

Economic Factors and Nutritional Preferences: Understanding Food Consumption Patterns in Emerging Economies

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Abstract

This study examines the relationship between economic factors and nutritional preferences in shaping food consumption patterns within emerging economies. Rising income levels, urbanization, food prices, and consumer awareness have significantly influenced dietary choices and purchasing behavior. The study investigates how household income, affordability, and perceived nutritional value affect consumers' selection of food products. Using empirical evidence from emerging markets, the findings indicate that economic conditions play a critical role in determining access to nutritious foods, while nutritional awareness positively influences healthier consumption decisions. The results further suggest that price sensitivity remains a major barrier to adopting balanced diets among lower-income groups. The study contributes to the literature on consumer economics and public health by highlighting the need for policies that promote affordable nutrition and sustainable food systems. The findings offer valuable insights for policymakers, businesses, and health practitioners seeking to improve consumer well-being.

Keywords: Nutritional Preferences; Consumer Economics; Food Consumption; Emerging Economies

Introduction

Food consumption patterns have undergone substantial transformation in emerging economies over the past few decades, driven by rapid economic growth, urbanization, globalization, and changing lifestyles. As household incomes increase and living standards improve, consumers tend to diversify their diets, shifting from traditional staple-based consumption toward more processed, convenience-oriented, and nutrient-dense foods (Masters et al., 2022; Popkin et al., 2020). Economic factors such as income levels, food prices, purchasing power, employment status, and household expenditure play a critical role in shaping nutritional preferences and food choices. The increasing integration of national and global food markets has expanded consumer access to diverse food products, thereby influencing dietary behaviors and consumption patterns (Reardon et al., 2021).

Economic development has significantly improved food accessibility in many emerging economies; however, it has also contributed to increased consumption of processed foods and energy-dense diets. Such dietary transitions have been associated with rising rates of obesity,

diabetes, cardiovascular diseases, and other nutrition-related disorders (Popkin et al., 2020; Swinburn et al., 2021). The nutrition transition theory suggests that economic prosperity often encourages consumers to move away from traditional diets toward Westernized food consumption patterns characterized by higher intake of fats, sugars, and animal-based products (Masters et al., 2022).

Nutritional preferences are increasingly influenced by health awareness, food safety concerns, convenience, taste, and lifestyle aspirations. Research indicates that consumers with higher income levels generally exhibit greater dietary diversity and increased consumption of nutrient-rich foods, although food choices are also shaped by cultural, social, and psychological influences (Masters et al., 2022; Herforth et al., 2020). Income disparities continue to influence dietary quality across emerging economies. Households with greater purchasing power are more likely to consume fruits, vegetables, dairy products, and protein-rich foods, whereas lower-income households frequently rely on less diverse and nutrient-poor diets. Furthermore, fluctuations in food prices and inflation significantly affect household food purchasing behavior and nutritional outcomes, particularly among vulnerable populations (Headey & Alderman, 2021).

Understanding the interaction between economic conditions and nutritional preferences has become increasingly important for policymakers seeking to address food insecurity, malnutrition, and the growing burden of non-communicable diseases. Such understanding can support the formulation of evidence-based nutrition policies, food subsidy programs, and sustainable food system interventions (FAO et al., 2022). Recent studies have highlighted that food consumption decisions are not solely determined by economic affordability but are also influenced by nutritional knowledge, health consciousness, and perceptions of food quality (Herforth et al., 2020; Masters et al., 2022). Consequently, consumers often face a trade-off between affordability and nutritional value when making food purchasing decisions.

Moreover, the increasing integration of global food supply chains and the rapid expansion of modern retail systems have significantly transformed food consumption behavior in emerging economies. Over the past few decades, globalization, trade liberalization, urbanization, and technological advancements have facilitated the development of sophisticated food distribution networks, thereby increasing consumer access to a wide variety of food products from both domestic and international markets. The proliferation of supermarkets, hypermarkets, convenience stores, organized retail chains, and digital food delivery platforms has fundamentally altered traditional food purchasing patterns and consumption practices (Reardon et al., 2021). These developments have improved food availability, accessibility, and convenience, enabling consumers to purchase diverse food products throughout the year regardless of seasonal constraints. The modernization of food systems has also contributed to significant changes in dietary preferences and eating habits. Traditional diets based primarily on locally produced cereals, pulses, fruits, and vegetables are increasingly being replaced or supplemented by processed, packaged, and ready-to-eat food products. The growing participation of women in the workforce, busy lifestyles, urban living conditions, and time constraints have further accelerated the demand for convenience foods and fast-food products. While these changes have enhanced consumer convenience and expanded food choices, they

have also increased exposure to energy-dense, nutrient-poor foods that may contribute to adverse health outcomes such as obesity, diabetes, and cardiovascular diseases (Popkin et al., 2020).

Despite the increasing availability of healthier food alternatives and growing awareness regarding nutrition and wellness, economic factors continue to play a crucial role in shaping consumer food choices. Although consumers are becoming more health conscious and demonstrate a preference for nutritious and high-quality food products, financial constraints often limit their ability to translate these preferences into actual purchasing behavior. Healthy diets frequently remain more expensive than calorie-dense and highly processed alternatives, making them less accessible to economically disadvantaged populations (Headey & Alderman, 2021). This challenge is particularly evident in emerging economies where income inequalities, food affordability concerns, and regional disparities continue to influence dietary decisions and nutritional outcomes. Consequently, understanding the interaction between modern food systems, economic constraints, and nutritional preferences is essential for promoting sustainable dietary practices and improving public health outcomes.

Despite growing scholarly attention to food consumption behavior, existing research has largely examined economic determinants and nutritional preferences independently. Limited attention has been devoted to understanding their combined influence on food consumption patterns within emerging economies. Therefore, the present study seeks to examine the relationship between economic factors and nutritional preferences in shaping food consumption patterns. By integrating economic and nutritional perspectives, the study contributes to a more comprehensive understanding of consumer food behavior and provides valuable insights for policymakers, nutrition practitioners, and researchers seeking to promote healthier and more sustainable dietary practices.

Objectives of the Study

- To assess the relationship between economic factors and food consumption patterns in emerging economies.
- To evaluate the influence of nutritional preferences on food consumption patterns in emerging economies.
- To determine the relative contribution of economic factors and nutritional preferences in predicting food consumption behavior among consumers in emerging economies.

Literature Review

Food consumption patterns have emerged as an important area of research due to their implications for nutrition security, public health, and sustainable development. In emerging economies, dietary behavior has undergone significant transformation as a result of economic growth, urbanization, globalization, and modernization of food systems. The nutrition transition theory suggests that rising incomes and changing lifestyles encourage consumers to shift from traditional diets toward diets characterized by greater consumption of animal products, processed foods, fats, sugars, and convenience foods (Popkin, 2017; Reardon et al., 2021; Masters et al., 2022). While economic development has improved food accessibility and

dietary diversity, it has simultaneously contributed to increasing levels of obesity, diabetes, and other diet-related non-communicable diseases (Popkin et al., 2020; Swinburn et al., 2019).

Economic factors remain among the most influential determinants of food consumption behavior. Household income directly affects purchasing power, dietary diversity, and access to nutritionally adequate foods. Previous studies have consistently demonstrated that higher income levels are associated with increased consumption of fruits, vegetables, dairy products, meat, and other nutrient-rich foods (Herforth et al., 2020; Masters et al., 2022). However, rising income does not automatically result in healthier dietary choices. Research indicates that consumers often increase their expenditure on processed and convenience foods as disposable income rises, largely due to changing lifestyles and time constraints (Popkin, 2017; Masters et al., 2022). Consequently, economic prosperity may generate both positive and negative nutritional outcomes depending on consumer preferences and food environments.

Food affordability and price fluctuations also play a crucial role in shaping food consumption behavior. Food expenditure constitutes a substantial proportion of household budgets in many emerging economies, making food prices a critical determinant of dietary choices. Headey and Alderman (2021) found that healthier diets often cost substantially more than calorie-dense diets, thereby creating barriers for low-income households. Similarly, Herforth et al. (2020) reported that the affordability of nutritious diets remains a major challenge in several developing countries. Consequently, economically vulnerable households frequently prioritize caloric adequacy over nutritional quality, resulting in lower dietary diversity and poorer nutritional outcomes. Urbanization has emerged as a major driver of changing food consumption patterns. The expansion of urban populations has transformed food environments through the growth of supermarkets, organized retail chains, and modern food distribution systems (Reardon et al., 2021). Urban consumers generally enjoy greater access to diverse food products and convenience-oriented options than rural populations. However, urbanization has also been associated with increased consumption of processed foods and reduced reliance on traditional dietary practices (Popkin et al., 2020). These dietary changes have raised concerns regarding long-term health outcomes and the increasing burden of non-communicable diseases in developing economies.

Beyond economic determinants, nutritional preferences significantly influence food consumption decisions. Nutritional preferences reflect consumers' perceptions regarding food quality, health benefits, safety, and nutritional value. Increasing health awareness has encouraged many consumers to seek healthier dietary alternatives and adopt more balanced eating habits (Herforth et al., 2020). Nevertheless, evidence suggests that nutritional knowledge alone is insufficient to promote healthy dietary behavior. Economic constraints frequently limit consumers' ability to translate nutritional awareness into actual purchasing decisions, particularly among low-income households (Headey & Alderman, 2021). Therefore, both economic conditions and nutritional preferences jointly influence food consumption patterns.

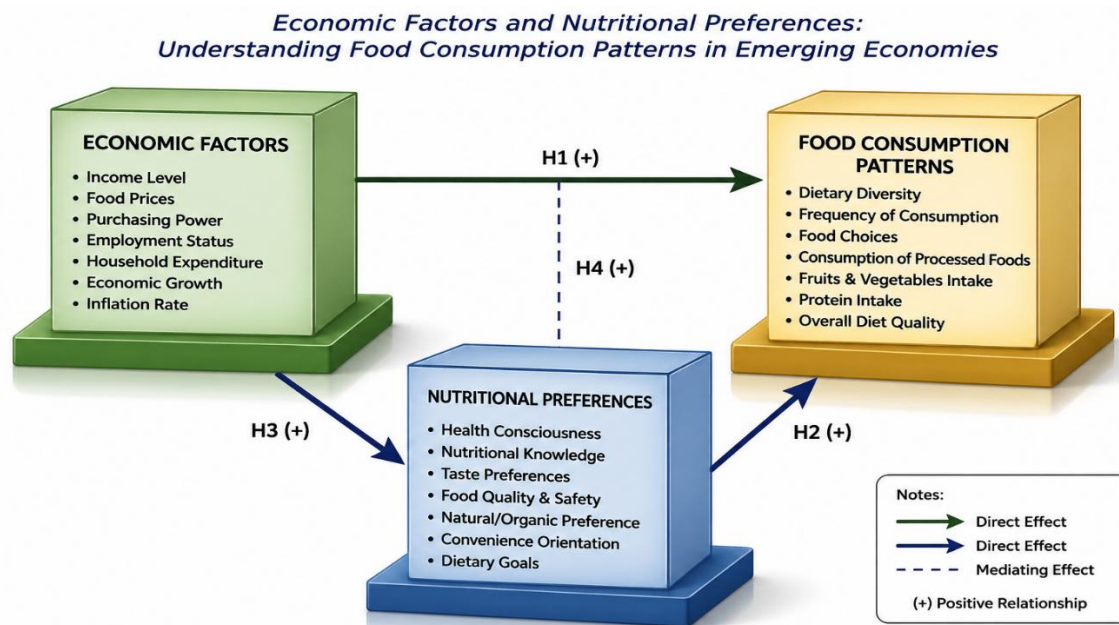
Recent studies have also emphasized the importance of socio-demographic characteristics in shaping dietary behavior. Variables such as education, occupation, household size, gender, and geographic location significantly affect food consumption patterns (Popkin et al., 2020; Herforth et al., 2020). Higher educational attainment is generally associated with greater

nutritional awareness and healthier food choices. Similarly, households with greater access to information and resources tend to exhibit higher dietary diversity and improved nutritional outcomes. These findings suggest that food consumption behavior is multidimensional and influenced by a complex interaction of economic, nutritional, and socio-demographic factors.

Although previous studies have provided valuable insights into the determinants of food consumption behavior, the literature remains fragmented regarding the combined influence of economic factors and nutritional preferences on food consumption patterns in emerging economies. Most studies have examined economic determinants and nutritional outcomes independently, limiting a comprehensive understanding of their interaction. Furthermore, changing consumer lifestyles, rapid urbanization, and evolving food systems continue to reshape dietary behavior. Therefore, an integrated examination of economic factors and nutritional preferences is essential for understanding contemporary food consumption patterns and informing policies aimed at promoting healthy, affordable, and sustainable diets in emerging economies.

Conceptual Framework

Based on the reviewed literature, a conceptual framework has been proposed to explain the relationships among economic factors, nutritional preferences, and food consumption patterns in emerging economies. The framework suggests that economic factors directly influence food consumption patterns and nutritional preferences. Furthermore, nutritional preferences are expected to influence food consumption patterns and mediate the relationship between economic factors and food consumption behavior.



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Although previous studies have provided valuable insights into the determinants of food consumption behavior, the literature remains fragmented regarding the combined influence of economic factors and nutritional preferences on food consumption patterns in emerging economies. Most studies have examined economic determinants and nutritional outcomes independently, limiting a comprehensive understanding of their interaction. Furthermore, changing consumer lifestyles, rapid urbanization, and evolving food systems continue to reshape dietary behavior. Therefore, an integrated examination of economic factors and nutritional preferences is essential for understanding contemporary food consumption patterns and informing policies aimed at promoting healthy, affordable, and sustainable diets in emerging economies.

Research Gap

Although substantial research has been conducted on food consumption behavior, nutrition transition, and dietary choices in emerging economies, several important gaps remain in the existing literature. Most previous studies have examined the influence of economic factors such as income, food prices, affordability, and purchasing power on food consumption patterns independently, while others have focused primarily on nutritional awareness, health consciousness, and dietary preferences. Consequently, limited attention has been given to understanding the combined and interactive effects of economic factors and nutritional preferences in shaping food consumption behavior.

Furthermore, existing studies have largely concentrated on developed countries or specific regional contexts, limiting the generalizability of findings to emerging economies characterized by rapid urbanization, changing lifestyles, income disparities, and evolving food systems. The increasing penetration of modern retail networks, digital food platforms, and global food supply chains has significantly transformed consumer food choices; however, the implications of these developments for dietary behavior in emerging economies remain insufficiently explored.

Additionally, previous research has often emphasized food security and nutritional outcomes separately, overlooking the complex relationship between economic constraints and consumers' ability to translate nutritional preferences into actual purchasing decisions. As a result, a comprehensive understanding of how economic conditions and nutritional preferences jointly influence food consumption patterns remains lacking. Therefore, the present study seeks to bridge this gap by integrating economic and nutritional perspectives to provide a holistic understanding of food consumption behavior in emerging economies, thereby contributing to the literature on consumer behavior, nutrition, and sustainable food systems.

Research Findings

The present study reveals that food consumption patterns in emerging economies are shaped by a complex interaction between economic factors and nutritional preferences. The review of existing literature indicates that household income, food affordability, purchasing power, and price fluctuations significantly influence consumers' food choices and dietary diversity. Rising income levels generally improve access to nutritious foods, including fruits, vegetables, dairy products, and protein-rich diets. However, economic advancement does not necessarily guarantee healthier consumption behavior, as increased purchasing power is frequently associated with greater consumption of processed and convenience foods.

The study further finds that nutritional preferences play a critical role in determining food consumption behavior. Increasing health consciousness, nutritional awareness, and concerns regarding food quality have encouraged consumers to seek healthier dietary alternatives. Nevertheless, the ability to translate nutritional preferences into actual purchasing decisions is often constrained by economic limitations, particularly among low-income populations. Consequently, affordability emerges as a key determinant mediating the relationship between nutritional intentions and actual food choices. Additionally, the findings suggest that rapid urbanization, globalization, and the expansion of modern retail systems have significantly transformed traditional dietary patterns in emerging economies. The growing availability of processed foods and changing lifestyles have accelerated the nutrition transition, contributing to both dietary diversification and increased prevalence of nutrition-related health challenges.

Overall, the study highlights that food consumption behavior cannot be adequately explained by economic factors or nutritional preferences alone. Rather, it is the interaction between these dimensions that shapes dietary decisions. The findings underscore the need for integrated policy interventions that simultaneously address food affordability, nutritional awareness, and accessibility to healthy food options in order to promote sustainable and healthy consumption patterns across emerging economies.

Conclusion

The present study highlights the significant role of economic factors and nutritional preferences in shaping food consumption patterns within emerging economies. The review demonstrates that variables such as income, food affordability, purchasing power, and price fluctuations substantially influence consumers' dietary choices and access to nutritious foods. Simultaneously, increasing health awareness and nutritional consciousness are encouraging shifts toward healthier dietary behaviors. However, economic constraints often limit consumers' ability to translate nutritional preferences into actual food purchasing decisions. The study further reveals that globalization, urbanization, and the expansion of modern food retail systems have transformed traditional dietary practices, creating both opportunities and nutritional challenges. Therefore, promoting sustainable and healthy food consumption requires integrated policy interventions that address affordability, accessibility, and nutritional awareness. Such efforts are essential for improving public health, food security, and long-term nutritional sustainability in emerging economies.

Limitations and Future Research Scope

The present study is conceptual in nature and is primarily based on an extensive review and synthesis of existing literature related to economic factors, nutritional preferences, and food consumption patterns in emerging economies. Consequently, the findings are limited by the availability, scope, and quality of previously published studies. The study does not incorporate primary empirical data, which restricts the ability to statistically validate the proposed relationships among the variables. Furthermore, food consumption behavior is influenced by numerous socio-cultural, psychological, demographic, and environmental factors that were beyond the scope of the current investigation. The diversity of emerging economies in terms of economic development, cultural practices, and food environments may also limit the generalizability of the findings across different regional contexts.

Future research should focus on empirically testing the proposed conceptual framework using quantitative and mixed-method approaches across different emerging economies. Longitudinal studies may provide deeper insights into how economic transitions and evolving nutritional preferences influence dietary behavior over time. Additionally, future studies should examine the moderating and mediating effects of variables such as education, food literacy, digital food environments, cultural values, and health consciousness. Comparative studies between urban and rural populations may further enhance understanding of consumption dynamics. Such investigations would contribute to the development of more comprehensive and evidence-based strategies for promoting healthy, affordable, and sustainable food consumption patterns.

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Conflict of Interest

The author(s) declare that there are no conflicts of interest regarding the publication of this study. The research was conducted independently, and no financial, commercial, institutional, or personal relationships existed that could have influenced the study design, interpretation of findings, or conclusions presented in this paper.

References

1. Balderjahn, I., Peyer, M., Seegebarth, B., Wiedmann, K. P., & Weber, A. (2018). The many faces of sustainability-conscious consumers: A category-independent typology. *Journal of Business Research*, 91, 83–93.
2. Béné, C., Fanzo, J., Haddad, L., Hawkes, C., Caron, P., Vermeulen, S., Herrero, M., & Oosterveer, P. (2020). Five priorities to operationalize the EAT–Lancet Commission report. *Nature Food*, 1(8), 457–459.
3. Fanzo, J., Haddad, L., McLaren, R., Marshall, Q., Davis, C., Herforth, A., Jones, A., Beal, T., Tschirley, D., & Bellows, A. (2021). The food systems dashboard is a new tool to inform better food policy. *Nature Food*, 2(4), 243–246.

4. FAO, IFAD, UNICEF, WFP, & WHO. (2022). *The State of Food Security and Nutrition in the World 2022: Repurposing food and agricultural policies to make healthy diets more affordable*. Food and Agriculture Organization of the United Nations.
5. Headey, D., & Alderman, H. (2021). The relative caloric prices of healthy and unhealthy foods differ systematically across income levels and continents. *The Journal of Nutrition*, 151(6), 1820–1833. <https://doi.org/10.1093/jn/nxab054>
6. Herforth, A., Bai, Y., Venkat, A., Mahrt, K., Ebel, A., & Masters, W. A. (2020). Cost and affordability of healthy diets across and within countries. *Background Paper for The State of Food Security and Nutrition in the World 2020*. Food and Agriculture Organization of the United Nations.
7. Hirvonen, K., Bai, Y., Headey, D., & Masters, W. A. (2020). Affordability of the EAT–Lancet reference diet: A global analysis. *The Lancet Global Health*, 8(1), e59–e66.
8. Jetter, K. M., & Cassady, D. L. (2018). The availability and cost of healthier food alternatives. *American Journal of Preventive Medicine*, 30(1), 38–44.
9. Masters, W. A., Finaret, A. B., & Block, S. A. (2022). The economics of malnutrition: Dietary transition and food system transformation. *Food Policy*, 109, 102251. <https://doi.org/10.1016/j.foodpol.2022.102251>
10. Monteiro, C. A., Cannon, G., Levy, R. B., Moubarac, J. C., Louzada, M. L. C., Rauber, F., Khandpur, N., Cediel, G., Neri, D., & Martinez-Steele, E. (2019). Ultra-processed foods: What they are and how to identify them. *Public Health Nutrition*, 22(5), 936–941.
11. Popkin, B. M., Corvalan, C., & Grummer-Strawn, L. M. (2020). Dynamics of the double burden of malnutrition and the changing nutrition reality. *The Lancet*, 395(10217), 65–74. [https://doi.org/10.1016/S0140-6736\(19\)32497-3](https://doi.org/10.1016/S0140-6736(19)32497-3)
12. Reardon, T., Liverpool-Tasie, L. S. O., & Minten, B. (2021). Quiet revolution by SMEs in food value chains in developing regions. *World Development*, 143, 105405. <https://doi.org/10.1016/j.worlddev.2021.105405>
13. Tilman, D., & Clark, M. (2015). Global diets link environmental sustainability and human health. *Nature*, 515(7528), 518–522.
14. Turner, C., Aggarwal, A., Walls, H., Herforth, A., Drewnowski, A., Coates, J., Kalamatianou, S., & Kadiyala, S. (2018). Concepts and critical perspectives for food environment research. *Global Food Security*, 18, 93–101.
15. Vermeulen, S. J., Campbell, B. M., & Ingram, J. S. I. (2016). Climate change and food systems. *Annual Review of Environment and Resources*, 37, 195–222.
16. Webb, P., Benton, T. G., Beddington, J., Flynn, D., Kelly, N. M., & Thomas, S. M. (2020). The urgency of food system transformation. *Nature Food*, 1(10), 584–585.
17. Willett, W., Rockström, J., Loken, B., Springmann, M., Lang, T., Vermeulen, S., Garnett, T., Tilman, D., DeClerck, F., & Wood, A. (2019). Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *The Lancet*, 393(10170), 447–492.
18. World Bank. (2022). *Food Security Update: Responding to rising food insecurity*. World Bank Group.