, no remuneration was involved in the survey.

Ethics Statement

Participants voluntarily agreed to take part in the survey. The initiator of the survey was disclosed as a “student learning about econ”, and the collected information was used in accordance with the declared intent of the survey, which was “to know your opinion on hawker food [...] to apply economic theories to describe hawker food.” None of the questions was mandatory, and participants could abstain from answering any they did not want to.

Additionally, participant data was kept anonymous and private. No identifiers, including email addresses, were tracked during survey submission. Participants were told that their responses would be anonymous, as corroborated by Microsoft Forms’ disclaimer at the top of the survey. Several participants voluntarily disclosed their email addresses, expressing interest in receiving the final results of the paper.

Survey Contents

The contents of the survey were split into 4 sections: [1] Optional Contact Information, [2] Basic Background Information, [3] Tastes and Preferences, [4] Price Sensitivity.

The Basic Background Information section provided easily quantifiable indicators of age and income that could be filtered in Excel or Google Sheets. The Tastes and Preferences section explicitly asked respondents to rank statements about eating hawker food and eating at hawker centers, and the responses were processed and quantified. The Price Sensitivity section included scenarios in which the price of hawker food changed, focusing on the price at which consumers would stop purchasing it.

Variables

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Age Group

The survey was shared with individuals above the age of 18; hence, the survey population were all adults. Within that, age was split into 5 discrete age buckets for respondents to select: 18-24, 25-34, 35-44, 45-60, 60+

Meal Budget/Income Proxy

Given the sensitivity of disclosing personal income, this study used respondents' average monthly meal budget as a proxy for income. Food expenditure has been used as a proxy for income in methodological approaches, particularly in low-income contexts (Lombardini, 2021). Measurement error may arise from two primary sources: infrequent purchasing of the good and slight misreporting (Battistin et al., 2023). These concerns are mitigated to a certain extent when considering Singaporeans' consumption patterns. While home cooking could theoretically decouple meal spending from income, evidence suggests that Singaporeans frequently purchase food, especially hawker food (Kueh, 2024). Nationally, food accounts for the second-highest share of expenditure, after housing and utilities (Singstat, n.d.). Other studies cite that 77.3% of Singaporeans usually eat breakfast, lunch, or dinner at hawker centers or school and work canteens (Leu et al., 2023). These consumption patterns support the use of meal expenditure as a reasonable proxy for income in the Singaporean context; it can serve as an indicator of differences in purchasing power and willingness to pay.

Secondly, respondent-supplied data is inherently subject to recall limitations. Thus, the survey question asked for an approximate monthly meal budget, rather than per day. This reference window was selected to be sufficiently brief to minimize cognitive burden and recall delay, yet long enough to average out occasional atypical variances in spending.

Price Sensitivity

Using questions 15–18 in the survey, respondents were asked, “If the average price increased by x SGD, would you still dine at a hawker center?” Their responses at each hypothetical price level were recorded, and the proportion of respondents who indicated they would continue purchasing at each price level was used to construct an estimated demand curve and calculate the price elasticity of demand. Examining consumers' willingness to continue purchasing hawker food as prices increase is a relevant quantitative indicator of demand, as rising prices have become a growing source of tension between hawkers and consumers, and the resulting unwillingness to pay contributes to the lack of profitability in the hawker business. The hypothetical price

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increases were 0.25 SGD, 1.00 SGD, 1.50 SGD, and 2.00 SGD. Although these increments appear small in absolute terms, that is because hawker meals are relatively inexpensive; in relation to the average price of hawker food, they represent meaningful proportional increases in the price of a typical hawker meal, ranging from modest (5%) to substantial (20%).

The formula $PED = \frac{\text{Percentage Change in Quantity}}{\text{Percent Change in Price}}$ allowed for the calculation of the price elasticity of demand (PED).

PED yields a unitless ratio that indicates how strongly consumers' demand responds to a change in price. For normal economic goods, quantity decreases when price increases, which would imply that PED is negative. As per economic convention and for clarity, the absolute value of the calculated value will be presented, with a larger PED indicating greater price sensitivity.

A PED above 1 is classified as "price elastic demand", as a change in price leads to a larger than proportional change in quantity demanded. Conversely, PED values below 1 are classified as "price inelastic demand" as a change in price leads to a less than proportional change in quantity demanded (Tragakes, 2020). Therefore, the values can be read as a measure of how sensitive each group is to changes in prices and can be compared to see which groups decrease quantity by a larger amount.

Ranked Preferences

The variable capturing consumer priorities was defined through individual responses to survey questions. This was measured using two approaches. First, respondents explicitly stated their preferences when asked to rank statements related to hawker food consumption. Second, respondents' behavior in questions that presented specific trade-off scenarios, such as switching to a cheaper stall or paying a premium at a favorite stall, allowed for the inference of certain priorities. Altogether, these two measures allowed for the definition of consumer preferences.

Estimated Price Paid for Hawker Food

The average price of hawker food was derived from the amount respondents reported spending on it in question 13, "Approximately how much do you spend at a Hawker Centre per meal?" To reduce respondents' cognitive burden of recalling and reporting exact expenditures, the survey provided 7 price ranges for them to select from. The lowest (2.50 SGD or less) and highest (9-11 SGD) categories were chosen with reference to the minimum and maximum meal prices reported in the Makan Index, ensuring that a full range of realistic hawker meal prices was represented.

Within the 7 price ranges, narrower 1 SGD intervals were used at lower price levels, where small absolute differences are relatively meaningful for the price of a hawker meal. At higher prices, the intervals widened to 1.50 SGD to maintain meaningful ranges while keeping the number of categories manageable.

DATA PROCESSING

Meal Budget Conversion

Firstly, responses indicating the average monthly meal budget were converted to the average expenditure per meal. This was to ensure comparability with other per-meal quantities reported in the survey, such as the price of a single hawker meal.

An estimate was derived by dividing the value by 90 (3 meals per day x 30 days per month). While applying this conversion, a wide range of responses was observed, with some implausibly low monthly minimum values. These responses likely reflected a misunderstanding of the question, with respondents reporting expenditure per meal rather than per month.

To address this, values ranging from 5 SGD to 40 SGD were excluded from the division calculation and instead interpreted as already representing a per-meal average budget. This was applied to 14 out of 90 responses. The SGD 5-40 threshold was established based on the known market price range for a single hawker meal. Based on the Makan Index, the cheapest main dish costs 2.97 SGD (Key et al., 2023). A reported 'monthly' budget of 40 SGD implies a per-meal average of $40/90 = 0.44$ SGD, which is a far smaller value.

Respondents were then filtered into discrete income brackets based on meal budget, so that PED could be calculated and behavior analyzed. For consistency of comparison, data processing prioritized making sure that each bucket had approximately the same number of respondents. Consequently, the three budget range buckets had different ranges, which were 0.55 – 5.00 SGD; 5.00 – 10.00 SGD, 10.00 – 33.33 SGD.

The datasets corresponding to the different meal budgets were strongly right-skewed, resulting in a large range in the highest-budget bucket. Given the small absolute number of data points, this approach was considered the most appropriate for reducing noise while maintaining comparable group sizes.

QUANTIFYING RANK QUESTIONS

Data from the ranking question was collected in one string of text, for example, “Most value for money; Personal Cravings; Supporting certain stalls; Habit; Stall rating/fame (e.g. Michelin-starred stalls). Using the “=SPLIT (column, “;”), each statement was separated.

The ranking order was then converted into numerical weights using a deterministic transform, where a fixed, non-random rule mapped each rank position to a specific weight. In this case, the highest-ranked statement would be given the highest weight equal to the total number of statements. Suppose there were $N=8$ statements. The highest-ranked statement was assigned a weight of 8, the second highest a weight of 7, and so on, with the lowest-ranked statement receiving a weight of 1. This conversion was applied using the formula: $\text{Weight} = (N + 1) - \text{rank}$.

After assigning weights to each response, respondents were grouped by the demographic variable being analyzed (e.g., age group or meal-budget bracket). For each demographic weight, the weights assigned to each statement were summed across all respondents. To account for varying numbers of respondents in each demographic group, the weight for each statement was divided by the total points awarded across all statements in that demographic, yielding a percentage weight.

These percentage weights provide a quantitative measure of the relative importance of one factor over another. Rather than simply comparing rank orders alone, this also reflects the strength of prioritization. One consideration is that the weights for statements ranked in the middle may be less reliable. Respondents likely felt ambivalent toward these items and may have ordered them randomly rather than through careful consideration. The strongest conclusions thus can be drawn from the two extremes of prioritization and apathy.

Estimated Price Paid for Hawker Food

The average price of hawker food was derived from the amounts respondents reported spending on it in question 13, “Approximately how much do you spend at a Hawker Centre per meal?” First, the modal price range was noted as the most commonly reported. When an exact numerical value was required for subsequent calculations, a weighted average was used. For each price range, the midpoint was used as the representative value for that interval. This midpoint was then multiplied by the number of respondents who selected that range. Summing these values across all price ranges and dividing by the total number of respondents yielded an estimated average price of hawker food of 6.65 SGD, approximately 5.20 USD.

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RESULTS

Respondent Demographics

After the survey's response window ended, respondent demographics were recorded.

Table 1

Summary of respondent demographics

Characteristic	Category	N	%
Age Group	18-24	6	7.22%
	25-34	17	20.5%
	35-44	19	22.9%
	45-60	31	37.3%
	60+	10	12.0%
	Missing	0	0%
Employment Status	Student	7	8.43%
	Working Adult	60	72.3%
	Non-Working Adult	5	6.02%
	Retired	10	12.0%
	Other	0	0%
	Missing	1	1.20%
Approximate meal budget per month (SGD)	Minimum	100	/
	1st Quartile	500	/

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	Median	600	/
	3rd Quartile	1000	/
	Maximum	4500	/
	Missing	2	/

PED Calculation Explained

Responses to the hypothetical price-increase questions “If the average price increased by X cents, would you still dine at a Hawker center?” were converted into estimates of Price Elastic Demand (PED) for each demographic group. Rather than calculating PED for individual respondents, each demographic group was treated as an estimated market.

At each hypothetical price point, the number of respondents who indicated they would continue purchasing food represented the quantity demanded. Percent changes in price and quantity were calculated relative to the baseline average price 6.65 SGD and initial quantity demanded. For example, among respondents aged 35 - 40, 30 respondents completed the series of questions and constituted the initial demand. At 8.65 SGD, only 17 remained willing to purchase hawker food. Therefore, the percentage change in quantity demanded would be $\frac{30-17}{30} \times 100\%$, while the percentage change in price would be $\frac{8.65 - 6.65}{100} \%$.

By calculating these components of the formula $PED = \frac{\text{Percentage Change in Quantity}}{\text{Percent Change in Price}}$, PED could then be estimated. Because presented several hypothetical price increases, multiple PED estimates were obtained for each demographic group. The PED estimates were averaged to produce a single summary measure of price sensitivity. Although PED may vary across different points along a demand curve, this average was made to provide a comparable measure of price sensitivity between demographics, as the paper’s main approach is to compare decision making behaviour between different groups.

It should be noted that the total quantity may be less than shown in the table summarizing respondent numbers over different demographics. This is because respondents who did not complete the full series of hypothetical price increase questions were excluded from the PED calculations for that demographic. For example, although the total sample contained 31 respondents aged 45 - 60, one did not complete the whole series of price increase response questions; thus, the PED calculation was done with data from only 30 respondents.

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The calculated PEDs for each demographic can be found in the table X, which form the basis of the results discussion. There is variation among age groups and budget ranges. The nature of these relationships and the underlying factors form the basis of the discussion below.

Table 2

PED calculations for respondents split by age group and budget range

Demographic	Range	PED
Age Group	18-24	2.81
	25-34	1.06
	35-44	1.3
	45-60	1.01
	60+	3.92
Budget Range (SGD)	0.55 – 5.00	2.09
	5.00 – 10.00	1.19
	10 – 33.33	1.13

DISCUSSION

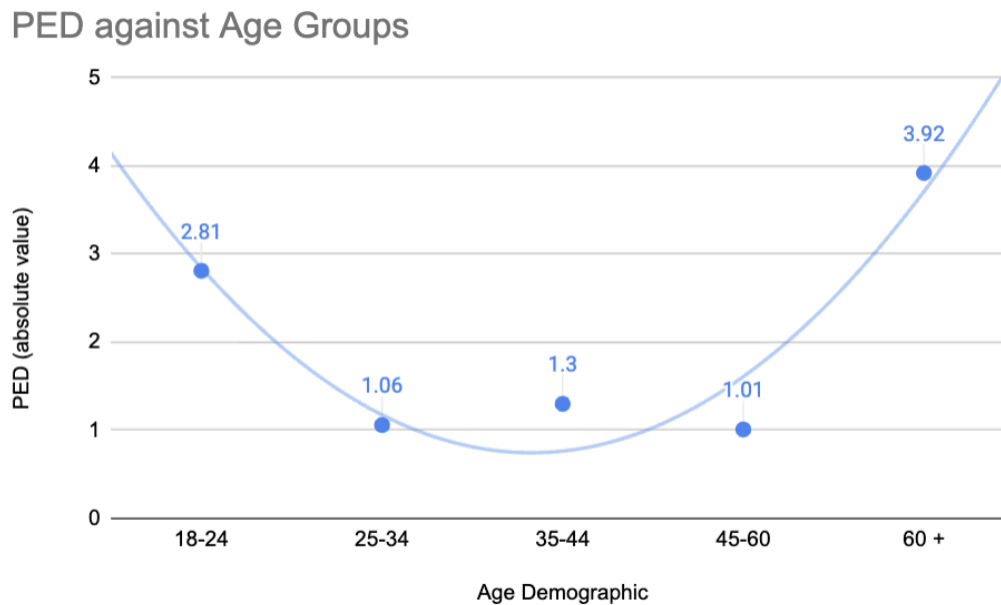
Is Age Just a Number?

By graphing age against price elasticity of demand, age appears to exhibit a non-linear relationship with the price elasticity of demand (as visualized in Figure 1). Respondent's price sensitivity appeared to share a U-shaped association with age, with youngest and oldest respondents being most sensitive to increases in price of hawker food.

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Figure 1

Price Elasticity of Demand Against Age Group



Note. The quadratic line is meant to emphasize the U-shaped relationship between the two variables, rather than to suggest an absolute quadratic relationship/predictive formula for them. Created by author, 2026.

As seen from the graph, the 5 age groups yielded PED values greater than 1, meaning all 5 demographics had elastic price elasticity of demand: when the price of hawker food increased, quantity demanded increased by a larger than proportionate amount. The larger the number, the larger the degree of price sensitivity, with the largest PED of 3.92 exhibited by respondents ages 60+.

Based on the shape of the graph, the youngest and highest age brackets are the most elastic and most sensitive to changes in the price of hawker food, while the 45 - 60 age bracket is the least sensitive (with a PED of 1.01, it is almost unitarily elastic). The differences in PED are large, with the highest value being 3.92 and the lowest being 1.01, a ratio of almost 4:1.

It should be noted that the calculation of price elasticity of demand for individuals aged 60+ could be verified with a larger sample size, as the current calculation base is smaller than for the other ranges. However, another important piece of information this calculation yields, besides the exact magnitude of the elasticity, is

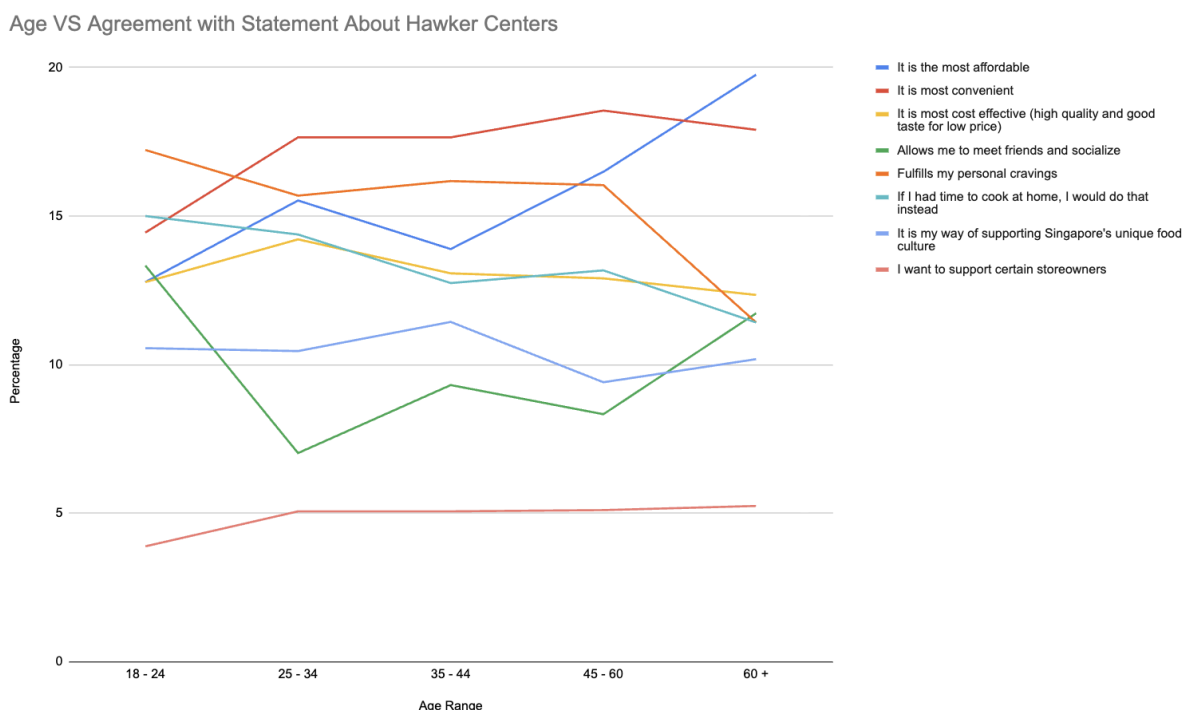
that older respondents exhibited greater price sensitivity than the middle-aged groups. This broader pattern is further supported by differences in respondents' underlying priorities, such as affordability and health considerations, discussed later in the paper.

Based on the above calculations, it is feasible to infer that age is correlated with price sensitivity towards hawker food and consumer behavior. As hypothesized, older respondents have more price-sensitive demand; however, younger respondents also displayed relatively more elastic demand. Since these two extremes have been identified, analysis of responses to other survey questions will help identify underlying characteristics that drive these differences, providing more information on each sub-demographic.

The survey's ranking questions were analyzed across the five age groups using the quantitative weighting method described earlier. Figure 2 shows the percentage weight assigned to each ranked statement, allowing comparisons of the relative importance different age groups placed on factors such as affordability, convenience, social value, health, and supporting Singapore's unique food culture. These differences in priorities provide insight into the underlying preferences that shape consumer behavior.

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Figure 2
Age VS Agreement with Statement About Hawker Centers



Note. Age VS Agreement with Statement about Hawker Centers. The survey item read as follows: “Please rank these statements of eating at Hawker Centers, based on how much you agree with them (top = most important)”. Created by author, 2026.

Figure 2 illustrates changes in the percentage weight or the prioritization of certain factors by age. For example, the statement “Fulfills my personal cravings” corresponds to the orange line, which shows an overall downward trend. This indicates that, overall, as age increases, respondents are less concerned with personal cravings.

Preference rankings suggest that affordability may be one of the mechanisms underlying the higher price sensitivity observed among older respondents. Respondents over 60 appeared to place strong emphasis on affordability, with the statement “it is the most affordable” carrying 19.8% weight. This contrasts with other age groups, where, although affordability was generally ranked in the top three factors, respondents prioritized

convenience and personal cravings instead. Economic theory explains that one influence of PED is the proportion of income that is spent on goods (Tragakes, 2020). Given that individuals across different age groups generally reported paying similar prices for hawker food, a possible explanation is that respondents in older age groups have less income available for meals, hence the higher PED. Respondents aged 60 or older are likely to be retired and without fixed pay. In this survey, 7 of 9 respondents aged 60 or older were retired, reflecting Singapore's minimum retirement age of 63, which will soon be 64 (Ministry of Manpower, 2025). This suggests that the need to budget could contribute to sensitivity to price changes. The slightly lower concern about affordability in other age groups could similarly be explained by stable income and independent savings. Ensuring affordability for hawkers and preserving low prices may not be entirely feasible. However, targeted meal subsidies or senior dining vouchers may support consumers most affected by price increases by reducing their effective prices without entirely distorting the market.

Age-based differences in perspectives on health may also explain higher price sensitivity among the youngest and oldest respondents. In free-response questions, such as question 9, "Why don't you eat at hawker centers most of the time?" and question 19, "What would you switch to, and why?", younger respondents mentioned going to a mall to buy similarly priced food when hawker prices rose too much. Given Singapore's economic situation, the other affordable food options were likely fast food (AsiaOne, 2021; Singsaver, 2021). One possible explanation is that older respondents perceive fast food as a less attractive substitute. Compared with younger respondents, they may find foods high in fat and oil less appealing or be more health conscious. This interpretation is supported by the survey findings, as those who mentioned health or hygiene concerns about hawker food were mostly 45+ years old, with some in the 35-44 age group.

Furthermore, previous research has found that the proportion of regular fast-food consumers was higher in younger age groups, supporting the idea that they are more likely to consider fast food a readily available substitute for hawker food (Whitton et al., 2014). These findings suggest that taste preferences and health concerns may influence the elasticity of demand across demographic groups by determining how viable certain goods, such as fast food, are as substitutes for hawker food. Older respondents who are more concerned about hygiene and health may be less responsive to price increases in hawker food because fast food is not a viable substitute.

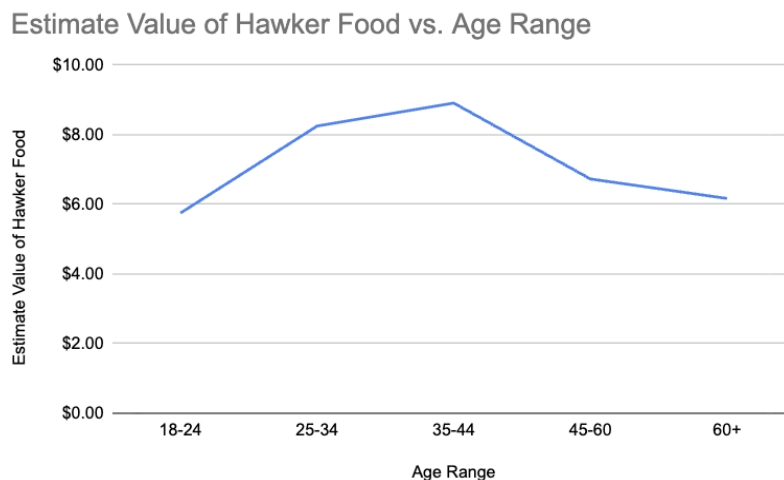
Nevertheless, this relationship is unlikely to be linear. Hawker food still contains substantial amounts of sodium and oil and is not necessarily the healthiest option (Khalik, 2024). As a result, if concerns over the nutritional quality of hawker food become sufficiently important, health considerations may instead discourage consumption altogether, regardless of the lack of attractive substitutes. These findings indicate that demographic differences in perspectives on health help explain differences in price sensitivity.

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Additionally, differences in perceived cultural value may also help explain demographic variation in consumers' willingness to pay for hawker food.

Figure 3

Estimate Value of Hawker Food vs Age Range



Note. Age VS Estimated Value of Hawker Food. The graph shows a non-linear, inverse-U-shaped pattern, with a peak in the age range of 35-44. Created by author, 2026.

The survey question, “How much do you think you should be spending at Hawker Centers?” allows for an estimate of consumers’ perceived value of hawker food, in reference to their perceptions of hawker food as a good. As illustrated in Figure 3, the overall shape of the graph of perceived value appears inverse in relation to the PED graph, with the former being an inverse U-shape, and the latter being a U-shape. This relationship is consistent with economic theory, as consumers who derive greater utility from a good are willing to tolerate larger price increases before reducing consumption (Tragakes, 2020).

One factor that may contribute to these differences in perceived value is the importance consumers attach to hawker food as part of Singapore’s cultural identity. The weighting of the statement “it is my way of supporting Singapore’s unique food culture” also shows an inverse U-shape that peaks in the age range 35 - 44. This suggests that respondents who place greater importance on preserving Singapore’s hawker culture derive additional utility from consuming hawker food beyond its functional purpose as a meal. Consequently, they perceive hawker food as offering greater overall value and may therefore be willing to tolerate higher prices before reducing consumption, resulting in a lower price elasticity of demand.

Although the importance placed on Singapore's unique food culture fluctuates across age groups and may influence consumer decisions, it is important to contextualize these variations. Comparing the average percentage weight of convenience (across all age groups) and the average percentage weight of food culture, convenience was weighted 1.66 times as much as food culture. Similarly, affordability was weighted 1.51 times more. These ratios suggest that convenience and affordability still play a larger role in individuals' decision-making, regardless of age. Therefore, although the degrees of prioritization may differ, individuals still consider convenience and affordability over the intangible value of consuming hawker food. Currently, it would be viable to reinforce the cultural value of hawker centers to increase consumers' willingness to pay. Consequently, policies that reinforce hawker centers' dual potential as functional dining spaces and community and cultural spaces may increase the intangible utility consumers derive from hawker food. For example, newer-built centers like Timbre+ integrate performances and social opportunities within the center (Kong, 2023).

Overall, the results align with the previous hypothesis: as age increases, respondents appear to exhibit more price-sensitive behavior. However, rather than a strictly linear pattern, the overall relationship between age and price sensitivity showed a U-shaped pattern: the youngest bracket of respondents (18-24) also exhibited price-sensitive attitudes towards hawker food. This can be explained by their preference for affordability, attitude towards health, and evaluation of the cultural value of hawker food. Meanwhile, individuals across all age demographics consistently showed low regard for the social value of hawker centers or for supporting specific stall owners.

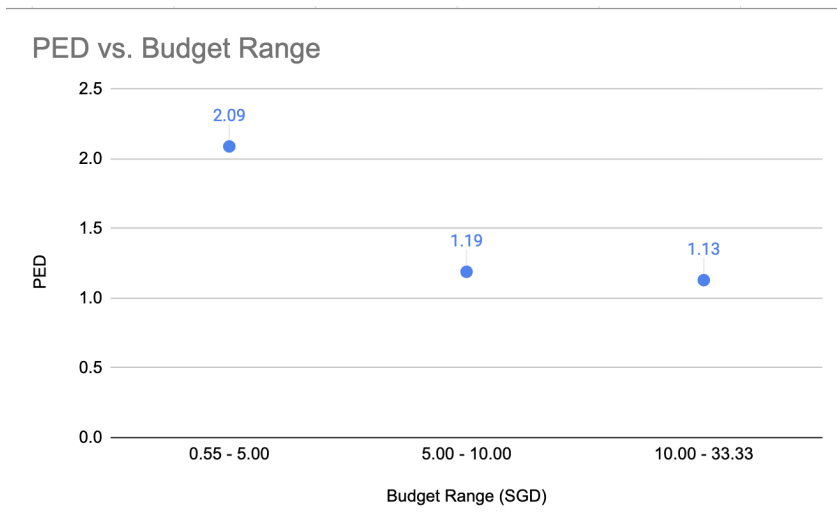
Does Income/Meal Budget Matter?

Based on the methodology described in "meal budget conversion", respondents were grouped into three brackets, and PED was calculated for comparison. The processed data plotted in Figure 4 suggests that income is associated with lower values of PED, and hence lower price sensitivity.

Figure 4

Price Elasticity of Demand VS Budget Range

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Note. Price elasticity of demand compared to the budget range of respondents. Created by author, 2026.

As the meal budget increased, the PED decreased, indicating greater price inelasticity. In other words, those with higher incomes react less sensitively to changes in the price of hawker food, consistent with the economic theory of determinants of PED: for the same-priced goods, a consumer with a higher income will have a more inelastic PED, as it takes up a smaller share of their income (Tragakes, 2020). In reality, as consumers have higher incomes, they likely have a larger meal budget and, too, have a relatively more inelastic PED for the good.

Responses to other survey questions can corroborate the general trend of this relationship. For example, higher-income consumers were more willing to tolerate higher prices to keep portion sizes the same. Shrinkflation, or the practice of “reducing product size while maintaining or slightly changing prices”, is used by some hawkers to maintain the price of their foods despite rising costs (Janssen and Kasinger). When faced with the option of paying an additional 50 cents to keep portion sizes the same or receiving a meal with a reduced serving size, 90.9% of respondents in the highest income bracket opted to pay more rather than receive a “shrinkflated” meal, compared with 84.2% of the respondents from the lowest income bracket. Additionally, when presented with a hypothetical 1-dollar decrease in the cost of hawker food, the group with the lowest budget range also had the highest proportion of individuals who selected “somewhat likely” and “highly likely” to increase their quantity demanded of hawker food. Specifically, 57.9% of those in the lowest budget range opted for an increase in quantity demanded to some degree (somewhat or highly likely), compared with 46.1% in the middle budget range and 57.1% in the highest budget range. This is consistent with the concept that

individuals with elastic PEDs are more responsive to price changes: in this case, those with the lowest incomes had the greatest sensitivity to the 1-dollar price decrease (Tragakes, 2020)

The implication that higher income is associated with lower price elasticity of demand for hawker food is that these individuals may be more willing to support higher hawker food prices, especially as prices continue to rise. As evidenced by survey responses, those in higher income brackets placed greater importance on how hawker food fulfilled personal cravings (16.3%, compared to 13.1% in the lowest income bracket). Similarly, the statement “It is my way of supporting Singapore’s unique food culture” received a weighting of 11.3% among the highest income bracket, as compared to 9.82% in the lowest income bracket. It is possible that those in higher income brackets face fewer financial constraints when making food choices, giving them greater scope to consider attributes beyond affordability, such as personal preferences and cultural value. Since their perspective on hawker food differs, the utility they derive from hawker food beyond its functional value as an affordable meal may contribute to lower price sensitivity and greater tolerance for higher prices before reducing the quantity consumed.

However, the extent to which cultural perception influences their price sensitivity is limited. While those in higher income brackets have a more inelastic PED, this does not imply that they have an inelastic PED in absolute terms. Based on the calculations, the PED for those in the highest income brackets is 1.13, which is still within the elastic range. Thus, even respondents in the highest income bracket remained price-sensitive overall. Comparing the changes across income brackets reveals that the decrease in PED is slightly more proportional to the increase in budget range. Examining the lowest and medium income range, a 160% increase in average budget is associated with a 43% decrease in PED. Moving from the medium to the high-income range, the average budget increases by 200%, while the PED decreases by only 5.04%. In other words, a change in budget/income is associated with a less-than-proportional change in sensitivity to price. This suggests that higher income will not lead to a sharp drop in sensitivity to price increases. The consumer’s price elasticity may stabilize at around 1.1, rather than becoming inelastic. Therefore, regardless of income bracket, consumers exhibit price-elastic PED. And although those in higher income brackets place less weight on affordability, it still ranks among the top three categories they priorities when selecting what to eat.

Another outcome to consider is that lower price sensitivity is not necessarily linked to high demand for hawker food among high-income-bracket respondents. The survey found that respondents in the high-income bracket likely face a higher opportunity cost, which could reduce the absolute amount of hawker food they ultimately demand. For example, because those in high-income brackets likely earn more per hour, their opportunity cost of buying hawker food is also higher, which affects their behavior in the market. This is evidenced by the survey: when faced with a 10-minute wait, those in the highest income bracket had a significantly smaller share (18.2%) who chose to wait, compared with those in the lowest income bracket

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(40.0%). Alternatively, they may choose to pay more for accessibility and convenience. In the survey, 54.5% of those in higher income brackets, compared to 10.0% in the lowest bracket, would be willing to pay an extra 30 cents. In real life, where these individuals are not restricted to a hawker center, they may have already chosen another food establishment that can serve food faster or, even better, deliver takeout. This may suggest that, beyond merely the dish of hawker food itself, the experience of purchasing the good is significant to consumers. Considering that opportunity cost can influence consumers' decision-making, future interventions could focus on ameliorating these more intangible aspects of the hawker experience.

Overall, although the data suggest that higher income is associated with lower price elasticity for hawker food, this does not automatically imply that these individuals are more inclined to consume more hawker food. Other factors, such as opportunity cost and affordability concerns, will also affect their willingness and ability to purchase hawker food. Moreover, even respondents in the highest income brackets exhibited price-elastic demand, indicating that price remains an important determinant of consumer behavior.

LIMITATIONS

This study relied on an original survey and dataset. The survey was only accessible digitally, in English, and was primarily promoted through social networks, all factors which may have led to some non-random selection into the survey. Three aspects of respondent profiles were likely impacted and should be considered when evaluating the generalizability of conclusions: work status, socioeconomic status, and literacy levels.

Firstly, the survey was shared via the social networks of working adults, and most respondents (67%) reported being employed. This aligns with Singapore's overall labor force participation, which is approximately 68.2% (Singstat, n.d.). However, the absolute number of non-working respondents is low, making it challenging to identify trends in these subsections and rendering any conclusions vulnerable to outliers.

Secondly, while the overall proportion of working adults in the survey matches national trends, the term "working adult" encompasses a wide range of jobs and socioeconomic backgrounds—the survey's recruitment method likely overrepresented white-collar or professional workers within the "working adult" demographic. Since financial perspectives and personal preferences can vary significantly across these socioeconomic groups, this sampling bias may have inflated the concluded willingness to pay for hawker food.

The survey was conducted only on digital platforms and solely in English, making basic digital literacy and English fluency barriers to selection into the experiment. The implications are that these individuals have different cultures, tastes, and preferences from those of individuals who were not selected for the experiment. Additionally, as language is an important part of interactions in hawker centers, this suggests that certain

experiences were underrepresented in the survey findings. Technology skills may provide these respondents with more substitutes for hawker food, such as takeout options, which other significant proportions of the population in Singapore may lack. Finally, a combination of socioeconomic status, literacy, and education levels could mean the sample in this survey has higher financial literacy than the general population in Singapore. If so, respondents may have made more economically informed decisions when evaluating hypothetical price changes, limiting the generalizability of the observed price sensitivity.

Additionally, one of the answer options, “Keep the price the same but with slightly smaller portion and 2 less pieces of meat” to question 10 “, If your favorite hawker stall had to change due to rising costs, which would you prefer?” was worded in a way that emphasizes loss, which could have had a slight effect on consumer behavior. The answer option described the shrinkflated version with the comparative phrases “smaller portion” and “2 fewer”, which may have triggered loss aversion, in which individuals react more strongly to potential losses than to potential gains when making choices (Tversky and Kahneman). As a result, some individuals, especially those with lower meal budgets, may have chosen to pay the additional 50 cents to avoid this sense of “loss,” rather than rationally considering the financial aspect of the decision. Consequently, since those with lower income have a more elastic PED, it is possible to conclude that, in a real scenario, fewer of these individuals would be willing to pay a higher price for the same good than is explicitly reported in this question. More intentional differentiation between question formats and decision-making forms could enable greater exploration of behavioral factors influencing consumer decision-making.

CONCLUSION

This paper examined how age and income shape Singaporean consumers’ price sensitivity toward hawker food through an original survey of over 90 respondents. Overall, the findings suggest that age shares a U-shaped, non-linear relationship with price sensitivity. It was observed that the youngest (18-24) and oldest (over 60) are the most price-elastic, while the middle groups are least sensitive. The findings suggest that this pattern is associated with differences in financial status, lifestyle, health considerations, and perceptions of the cultural significance of hawker food.

Meanwhile, there is a negative relationship between income and price elasticity, with higher-income respondents showing slightly more willingness to pay more for hawker food. This is consistent with macroeconomic theory. However, even high-income consumers exhibit elastic demand; despite their greater prioritization of taste and cultural value, their willingness to consume hawker food may be reduced by high opportunity costs and affordability concerns.

Despite this caveat, the diverse perceptions of hawker food and the underlying consumer preferences identified in the paper suggest that there are multiple approaches to sustaining demand for it amid rising costs. While previous literature has primarily examined the supply-side challenges of preserving hawker culture, this paper demonstrates the varied preferences of different consumers of hawker food, which should be regarded as an equally important component of the preservation problem. By adopting a consumer-centric perspective, the study shows how demographic differences can help explain the varied ways Singaporeans engage with hawker food, opening avenues for targeted strategies to increase their support for the preservation and future of hawker food. As hawker culture gains international recognition, ensuring its vitality domestically will depend on recognizing the diverse ways Singaporeans engage with this everyday cultural heritage.

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