AN INTELLIGENT SALE PREDICTION CLASSIFICATION OF JUTE PRODUCTS USING DECISION TREE CLUSTERING & STATISTICAL MODEL

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ABSTRACT

Jute products come in a very stylish and have different variants available in the market. It is measured one of the best long-lasting substances for belongings. The present study has been carried out the Consumer preference towards Jute Products in Coimbatore district. To predict or estimate the standard error of the mean (MSE) = the sum of the difference and the square bias. Thus, if the aggregation bias is negligible relative to the small relative magnitude, the aggregation results in a lower MSE for the lead using the Decision Trees algorithm with Binary classification. In addition, because there are many units, the subunits can be combined with one scene with a lower MSE. In this case, clustering is essential for transfer to MSE. Once the lists are organized, you can specify a general format for each category for that purpose Garrett ranking method has been applied, to find the respondent’s preference levels towards jute products with the attention of various preference factors in the area of Coimbatore District.

Keywords: Decision Trees Classification, Binary classification, sales prediction, Jute products, Consumer preference, and Intelligent

I. INTRODUCTION

Jute is a natural fiber and is the world's second most used fiber after cotton. In India jute industry is an essential portion of the Fabric Industry. India is renowned as the main producer of raw jute and the largest producer of jute things. There is fabulous capacity within people here to manufacturing the broadest range of products, tailored to consumers’ demands. The country's current and world class research & development conveniences in the area of jute agriculture, product growing & equipment design are used for emerging high quality jute products matching the worldwide standards. Use of jute is now increasing. Jute is used in the production of a number of fabrics, such as sacking, Hessian cloth, carpet backing cloth (CBC), scrim, and canvas. Hessian, brighter than sacking, is used for wrappers, wall-coverings, bags, home furnishings and upholstery.

It can be used in curtains, furniture, dashboards, upholstery, chair coverings and side boards in cars. Jute carpets have been in trend for a long period. Jute is used mainly to make material for covering bundles of raw cotton, to make sacks and coarse material [1-20].

The main focus of the present study was to analyze the factors influencing Consumer Preference towards Jute Products in Coimbatore District.

II. REVIEW OF LITERATURE

Preeti Pillai and Dr. S.O. Junare (2016) in their study find that eco-friendly products are not properly promoted. AparajitaDasgupta (2020) in his study find that the price of the Jute products is high it can be reduced which would fascinate the new customers. Prateek Sharma and Amber Tiwari (2016) in his study indications that Indian jute carry bag marketplace is rising globally at fast pace and have many opportunities. M.K. Durgamani, K. Abirami and Dr.M. Ganesan (2018) in their study green products may be promoted among all the sets of the people regardless of age, in specific appropriate measure can be taken to fascinate the middle and senior age citizen.
Shuba, N (2019) in her study found that many persons are not aware of the green products. Most of the customers are not eager to pay more for green products.

**Objectives of the Study:** To know the consumers preference towards the Jute Products in Coimbatore District.

**III. RESEARCH METHODOLOGY**

**Nature of Study:** An explanatory study with survey research.

**Sample Design:** Convenient sampling method was used in this research. 600 respondents have been selected in Coimbatore District for this research.

**Data Collection:** The primary data was collected through the questionnaire with the consumers of jute products. Secondary data was collected through various reports from, journals, websites, magazines etc.

The researcher used Garrett Ranking method to analyze and to interpret data [10].

Different techniques are used to analyze the time series: ARIMA model, Box-Jenkins multi-year model, Holt winter exponential irrigation (single, double and triple). The term ARIMA stands for automatic regression integrated mean motion, where AR refers to the automatic regression of different series heights, MA refers to the moving average (MA) of the failure heights, and I am the sum of the difference used to calculate the car. create time series.

**Table 1: Analysis using Garrett Ranking Method**

<table>
<thead>
<tr>
<th>Garrett Table score</th>
<th>80</th>
<th>68</th>
<th>60</th>
<th>54</th>
<th>47</th>
<th>41</th>
<th>33</th>
<th>21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>Natural fiber product</td>
<td>57</td>
<td>94</td>
<td>134</td>
<td>77</td>
<td>96</td>
<td>46</td>
<td>37</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>4560</td>
<td>639</td>
<td>804</td>
<td>415</td>
<td>451</td>
<td>188</td>
<td>122</td>
<td>123</td>
</tr>
<tr>
<td>Availability of product</td>
<td>29</td>
<td>44</td>
<td>63</td>
<td>98</td>
<td>131</td>
<td>125</td>
<td>61</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>2320</td>
<td>299</td>
<td>378</td>
<td>529</td>
<td>615</td>
<td>512</td>
<td>201</td>
<td>102</td>
</tr>
<tr>
<td>Attractive design</td>
<td>27</td>
<td>36</td>
<td>57</td>
<td>61</td>
<td>56</td>
<td>86</td>
<td>159</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>2160</td>
<td>244</td>
<td>342</td>
<td>329</td>
<td>263</td>
<td>352</td>
<td>524</td>
<td>247</td>
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<tr>
<td>Price</td>
<td>20</td>
<td>9</td>
<td>33</td>
<td>61</td>
<td>96</td>
<td>82</td>
<td>139</td>
<td>160</td>
</tr>
<tr>
<td></td>
<td>1600</td>
<td>612</td>
<td>198</td>
<td>329</td>
<td>451</td>
<td>336</td>
<td>458</td>
<td>336</td>
</tr>
<tr>
<td>Quality and durable usage</td>
<td>152</td>
<td>103</td>
<td>85</td>
<td>74</td>
<td>53</td>
<td>63</td>
<td>30</td>
<td>40</td>
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<tr>
<td></td>
<td>1216</td>
<td>700</td>
<td>510</td>
<td>399</td>
<td>249</td>
<td>258</td>
<td>990</td>
<td>840</td>
</tr>
<tr>
<td>Easy maintenance</td>
<td>41</td>
<td>111</td>
<td>96</td>
<td>83</td>
<td>65</td>
<td>84</td>
<td>59</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>3280</td>
<td>754</td>
<td>576</td>
<td>448</td>
<td>305</td>
<td>344</td>
<td>194</td>
<td>128</td>
</tr>
<tr>
<td>Long life</td>
<td>147</td>
<td>129</td>
<td>80</td>
<td>50</td>
<td>57</td>
<td>44</td>
<td>54</td>
<td>39</td>
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<tr>
<td></td>
<td>1176</td>
<td>877</td>
<td>480</td>
<td>270</td>
<td>267</td>
<td>180</td>
<td>178</td>
<td>819</td>
</tr>
<tr>
<td>Safety of the environment</td>
<td>127</td>
<td>74</td>
<td>52</td>
<td>96</td>
<td>46</td>
<td>70</td>
<td>61</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>1016</td>
<td>503</td>
<td>312</td>
<td>518</td>
<td>216</td>
<td>287</td>
<td>201</td>
<td>155</td>
</tr>
<tr>
<td>Total no of Respondents</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
<td>600</td>
</tr>
</tbody>
</table>
It is seen from the above Table that according to the Garrett ranking test, the respondents preference level of Jute Products are in this order namely Quality and durable usage, Long life, Safety of the environment, Natural fiber product, Easy maintenance, Availability of product, Attractive design and Price of the product [8].

The Jet Market Report is a comprehensive study of how the Julie Market is changing the chemical and liquid industries. This report covers the appearance, definition, evaluation, implementation, market trends and methods used by major companies in the 2020-2028 forecast for CAGR. It contains systematic information companies and brands. The Jet Market Report is a comprehensive study of how the Julie Market is changing the chemical and liquid industries. This report covers the appearance, definition, evaluation, implementation, market trends and methods used by major companies in the 2020-2028 forecast for CAGR. It contains systematic information companies and brands. The report also covers the latest developments, product launches, joint ventures, mergers and acquisitions. Through SWOT analysis, we provide a better understanding of market dynamics and barriers. The report also covers the latest developments, product launches, joint ventures, mergers and acquisitions. Through SWOT analysis, we provide a better understanding of market dynamics and barriers [22]–[33].

Suggestions

- Price of the Jute products is high it can be reduced which would attract the new customers.
- Jute products manufacturing companies introduce new designs Bags, curtains, furniture, and dashboards.
- The Jute products may be popularized appropriate measure can be taken to fascinate the middle and senior age citizen.
- Availability of Jute Products is semi urban and rural areas is very less, promoters have to fulfill the expectancy of the defendants for buying of Jute products.

IV. REGIONAL ANALYSIS

The research report includes a far-reaching study of the clearly regulated market for jute products within the regions [5]. The report looks at people working in the local market from more than 20 countries and working in specific markets, and determines the results in an objective market[34][35]. Covering a wide area all over the world, such as the Middle East, Africa (GCC countries and Egypt), North America (USA, Mexico, Canada), South America (Brazil etc.), Europe (Turkey and Germany), Russia, UK, Italy, France, etc.), Asia Pacific (Vietnam, China, Malaysia, Japan, Philippines, Korea, Thailand, India, Indonesia and Australia).

Figure 1. Net import of RAW juice

In Figure 1 show the marketing information system (MIS). Consumer-led information systems allow governments (international organizations, manufacturers, individual companies in consumer countries) to provide relevant information. The MIS information system takes precedence over feasibility studies of various possibilities.
The selection according to the quality of the jute of the rugs should be increased and eliminated with the selected product. Consumer awareness of the behavior of jute as a carpet element should be increased and the behavior of “jute” should be defined. The scholarships and staff of the IJO depend heavily on the expertise of other participants in the profession.

If you see a new product, you will (probably) succeed. The first part of the report examines the market marketing and portfolio in terms of quantity and quality. The purpose of the first part of the report is to describe the preferred combination of Jute products and markets in order to select the market segments that need to be analyzed in depth and to develop marketing strategies. This decision was taken after the presentation of the document to the participants at the 17th meeting of the OIJ-COP in April 1992.
At the national level, the statistics used in this study come mainly from Eurostat. This data can be used to link directly to previous burger studies with the same data source. Collect information on market structure, markets and product characteristics through interviews with industry members. First there were interviews with merchants, thread makers, weavers and research institutes.

![Image of Figure 6.a Geo usage of jute products](image)

**Figure 6.a Geo usage of jute products**

![Image of Figure 6.b Clustered usage of jute products](image)

**Figure 6.b Clustered usage of jute products**

The second phase was to contact the “end users” (e.g. carpets) as part of a more detailed discussion of strategic and promotional aspects. A complete list of interviews, individuals, companies, etc. After the introduction, the second chapter follows the description of the European jute sector market. This chapter describes the structure of the jute market for the eight most important countries of the European Community, followed by a comprehensive picture of the entire European Commission.

![Image of Figure 7 Net import of jute CBS in the EC](image)

**Figure 7. Net import of jute CBS in the EC**
Because the data includes sales history shown in figure 7, the first assumption is that we analyze and predict events based on past records. The size of each event and other business components are not considered. Data normalization is not required for all of the approaches described herein; Normalized data may poorly represent the properties of the original data. Based on standardized data, estimates are difficult to interpret. Since we need to determine the number of sets (k) before starting the algorithm, we can experiment with different values of k and check for differences in results. Usually specifies the number of work sets.

V. CONCLUSION

Jute Products make a great change for disposing of low-priced plastic bags which are used for shop. Jute products come in a very stylish and have different variants existing in the market. It is measured one of the finest long-lasting substances for belongings. The jute belongings look fashionable and lovely. They give a chance to save the earth. Jute products are now attractive well-known because they are eagerly available in numerous size, forms, and varieties. It is true that a predictive value-based accounting system, such as mathematical modeling, raises the relevant administrative body and takes the necessary measures to achieve the planned jute production. The jute production forecasting system helps to maintain a balance between the calculated value and the value of jute production observed in practice. Those like more of jute products because of their splendid design and austerity. These jute products are available in fabulous colors which appeal to clients which make them buy jute belongings more often.

REFERENCES