SEGMENTATION BASED MARKET RESEARCH ANALYSIS OF MEASURING INSTRUMENTS

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ABSTRACT: *Segmentation based market research makes the marketer to simplify the marketing research problem, to identify the requirement of the products in market and the difference in requirement based on various factors. It makes the organizations easier to predict the market needs, and to make profit. Different types of machine learning and artificial intelligence approaches are used nowadays for the market segmentation. There are different methods available to segment the market and based on different factors. Some basic level of segmentation makes the market to divide into four segments, and there are further developments in the standard types in market segments into more number of types. In this journal, market segmentation of measuring instruments is presented with four basic types of segments namely, location, price, product and the type of customer. The results obtained are evaluated and presented in the graphical format. Suggestions were given based on the results to improve the sales performance.*

KEYWORDS: *Market Segmentation, Measuring Instruments Market Segment, Market Segment Research, Market Analysis.*

1. INTRODUCTION:

Market segmentation helps the industries to identify different group of people and to target them. This will make the process of marketing easier compared to approaching all people with similar pattern of marketing. The market segmentation identifies the potential customers and their buying behaviour. Large group of Industries with variety of products, say for example, some manufacturer manufactures different types of household items, it makes them easier to understand the interest of different group of people on different products depends on different segments, some products on need by usage, some products because of customer interest, some products because of brand attraction, some products could be based on age or gender, some products could be based on income group, some depends on location, and many similar approaches. In this research process, sale of measuring instruments is used.

Market research have a good history of developments from the ancient days. During the period of 1930's, the monopoly products started finding alternative options. Robinson and Chamberlin developed a new economic theory. This theory started developing the concept of dividing the products based on homogeneity. The term market research came into existence when it was first used by Wendell R. Smith in 1956. He categorised the products based on five options, 1. Variations in the production method, 2. Special kind of resources for manufacturers, 3. Competition in design & development and improvements, 4. Incapable manufacturers, and 5. Depends on price, colour, etc. factors.

In 1964, the market segment is refined further by Daniel Yankelovich and David Meer. They divided the market based on traditional demographic phenomenon, such as age and education, Non-demographic phenomenon such as values, tastes and preferences and segmenting based on the product or category.

Segmentation of market is a procedure followed in market research for diving the market and identify the sales requirement. There are different factors used for dividing the market segments. There are some most commonly used pattern of market segmentation, and segregated the market segments into demographic, geographic, psychographic and behavioral approach for customer segmentation (Zimon, Dominik, et.al., 2020). And there are continuous developments in the market segmentation process. More number of segments and classifications were developed, and a systematic approach of segmentation, targeting and positioning were also being developed. In some kind of recent classifications there are some additional factors were also included. They are intent, firmographic, persona, technographic, and journey stage segmentation.

Segmenting the market into different factors makes several advantages and streamlining the sales into certain categories and eases the research process.

There are different methods used for segmenting the market and doing the analysis. Different types of tools were developed to analyse and improve the sales. In this Journal an attempt has been made to categorize the market based on four important segments, location, price, product and the type of customer for measuring instruments. This kind of approach typically helps marketers to improve the marketing strategy to improve the sales performance.

To carry out this study a research question is framed. Answering this research question will help to complete the research process.

What is the percentage of people segmented based on the different criteria, location, price, product and customer type and how this segmentation is useful for sales performance?

The number of people segmented based on each group will help to understand the customer need and their intention. Which will help to identify the exact customer who have plan to purchase the product and plan accordingly, to increase the profit. This kind of approach reduces the risk in change of sales volume. This type of approach also makes the user easy to handle large amount of data with more number of parameters to evaluate when the manual procedure becomes a tough task.

2. LITERATURE REVIEW:

The market segmentation and positioning are very important. Many companies are trying to adopt a strategy of target marketing because different people have difference preferences. This approach helps to segregate the market into different segments to attract the customers (Camilleri, M. A., 2018). The author explains the three important topics namely, target marketing, segmentation of the market and its positioning. He defines five segments of market, (i) Demographic; (ii) Geographic (iii) Psychographic; (iv) Behavioural and / or (v) Product-Related Factors. And then he defined the important characteristics of marketing are said to be a. Measurability; b. Substantiality; c. Accessibility; d. Actionability.

In 2023, Malti Kumari explains it is not so easy to satisfy all the customers. Market segmentation helps to satisfy more number of customers. Segmenting the market makes the task easy. It differs based on different criteria such as age, sex, income, etc. Division of market into segments and targeting the most profitable customers is the important approach of Market segmentation. She segregates it in to three main stages, segmentation, target and position. Author segments the market into four different categories, geographic, psychographic, demographic and behavioral segmentation. And explains the advantages are, helpful to identify the opportunities in market, to understand the need of the customers, improve its efficiency, increase of volume in sales and to evaluate the competition. It explains the advantages and profitable situation because of using the process of market segmentation. Xuan Zhao (2020) explains the segmentation of the market for consumer product industry. In his research the author uses Decision Tree to explain the advantages of the market segmentation and how it is getting distributed and it show the flow of different stages in purchase. He also explains the K-means clustering method for using the market segmentation, with that, different similarities can be grouped as clusters. Say for example in a market with 4000 customers, they were

segmented into 11 type of clusters. Hence there are many advantages in using data science and machine learning for market segmentation.

Sara Dolnicar, et.al. (2018) proposes a ten stepped marketing process using market segment. Natural type of segmentation, reproductive type and constructive are the segmentation newly introduced by the authors. It suggests the importance of creating artificial segmentation process to make it more useful and efficient.

When we analyze the benefits of the market segmentation. We observed an expected amount of benefits (Franco Berbeglia et.al., 2020). Also it shows the segmentation of market is always makes benefits from the influence of social phenomenon.

3. RESEARCH METHODOLOGY

The data collected from the research source is being tabulated, evaluated and analysed. The results obtained in the study is given in the upcoming section. The research uses different types of charts and calculations for plotting the details.

3.1 Sample Size

A total of 58 purchased samples with 92 units of measuring instruments were used in this research process. Some of the items were purchased with more than one quantity, and so the number of sales is 58 and the units is 92.

3.2 Sampling Method

Simple Random Sampling Method is used for performing this research. The samples are collected randomly from the sales of measuring instruments for a period of six months.

4. RESULTS AND DISCUSSION

This study involves in segregating the customers under four different segments to evaluate the sales process and to improve the efficiency in sales.

The four segments used are,

4.1 Market Segmentation Based on Location

4.2 Market Segmentation Based on Price

4.3 Market Segmentation Based on Product

4.4 Market Segmentation Based on Type of Customer

4.1 Market Segmentation Based on Location:

From the values obtained, it is observed that among the total 58 units of items sold, maximum sales from Tamilnadu with 9 units (16%), second highest with 7 units from Karnataka and Maharashtra (12%), and the third highest from Haryana and Uttar Pradesh with 5 units each (9%).
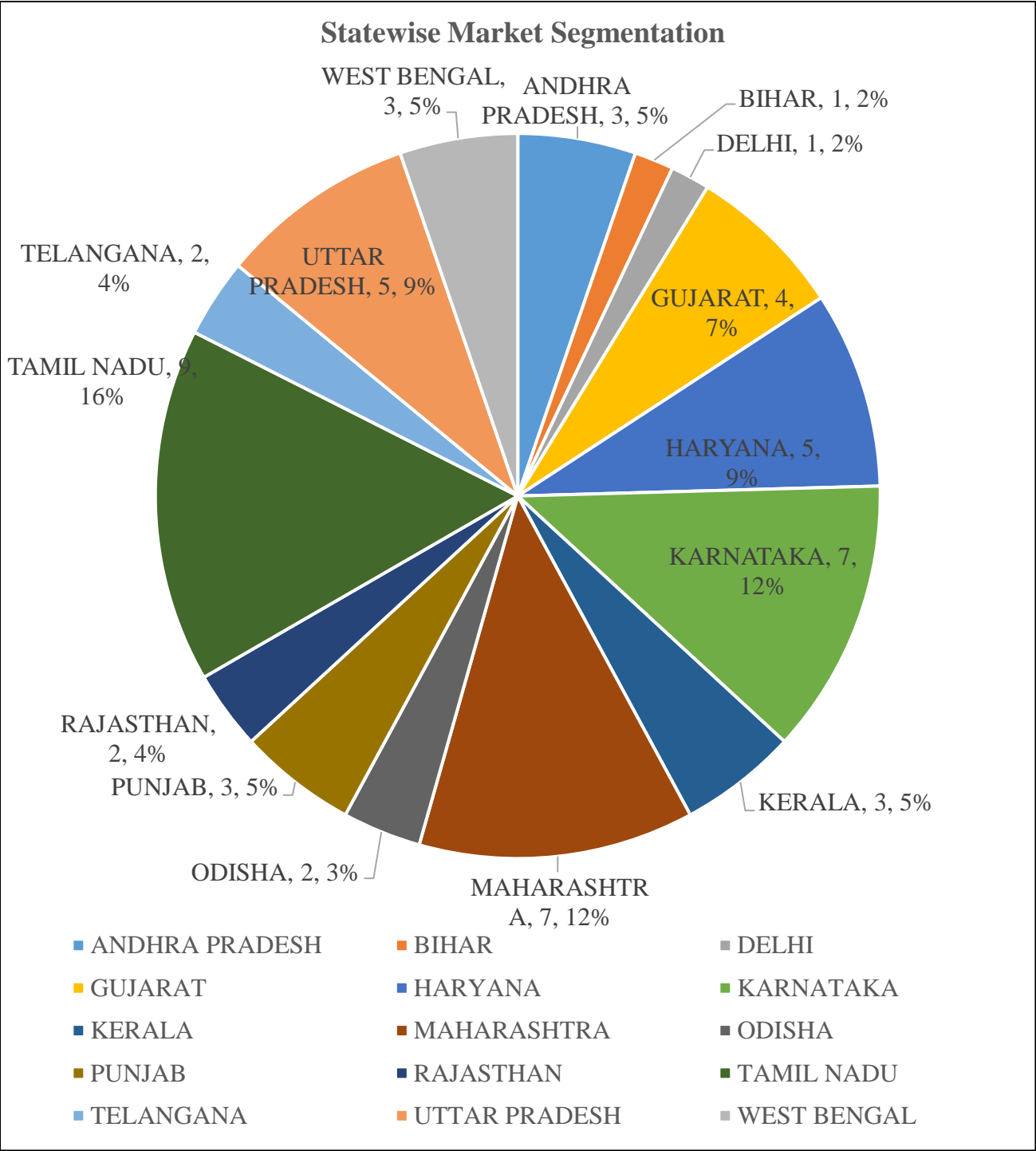

Fig.1. Market Segmentation based on Location.

4.2 Market Segmentation Based on Price:

From the values obtained, it is observed that among the total 58 units of items sold, maximum sales from 0-500 Rupees range with 26 units (45%), second highest with 20 units from 500-1000 Rupees range (34%), and the third highest from 1000 - 2000 Rupees with 5 units (9%).
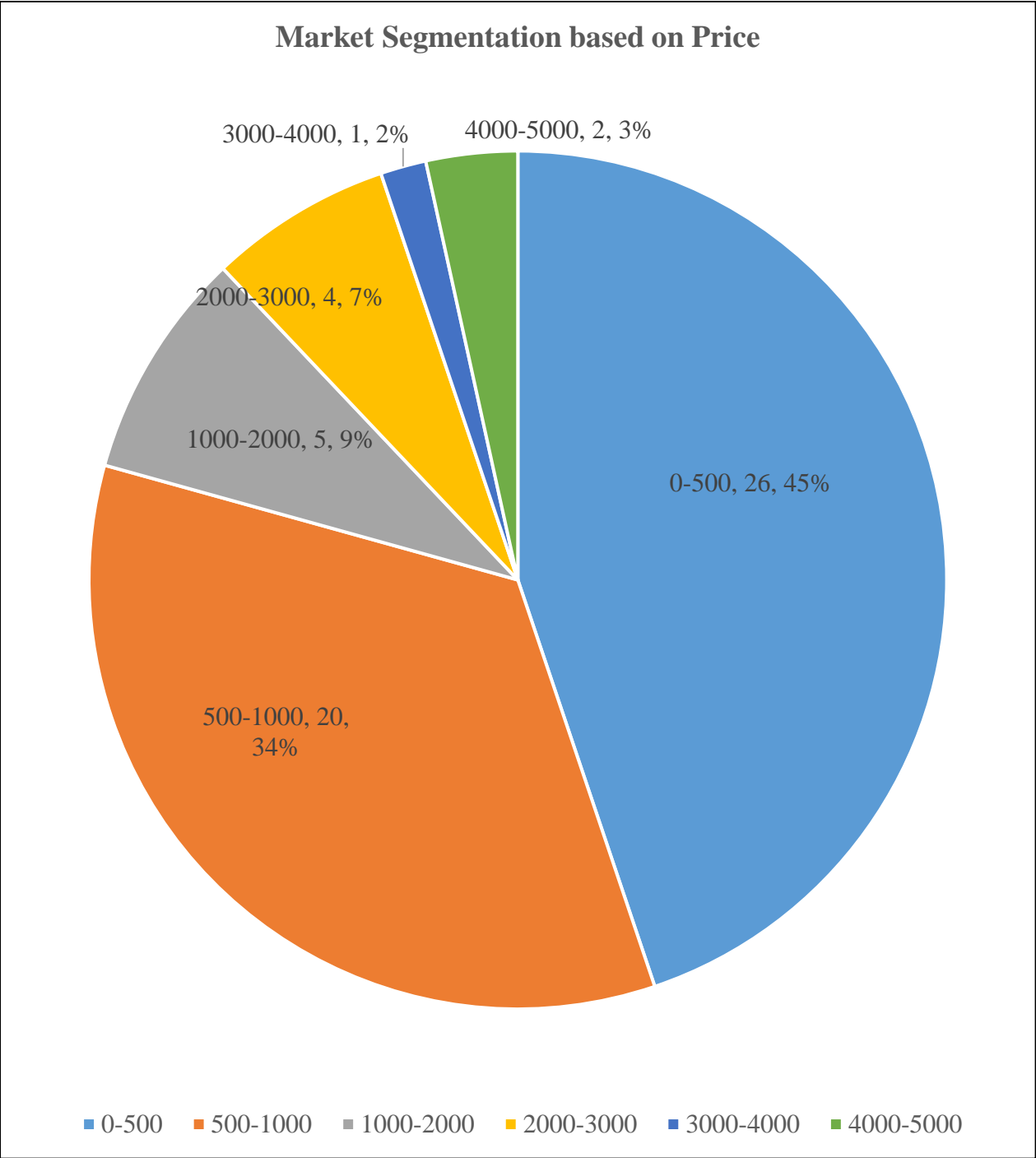

Fig.2. Market Segmentation based on Price.

4.3 Market Segmentation Based on Product:

From the values obtained, it is observed that among the total 92 (58 Sales) individual items sold, 300mm Steel Scale remains the maximum with 20 units (21.74%), second highest is Wire Gauge Round with 17 units (18.48%), third highest from Rectangular Wire Gauge with 14 units each (15.22%).
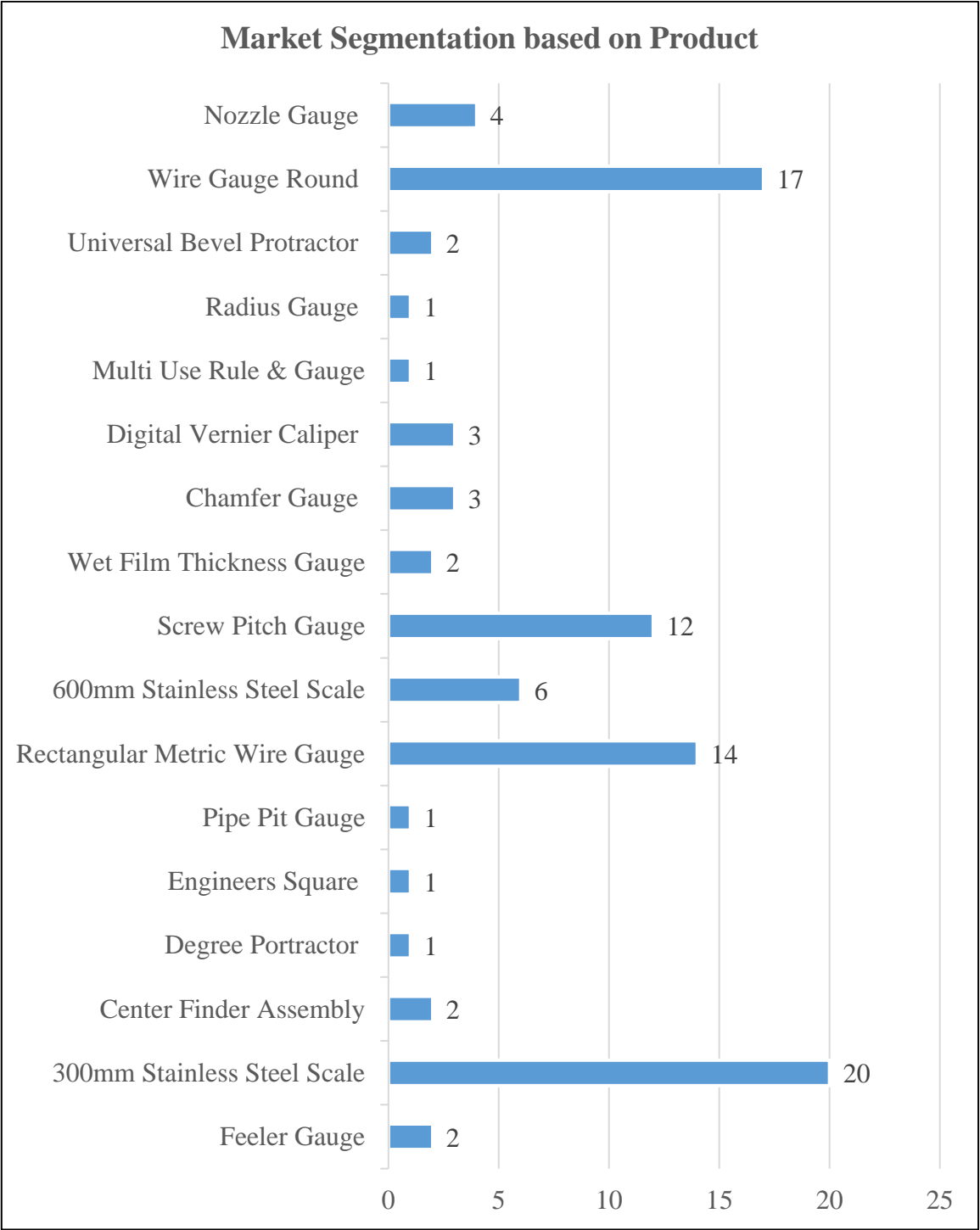

Fig.3. Market Segmentation based on Product.

4.4 Market Segmentation Based on Type of Customer:

From the values obtained, it is observed that among the total 58 Sales, 79% is from Business to Business with a total number of sales with 46 and 21% is from Business to Customer with a total number of sales with 12.
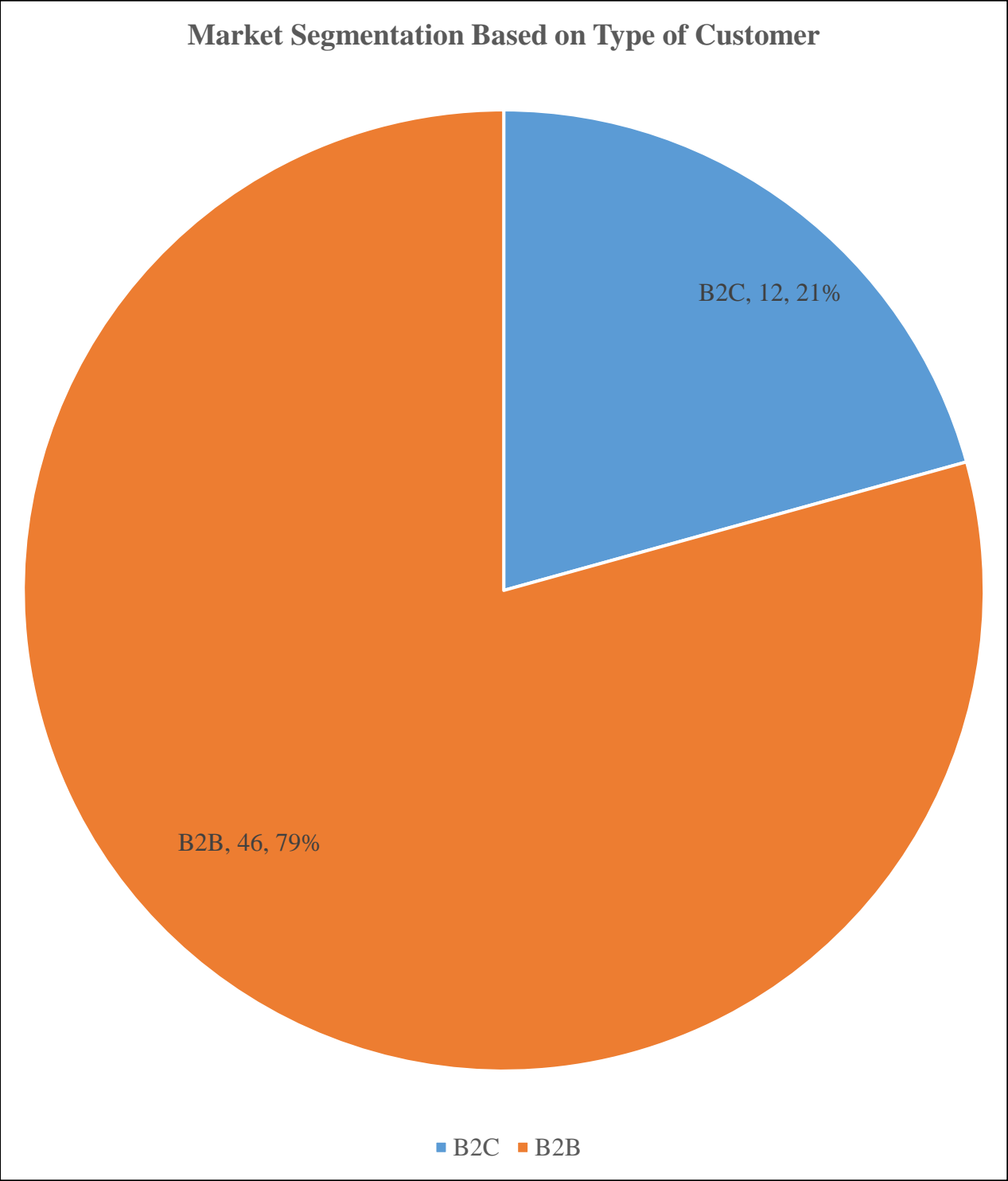

Fig.3. Market Segmentation based on Type of Customer

5. CONCLUSION:

The results obtained and evaluation of results concludes that, maximum number of sales in from Tamilnadu with 9 units (16%), price range from 0-500 Rupees with 26 units (45%), 300 mm Steel Scale with maximum 20 units (21.74%) and maximum in Business to Business customer with a sale of 79% with 46 units. This market segments are representing the amount of sales percentage which is useful for the market evaluation to improve the profit. The suggestions were given based on the results obtained to give importance to the market segment that have more percentage which will make more profit. Hence it predicts the market and helps to stabilize the sales using market segments. This research thus proves the segmentation of market gives a meaningful differentiation of products based on various factors and to improve the performance of the sales.

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