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Determinants of Consumers' Willingness to Pay a Price Premium for Organic Food in Nepal

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Abstract

Growing concerns over food safety, human health, and environmental sustainability have increased consumer interest in organic food. However, this concern has not fully translated into actual purchasing behavior. It is said that high price premiums have constrained the expansion of Nepal's organic food market. Amid this concern, this study examined the determinants of urban consumers' willingness to pay (WTP) a price premium and the level of price premium for organic food in the Bharatpur Metropolitan City of Chitwan District, Nepal. A convenience sampling technique was used to collect the primary data from 384 household food purchasers using a semi-structured questionnaire. A double hurdle model was used to analyze the two-stage nature of consumer decision-making, i.e., a binary probit model to estimate WTP for a price premium and a truncated regression model to estimate the price premium level conditional on WTP. The results revealed that 80.73% of respondents are willing to pay a premium for organic food, with the majority willing to pay 10–20%. Years of schooling (ME = 0.091, $p<0.05$), household income (ME = 2.757, $p<0.01$), access to market information (ME = 0.067, $p<0.05$), availability of organic food (ME = 0.211, $p<0.05$), presence of organic labels/tags (ME = 0.341, $p<0.01$), and favorable perceptions toward organic food (ME = 0.464, $p<0.01$) significantly influence consumers' WTP a price premium. Conditional on willingness to pay, household income ($\beta = 3.405$, $p<0.01$), household size ($\beta = -0.066$, $p<0.05$), access to market information ($\beta = 0.137$, $p<0.05$), and consumer perceptions ($\beta = 0.361$, $p<0.01$) significantly affect the level of price premium. These findings recommend that strengthening market information systems, improving availability and accessibility of organic food, and establishing a credible certification and labeling system are necessary for a sustainable organic food market in Nepal.

Keywords: Organic food; Willingness to pay; Price premium; Double-Hurdle model; Consumer behavior

JEL Classification: P23, P46, Q13, Q18

Introduction

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Globally, agricultural production has been under huge pressure to meet the rising demand of the agri-food system (Daszkiewicz, 2022; Hemathilake & Gunathilake, 2022). To meet this demand, agrochemicals and inorganic fertilizers have been used extensively on farmland (Babcock-Jackson et al., 2023; Penuelas et al., 2023). FAO has reported that 3.7 million tons (Mt) of pesticide (active ingredients) were used in 2022, representing a 13% increase in last decade (FAO, 2024). Similarly, 190 Mt of inorganic fertilizers were used in 2023, a 34% rise in the last two decades (FAO, 2025). This excessive use of agrochemicals has led to chemical residues in the food system, raising concerns about human health (Dhankhar & Kumar, 2023; Hassaan & El Nemr, 2020). As a result, consumer preference has shifted toward organic food production systems (Madureira et al., 2025).

In the last two decades, the organic food industry has primarily increased due to the growing consumer concern about human health, food safety, and sustainability (Peng, 2019). In 2023, organic farming was done in more than 99 million hectares (ha) of agricultural land that produced the retail sales value of more than €136 billion (Willer et al., 2025). Market projections have shown that the global organic food market is expected to reach $ 272 billion by 2027 (Hu et al., 2024). The organic food market is also increasing in Nepal (Atreya et al., 2020; Rokaya & Pandey, 2023). Budhathoki and Pandey (2021) reported that demand for organic food is increasing in Nepal's urban and peri-urban regions. Similarly, the area under organic farming has reached 25,776 ha of land in 2022 (Willer et al., 2025), which is a 175.24% increase in area compared to 2017.

Despite the growing demand for organic food, its market is still small and underdeveloped in Nepal (Chaudhary, 2024; Shrestha, 2021). Labiad and Marso (2024) pointed out that increased consumer concern about health risks and food safety does not necessarily result in the purchasing behavior of organic food. High price premiums, weak market infrastructure, and low consumer trust in organic certification continue to hinder consumers' willingness to pay (WTP) a price premium for organic food in Nepal (Acharya & Paudel, 2022; Mishra et al., 2024; Nandwani et al., 2021; Regmi et al., 2023). Studies mentioned that customer demand and their WTP price premium are important to the long-term sustainability of organic agriculture (Li & Kallas, 2021; Nguyen & Dang, 2022). In the context of Nepal too, understanding consumers' WTP for a price premium plays an important role in improving the organic food market (Sharma & Pudasaini, 2021).

Previous studies have reported that socio-demographic factors, economic factors, perceptions of organic food, and trust in certification systems affect

consumers' WTP for a price premium on organic food (Akter et al., 2023; Eyinade et al., 2021; Jakubowska et al., 2025; Katt & Meixner, 2020). However, existing studies focus on attitudes, perceptions, and purchase intentions toward organic food in Nepal, overlooking the influence of market-related factors (Budhathoki & Pandey, 2021; Mishra et al., 2024; Upadhyay & Niraula, 2023). Similarly, Thapa et al. (2025) have used single-stage models to determine factors affecting consumers' WTP price premium for organic food; however, they overlooked the two-stage nature of consumer decision-making, i.e., the decision to WTP and the level of the price premium for organic food.

In this context, the double hurdle model, proposed by Cragg (1971), provides a flexible and realistic representation of consumer decision-making by separately modeling the participation and intensity decisions. Thus, the study aimed to address these methodological gaps by examining the determinants of consumers' WTP for a price premium and the level of price premium for organic food in Nepal. The findings of the study provide a clear understanding of the socio-economic and market-related factors influencing consumers' WTP for a price premium and premium level for organic food in an urban Nepalese context. From a policy perspective, the study offers recommendations to government agencies and development organizations to expand the organic food market and support environmentally sustainable agricultural practices in Nepal.

Methodology

Study Area and Sampling Design

The study was conducted in Bharatpur Metropolitan City (BMC) of Chitwan District, Nepal. The intensive agricultural production, frequent food safety concerns among consumers, and expanding urban markets in the city were the reasons for selecting BMC as a study area (Bhandari, 2019; Pandey & Lal, 2020). The study was conducted in 17 major market hubs for food purchases in the BMC, based on their functional importance, spatial distribution, and diversity of retail formats. This includes the *Bharatpur Mahanagar* Fruits and Vegetable Bazaar, the *Bharatpur* Vegetables and Fruits Wholesale Market, the *Bigmart* supermarket, the *Bhat-Bhateni* supermarket, 5 departmental stores, and 8 open-air markets. The selected markets include consumers with diverse socio-economic backgrounds, purchasing preferences, and levels of exposure to organic food. Supermarkets and departmental stores provide labeled and certified organic products, while open-air and wholesale markets capture traditional purchasing environments. These market hubs are geographically dispersed across the city,

which helps to reduce location bias and improves the representativeness of urban consumers.

A convenience sampling technique, using the eligibility screening question "Are you responsible for household food purchasing decisions?", was used to select respondents from the selected market hub of BMC. Although convenience sampling limits statistical generalizability, it remains appropriate in this study due to the absence of a comprehensive sampling frame of urban organic food consumers. This eligibility screening question ensures that respondents have knowledge and experience in the purchase of organic food and its associated price premiums. The non-response error (declined to participate and incomplete questionnaires) was excluded through on-field verification. Due to the absence of a sampling frame of urban consumers purchasing food in BMC, Cochran's (1997) formula for an unknown population was used to determine the sample size (Equation 1):

$$n = \frac{z^2 \times p \times (1-p)}{e^2} \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$

Where n = sample size, e = error margin, i.e., 0.05, p = estimated proportion, i.e., 0.5 (assuming maximum variability), and z = z-value, i.e., 1.96.

This formula is widely used to determine a statistically adequate sample size under the maximum-variability (p=0.5) condition, ensuring a sufficiently precise and representative sample. The required sample size was calculated as 384. The obtained sample size (n = 384) exceeds the recommended sample-to-variable ratio, suggested by Hair et al. (2018), further supporting the adequacy of the sample size for regression-based analysis.

Data Collection and Analytical Methods

Primary data were collected through a field survey using a semi-structured questionnaire. The questionnaire was reviewed and refined by subject experts to ensure its content validity and clarity. Furthermore, the questionnaire was pretested with 30 respondents, which helped to improve its wording, sequencing, and clarity. The final questionnaire was uploaded to Water Surveyor, a mobile-based surveyor application, for data collection during the field survey. The final survey was conducted between February and March 2025 using a face-to-face survey method. Before each interview, participants were informed of the study's objectives, and verbal consent was obtained. The collected data were extracted from Water Surveyor as an Excel sheet. The extracted data were coded in MS Excel and analyzed using Stata. The variables used in the study are listed in

Table 1. The first 50 and last 50 responses were selected to assess non-response bias in the study variables using the Mann–Whitney U test. The test revealed no statistically significant differences between these two groups, suggesting no evidence of non-response bias in the study variables. Multicollinearity among explanatory variables was examined using the Variance Inflation Factor (VIF). The results showed that all VIF values were below the threshold value of 10, with a mean VIF of 1.59, indicating the absence of serious multicollinearity. The Ramsey RESET test (F (3,371)) yielded an F-statistic of 1.88 with a p-value of 0.1342, indicating that the model does not suffer from significant omitted variable bias.

Table 1: Description of variables used in the Double-Hurdle model

Variable	Description	VIF
	Dependent variables	
WTP price premium (D_i)	Respondent willing to pay a price premium for organic food (1=Yes)	
Price premium level (Y_i)	Maximum price premium (%) the respondent is WTP for organic food, conditional on $D_i = 1$	
	Independent variables	
Age	Age of the respondent in years	1.45
Gender	Gender of the respondent (1=Female)	2.10
Years of schooling	Total years of formal education completed by the respondent	1.87
Household size	Total number of household members	1.32
ln (Household income)	Natural logarithm of annual household income (NPR)	1.56
Access to market information	Access to market information about organic food (1=Yes)	1.41
Availability of organic food	Availability of organic food in nearby markets(1=Yes)	1.28
Presence of organic label/ tag	Presence of organic certification labels or tags (1=Yes)	1.74
Perception towards organic food	Perception score of the respondents towards reflecting organic food (5-point Likert scale)	1.59

Econometric Model Specification

The double hurdle model was used to analyze the determinants of consumers' WTP price premium and price premium level for organic food, conditional on WTP. It is an econometric framework used to analyze decision-making processes that occur in two distinct stages (Carlevaro & Croissant, 2024; Cragg, 1971). Double hurdle contains two different equations: a participation equation for determining the decision to participate in a behavior using a probit model and

an outcome (intensity) equation for determining the extent/level of that behavior conditional on participation using truncated regression (Aboaba et al., 2022; Becker et al., 2015; Wang et al., 2019). In comparison to the Heckman model, double hurdle captures the presence of zero responses as the decision of not engaging in a behavior rather than the missing or unobserved data (Asfaw et al., 2022). Similarly, double hurdle allows a two-stage decision to be determined by separate processes with different influencing factors (Kelifa, 2023). Thus, the double hurdle model provides a more flexible and realistic framework for capturing the consumer decision-making process in this study.

In this study, at the first stage, a binary probit model was used to analyze the determinants of a consumer's WTP price premium for organic food (Equation 2 and Equation 3). Marginal effects were estimated using a binary probit model to assess the impact of explanatory variables on the probability of a WTP price premium for organic food.

$$D_i^* = \alpha Z_i + \varepsilon_i \quad \text{..... (2)}$$

$$D_i = \begin{cases} 1 & \text{if } D_i^* > 0 \\ 0 & \text{if otherwise} \end{cases} \quad \text{..... (3)}$$

Where, D_i is a binary variable (1 = WTP price premium; 0 = otherwise), Z_i is explanatory variables, α is parameters to be estimated, and ε_i is an error term.

Similarly, at the second stage, a truncated regression model was used to analyze the determinants of price premium level for organic food among those respondents who expressed a positive WTP, i.e., $D_i = 1$ (Equation 4 and Equation 5).

$$Y_i^* = X_i\beta + u_i \quad \text{..... (4)}$$

$$Y_i = \begin{cases} Y_i^* \text{if } Y_i^* > 0 \text{ and } D_i = 1 \\ 0 \text{ if otherwise} \end{cases} \quad \text{..... (5)}$$

Where, Y_i is the price premium percentage, X_i is explanatory variables, β is parameters to be estimated, and u_i is the error term.

Descriptive statistics were used to summarize the variables used in the double hurdle model. Consumer perceptions toward organic food were measured using five statements as shown in Table 2 that were rated using the five-point Likert Scale ranging from 1 (very low) to 5 (very high). The reliability of the perception

scale was assessed using Cronbach's alpha, which was 0.84, exceeding the acceptable threshold of 0.70.

The perception index was calculated as (Equation 6):

$$PS_i = \frac{\sum_{j=1}^{n} S_{ij}}{5} \qquad (6)$$

Where, PS_i = perception score of the i^{th} respondent and S_{ij} = Score given by the i^{th} respondent to the j^{th} statement.

Table 2: Consumers' perception towards organic food

Notation	Statement	Mean
ST 1	Consuming organic food is a healthier choice.	4.65
ST 2	Organic food products have superior taste and quality.	4.03
ST 3	Organic food products are a more environmentally friendly option than conventionally produced foods.	3.41
ST 4	Organic food products contain fewer harmful chemical residues.	3.76
ST 5	Purchasing organic food helps promote sustainable agriculture.	3.89
	Overall mean	3.95

Source: Authors' estimate

Results and Discussion

Descriptive Statistics

The mean age and years of schooling of respondents were 41.08 years and 10.86, respectively (Table 3). This indicates that middle-aged consumers with a secondary-level education are primarily responsible for purchasing food for their households. Regmi et al. (2023) also reported similar ages and education levels among organic food consumers in the *Rupandehi* district. Similarly, the average household size of the respondents was 5.03 members, and the mean annual income of the respondent household was NPR. 1,324,636.67.

Table 3: Descriptive Statistics of continuous variables

Continuous variable	Mean
Age (years)	41.08
Years of schooling	10.86
Household size	5.03
Annual household income (NPR)	1,324,636.67

Source: Authors' estimate

The result shows that 82.03% of the respondents were female, indicating that females were mainly involved in household food purchasing decisions (Table

4). This indicates that female consumers were primarily involved in household food purchasing and were concerned about food safety and their household's health. This finding is consistent with Khanal et al. (2023). Regarding access to market information on organic food, 75.78% of respondents reported accessing it through media, social networks, and interpersonal communication. Khanal (2020) also reported similar market information sources in the Kathmandu Valley. However, only 44.79% of respondents reported that organic food is easily available in nearby markets, indicating a structural constraint in the organic food supply chain in BMC, where demand-side awareness is not matched by adequate market availability. Mishra et al. (2024) and Rokaya and Pandey (2023) also reported that inadequate availability of organic food has limited its market expansion in Nepal. Regarding the presence of organic labels or certification tags in the food products, only 9.11% of respondents reported their presence, indicating a significant institutional gap in the organic food market. As organic food is a credence good, consumers rely on certification/labeling to assess its authenticity and quality. Thus, the absence of certification/ labeling system led to information asymmetry, thereby reducing consumer trust and discouraging WTP for a price premium. Miftari et al. (2022), Murphy et al. (2022), and Zhang et al. (2024) also highlight the important role of a certification system in boosting consumer confidence in purchasing organic food.

Table 4: Descriptive Statistics of categorical variables

Categorical variable	Category	Frequency
Gender	Female	315 (82.03)
	Male	69 (17.97)
Access to market information	Yes	291 (75.78)
	No	93 (24.22)
Availability of organic food	Yes	172 (44.79)
	No	212 (55.21)
Presence of organic label/tag	Yes	35 (9.11)
	No	349 (90.89)

Note: Values in parentheses indicate percentages.

Source: Author's estimates

Consumers' Perception towards Organic Food

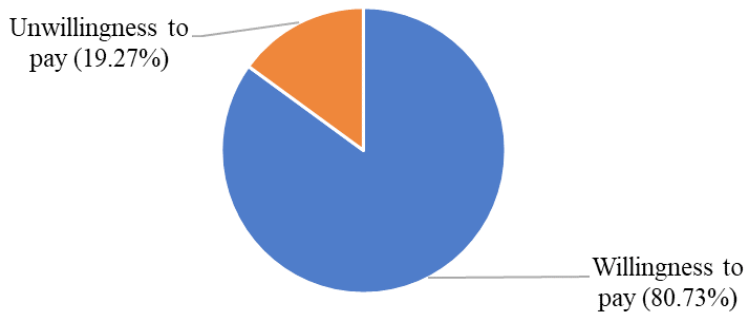
The overall mean score of respondents' perceptions toward organic food was 3.95, indicating a favorable perception toward organic food, as shown in Table 2. This favorable perception may drive consumers to pay a price premium for

organic food (Bernabéu et al., 2022). Upadhyay and Niraula (2023) also reported similarly positive attitudes among urban households in Nepal. The highest perception scores were obtained for ST 1 and ST 2, suggesting that health benefits and sensory attributes primarily drive consumers to purchase organic food and pay a price premium. Similar findings were reported by Grzywińska-Rąpca et al. (2025) and Gundala and Singh (2021). The average perception score was observed for ST 5 (3.89) and ST 4 (3.76). However, a lower perception score was obtained for ST 3, indicating environmental concerns play a less influential role in purchase decisions. This shows a gap between environmental concerns and purchase motivations among consumers, with personal benefits given greater weight than long-term environmental benefits. Alberto de Morais Watanabe et al. (2023) and Hu et al. (2024) also reported that environmental concern doesn't influence consumers' motivation to purchase organic food.

Consumers' Willingness to Pay and Price Premium Levels for Organic Food

The results show that 80.73% of consumers were WTP a price premium for organic food, suggesting a strong demand for organic food in BMC (Figure 1). Khanal (2020) also reported a similar pattern, in which a large proportion of consumers from the Kathmandu Valley were WTP to pay a price premium for organic food. However, the presence of unwilling consumers also suggests that higher prices, limited trust, and/or insufficient perceived benefits may have constrained their purchasing behavior.

Figure 1: Consumers' willingness to pay a premium price for organic food

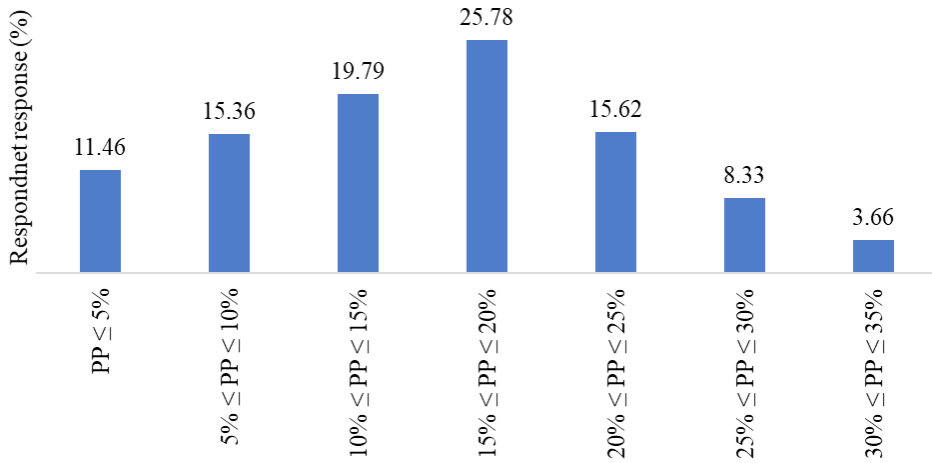


Source: Author's estimates

Regarding the price premium level that the consumers are willing to pay for the organic food, the results show that 25.78% and 19.79% were willing to pay a price premium of 15–20% and 10–15%, respectively (Figure 2). This indicates

that a 10-20% price premium range was economically acceptable for consumers. Acharya and Paudel (2022) and Regmi et al. (2023) also found that consumers were willing to pay a price premium within this range. Although consumers have a favorable perception of organic food, their WTP remains constrained by household budget. Thus, the 10-20% price premium is a balance between consumers' perceived benefits of organic food and their budget constraints. At the lower end of the distribution, 26.82% of respondents were willing to pay only a 10% premium. Inadequate purchasing power and doubts about the authenticity of organic food may have limited consumers' WTP for a higher price premium, consistent with the findings of Canova et al. (2020) and Hough and Contarini (2023). Similarly, 27.61% of consumers were WTP a price premium of more than 20%.

Figure 2: Consumers preferred premium price level for organic food (n = 310)



Source: Author's estimates

Determinants of Consumers' Willingness to Pay and Premium Price Levels for Organic Food

The results of the first hurdle (binary probit model) identified that years of schooling, household income, access to market information, availability of organic food, presence of organic label/tag, and perception towards organic food significantly affect consumers' WTP for a price premium for the organic food (See Table 5). The remaining variables of age, gender, and household size were insignificant. Similarly, the second hurdle (truncated regression model) identified that household size, household income, access to market information,

and perceptions of organic food significantly affect the price premium consumers are willing to pay for organic food. The remaining variables of age, gender, years of schooling, availability of organic food, and presence of organic label/tag were insignificant. However, age and gender were found to have insignificant effects in both hurdles, suggesting that demographic characteristics are less influential in determining organic food purchasing behavior.

Both the binary probit model and the truncated regression model were statistically significant ($p<0.01$), with a likelihood ratio chi-square value of 72.51 and a Wald chi-square value of 83.14, respectively. The log-likelihood values of -38.288 and -46.176 for the binary probit and truncated regression models, respectively, indicate a reasonable model fit. The pseudo-R^2 value for the binary probit model was 0.4742, reflecting an excellent model fit. Overall, the double hurdle model used in the study was a good fit.

(a) Years of schooling

Years of schooling had a positive and significant effect ($p<0.05$) on WTP for a price premium, with the marginal effect of 0.091. This indicates that for each additional year of schooling, the probability of WTP for a price premium increases by 9.1%. Educated consumers are aware of food safety, nutritional quality, and the health benefits of organic food, which makes them more inclined to consume it and pay a premium. Higher education level also increases consumers' ability to access and evaluate information about organic food attributes, reducing their uncertainty about product quality. These findings are similar to those of Hansmann et al. (2020), Hu et al. (2024), and Mustapa and Kallas (2025). However, education was found to have an insignificant effect on the level of premium consumers were willing to pay, suggesting that education mainly influences the initial WTP decision rather than the premium level. Education motivates consumers to enter the organic market, but the actual premium is largely determined by income.

(b) Household size

Household size had a significant negative effect ($p<0.05$) on the price premium consumers are willing to pay for organic food, with a β-coefficient of −0.066. This suggests that an additional household member reduces the price premium level by 6.6%. Larger households require more food, which increases the financial burden of purchasing organic food at a premium price. Larger households require greater quantities of food for daily consumption, which increases their household expenditure and reduces their financial ability

to afford additional income premium-priced organic food. Thus, consumers may prioritize affordability and quantity over premium-quality attributes, thereby reducing their willingness to pay higher prices. Similar findings were reported by Bazhan et al. (2024) and Wongnaa et al. (2024), who found that larger household sizes negatively influence premium food expenditures due to budget constraints. However, household size had an insignificant effect on consumers' WTP for a price premium on organic food. This indicates that initial decisions to purchase organic food are determined by individual-level factors such as health consciousness, food safety concerns, awareness, and perceptions of organic food, rather than by household size.

(c) Household income

Household income had a positive and significant effect ($p<0.01$) on both consumers' WTP for a price premium and the level of premium they were willing to pay for organic food. The marginal effect of 2.757 indicates that a 1% increase in household income increases the probability of WTP for a price premium by 0.02757%, while the β-coefficient of 3.405 suggests that for every unit increase in household income, consumers' willingness to pay a price premium also increases by 0.03405%. This result shows the role of household purchasing power in the purchase and consumption of organic food. As organic food is a premium or quasi-luxury product, consumers must pay a premium to consume it. Thus, higher-income consumers face fewer financial burdens, making them more likely to pay a price premium. Chiciudean et al. (2019), Kumar et al. (2025), and Nichifor et al. (2025) also reported that affordability of organic food remains a major barrier for low-income households.

(d) Access to market information

Access to market information had a positive and significant effect ($p<0.05$) on both WTP and the price premium for organic food, with a marginal effect of 0.067 and a β-coefficient of 0.137. This indicates that consumers with the market information are 6.7% more likely to pay a price premium and are willing to pay higher premiums of 13.7% compared to those without such information. Organic food is a credence good whose production attributes cannot be easily verified by consumers. Thus, access to reliable market information regarding production practices, product quality, and current market prices helps reduce information uncertainty, thereby strengthening consumers' purchasing confidence. Thus, consumers with better access to market information are more likely to pay a price premium for organic food. Smoluk-Sikorska et al. (2024) and Yuan et al. (2024)

also reported the importance of market information in reducing uncertainty associated with the purchase of organic food.

(e) Availability of organic food

Availability of organic food had a positive and significant effect ($p<0.05$) on consumers' WTP for a price premium, with a marginal effect of 0.211. This indicates that consumers with easier access to organic food are 21.1% more likely to pay a premium. When organic food is readily available in the markets, consumers face lower search costs and greater purchasing convenience. Kamboj et al. (2023) and Kumar et al. (2025) also reported that the availability of organic food is an important determinant of organic food purchase. However, the availability of organic food was insignificant relative to the price premium, suggesting that product availability plays a primary role in market participation rather than purchase intensity. Once consumers decide to purchase organic food, the premium level appears to be influenced more by economic capacity and personal preferences than by physical access.

(f) Presence of label/tag

The presence of an organic label/tag has a positive and significant effect ($p<0.01$) on consumers' WTP for a price premium for organic food, with a marginal effect of 0.341. This indicates that the presence of certified tags/labels increases the probability of WTP a price premium for organic food by 34.1%. Certifications/tags act as quality signals in organic food, reducing perceived risk and building consumer trust. In the absence of this credible certification, consumers feel insecure about the authenticity of organic claims, which makes them reluctant to pay higher prices. Alberto de Morais Watanabe et al. (2023), Ge et al. (2022), and Murphy et al. (2022) also reported that organic food certification builds consumer trust, increasing the probability of purchase intention. However, certification/tags were insignificant in determining the price premium level, which may be due to income constraints of the consumers despite their trust in certified products.

(g) Perception toward organic food

Perception toward organic food was found to have a positive and significant effect ($p < 0.01$) on both consumers' WTP for a price premium and the level of premium. The marginal effect of 0.464 indicates that a positive perception increases the probability of WTP for a price premium by 46.4%, and the β-coefficient of 0.361 indicates that consumers with more favorable perceptions are willing to pay a 36.1% higher premium. The significant influence of

perception on both decision stages suggests that consumer favorable attitudes not only encourage WTP for a price premium but also affect the intensity of their purchase. Consumers who perceive organic food as healthier, safer, higher in quality, and environmentally friendly are more likely to pay a higher price premium. This shows psychological and behavioral factors are important in explaining organic food demand. Dorce et al. (2021) and Kamboj et al. (2023) also reported that positive perception is an important influential behavioral determinant of organic food consumption.

Table 5: Double-Hurdle model estimates for consumers' willingness to pay and premium price level for organic food

Variables	First Hurdle		Second Hurdle	
	Marginal effect	z-value	Coefficient	z-value
Age	0.219	1.41 (0.155)	0.248	1.16 (0.245)
Gender	0.112	0.97 (0.335)	0.089	0.05 (0.964)
Years of schooling	0.091**	2.41 (0.017)	0.131	1.61 (0.104)
Household size	-0.082	1.16 (0.246)	-0.066**	2.07 (0.037)
Household income	2.757***	3.09 (0.002)	3.405***	3.29 (0.001)
Access to market information	0.067**	2.06 (0.039)	0.137**	2.33 (0.019)
Availability of organic food	0.211**	2.30 (0.021)	0.171	2.05 (0.211)
Presence of organic label/tag	0.341***	2.97 (0.003)	0.192	1.34 (0.182)
Perception towards organic food	0.464***	3.29 (0.001)	0.361***	2.75 (0.006)
Constant		1.11 (0.267)		0.90 (0.371)
Summary statistics				
Number of observations	384		310	
Log likelihood	-38.288		-46.176	
Prob > chi^2	0.0004		0.0007	
LR $chi^2(9)$	72.51***			
Wald $chi^2(9)$			83.14***	
Pseudo R^2	0.4742			

Note: ** and *** denote statistical significance at the 5% and 1% levels of significance, respectively. Values reported in parentheses indicate p-values

Conclusion

This study examines the determinants of urban consumers' WTP for a price premium and the level of premium they are willing to pay for organic food, using a double hurdle model in BMC, Nepal. This study reveals a potential for the expansion of the organic food market, as a majority of urban consumers are willing to pay a price premium for organic food. Most consumers were willing to pay a moderate premium of 10–20%, indicating that Nepal's organic food market has growth potential but remains sensitive to price-related barriers. The

double hurdle model reveals that the decision to pay a price premium for organic food is significantly increased by education, household income, access to market information, availability of organic food, presence of organic labels/tags, and favorable perceptions toward organic food. In addition, conditional on willingness to pay a price premium, the premium level was significantly determined by household income, household size, access to market information, and positive perceptions of organic food. These factors show the importance of consumer awareness and knowledge of the benefits of organic food, purchasing capacity, institutional trust, and product authenticity in shaping purchasing behavior. Thus, the study recommends strengthening organic market information systems, improving the availability and accessibility of organic food, and establishing a credible certification and labeling system to expand Nepal's organic food market.

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