RESEARCH ARTICLE

INVISIBLE MARKETING STRATEGIES, STILL HOPELESS WELLBEING OF THE HANDLOOM WEAVERS

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DOI: http://dx.doi.org/10.24327/ijrsr.2020.1101.5028

ARTICLE INFO

Article History:
Received 4th October, 2019
Received in revised form 25th November, 2019
Accepted 18th December, 2019
Published online 28th January, 2020

Key Words:
handloom weavers, marketing strategies, problems faced, counts and designs

ABSTRACT

Handloom sector has its unique place in the textile industry. The weavers’ hard and skilful work accompanied by proper marketing strategies can yield good profits. But, the current scenario gives an entirely different picture of the sector with weavers earning pitiful wages. The wellbeing of the weavers is a big question inspite of the invisible marketing strategies being employed by the weavers. So, this paper aims at answering the question: Do the marketing strategies of the handloom textiles (Product, Price, Place and Promotion) created wellbeing among the handloom weavers in SPS Nellore district of Andhra Pradesh during the years 2018-2019?

INTRODUCTION

Handloom industry exists in India since ancient times. It depicts India’s culture and heritage. Andhra Pradesh is the third-largest cotton producer in the country as per Textile and Apparel Promotion Policy 2005-2010. 43,31,876 weavers depend on the handloom industry with 23, 77,331 handlooms in India while 3, 55,838 weavers depending on the handloom industry with 1, 24,714 handlooms in Andhra Pradesh as per handloom census 2009-10 (as on 30.6.2017). The textile industry has a 2% of GDP (at factor cost) as per strategic plan 2012-17 by Ministry of Textiles. The share of handlooms in total production of cloth in India is 15.31% (7638 million sq. Meters) in 2015-16, and the ratio of handloom to powerloom in terms of cloth production is 1:5.21 as per Ministry of Textiles. Annual Report 2016-17. This industry has an export of handloom products worth Rs. 2392.21 crores to the top twenty countries including USA, Italy, UK, U Arab EMTS, Spain and Germany in 2016-17 as per Handloom Export Promotion Council of India. Hence the handloom sector has a significant contribution to the national income of India.

So, it is essential to have better marketing practices in the handloom industry. However, at present, handlooms are facing many bottlenecks like rising input costs, sparse credit coverage, lack of innovation and limited dynamism in the field of marketing, inadequate institutional coverage and management, poor policy dissemination and information gaps, infrastructure gaps, lack of proper monitoring and evaluation, lack of education, skills and research and training, limited role of private enterprise as per Planning Commission 2012-2017. Hence there is a need to focus on the marketing practices being carried out from weavers to consumers and thereby identifying the loopholes or identifying the successful strategies. There is also a need to enquire into the recent trends: E-commerce, Indian handloom brand, collaboration with FDCI and 5-12% Goods and Services Tax on handlooms as per discussions in the GST Council Meeting held on 3rd June, 2017. Hence, the need aroused to study the marketing strategies prevailing in the handloom sector.

Review of literature

Chandan (2017) conducted a study in the silk handloom industry in Nadia district of West Bengal. The main objective of this study was to make a situational analysis of the handloom workers by focusing on the problems of the handloom weavers of Nadia district. He recommended several measures like awareness campaign, financial literacy programme, SHG and consortium formation, common facility centre, dye house, market exposure to upgrade the present situation of the handloom industry.

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Sreenivas and Suman (2016) stated that though the handloom sector preserves our Indian uniqueness; it is facing problems due to replication by the powerloom sector. Handloom production was not remunerative to the weavers’ families, and they were even facing work-related diseases due to long hours of work in Karimnagar district.

Sivasankaran (2016) discussed the state of handloom weavers, weaving and fabric in Tamilnadu. He found that increasing mill production, the domination of intermediaries, high cost of handloom products, non-availability of markets for handlooms, duplication of handloom products by mills, the politicisation of cooperatives, use of low quality of jari and thread added to the pathetic plight of the weavers.

Manoj and Rajesh (2015) analysed the case of unorganised sector workers in the textile industry in northern Kerala. They studied in detail with a focus on the challenges to industrial relations and the need for putting in place more stringent legislation for ensuring the welfare of the unorganised sector employees in textile and other sectors for bringing in cordial industrial relations.

Manoj and Rajesh (2015) studied the work-life in respect of women employees and their job satisfaction concerning textile units in the Malabar region of Kerala. They made suggestions like supportive and empathetic management, protection to women employees, encouragement by the employer by showing confidence in their abilities in different roles, the formation of a women grievance cell and the arrangement of special workshops and fests to create awareness in them.

Sandhya Rani (2015) in her thesis, conducted interview schedules from 100 weavers residing in Bargarh district of Odisha. She found that the weavers are facing several challenges like a financial constraint, inability to purchase up-to-date machinery, poor working condition, meagre remuneration and the absence of government support.

Raisul, Abdul Munir and Tanseer Alam (2015) conducted a study in Sant Kabir Nagar district and found that lack of education and price rise of yarn added to the misery of the handloom workers. They suggested that pressure groups and education will improve their standard of living.

Chemical dyes were causing skin allergy and other destructive to the human body, producing toxicity/chemical hazards during its synthesis and release of undesirable, hazardous and toxic chemicals to the environment. Conversely, in some natural dyes like harda and indigo, the waste in the process becomes an ingredient of value for use in agricultural fields (Samanta and Konar 2011).

Surajit, Sanjoy and Bhattacharyya (2008) studied both cotton handloom and jute yarn making in the West. They found that the diversified products from jute and jute-based yarns could be made successfully after some design modification in traditional frame type cotton handloom. These fabrics could be used as decorative, upholstery, furnishing and even for the outer part of the apparel.

Arup and Ashis (2008) conducted a study in Fulia, Shantipur, Nabadweep and some other reputed handloom sectors of West Bengal. They had made an innovative and indigenous approach on a trial basis for the on-loom application of finish on handloom goods, and it was proved feasible.

Seemanthini et al. (2006) studied the cooperatives, master weavers, NGOs and major retail stores. They described the handloom industry, its dispersed production base, diversity, organisation and nature of handloom market.

Ramachander (2005) in his study found that the marketer considered brands as the vehicle for superior value delivery. Brands would bind the relationship between the marketer and the user.

Meher (2000) studied marketing practices in some developing countries of South East Asia. The study found that there exists a wide range of cooperative marketing practices concerning the formation, legal status, types, structural patterns, membership criteria, functional management and performance.

Prasada Rao (2000) in his thesis, found that the shortage of raw material and increase in the prices of various inputs led to increasing in the prices of handlooms and lower sales. Severe competition from the powerloom sector as it can produce different varieties of clothes in different designs, colours, suitably to the tastes of the consumers. The marketing practices adopted by the artisans are unscientific. The socio-economic conditions of artisans, organisational and production aspects, existing marketing practices and the consumers’ attitude towards handlooms play a vital role in its development.

Seetharaman (1987) studied the marketing practices of Cooptex in Tamil Nadu. The study found that cotton fabrics continued to be an essential product and the product strategies were ineffective, and the cash flow in it was high during festive seasons. It suggested the need for optimisation plan for production, marketing and finance.

Ravinder Vinayak (1986) examined the marketing practices of handloom manufacturers and dealers in Haryana. It revealed that cost plus profit pricing and the use of direct and indirect channels were significant marketing practices.

**Research methodology**

The period of collection of primary data is from March 2018-April 2019. The study location was Nellore district (14°26’N80°0’E). The sample size is determined from the Cochran’s formula \( n = \frac{N}{1+ \left( \frac{N-1}{N} \right) p(1-p)} \), where \( p = 0.5 \) (maximum variability in the population is taken), \( N = 3068 \) total weavers’ households in the selected villages as per the census 2017, and 95% of confidence level taken for the study. Hence at 5% of significance \( z = 1.96 \), sample size \( n \sim 342 \) approximately.

Purposive sampling technique with a proportional allocation of the sample weaver households in each village was used for the study to carry out statistical testing. 342 sample weaver households of the 20 sample villages of the 10 sample mandals were interviewed.

The primary source of data was collected from 342 weavers’ households by interview schedules, for the analysis of the study on the marketing strategies of the handloom textiles. The secondary source of data was collected from websites of the office of Development Commissioner (H&T) GOI, Ministry of Textiles GOI and AP, Planning Commission GOI, and Handloom Export Promotion Council of India. Digital libraries of SV University, Tirupati and IIM Bangalore were used for accessing the articles. Shodhganga and shodhsindu online
platforms were also accessed for the thesis and articles. Academic material of IIHT Venkatagiri was collected for the study.

The Five-point Likert scale, Cronbach alpha for reliability, chi-square test for association/relation, Kruskal Wallis and Mann Whitney test for testing significant difference between the medians of samples, Cramer’s V for measure of association between the samples; are used for the description of information gathered and for the critical analysis of sample study. IBM SPSS statistics 25 software had been used for analysing the data.

Objectives of the study

The study has been taken up with the following objectives: i) To assess the socio-economic conditions of the handloom weavers’ households in SPS Nellore district, ii) To study the problems of the handloom weavers’ households in SPS Nellore district iii) To study the marketing strategies of handloom weavers’ households in SPS Nellore district and iv) To suggest measures from the observations made in the study area.

Findings

Demographic details

The survey had been conducted on 342 weavers’ households. Among them, 4.09 per cent of the handloom weavers’ households were living in the Kavali division, 22.51 per cent of them were in the Nellore division, 40.94 per cent of them were in the Gudur division, 28.07 per cent of them were in the Atmakur division, and 4.39 per cent of them were in the Naidupeta division. The majority were working under master weavers’ households amount to 63.45 per cent, followed by labour weavers’ households amount to 21.93 per cent. There were weavers’ households working under cooperative societies, but they were weaving for master weavers due to improper functioning of cooperative societies. Hence, they were not taken as working under cooperative societies.

Caste of the majority of weavers’ households in Kavali, Nellore, Gudur, Atmakur and Naidupeta division was Padmasali accounting to 71.4 per cent, 46.8 per cent, 59.3 per cent, 52.1 per cent and 66.7 per cent respectively followed by Devanga caste in all the revenue divisions.

Experience of the majority of weavers’ households in Kavali, Gudur, Atmakur and Naidupeta division was above 30 years while in Nellore division, the experience of the majority of the weavers’ households was between 26-30 years.

It was found that no one in any of the Revenue Divisions had subsidiary occupation among the weavers’ families.

Family details

The total number of male members of the weavers’ family was 660 which was 54.19 per cent, while that of female members of the weavers’ family was 558 which was 45.81 per cent of the total surveyed members of the weavers’ family. The majority of male and female members of the weavers’ households were between 37-55 years of age accounting to 45.3 per cent, and 38.35 per cent respectively.

Among the male members of weavers’ households, 41.93 per cent of them were qualified in intermediate in Kavali division, 30.25 per cent, 38.46 per cent and 40.63 per cent of them were secondary school qualified in Nellore, Gudur, Atmakur and Naidupeta division respectively, 43.81 per cent of them were qualified in intermediate in Gudur.

Among the female members of weavers’ households, 54.16 per cent of them were secondary school educated in Kavali division, 38.73 per cent of them were not formally educated in Nellore division, 55.71 per cent, 40.5 per cent and 41.67 per cent of them were secondary school qualified in Gudur, Atmakur and Naidupeta division respectively.

From the results above, it was found that female members of the weavers’ households were lagging behind the male members in case of education.

The intensity of problems faced by handloom weavers’ households

The intensity of the difficulties faced by the handloom weavers’ families was studied with a five-point Likert scale (1-not at all a problem, 2- minor problem, 3- moderate problem, 4- serious problem, 5- very serious problem) on different factors like Health issues, power shortages, water-filled in pit during rainy seasons, lack of good quality yarn and dye, less wages and long hours of work, improper functioning of cooperative societies and policy implementation and lack of skill training on modernized looms. From the reliability test conducted on the problems faced by the weavers’ households, the Cronbach's alpha was 0.825 (> 0.7). Hence this five-point Likert scale was reliable.

It was found that all the weavers’ households in the Kavali division, 66.2 per cent of the weavers’ households in Nellore division, 87.1 per cent of weavers’ households in Gudur division, 87.5 per cent of weavers’ households in Atmakur division and 73.3 per cent of weavers’ households in Naidupeta had a ‘very serious problem’ due to health issues. Of the total, 82.5 per cent of weavers’ households had a ‘severe problem’ due to health issues.

It was found that 100 per cent of weavers’ households in the Kavali division, 48.1 per cent of the weavers’ households in Nellore division, 69.3 per cent of weavers’ households in Gudur division had a ‘moderate problem’ due to lack of high-quality yarn and dye, while 90.6 per cent of weavers’ households in Atmakur division and 73.3 per cent of weavers’ households in Naidupeta had a ‘serious problem’ due to power shortages. Of the total, 44.7 per cent of weavers’ households had a moderate problem due to power shortages while 40.4 per cent had a ‘serious problem’.

It was found that 100 per cent of weavers’ households in the Kavali division, 36.4 per cent of the weavers’ households in Nellore division had a ‘moderate problem’ due to pit filled up with water during rainy season while 42.9 per cent of weavers’ households in Gudur division had a ‘minor problem’ due to pit filled up with water during rainy season, 84.4 per cent of weavers’ households in Atmakur division and 60 per cent of weavers’ households in Naidupeta had a ‘serious problem’ due to pit filled up with water during rainy season. Of the total, 36.3 per cent of weavers’ households had a ‘serious problem’ due to pit filled up with water during rainy season while 27.8 per cent had a ‘minor problem’.
It was found that 100 per cent of weavers’ households in the Kavali division, 64.8 per cent of the weavers’ households in Nellore division, 72.9 per cent of weavers’ households in Gudur division had a ‘moderate problem’ due to lack of high-quality yarn and dye, while 90.6 per cent of weavers’ households in Atmakur division and 73.3 per cent of weavers’ households in Naidupeta had a ‘serious problem’ due to lack of high-quality yarn and dye. Of the total, 45.9 per cent of weavers’ households had a moderate problem due to lack of high-quality yarn and dye while 39.2 per cent had a ‘serious problem’.

It was found that 100 per cent of weavers’ households in the Kavali division, 62.3 per cent of the weavers’ households in Nellore division, 97.1 per cent of weavers’ households in Gudur division, 100 per cent of weavers’ households in Atmakur division and 80 per cent of weavers’ households in Naidupeta had a ‘very serious problem’ due to less wages and long hours of work. Of the total, 89.5 per cent of weavers’ households had a ‘very serious problem’ due to fewer wages and long hours of work.

It was found that 100 per cent of weavers’ households in the Kavali division, 62.3 per cent of the weavers’ households in Nellore division, 97.1 per cent of weavers’ households in Gudur division, 100 per cent of weavers’ households in Atmakur division and 80 per cent of weavers’ households in Naidupeta had a ‘very serious problem’ due to lack of functioning of cooperative societies. Of the total, 89.5 per cent of weavers’ households had a ‘very serious problem’ due to improper functioning of cooperative societies.

It was found that 100 per cent of weavers’ households in the Kavali division, 46.8 per cent of the weavers’ households in Nellore division, 72.9 per cent of weavers’ households in Gudur division had a ‘moderate problem’ due to lack of skill training on modernized looms, while 90.6 per cent of weavers’ households in Atmakur division and 73.3 per cent of weavers’ households in Naidupeta had a ‘serious problem’ due to lack of skill training on modernized looms. Of the total, 45.9 per cent of weavers’ households had a moderate problem due to lack of skill training on modernized looms while 39.2 per cent had a ‘serious problem’.

**Hypothesis testing 1**

H1: There was a significant difference in the median scores of the intensity of the problem due to health issues across revenue divisions

**Test result**

The p-value for the independent samples Kruskal-Wallis test of test statistic 24.428 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to health issues across categories of different revenue divisions, was substantial evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to health issues across revenue divisions. The probability of type II error for testing the null hypothesis was 0.021, and the power of the hypothesis test was 97.9 per cent.

The p-value for the independent samples Kruskal-Wallis test of test statistic of 125.46 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to power shortages across categories of different revenue divisions, was substantial evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to power shortages across revenue divisions. The observed power was 100 per cent. There was no type II error.

The p-value for the independent samples Kruskal-Wallis test of test statistic of 127.074 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to water-filled in the pit during rainy seasons across categories of different revenue divisions, was a strong evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to water-filled in the pit during rainy seasons across revenue divisions. The observed power was 100 per cent. There was no type II error.

The p-value for the independent samples Kruskal-Wallis test of test statistic of 125.591 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to fewer wages and long hours of work across categories of different revenue divisions, was a strong evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to fewer wages and long hours of work across revenue divisions. The observed power was 100 per cent. There was no type II error.

The p-value for the independent samples Kruskal-Wallis test of test statistic of 83.072 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to improper functioning of co-operative societies across categories of different revenue divisions, was substantial evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to improper functioning of co-operative societies across revenue divisions. The observed power was 100 per cent. There was no type II error.

The p-value for the independent samples Kruskal-Wallis test of test statistic of 83.072 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to lack of good quality yarn and dye across categories of different revenue divisions, was a strong evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to lack of good quality yarn and dye across revenue divisions. The observed power was 100 per cent. There was no type II error.

The p-value for the independent samples Kruskal-Wallis test of test statistic of 125.591 of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of intensity of the problem due to lack of proper functioning of cooperative societies across categories of different revenue divisions, was substantial evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that there was a significant difference in the median scores of the intensity of the problem due to lack of proper functioning of cooperative societies across revenue divisions. The observed power was 100 per cent. There was no type II error.

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The observed power was 100 per cent. There was no type II error (refer to table 1.).

Table 1: Kruskal-Wallis test for Revenue Divisions in the intensity of problems faced by handloom weavers’ households

<table>
<thead>
<tr>
<th>Problems faced by handloom weavers’ households</th>
<th>Revenue Division</th>
<th>Kruskal-Wallis test (4 - degrees of freedom)</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>The intensity of Health issues</td>
<td>Kavali</td>
<td>159.50 (IV)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nellore</td>
<td>150.47 (V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gudur</td>
<td>141.27 (V)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atmakur</td>
<td>180.33 (II)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naidupeta</td>
<td>179.75 (III)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kavali</td>
<td>202.70 (I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nellore</td>
<td>126.01 (V)</td>
<td></td>
</tr>
<tr>
<td>The intensity of Power shortages</td>
<td>Gudur</td>
<td>135.87 (III)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atmakur</td>
<td>254.87 (I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naidupeta</td>
<td>219.30 (II)</td>
<td></td>
</tr>
<tr>
<td>The intensity of the problem due to water filling in the pit during rainy seasons</td>
<td>Atmakur</td>
<td>127.074 (0.000)</td>
<td>121.88 (V)</td>
</tr>
<tr>
<td></td>
<td>Naidupeta</td>
<td>258.49 (I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Kavali</td>
<td>208.20 (II)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nellore</td>
<td>126.00 (V)</td>
<td></td>
</tr>
<tr>
<td>The intensity of lack of good quality yarn and dye</td>
<td>Gudur</td>
<td>138.04 (III)</td>
<td>132.20 (IV)</td>
</tr>
<tr>
<td></td>
<td>Atmakur</td>
<td>155.30 (III)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naidupeta</td>
<td>294.83 (I)</td>
<td></td>
</tr>
<tr>
<td>The intensity of fewer wages and long working hours</td>
<td>Kavali</td>
<td>189.50 (I)</td>
<td>125.10 (IV)</td>
</tr>
<tr>
<td></td>
<td>Nellore</td>
<td>155.00 (III)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gudur</td>
<td>184.61 (II)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atmakur</td>
<td>189.50 (I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naidupeta</td>
<td>110.70 (IV)</td>
<td></td>
</tr>
<tr>
<td>The intensity of the improper functioning of cooperative societies</td>
<td>Gudur</td>
<td>184.61 (II)</td>
<td>125.10 (IV)</td>
</tr>
<tr>
<td></td>
<td>Atmakur</td>
<td>189.50 (I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Naidupeta</td>
<td>155.30 (III)</td>
<td></td>
</tr>
<tr>
<td>The intensity of lack of skill training on modernized looms</td>
<td>Kavali</td>
<td>126.00 (V)</td>
<td>138.04 (III)</td>
</tr>
<tr>
<td></td>
<td>Nellore</td>
<td>125.591 (0.000)</td>
<td>132.00 (IV)</td>
</tr>
<tr>
<td></td>
<td>Gudur</td>
<td>254.83 (I)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Atmakur</td>
<td>219.23 (II)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation

Note: Rank 1 was assigned, with the smallest value

From the ranks assigned by the Kruskal-Wallis test for the various attributes regarding problems faced across different revenue divisions, it was evident that Atmakur revenue division had serious problems and had the first mean rank except for health issues.

From the ranks assigned by the Kruskal-Wallis test for the various attributes

Hypothesis testing 2

H0: There was an association between the type of working area and the intensity of the problem faced by the weaver during rainy season due to water-filled in the pits

Test result

From the Mann-Whitney test, we get a p-value which was less than 0.05 (0.000) with a test statistic of 1096.500. Hence we had substantial evidence to reject the null hypothesis that weavers’ households having a different type of area for the operation had the same scoring tendency at the 5 per cent level. This was also evident from the bar chart which indicated. There was an association between the type of working area and the intensity of the problem faced by the weaver during rainy season due to water-filled in the pits. The observed power was 100 per cent. (refer to table 2)
per cent and 93.3 per cent respectively. Of all the revenue divisions, the majority of the selection of designs was done by master weaver accounting to 82.7 per cent, followed by retailer. The majority of the weavers’ households in Kavali and Atmakur division wove plain, checks, and lines with corresponding percentages 71.40 per cent and 56.30 per cent. Weavers’ households in Nellore and Naidupeta division wove majorly plain with 59.70 per cent and 46.70 per cent respectively while those in Gundur division wove all type of designs with 51.40 per cent. Of all the revenue divisions, the majority of the kind of designs created was plain accounting to 35.40 per cent followed by plain, checks and lines.

All the weavers’ households in Kavali, Nellore and Atmakur division used 80 count for weaving while the majority of the weavers’ families in Gundur and Naidupeta division used 80 count accounting to 69.30 per cent and 80 per cent respectively while only those in Naidupeta division used 60 count for weaving accounting to 20 per cent and only those in Gundur division used 120 count accounting to 30.70 per cent. Of all the revenue divisions, the majority used 80 count for weaving accounting to 86.5 per cent, followed by 120 count.

The majority of the weavers’ households in Kavali, Nellore, Gundur, Atmakur and Naidupeta division wouldn’t change their design accounting to 92.9 per cent, 81.8 per cent, 48.60 per cent, 85.4 per cent and 53.3 per cent respectively. Of all the revenue divisions, the majority wouldn’t change their design for weaving accounting to 68.4 per cent, followed by occasional change.

It was found that all the type of weavers’ households in the Revenue Divisions used all colours for weaving, and didn’t use remains of the weave for any purpose.

The majority of the weavers’ households in Kavali, Nellore, Gundur, Atmakur and Naidupeta division owned only one loom accounting to 64.3 per cent, 49.4 per cent, 78.6 per cent, 81.20 per cent and 80 per cent respectively. Of all the revenue divisions, the majority-owned only one loom accounting to 72.2 per cent followed by no loom owned.

The majority of the weavers’ households in Kavali and Atmakur division had pitloom with dobby accounting to 71.4 per cent and 56.3 per cent respectively. While those in Nellore division had pitlooms accounting to 59.7 per cent and those in Gundur and Naidupeta division had pitlooms with punch cards with 41.40 per cent and 46.70 per cent respectively. Of all the revenue divisions, the majority-owned only one loom accounting to 34.5 per cent followed by pitlooms with dobby.

The majority of the weavers’ households in Kavali, Atmakur and Naidupeta division had shed as working area accounting to 100 per cent while those in Nellore and Gundur division had buildings as working area accounting to 55.8 per cent and 87.90 per cent respectively. Of all the revenue divisions, the majority had buildings as working area accounting to 52.3 per cent. There was no time lag for production across all revenue divisions and type of weavers’ households. The number of working hours involved in weaving across all revenue divisions and type of weavers’ households was 8-10 hours. They won’t weave in the no moon day. The durability of the product across all revenue divisions and type of weavers’ households was 2-4 years.

The majority of the weavers’ households in Kavali division wove for Pochampally middlemen accounting to 71.4 per cent while those in Nellore division wove for Narayanareddyapeta middlemen accounting to 59.7 per cent and those in Gundur division wove for Venkatagiri middlemen accounting to 100 per cent, those in Atmakur division wove for Cheerala middlemen accounting to 100 per cent and those in Naidupeta division wove for Kanchipuram middlemen accounting to 100 per cent. Of all the revenue divisions, the majority wove for Venkatagiri middlemen accounting to 40.9 per cent followed by for Cheerala middlemen.

The majority of the weavers’ households in Kavali, Nellore, Gundur, Atmakur and Naidupeta division used paper wrapping for packaging accounting to 92.9 per cent, 81.8 per cent, 51.4 per cent, 85.4 per cent and 53.3 per cent respectively. Of all the revenue divisions, the majority used paper wrapping for packaging accounting to 69.6 per cent.

Hypothesis testing 3

\textbf{H}_1: \text{ There was a significant difference in the median scores of the length of the weave across revenue divisions}

\textbf{Test result}

The \textit{p}-value for the independent samples Kruskal-Wallis test of statistic 36.122, of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of length of the weave across categories of different revenue divisions, was substantial evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that ‘there was a significant difference in the median scores of the length of the weave across different revenue divisions’. The probability of type II error in testing the null hypothesis was 0.017 with observed power was 98.3 per cent.

From the mean ranks, the length of weave per piece across Gundur was large with mean rank 200.22, followed by Naidupeta with a mean rank of 195.7 (refer to table 3).

\begin{table}[h!]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
\textbf{Revenue Division} & \textbf{Mean Rank} & \textbf{Kruskal Wallis test} & \textbf{Degrees of freedom} & \textbf{P-value} \\
\hline
Kavali & 190.86 (HI) & & & \\
Nellore & 165.92 (IV) & & & \\
Gundur & 200.22 (I) & & & \\
Atmakur & 127.49 (V) & & & \\
Naidupeta & 195.7 (II) & & & \\
\hline
\end{tabular}
\end{table}

Source: Researcher’s compilation

Note: Rank 1 was assigned, with the smallest value

\textbf{Hypothesis testing 4}

\textbf{H}_1: \text{ There was a significant difference in the median scores of wage per piece across different revenue divisions}

\textbf{Test result}

The \textit{p}-value for the independent samples Kruskal-Wallis test of statistic 81.114, of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of wage per piece across categories of different type of weavers’ households, was substantial evidence to reject the null hypothesis. Hence, we accept the alternative hypothesis that ‘there was a significant
difference in the median scores of wage per piece across revenue divisions’. The observed power was 100 per cent.

From the mean ranks, the wage per piece in Gudur was high with mean rank 217.34, followed by Naidupeta. (refer to table4)

Table 4 Kruskal Wallis test on wage per piece across different revenue divisions

<table>
<thead>
<tr>
<th>Revenue Division</th>
<th>N</th>
<th>Mean Rank</th>
<th>Kruskal Wallis test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kavali</td>
<td>14</td>
<td>126.11</td>
<td>81.114</td>
<td>0.000</td>
</tr>
<tr>
<td>Nellore</td>
<td>77</td>
<td>138.10</td>
<td>138.10</td>
<td></td>
</tr>
<tr>
<td>Gudur</td>
<td>140</td>
<td>217.34</td>
<td>138.16</td>
<td></td>
</tr>
<tr>
<td>Atmakar</td>
<td>96</td>
<td>134.02</td>
<td>103.674</td>
<td></td>
</tr>
<tr>
<td>Naidupeta</td>
<td>15</td>
<td>197.37</td>
<td>126.11</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation
Note: Rank 1 was assigned, with the smallest value

Hypothesis testing 5

H1: There was an association between the type of looms used by the weavers’ households and the type of designs made on the handloom products. The value of symmetric measure Cramer’s V was 1.000. Therefore, the association between type of looms and the type of designs was strong. The observed power was 100 per cent. Hence no type II error (refer to chart1).

Table 5 Kruskal Wallis test for the total income of the type of weavers’ households by using the different type of looms

<table>
<thead>
<tr>
<th>Type of looms</th>
<th>N</th>
<th>Mean Rank</th>
<th>Kruskal Wallis test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pit looms</td>
<td>118</td>
<td>138.16</td>
<td>103.674</td>
<td>0.000</td>
</tr>
<tr>
<td>Pit looms with dobby</td>
<td>113</td>
<td>138.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pit looms with punch cards</td>
<td>90</td>
<td>230.55</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Frame looms</td>
<td>2</td>
<td>224.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Motorized looms</td>
<td>18</td>
<td>295.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation
Note: Rank 1 was assigned, with the smallest value

Hypothesis testing 6

H1: There was an association between the type of looms used by the weavers’ households and the type of designs made on the handloom products

Test result

The relationship between the nominal variables, type of looms and the type of designs was examined to look for associations. A chi-square test with 8 degrees of freedom was performed, resulting in the test statistic of 684. This results in an asymptotic p-value which was less than 0.05 (0.000), and therefore we had substantial evidence to reject the null hypothesis. Thus, the alternative hypothesis was accepted. Hence ‘there exists an association between the type of looms used by the weavers’ households and the type of designs made on the handloom products’. The value of symmetric measure Cramer’s V was 1.000. Therefore, the association between type of looms and the type of designs was strong. The observed power was 100 per cent. Hence no type II error (refer to chart1).

Table 6 Kruskal Wallis test for the number of counts of the weave across revenue divisions

<table>
<thead>
<tr>
<th>Revenue Division</th>
<th>N</th>
<th>Mean Rank</th>
<th>Kruskal Wallis test</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kavali</td>
<td>14</td>
<td>151.50 (II)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nellore</td>
<td>77</td>
<td>151.50 (II)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gudur</td>
<td>140</td>
<td>203.56 (I)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atmakar</td>
<td>96</td>
<td>151.50 (II)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naidupeta</td>
<td>15</td>
<td>121.60 (III)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation
Note: Rank 1 was assigned, with the smallest value

Hypothesis testing 8

H1: there was a significant difference in the median scores of the frequency of changing the design across revenue divisions
Test result

The p-value for the independent samples Kruskal-Wallis test of statistic 55.903, of 4 degrees of freedom was 0.000, which was less than 0.05, for the distribution of frequency of changing the design across revenue divisions, was substantial evidence to reject the null hypothesis. Hence, therefore we had substantial evidence to reject the null hypothesis. Hence, the conclusion was that ‘geographical identity of the middlemen and revenue divisions’ was dependent. The observed power was 99.9 per cent, and the type II error was 0.001.

From the mean ranks, the frequency of changing the design in Gudur was high with mean rank 208.53, followed by Naidupeta (refer to table 7).

Table 7 Kruskal Wallis test for the frequency of changing the design across revenue divisions

<table>
<thead>
<tr>
<th>Revenue Division</th>
<th>N</th>
<th>Mean Rank</th>
<th>The test statistic (H)</th>
<th>df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kavali</td>
<td>14</td>
<td>128.86 (V)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nellore</td>
<td>77</td>
<td>146.41 (III)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gudur</td>
<td>140</td>
<td>208.53 (I)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atmakur</td>
<td>96</td>
<td>140.69 (IV)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Naidupeta</td>
<td>15</td>
<td>191.70 (II)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>342</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation
Note: Rank 1 was assigned, with the smallest value

Hypothesis testing 9

H1: Geographical identity of the middlemen and revenue divisions, were dependent

Test result

A chi-square test with 24 degrees of freedom was performed, resulting in the test statistic of 1195.896. This resulted in an asymptotic p-value 0.000, which was less than 0.05 and therefore we had substantial evidence to reject the null hypothesis. Hence, the conclusion was that ‘geographical identity of the middlemen and revenue divisions, were dependent’. The observed power was 100 per cent. The Cramer’s V value the for the measure of association between geographical identity and revenue divisions was 0.935, strong (refer to chart 2).

Chart 2 Frequency distribution of the Geographical identity of the middlemen across revenue divisions

Source: Researcher’s compilation
Note: On Y-axis; count is the frequency

Pricing strategies

The majority of the weavers’ households in Kavali, Nellore, Gudur, Atmakur and Naidupeta divisions had their wage determined based on the type of yarn used for weaving accounting to 92.9 per cent, 81.8 per cent, 51.4 per cent, 85.4 per cent and 53.3 per cent respectively. Of all the revenue divisions, the majority of the wage determination was based on the type of yarn used for weaving accounting to 69.6 per cent. Hence, no weavers’ households were using cotton yarn for the weaving.

The majority of the weavers’ households in Kavali, Nellore, Gudur, Atmakur and Naidupeta divisions had their partly cash and partly credit as their mode of payment accounting to 85.7 per cent, 71.4 per cent, 49.3 per cent, 79.2 per cent and 73.3 per cent respectively. Of all the revenue divisions, the majority of the mode of payment was partly cash and partly credit accounting to 65.2 per cent, followed by cash.

It was found that all the type of weavers’ households in the Revenue Divisions had continuous demand, and had significant GST effect on the production. The majority of the weavers’ households in Kavali, Nellore, Gudur, Atmakur and Naidupeta divisions had their partly cash and partly credit as their mode of payment accounting to 82.7 per cent, followed by 41-50 per cent.

Hypothesis testing 10

H1: mode of payment and type of weavers’ households, were dependent

Test result

A chi-square test with 4 degrees of freedom was performed, resulting in the test statistic of 460.312. This resulted in an asymptotic p-value 0.000, which was less than 0.05 and therefore we had substantial evidence to reject the null hypothesis. Hence, the conclusion was that ‘mode of payment and type of weavers’ households, were dependent’. The observed power was 100 per cent. The Cramer’s V value for the measure of association between mode of payment and type of weavers’ households was 0.820, strong (refer to table 8).

Table 8 Chi-square test for the mode of payment received among the type of weavers’ households

<table>
<thead>
<tr>
<th>Revenue Division</th>
<th>Pearson Chi-square test statistic (x²)</th>
<th>Df</th>
<th>P-value</th>
<th>Measure of association Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kavali</td>
<td>460.312</td>
<td>4</td>
<td>.000</td>
<td>0.820</td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation

Hypothesis testing 11

H1: There was a significant difference in the median scores of profit percentage made by channels among the type of weavers’ households

Test result

The p-value for the independent samples Kruskal-Wallis test of statistic 214.532, of 2 degrees of freedom was 0.000, which was less than 0.05, for the distribution of profit percentage.
made by channels among the type of weavers’ households, was substantial evidence to reject the null hypothesis. Hence we accept the alternative hypothesis that "there was a significant difference in the median scores of profit percentage made by channels among the type of weavers’ households". The observed power was 100 per cent.

From the mean ranks, the profit percentage made by channels of independent weavers’ households was high with mean rank 214.532 (refer to table9).

Table 9 Kruskal Wallis test for profit percentage of the middlemen and type of weavers’ households

<table>
<thead>
<tr>
<th>Profit percentage of middlemen</th>
<th>Type of weavers’ households</th>
<th>N</th>
<th>Mean Rank</th>
<th>Test statistic (H)</th>
<th>Df</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent</td>
<td>50</td>
<td>295.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working under the master</td>
<td>217</td>
<td>153.23</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weaver labour</td>
<td>75</td>
<td>142.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>242</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation
Note: Rank 1 was assigned, with the smallest value

Place strategies

It was found that all the type of weavers’ households in the Revenue Divisions had selected the place of operation based on convenience, and used shelves for storage.

The majority of the independent weavers’ households in Kavali, Nellore, Gadur, Atmakur and Naidupeta division had master weavers as middlemen accounting to 100 per cent, 96.1 per cent, 62.1 per cent, 97.9 per cent and 93.3 per cent respectively. Of all the revenue divisions, the majority of the channels/middlemen didn’t do sales promotion accounting to 82.7 per cent, followed by seasonal and festive offers.

Hypothesis testing 12

H₁: type of channel and type of weavers’ households, were dependent

Test result

A chi-square test with 4 degrees of freedom was performed, resulting in the test statistic of 221.898. This resulted in an asymptotic p-value 0.000, which was less than 0.05 and therefore we had substantial evidence to reject the null hypothesis. Hence, the conclusion was that ‘sales promotion of middlemen or channels and type of weavers’ households, were dependent’. The observed power was 100 per cent. The Cramer’s V value for the measure of association between sales promotion of channels and type of weavers’ households was 0.570, moderate (refer to table11).

Table 11 Chi-square test for the frequently used sales promotion techniques by middlemen among the type of weavers’ households

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Measure of association Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square test statistic (χ²)</td>
<td>Df</td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation

Promotion strategies

It was found that all the type of weavers’ households in the Revenue Divisions made no efforts to promote the weave in exhibitions and events, and didn’t do direct selling and e-commerce. All the type of weavers’ households in the Revenue Divisions used relations with the weaving community for getting the channel.

The majority of the middlemen didn’t do sales promotion in Kavali, Nellore, Gadur, Atmakur and Naidupeta division accounting to 100 per cent, 96.1 per cent, 62.1 per cent, 97.9 per cent and 93.3 per cent respectively. Of all the revenue divisions, the majority of the channels/middlemen didn’t do sales promotion accounting to 82.7 per cent, followed by seasonal and festive offers.

Hypothesis testing 13

H₁: The sales promotion techniques used and the type of weavers’ households, were dependent

Test result

A chi-square test with 4 degrees of freedom was performed, resulting in the test statistic of 221.898. This resulted in an asymptotic p-value 0.000, which was less than 0.05 and therefore we had substantial evidence to reject the null hypothesis. Hence, the conclusion was that ‘sales promotion of middlemen or channels and type of weavers’ households, were dependent’. The observed power was 100 per cent. The Cramer’s V value for the measure of association between sales promotion of channels and type of weavers’ households was 0.570, moderate (refer to table11).

Table 11 Chi-square test for the frequently used sales promotion techniques by middlemen among the type of weavers’ households

<table>
<thead>
<tr>
<th>Chi-Square Tests</th>
<th>Measure of association Cramer’s V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square test statistic (χ²)</td>
<td>Df</td>
</tr>
</tbody>
</table>

Source: Researcher’s compilation

Limitations of the study

The study is confined only to Nellore district. The prevailing conditions may differ from place to place. The study is confined only to the handloom weavers’ households, thereby covering the production end of the sector. It does not include middlemen and consumers. The study is focused only on one aspect, i.e. marketing strategies and hence does not include finance, human resource and other aspects.

CONCLUSION

Even though the Indian government has launched many programmes, one can witness that these were not bringing the wellbeing of the weavers. The weavers were not able to avail the opportunity provided by the government, to do direct market/ e-commerce for their weaves, because of lack of awareness of the provisions, lack of computer skills and risk of the stocking. The study revealed the invisible product strategies like weavers were weaving with either silk or cotton-silk blended yarn to get more wages. The use of computer punch cards and motorised looms, helping them to get more income as they are making skilful designs. Gadur division had the
highest mean rank among all the revenue divisions in using the number of counts, frequency of changing designs and the maximum length of the weave and thereby getting more wage per piece comparatively. This division had more independent weavers’ households.

**Recommendations**

NGOs, Private sector and the Government can support the handlooms by encouraging zero material waste concept by linking handloom with the handicrafts will enable the use of production remains like yarn, cloth in the making of threaded jewellery, hair bands, bags, handkerchiefs, decorative items and toys. The government should remove the Goods and Services Tax on the handloom products to support the handloom weavers.

Weavers should maintain the quality of the handloom products and ensure it by registering in pehachan database for branding, and improve the skill of making designs on the fabric with the installation of looms with computer punch cards and motorised looms.

Cautionary stickerung on the handloom products mentioning how to wash, dry and iron will enable the customers to use the handloom products properly. Eco-friendly packaging like paper box, cotton bags, jute bags and the like can be used to create social awareness. Ther is a need to form self-help groups of 10 interested computer skilled youth of the weavers’ families in a region to market the handloom products online to make a good income. Marketing the handloom products online with 10 to 15 days of delivery time will reduce the risk of stocking as the production starts when ordered. Weavers should promote their weaves.

**Future work**

The future studies will be to bring out a broader perspective by conducting a longitudinal study over the years, to find out the successful techniques by a comparative study between the districts, and to study the consumer attitude and purchase patterns towards handloom products.  

**Acknowledgement**

The funding agency is the University Grants Commission. This is a research done for dissertation.

**Declaration of interest**

The author declared that there is no conflict of interest.

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