Market Segmentation Evaluation by WPM Method

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Abstract. Market segmentation Assessment and Selection is an important marketing strategy for all companies. This paper presents a new approach called Analysis Hierarchy (FAHP). It integrates the process and provides a method of the market segmentation Assessment and selection. It is proposing the market used. The application of and set theory that combines linguistic decision-making processes for fuzzy words allows this research to be used as a model to the market segmentation testing and the future research. A case study illustrates the effectiveness of a proposed chair manufacturing company. The weighted manufacturing method (WPM) and TOPSIS are used as test materials are taken and Taguchi's tests are performed sequentially on a standard orthogonal CNC lathe. Cutting parameters and mean the removal rate (MRR) and surface roughness are multiples of the weighted production methods (WPM) are considered as answers. From the TOPSIS results, responses to be ninth alternative; the optimal combination of multiple responses was the seventh alternative, Analysis of Variance (ANOVA). Multiple responses were interpolated to determine effect using MINITAB statistical software parameters. WPM and relative correlation coefficient from the ANOVA results, feed rate has a greater effect on WPM. In the present study, different MCTM methods were used to optimize multiple responses. The weighted sum method (WPM) is a common form of the earliest and most common MCDM method. To overcome the problems related to WPM, the weighted product method (WPM) is proposed. Evaluation Preference: Degree of concentration, Specific Categories Competitor, Contribution Margins, Manufacturing Process Technology Demand, Annual Growth Rate, Leveraging factors, Laws and government agency regulations, Complexity. Alternative: Segmentation factors, competition, technological factors, socio-political factors, financial and economic factors. From the result it is seen that Financial and economic factors are in first rank whereas is the Competition is in lowest rank.As a result, Financial and economic factors are in first rank is ranked first, while Competition is ranked lowest.
Keywords: Contribution margins, manufacturing process technology, MCDM

1. Introduction

Market segmentation Evaluation and selection is important issues organization. While most the related literature has focused on the evaluation of these aspects, few studies have evaluated Segment attractiveness and market segment selection. Most identified processes apply to the final stage of market segmentation. Further, product, divisional size, profit/yield, promotion mix and dual costs like distribution, marketing, industry etc. have many significant limitations. In general, the efforts of experts focus differently on the evaluation of segmentation methods and techniques. This model of competitive evaluations is developmental, analyzing the trade-offs between these criteria. This process integrates mathematical methods and management the wisdom of designing a total marketing plan. Nowadays, many decision criteria are used to analyze complex real-world problems because they represent the best or most appropriate alternative; their inherent ability is Because of their ability evaluate Different alternatives based different criteria. In the present study, different MCTM methods were used to optimize multiple responses. The weighted sum method (WPM) is a variant of MCDM and it WSM can be used effortlessly. This is when the difficulty of the method emerges using dimensional MCTM problems. Weighted Production Method (WPM) avoids this problem. It is very similar to WPM, but as opposed to a key, the model involves multiplication instead of addition. WPM can be used for both one-dimensional and multidimensional MCDM problems.

2. Market Segment Evaluation

After market segmentation, each company evaluates and selects a target market or markets; these are key elements to improve Probability of success in a competitive market. Choosing right market segment based on segmentation assessment is complex and time consuming for organizations decision-making process requires consideration of various criteria. Hence the fact that market segmentation based on assessment and selection multiple criteria (MCTM) can be considered problematic. Therefore, the main its purpose is study There is a proposal methodology Market, segment assessment and selection.Market segmentation important issues every organization. Most of related literature focuses on core features and segment attractiveness and market segmentation. This test focuses on assessment. Very few studies have been conducted. Most of the identified decision-making processes Applies to the end stage of the market segmentation Assessment and selection.In evaluating different market segments, companies focus on three factors: segment size and growth, segment structural attractiveness, and organization goals and resources. Companies provide Current segment sales, growth rates expected profits. In evaluating different market segments, companies' three factors be considered: segment size and growth, segmentation organizational the organization's Goals and Resources. First, market is relevant, whether consumers are present

or not, and they collect and analyze data with a view to formulating and guiding competitive strategies. It involves identifying, Evaluating and selecting similar groups of individuals.

3. Weighted product method (WPM)

In The present work, Weighted Production Method (WPM) and TOPSIS are used to calculate multiple response MCDM methods are used. Work pieces were taken for testing and Taguchi's standard tests were performed on a CNC lathe in an orthogonal array. Cutting parameters of speed, feed and depth of cut considered test Insertions and Removal Rate (MRR) and Surface Roughness (Ra) from weighted product method (WPM) were considered as answers. The optimal combination of responses was found as alternatives.Decision-making methods are important as viable Tool for analyzing complex real problems because they are for the Best possible choice or most a suitable alternative, which is innate ability evaluate Different alternatives on different criteria. In the present study, different MCTM methods were used to optimize multiple Answers. Weighted production method (WPM) it is the earliest and most commonly used method. To do deal with related issues WPM, the Weighted Production Method (WPM) is proposed.It has analyzed the problem of making the new system more efficient than the existing decision-making problem, which is expected to tackle the decision-making problem by market segmentation evaluation and selection according to predetermined criteria. This can be facilitated by using a decision support system method, one of which is Weighted Product Model (WPM) method. Application of A weighted amount sampling method is very simple method with few steps that can provide segmentation evaluation and selection results. Implementation of a Decision Support System the WPM system is a selection tool in decision making to determine the appropriate special allocation funding recipient with market segmentation evaluation and multiple support criteria.

The difficulty of this method becomes clear when applied to multidimensional MCTM problems. In one- Dimensional cases, if all units are the same, WPM Can is used without difficulty. Weighing production system was developed to avoid this problem. It is very similar WPM that is the main difference the model involves multiplication instead of addition. WPM can be used for both one-dimensional and multidimensional MCDM problems. This has the advantage of using relative instead of actual values.When ranking alternatives in a multiple criteria decision making (MCTM) context, for the decision maker, the relative the it. There are several methods to calculate weight; commonly used estimation method and entropy method Weighted Manufacturing Process (WPM) as well WPM. The main difference is that WPM is multiplicative rather than additive. An overall performance score is calculated here, resulting in matrix normalized values and response weights. Best alternative to get more value. Calculated values are given

TABLE 1. Alternative parameters

A1	Segment factors
A2	Competition
A3	Technological factors
A4	Socio-political factors
A5	Financial and economic factors

TABLE2. Evaluation parametersCriteria for segmental attractiveness

C1	Degree of concentration
C2	Types of competitor
C3	Contribution margins
C4	Manufacturing process technology required
C5	Growth rate per year
C6	Leveraging factors
C7	Laws and government agency regulations
C8	Complexity

TABLE 3. given a data set

Alternatives	C1	C2	C3	C4	C5	C6	C7	C8
A1	56.29	57.20	62.78	68.56	71.89	64.36	25.30	35.63
A2	74.62	43.55	54.36	55.98	66.58	59.12	11.36	22.77
A3	55.00	68.47	87.14	68.37	57.96	68.32	33.54	37.24
A4	57.62	58.69	54.21	75.52	59.20	75.29	41.20	29.58
A5	66.23	70.89	63.23	56.19	73.97	78.41	30.56	15.39

Table.3 shows the Materials selection data set Evaluation Preference: Degree of concentration, Specific Types of competitor, Contribution margins, manufacturing process technology required, Growth rate per year, Leveraging factors,

Laws and government agency regulations, Complexity. Alternative:Segment factors, Competition, Technological factors, Socio-political factors, Financial and economic factors.

TABLE 4. Performance value

Performance value							
0.75436	0.80688	0.72045	0.90784	0.97188	0.97188	0.91858	0.43194
1.00000	0.61433	0.62382	0.74126	0.90009	0.90009	1.00000	0.67589
0.73707	0.96586	1.00000	0.90532	0.78356	0.78356	0.86534	0.41327
0.77218	0.82790	0.62210	1.00000	0.80032	0.80032	0.78523	0.52028
0.88756	1.00000	0.72561	0.74404	1.00000	1.00000	0.75399	1.00000

Table.4 shows the performance value for Materials selection. Alternative: Segment factors, Competition, Technological factors, Socio-political factors, Financial and economic factors. Evaluation Preference:Degree of concentration, Specific Types of competitor, Contribution margins, manufacturing process technology required, Growth rate per year, Leveraging factors, Laws and government agency regulations, Complexity.

TABLE 5. Weight

Weight							
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25
0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25

Table.5shows the Weight ages used for the analysis. We have taken same weights for all the parameters for the analysis**.**

TABLE 6. Weighted normalized decision matrix

Weighted normalized decision matrix							
0.93195	0.94777	0.92130	0.97612	0.99289	0.99289	0.97899	0.81069
1.00000	0.88532	0.88872	0.92788	0.97403	0.97403	1.00000	0.90671
0.92657	0.99135	1.00000	0.97544	0.94085	0.94085	0.96449	0.80178
0.93741	0.95388	0.88811	1.00000	0.94584	0.94584	0.94135	0.84930
0.97062	1.00000	0.92295	0.92875	1.00000	1.00000	0.93184	1.00000

Table. 6 show the Weighted Normalized Decision Matrix. Alternative: Segment factors, Competition, Technological factors, Socio-political factors, Financial and economic factors. Evaluation Preference:Degree of concentration, Specific Types of competitor, Contribution margins, manufacturing process technology required, Growth rate per year, Leveraging factors, Laws and government agency regulations, Complexity.

TABLE7. Preference Score

Preference Score	
A1	0.62150
A2	0.62802
A3	0.61333
A4	0.56798
A5	0.77529

Table**.7** shows the Preference Score ValueSegment factors=0.62150, Competition= 0.62802, Technological factors= 0.61333, Socio-political factors= 0.56798, Financial and economic factors= 0.77529.

TABLE 8. Ranks

Segment factors	3
Competition	2
Technological factors	4
Socio-political factors	5
Financial and economic factors	1

Table.8shows the final result of this paper the Segment factors is in Third rank, theCompetition is in Second rank, theTechnological factors is in Fourth rank, theSocio-political factors is in Fifth rank and theFinancial and economic factors is in first rank.

4. Conclusion

Market segmentation Assessment and Selection is an important Marketing strategy for all companies. This paper describes a step-by-step (FAHP) process and presents a new approach fuzzy analysis of Market segmentation evaluation and selection. A fuzzy set theory application to incorporate this research examines at the end vague and imprecise linguistic terminology -making process examine market segmentation and serves as a model for future studies of a chair presented explain effectiveness is proposed method. Weighted Production method (WPM) and TOPSIS are used for computational analysis of responses, which are experimental and Taguchi's standard orthogonal tests are continuously performed on CNC lathe. In the present study, various MCTM methods multi-response Optimization weighted product method (WPM) Early and very common form of MCDM method. A weighted product method (WPM) is proposed to overcome the problems related to WPM tests Material removal rate (MRR) was taken and surface roughness was considered as inputs and responses. The optimal combination for multiple responses from the weighted product method (WPM) was found in the ninth alternative. Evaluation Preference: Degree of concentration, Specific Categories Competitor, Contribution Margins, Manufacturing Process Technology Demand, Annual Growth Rate, Leveraging factors, Laws and government agency regulations, Complexity. Alternative:Segmentation factors, competition, technological factors, socio-political factors, financial and economic factors. Financial and economic factors are in first rank. Competition is in lowest rank,

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