DOI: 10.21917/ijms.2024.0284

THE IMPORTANCE PERFORMANCE MATRIX ANALYSIS OF ORGANIC PRODUCTS AND ITS IMPACT ON PURCHASE INTENTION

H. Sujaya, Meghana Salins, Dsouza Prima Frederick and Kavyashree
Institute of Management and Commerce, Srinivas University, India

Abstract

Purpose: The purpose of the study is to identify the two-dimensional grid based on the importance and performance of each exogenous latent variable in their relationship with the endogenous latent variable, which is pertaining to organic products and their impact on purchase intention. Design: The study is developed with primary data and some of the published sources, review papers, case studies, and internet sources. The sampling design chosen is non-probability sampling and nature is purposive sampling. The sample size is observed through the second-generation analytical technique PLS-SEM by sung Smart-PLS 3.0 software. Finally, the sample size derived is 640. Findings: The IPMA results show one unit increase in a construct health concern may increase the constructs performance followed by perception, perceived behavioural control, environmental concern and subjective norms Moreover, when the constructs indicator is measured using IPMA, the results shows PER 4 with the medium value of 71.797 with one unit more may increase the value to 72.797. Similarly, SN 7 shows the value of 69.297 with one unit added may increase the value to 70.297. Originality value: The standard PLS-SEM analysis gives information on the relevant weights of constructs in the structural model that explain other constructs. Executing PLS-SEM requires identifying the target constructs. However, to identify which construct and indicator have a total effect and average performance need to be targeted since the higher value constructs and indicator need not be considered, as their value is higher, there is no need to improve it. Furthermore, low-value constructs and their indicators cannot give better results due to the lower value, which can be ignored.

Keywords:

Organic Products, Purchase Intention, Performance, Importance, IPMA

1. INTRODUCTION

In the global arena, it has been found that consumers are increasingly concerned with the nutrition level of products, health issues and quality of food. One of the key ways consumers with health and environmental concern are reflected show interest in organic consumption. Studies of some stream of literature enclose that India is the country with the largest area in organic production along with Argentina, Brazil, China and Uruguay. However, studies also highlight Indians are the top buyers of organic products. Conversely, studies also show the organic food market is in the nascent stage. Relevant research in these areas shows predictions of behaviour from intentions. Furthermore, studies highlight knowledge and education is the instigator for effective demand for the product [1].

More likely studies highlight about favourable attitude and behaviour is the spotlight for consumption factor [2]. For several decades, a progressive increase in the environmental concern has emerged from the fringe to the mainstream area. Numerous studies also highlight about consumers are cautious toward environmental degradation issues and inculcate a desire of purchase intention towards these products. Besides these desires, consumers take responsibility to reduce the damage done to the environment by purchasing recycled and ecologically sound products [3]. Additionally, studies identify customers' personal drive that motivates the intention to buy, which may be awareness, knowledge of health issues along with their emotions [4].

However, studies in tracing the justification reveal consumer buying behaviour is quite different when compared to different economies, studies show that developing economies show apathy towards these products when compared to developed countries, so companies have to improve sales by creating awareness of the safety and security of life and health. Studies recommend about the abuse of fertilizers and degradation gave ample opportunities for companies to foster the sales of organic products. A current study presupposes rigorous lifestyle also leads to ecological benefits of organic food consumption and the company can focus on these customers [5].

2. LITERATURE REVIEW

The current research intends to develop a comprehensive model and investigate the relationship between the variables. To analyze the framework of this research endeavour, this study combines multiple research streams based on customer's purchase intentions. Furthermore, the research delves within to identify the environmental concern and health concern of customers towards naturally produced product. Empirical studies also investigate the customer environmental concern with higher positive intention towards organic products [6]. Study highlights on the theory of reasoned action which proposes that perceived behavioural control enfolds the repercussion leading to a behavioural tendency [7]. Nevertheless the consumers' perceptible behavioural tendency for organic purchases determines the internal and external factors such as demographic features, availability of products, knowledge, and attitude along with the culture and tradition of the individual along with societal factors vehement about choosing a brand portray that subjective norms are the motivational factor for purchase intention [8]. The study further provides the gap were studies indicate organic product needs to be differentiated with conventional products and with consumer segments based on income level, family life segments, occasional and regular consumers. However, studies did not show that companies can retain the occasional consumers with these strategies.

All the subsequent category describes the different constructs are employed to create the conceptual framework for the investigation. The research studies highlights various antecedents and consequence along with mediator, such as health concern, perceived behavioural control, environmental concern, perception, subjective norms, attitude and purchase intention. Finally, the IPMA results show one unit increase in a construct

health concern may increase the performance of the construct followed by perception, perceived behavioural control, environmental concern and subjective norms as second, third, fourth and fifth. Following Fig.1 depicts the conceptual framework of the study [9]-[10].

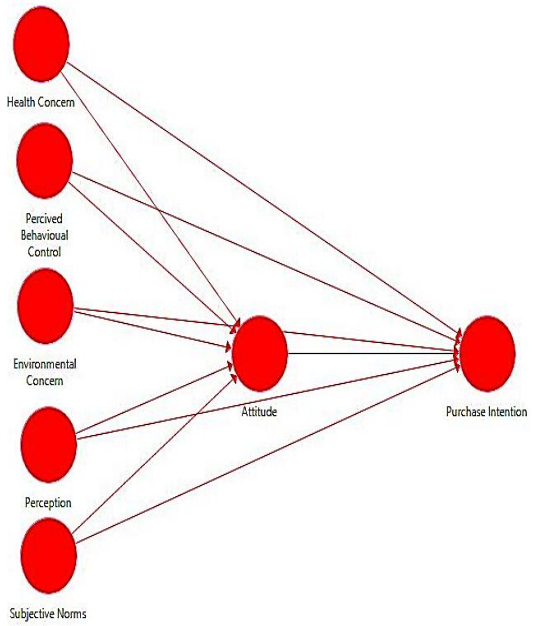

Fig.1. Conceptual framework of the study

3. OBJECTIVES OF THE STUDY

The objective of the study is to identify the two-dimensional grid based on the importance and performance of each antecedent in their relationship with a consequence which is pertaining to organic products and the intentions.

4. METHODOLOGY

The study is developed with primary data and some of the published sources, review papers, case studies and internet sources. Furthermore, the population consists of consumers who are purchasing organic products from shopping malls located in the state of Karnataka. The sampling units are Bengaluru urban, Mysuru, Dakshina Kannada and Udupi districts. The sampling design is chosen is non-probability sampling and nature is purposive sampling. The sample size is observed through second-generation analytical technique PLS-SEM by sung SmartPLS 3.0 software. Finally, the sample size derived is 640.

4.1 IMPORTANCE PERFORMANCE MATRIX ANALYSIS

The standard PLS SEM analysis gives information on the relevant weights of constructs in the structural model that explain other constructs. For making judgements, knowledge of the constructs is pertinent. The IPMA results provide insight into two dimensions, namely performance and the importance of the exogenous latent variables in selecting priorities. The IPMA is introduced to marketers by [11]. By executing PLS-SEM, it requires to identify the target constructs. However, to determine which construct and indicator have a total effect and average performance need to be targeted since the higher value constructs and indicator need not be considered, as their value is higher, so there is no need to improve them. Furthermore, low-value constructs and indicators cannot give better results due to the lower value. Studies have found out IPMA has proved to be a better technique to the areas which further need to be improved [12]-[13].

Studies in IPMA throws light on three motivations related to rigorous decision-making technique, assisting managers to allocate better resources and to have a guideline towards performance assessment, which may prove profitable to firm, investors during financial crisis. Moreover, studies indicate this analysis helps to understand consumer loyalty and helps the managers to propose improved actions by segmentation of customers [14].

4.2 IMPORTANCE-PERFORMANCE MATRIX ANALYSIS FOR PURCHASE INTENTION (CONSTRUCT WISE)

The IPMA map is given for antecedents and consequences as follows:

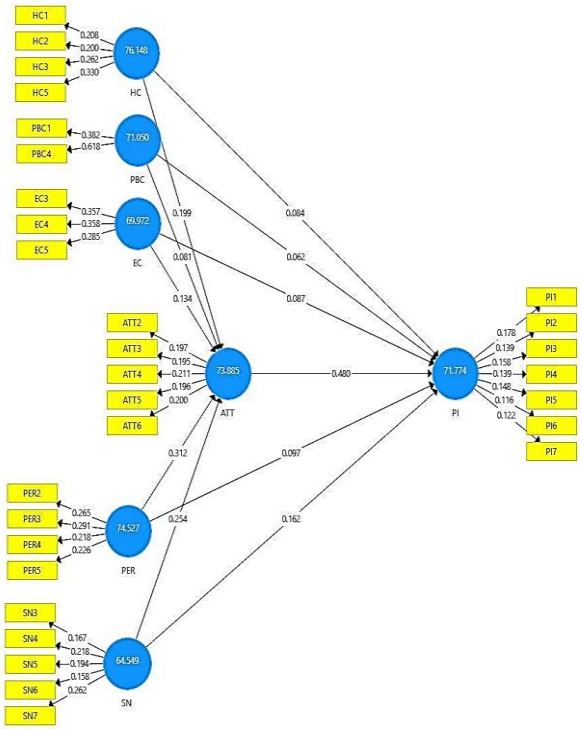

Fig.2. IPMA map for Exogenous and Endogenous Latent Variables

On the x axis “Importance” is measured which shows total effect. It is considered more significant if the total effect of any of the constructs is higher than other constructs. The y axis is “Performance” is measured when it has the higher mean value than the other constructs, which may reflect strong measurement paths. The IPMA map of the exogenous constructs is given below [15]-[20].

It is analyzed from the above matrix that subjective norms and attitude assumes highest degree of the importance from the model and health concern and perception measures the highest

performance compared to other construct. The value of total effects and index value of constructs are given in the Table.1.

Table.1. Total effects and Index Values of Latent Constructs

Latent constructs	Importance (Total effects)	Performance (Index values)
Health Concern	0.187	76.148
Perceived Behavioural Control	0.106	71.050
Environmental Concern	0.154	69.972
Perception	0.252	74.527
Subjective Norms	0.304	64.549

IPMA analysis discloses that health concern has a higher performance of 76.148 when compared to the other constructs. One unit increase in health concern performance from 76.148 to 77.148 and it can increase the performance of purchase intention by 0.187 points from 71.774 to 71.961. Similarly, the second largest value, when one unit is increased is the perception followed by perceived behavioural control, environmental concern, and finally subjective norms. The IPM of the exogenous constructs of the study is shown below in Fig.3.

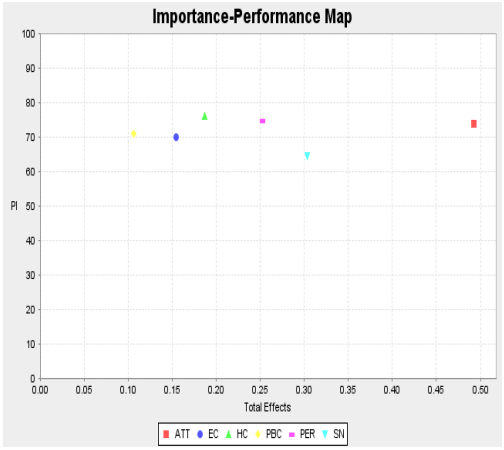

Fig.3. IPMA of purchase intention on endogenous latent variable (construct wise)

4.3 IMPORTANCE-PERFORMANCE MATRIX ANALYSIS FOR PURCHASE INTENTION (INDICATOR WISE)

The IPMA shows the exogenous constructs and the indicators with their relationships with other constructs indicator. However, the total effect measures exogenous constructs indicators which show the importance. Meanwhile the index values measure the performances of the construct indicators. IPMA of the constructs indicators of the study is shown below in the IP map [21]-[23].

The IPMA can be measured as an indicator wise and the results show a health concern indicator performance value is 77.227and total effect value is 0.073. So, one unit increase in the value HC 5 value of 71.774 will increase the value to 71.847. Similarly, the PBC 4 value performance is 73.320 and the total effect is 0.077. So, one unit increase in the performance value of PBC 4 would increase the performance of the endogenous latent variable. The exogenous latent variable value of environmental concern indicator EC 4 shows a value of 66.680 and the total effect value is 0.073. So, one unit increase in the value of EC 4 would increase the value of the endogenous latent variable. The exogenous latent variable perception indicator PER 3 has a performance of 77.031 and the total effect value is 0.089. Thus, one unit increase in the value of PER 3 would increase the performance of the endogenous latent variable by 0.089 points to 71.774 to 71.863. The exogenous latent variable subjective norms indicator SN 7 has a performance of 69.297 and the total effect is 0.098. So, one unit increase in the performance of SN 7 would increase the performance of the endogenous latent variable by 0.098 from 71.774 to 71.872. The IPMA of the exogenous constructs indicators of the study is as follows in Fig.4.

Table.2. Total Effects and Index Values of Latent Indicators

Latent constructs	Importance (Total effects)	Performance (Index values)	Latent constructs	Importance (Total effects)	Performance (Index values)
HC1	**0.053**	75.547	**PER5**	0.076	68.750
HC2	**0.048**	74.961	**SN3**	0.074	59.609
HC3	0.063	76.172	**SN4**	0.081	66.680
HC5	0.073	77.227	**SN5**	0.077	63.594
PBC1	**0.051**	67.383	**SN6**	0.067	60.156
PBC4	0.077	73.320	**SN7**	0.098	69.297
EC3	0.066	75.313			
EC4	0.073	66.680			
EC5	0.058	67.422			
PER2	0.078	78.945			
PER3	0.089	77.031			
PER4	0.073	71.797			

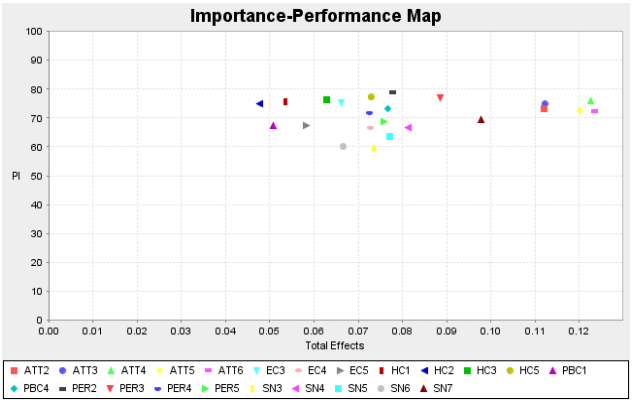

Fig.4. IPMA of purchase intention of exogenous latent variables (indicator wise)

5. FINDINGS, SUGGESTION AND MANAGERIAL IMPLICATIONS

This research endeavour has highlighted many managerial implications. It also contributed to the empirical validity assumptions and also the impact on the latent variables. Furthermore, it throws light on the exogenous latent variables

importance and performance of the model. However, this study has managerial implications pertaining to injecting and inspiring the feeling of the consumers. The managerial implications are discussed as follows.

The IPMA results show one unit increase in a construct health concern may increase the performance of the construct followed by perception, perceived behavioural control, environmental concern and subjective norms. The IPMA can be measured as indicator wise and the results show the health concern indicator performance value is 77.227and the total effect value is 0.073. So, one unit increase in the value HC 5 value of 71.774 will increase the value to 71.847. Similarly, the PBC 4 value performance is 73.320 and the total effect is 0.077. So, one unit increase in the performance value of PBC 4 would increase the performance of the endogenous latent variable. The exogenous latent variable value of environmental concern indicator EC 4 shows a value of 66.680 and the total effect value is 0.073. So, one unit increase in the value of EC 4 would increase the value of the endogenous latent variable. The exogenous latent variable perception indicator PER 3 has a performance of 77.031 and the total effect value is 0.089. Thus, one unit increase in the value of PER 3 would increase the performance of the endogenous latent variable by 0.089 points to 71.774 to 71.863. The exogenous latent variable subjective norms indicator SN 7 has a performance of 69.297 and the total effect is 0.098. So, one unit increase in the performance of SN 7 would increase the performance of the endogenous latent variable by 0.098 from 71.774 to 71.872. So ultimately, under IPMA construct-wise perceived behavioural control value can be considered for better improvement since it has a medium value and that may have a better impact on the endogenous latent variable. Finally, when the constructs indicator is measured using IPMA, the results show PER 4 with the medium value of 71.797 with one unit more may increase the value to 72.797. Similarly, SN 7 shows the value of 69.297 with one unit added may increase the value to 70.297. The PER 4 indicates organic vegetables are chemical-free and SN 7 indicates my family member may appreciate it if I buy organic vegetables.

The IPMA results show one unit increase in a construct health concern may increase the constructs performance followed by perception, perceived behavioural control, environmental concern, and subjective norms. Moreover, when the constructs indicator is measured using IPMA, the results show PER 4 with the medium value of 71.797 with one unit more may increase the value to 72.797. Similarly, SN 7 shows the value of 69.297 with one unit added may increase the value to 70.297. The PER 4 indicates organic vegetables are chemical-free and SN 7 indicates my family member may appreciate it if I buy organic vegetables.

IPMA results may throw light on the importance and performance of the exogenous latent variables of the structural model. Other than the variables of HC, PBC, EC, PER, SN, ATT, PI and more variables can be included in the IPMA analysis of the organic products, which may enrich the understanding of the issues such as the consumer's acceptable prices, preferences of the product, etc. Based on these variables IPMA analysis can be done construct-wise and indicator-wise, which may prove imperative for the company to boost its sales.

6. CONCLUSION

Under IPMA "shows the total effect. The "Performance" is measured when it has a higher mean value than the other constructs, which may reflect strong measurement paths. IPMA analysis also highlights consumers who are cautious towards environmental degradation issues, inculcating a desire of purchase intention towards the organic product. Besides these desires, consumers take responsibility to reduce the damage done to the environment by purchasing recycled and ecologically sound products. The growing amount of channels and competition for retaining the customer have increased, leading to a better understanding of the trust of the consumers, which may further help organic marketers to respond to the challenges.

REFERENCES

[1] S. Chakrabarti, "Factors Influencing Organic Food Purchase In India-Expert Survey Insights", *British Food Journal*, Vol. 112, No. 8, pp. 902-915, 2010.

[2] S.J. Tung and Y.H. Chen, "Attitudinal Inconsistency Toward Organic Food in Relation to Purchasing Intention and Behavior: An Illustration of Taiwan Consumers", *British Food Journal*, Vol. 114, No. 7, pp. 997-1015, 2012.

[3] J. Paul and J. Rana, "Consumer Behavior and Purchase Intention for Organic Food", *Journal of Consumer Marketing*, Vol. 29, No. 3, pp. 412-422, 2012.

[4] S. Mendon and P.S. Aithal, "Emerging Trends in Sustainability of Organic Farming and its Impact on Purchase Intention-A Review and Research Agenda", *Scholedge International Journal of Management and Development*, Vol. 6, No. 7, pp. 98-120, 2019.

[5] S. Mendon and P.S. Aithal, "Organic Agricultural Products: A Comparative Study of India with other Economies", *International Journal of Case Studies in Business, IT and Education*, Vol. 2, No. 2, pp. 86-97, 2018.

[6] Hung Cuong Hoang, Chovancova Miloslava and Thi Que Huong Hoang, "The Interactive Effect of Level of Education and Environmental Concern Toward Organic Food in Vietnam", *Journal of Distribution Science*, Vol. 18, No. 1, pp. 19-30, 2020.

[7] W. Nurittamont, "The Role of E-WOM Communication Impact to Consumer's Purchasing Intention to Healthy Food Products: An Empirical Study to Testing the Mediator and Moderator Variables", *International Journal of Innovative Research and Creative Technology*, Vol. 15, No. 1, pp. 637-652, 2021.

[8] N.B. Do Prado and G.H.S.M.D. Moraes, "Environmental Awareness, Consumption of Organic Products and Gender", *Revista De Gestao*, Vol. 27, No. 4, pp. 353-368, 2020.

[9] S. Mendon and P.S. Aithal, "Shedding Insight on Sustainable Food Consumption: A Case Study on Customer Perceptible Behaviour towards Organic Products", *Juni Khyat*, Vol. 10, No. 11, pp. 81-87, 2020.

[10] S. Mendon and P.S. Aithal, "Challenges Associated with Running A Green Business in India and Other Developing Countries", *International Journal of Case Studies Business, IT, and Education*, Vol. 3, No. 1, pp. 35-47, 2019.

[11] J.A. Martilla and J.C. James, "Importance-Performance Analysis", *Journal of Marketing*, Vol. 41, No. 1, pp. 77-79, 1977.

[12] S. Ahmad and W.M.A.B.W. Afthanorhan, "The Importance-Performance Matrix Analysis in Partial Least Square Structural Equation Modeling (PLS-SEM) with Smartpls 2.0 M3", *International Journal of Mathematical Research*, Vol. 3, No. 1, pp. 1-14, 2014.

[13] M.M.K. Tailab, "Using Importance-Performance Matrix Analysis to Evaluate the Financial Performance of American Banks during the Financial Crisis", *Sage Open*, Vol. 10, No. 1, pp. 2158-2175, 2020.

[14] Z.J. Garcia Fernande and G. Cepeda Carrion, "Importance-Performance Matrix Analysis (IPMA) to Evaluate Servicescape Fitness Consumer by Gender and Age", *International Journal of Environmental Research and Public Health*, Vol. 17, No. 18, pp. 6562-6581, 2020.

[15] M. Stone, "Cross-Validatory Choice and Assessment of Statistical Predictions", *Journal of the Royal Statistical Society: Series B (Methodological)*, Vol. 36, No. 2, pp. 111-133, 1974.

[16] M.P. Schloderer and C.M. Ringle, "The Relevance of Reputation in the Non Profit Sector: The Moderating Effect of Socio-Demographic Characteristics", *International Journal of Non-profit and Voluntary Sector Marketing*, Vol. 19, No. 2, pp. 110-126, 2014.

[17] F. Volckner, H. Sattler and C.M. Ringle, "The Role of Parent Brand Quality for Service Brand Extension Success", *Journal of Service Research*, Vol. 13, No. 4, pp. 379-396, 2010.

[18] S.B. Green, "How Many Subjects does it take to do a Regression Analysis", *Multivariate Behavioural Research*, Vol. 26, No. 3, pp. 499-510, 1991.

[19] J.F. Hair and M. Sarstedt, "Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research", *European Business Review*, Vol. 26, No. 2, pp. 106-121, 2014.

[20] J.F. Hair and M. Sarstedt, "Identifying and Treating Unobserved Heterogeneity with FIMIX-PLS: Part I-Method", *European Business Review*, Vol. 28, No. 1, pp. 63-76, 2016.

[21] J.F. Hair and M. Sarstedt, "Using Partial Least Squares Path Modelling in Advertising Research: Basic Concepts and Recent Issues", Edward Elgar Publishing, 2012.

[22] M. Sarstedt and L. Hopkins, "Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research", *European Business Review*, Vol. 26, No. 2, pp. 106-121, 2014.

[23] W.W. Chin, "The Partial Least Squares Approach to Structural Equation Modelling", *Modern Methods for Business Research*, Vol. 295, No. 2, pp. 295-336, 1998.