ISBN: 9788192958031

IIERD
INTERNATIONAL INSTITUTE OF EDUCATIONAL RESEARCH & DEVELOPMENT

International Conference on Innovation, Management and Industrial Engineering

23rd May 2017,
Kuala Lumpur

ICIMIE-17

INTERNATIONAL INSTITUTE OF EDUCATIONAL RESEARCH & DEVELOPMENT

Proceeding for International Conference on Innovation, Management and Industrial Engineering

(ICIMIE-17)

Kuala Lumpur

23rd May'2017

International Institute of Education, Research and Development

4A, Girija Apartment, MMDA,

Arumbakkam, Chennai-600106, India

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Publisher: IIERD Explore

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Editorial:

We cordially invite you to attend the International Conference on Innovation, Management and Industrial Engineering (ICIMIE-17), which will be held in Holiday Inn, Kuala Lumpur on May 23rd, 2017. The main objective of ICIMIE -17 is to provide a platform for researchers, engineers, academicians as well as industrial professionals from all over the world to present their research results and development activities in Management and Mechanical Engineering. This conference provides opportunities for the delegates to exchange new ideas and experience face to face, to establish business or research relations and to find global partners for future collaboration.

These proceedings collect the up-to-date, comprehensive and worldwide state-of-art knowledge on software engineering, computational sciences and computational science application. All accepted papers were subjected to strict peer-reviewing by 2-4 expert referees. The papers have been selected for these proceedings because of their quality and the relevance to the conference. We hope these proceedings will not only provide the readers a broad overview of the latest research results on Electrical, Electronics and Computer Science Engineering but also provide the readers a valuable summary and reference in these fields.

The conference is supported by many universities and research institutes. Many professors played an important role in the successful holding of the conference, so we would like to take this opportunity to express our sincere gratitude and highest respects to them. They have worked very hard in reviewing papers and making valuable suggestions for the authors to improve their work. We also would like to express our gratitude to the external reviewers, for providing extra help in the review process, and to the authors for contributing their research result to the conference.

Since March 2017, the Organizing Committees have received more than 50 manuscript papers, and the papers cover all the aspects in Management and Mechanical Engineering. Finally, after review, about 10 papers were included to the proceedings of ICIMIE - 2017.

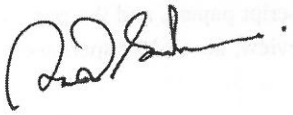
We would like to extend our appreciation to all participants in the conference for their great contribution to the success of International Conference 2017. We would like to thank the keynote and individual speakers and all participating authors for their hard work and time. We also sincerely appreciate the work by the technical program committee and all reviewers, whose contributions make this conference possible. We would like to extend our thanks to all the referees for their constructive comments on all papers; especially, we would like to thank to organizing committee for their hard work.

Editor-In-Chief
Dr. Nalini Chidambaram
Professor
Bharth University

Acknowledgement

IIERD is hosting the International Conference on Innovation, Management and Industrial Engineering this year in month of May. Technical advantage is the backbone of development and nanoelectronics has become the platform behind all the sustainable growth International Conference on Innovation, Management and Industrial Engineering will provide a forum for students, professional engineers, academician, and scientist engaged in research and development to convene and present their latest scholarly work and application in the industry. The primary goal of the conference is to promote research and developmental activities in Management and Mechanical Engineering and to promote scientific information interchange between researchers, developers, engineers, students, and practitioners working in and around the world. The aim of the Conference is to provide a platform to the researchers and practitioners from both academia as well as industry to meet the share cutting-edge development in the field.

I express my hearty gratitude to all my Colleagues, staffs, Professors, reviewers and members of organizing committee for their hearty and dedicated support to make this conference successful. I am also thankful to all our delegates for their pain staking effort to travel such a long distance to attain this conference.



Er. R. B. Satpathy
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Consumer Satisfaction Analysis on Screen Printing Plastic Bags Company's Products and Services Based on Marketing Mix

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Abstract—— **As the industry in Indonesia is growing, attention to factors which were perceived by their customers as not satisfying has become a key point to survive in the business. The study were conducted to find out which marketing mix's attributes perceived by customers as unsatisfying. Questionnaires were distributed to 30 customers and were analyzed using inferential statistics (t test) and Importance-Performance Analysis. The study tried to combine the results and give some suggestions. The results of this study showed that there were 7 attributes which were below customers' expectations which were: quality of transportation facility to reach marketing office, screen printing quality were the same as ordered, return policy if defect were found, salesmen responsiveness, lead time in price negation, quality of vehicle used for delivering final product, and lead time from sample accepted to final product (lead time production). The combination of the results had broken down the 7 attributes resulted from inferential statistics to be grouped into two as first priority and second priority of improvements**

Index Terms—**Screen printing, plastic bags company, marketing mix, consumer satisfaction.**

I. INTRODUCTION

Competition in business has led companies to consider whether they have served their customer well as they were expected by its customers or not. Screen printing plastic bags company is a company who supplies merchandisers with customized plastic packaging as part of their final product offer. Many merchandisers (like Seven Eleven, Circle K, Zara, H & M, Metro, etc.) have their own design plastic bags with merchandiser's logo at the front of their plastic bags. The design of their plastic bags were very closely related to their positioning and brand images.

This research was conducted in 2016 for a screen printing plastic bags company in Indonesia. The company, which was established in 2010, has been supplying plastic bags with customized design for its customer as part of their customers' brand image.

Importance-Performance Analysis has been used in many occasions as analysis for service quality of a company [1]. The Service Quality concept was considered adequate for service company with customer's satisfaction problem. But to use the model for manufacturing companies would result in poor coverage in some product dimensions such as physical product dimension.

Up to now, most of the IPA studies were conducted in many service companies (as hospital, travel and tourism, leisure and recreation, education, and healthcare marketing) [1]. This study attempt to use IPA with another model instead of Service Quality model, that is marketing mix model[3].

The Importance-Performance Analysis was proposed by Martilla and James in 1977 in Journal of Marketing. It is a simple tool to analyze two dimensions of Importance scale and Performance scale which plotted to Cartesian and divided into four quadrants [1][2] as shown in Figure 1.

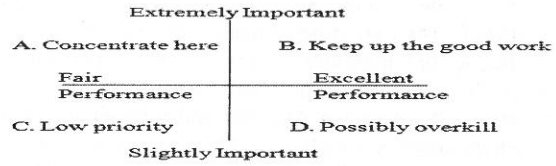

Figure 1: Importance-Performance Analysis

This research tried to apply IPA combined with gap analysis using hypotheses testing (t test) in a screen printing plastic bags company.

Hypotheses testing for gap analysis were based on customer's satisfaction concept, which proposed by Kotler as "a person's feeling of pleasure or disappointment resulting from comparing a product's perceived performance or outcome, in relation to his or her expectations" [3].

II. METHODS

30 questionnaires were distributed to all of the company's customers which has been actively buying screen printed plastic bags since the last 5 months. They

were regular customers and has been buying products in bulk.

Table 1: Results in Hypotheses testing for gap analysis

Question	Perception (X)		Expectation (Y)		Gap	t test *)
	Mean	SD	Mean	SD	Mean	
Sharpness of screen printing quality	3,333	0,479	3,167	0,699	0,167	1,077
Screen printing quality as ordered	2,967	0,615	3,600	0,490	-0,633	-4,481 *
Variations of plastic bags quality	3,333	0,758	3,433	0,858	-0,100	-0,478
Variations of screen printing design	3,033	0,765	3,267	0,640	-0,233	-1,282
Packaging quality	3,367	0,615	3,533	0,507	-0,167	-1,145
Return policy if defect were found	3,133	0,346	3,400	0,507	-0,267	-2,379 *
Price adequacy in relate to plastic bags quality	3,167	0,507	3,300	0,615	-0,133	-0,916
Competitiveness of price offered	3,300	0,681	3,367	0,305	-0,067	-0,489
Price discount quantity	3,633	0,490	3,167	0,699	0,467	2,994
Final product quality as advertised	3,367	0,615	3,200	0,761	0,167	0,933
Easiness to access for ordering	3,467	0,507	3,400	0,507	0,067	0,509
Quality of transportation facility to reach marketing office	3,233	0,430	3,867	0,346	-0,633	-6,265 *
Address transparancy	3,500	0,630	3,333	0,711	0,167	0,961
Hospitality of salesmen	3,533	0,498	3,600	0,498	-0,067	-0,518
Quality of the appearance of salesmen	3,267	0,702	3,367	0,615	-0,100	-0,587
Salesmen responsiveness	3,267	0,606	3,567	0,504	-0,300	-2,084 *
Salesmen promptlyness	3,467	0,571	3,633	0,490	-0,167	-1,213
Quality of vehicle used for delivering product	3,233	0,679	3,533	0,507	-0,300	-1,939 *
Quality of vehicle used for marketing	3,433	0,568	3,267	0,758	0,167	0,963
Salesmen readiness in responding to customer needs	3,533	0,498	3,533	0,507	0,000	0
Lead time in price negotiation	3,233	0,430	3,500	0,509	-0,267	-2,193 *
Lead time in determining plastic bags material	3,800	0,407	3,500	0,626	0,300	2,201
Lead time in producing first sample	2,967	0,556	3,133	0,803	-0,167	-0,935
Lead time between first sample accepted to final product	3,133	0,507	3,400	0,724	-0,267	-1,652 *
Quality of communications between company and customer	3,133	0,450	3,300	0,651	-0,167	-1,153

*)t table -1,645. sig t test < t table

The questionnaires were designed to measure the customers' perception and expectation. The operational variables were developed from marketing mix using 7 Ps as variables (Product, Price, Place, Promotions, People, Process, and Physical Evidence)[8].

The scale used in the questionnaires were using 4-point Likert's scale which were "very high performance/ importance" (4), "good performance/importance" (3), "bad performance/unimportance" (2) and "Worst performance/ lowest importance"[9].The data were analyzed using Importance Performance Analysis and inferential statistics using hypotheses testing (t test). The t test were used to see whether the performance of the company's marketing mix strategy were percept as lower (customer not satisfied) or higher (customer satisfied) in comparison on customer expectation.Many studies were critical upon the conceptual of IPA. They have tried to combine or extend the original IPA method [1]. Some were tried to see the transformation function corresponding to IPA and gap analysis[4].

This study tried to see connection of inferential statistics result with IPA result to give a richer insight for the sake of analysis.

III. RESULTS

Reliability test using SPSS resulted that all data were very reliable with Conbrach's alpha value 0.945. Hypothesis testing for gap analysis results showed that there were 7 attributes / questions which consumer found were below expectation (not satisfying) as shown in Table 1. Those attribute were (written in order from the biggest gap score to the lowest): quality of transportation facility to reach marketing office, screen printing quality were the same as ordered, return policy if defect were found, salesmen responsiveness, lead time in price negation, quality of vehicle used for delivering final product, and lead time from sample accepted to final product (lead time production). Result from Importance-Performance Analysis showed that there were 5 attributes / questions which need to be attended as shown in quadrant A. Concentrate here in Figure 2. Those attributes were (in order of t test score): Quality of transportation facility to reach marketing office, Screen printing quality were the same as ordered, Salesmen responsiveness, Lead time in price negation, and Quality of vehicle used for delivering final product.If we compare the results from both methods, we could find that they were similar. However, it's interesting to note that there were 2 attributes/questions which were not satisfying but located in quadrant C. Low Priority.We could conclude that although IPA showed as low priority, but the attributes were considered as not satisfying by customers, hence the company could not simply neglect the attributes. Therefore we can grouped the two attributes as need to be improved but as low priority

IV.DISCUSSION

Hypotheses testing and Importance-Performance Analysis showed similar results except for 2 attributes/questions, those two attributes were shown in quadrant C as low priority. The two attributes were: Return policy if defect were found and Lead time from sample accepted to final product (lead time production).

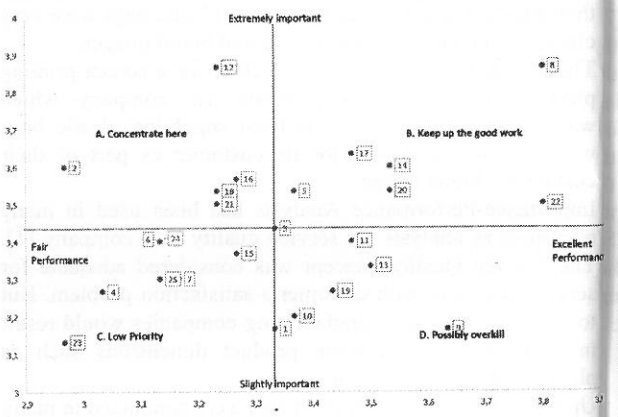

Figure 2. Importance-Performance Analysis

The results of this study however showed that both hypotheses testing for gap analysis and Importance-

Performance Analysis could showed similar results, which in accordance from Dewi et al. study [5].

The results of the study showed how customer satisfaction from hypotheses testing of gap analysis were determined by the quality of service and also sales attributes in which the company had offered. The only attributes related to production were quality final product. This finding were in accordance in studies in service industries which customers were more concern in empathy and responsiveness of the service [5][6][7][8].

V. CONCLUSION

This study showed that the marketing mix model can be used to measure the customers' satisfaction analysis using hypotheses testing which showed similar results if we use Importance-Performance Analysis. The combination of the methods used in mapping the attributes can be proposed to deepen the analysis

VI.ACKNOWLEDGEMENT

The author wish to show his appreciation and gratefulness to Martyn Suharsono for his patience and diligence in helping collecting and analyzing data.

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