

# IDENTIFICATION AND PRIORITIZATION OF KEY CHALLENGES OF HANDLOOM WEAVERS

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### 3.1 Introduction

In Chapter 1, it is highlighted that the handloom sector is facing a decline in growth with respect to the number of weavers. It is because of an increase in the cost of raw materials, lack of market outreach, technology, finance, etc. Weavers in all structures (IW, MW, and CW) are facing challenges in retaining their level of production. Weavers in different structures may face different challenges after the COVID-19 pandemic. In this chapter, an effort was made to understand these challenges after the COVID-19 pandemic and to prioritize these in relation to the structures of the weavers in society, especially in Varanasi City. The chapter presents the research objectives as follows:

- Identification of challenges faced by handloom weavers after the COVID-19 pandemic.
- Identification of the top challenges of weavers based on their working structure through ranking the challenges for weavers working according to their structures (i.e., the types such as IW, MW, and CW) using AHP.

COVID-19 directly affected self-employed individuals and small businesses (Belitski et al., 2022). The COVID-19 crisis also worsened the situation of the Indian handloom sector, and the demand for the products has decreased, leading to a massive financial burden to weavers (Dohale et al., 2022). Numerous researchers have attempted to investigate the effects of the pandemic on various industries. For instance, Zaazou and

Salman Abdou (2022) studied the impact on Egyptian small and medium-sized enterprises, while Wu et al. (2021) assessed the pandemic's effects on China's regional economies and industries. Sudjatmoko et al. (2023) examined the impact on the performance of Indonesian industries, and Wieczorek-Kosmala et al. (2021) analysed the interruption caused by COVID-19 on business performance in Polish industries. However, according to Aday and Aday (2020), the different sectors encountered distinct challenges during the pandemic. Only a few researchers have deeply delved into the issues, focusing on specific industries. In this study, an effort has been made to identify and prioritize these challenges faced by the different types of weavers in the Varanasi handloom sector after the COVID-19 pandemic. In this study, thirty-four challenges were identified through the literature survey, as shown in Table 3.1. Based on the expert opinion, twenty-five challenges were selected, and they are broadly classified into six categories, as shown in Table 3.2. These category-wise challenges are discussed in section 2.1.

Table 3.1: Summary of the challenges faced by handloom weavers from the literature review

<b>Sr. No.</b>	<b>Challenge</b>
1	Price of Raw Material
2	Availability of Raw Material
3	Quality of Raw Material
4	Collateral issues for getting a loan
5	Unethical practices in sanctioning loan
6	High-interest rate
7	Delay in loan Sanctioning
8	Long return on investment
9	Less profit on investment
10	Lack of information regarding customer preferences
11	Lack of information regarding selling strategies
12	Lack of branding of product/ Advertising
13	Competition from the other sellers
14	lack of export facility
15	Lack of information about technology
16	Lack of availability of technology
17	High cost of advanced technology
18	Poor Health
19	Poor skills

20	Lack of Education
21	Migration of workers
22	Poor coordination between workers
23	Poor advertising about government schemes
24	Poor enforcement of laws and legislation for violation of handloom reservation
25	Ineffective Implementation of Schemes
26	Restrictive cooperative policies toward product/process change
27	Hesitation/fear of converting to new systems
28	Inadequate and interrupted supply of electricity
29	Change in taste of customers.
30	Budget allocation
31	Account/ record keeping
32	Low mobility due to social norms and family restrictions
33	Dealing with the opposite gender
34	Distance from market

Table 3.2: Summary of the selected challenges faced by handloom weavers for study

Categories	Challenges	Source
Raw Material (R)	Price of Raw Material (R1)	Rao and Rao (2015); Tanusree (2015); Varghese and Salim (2015); Jayachitra and Leeson (2016); Rao, (2022)
	Availability of Raw Material (R2)	Rao and Rao (2015); Jayachitra and Leeson (2016); Tanusree (2015); Bhuvanewari and Kannan (2018); Dimashree Devi et al. (2021).
	Quality of Raw Material (R3)	Kumaresan (2002); Akter and Ghosh (2005); Akter and Ghosh (2005); Feng et al., (2009); Rao and Rao (2015); Shamitha and Balasubramanian (2018); Dimashree Devi et al. (2021).
Finance (F)	Collateral issues for getting a loan (F1)	Chutia and Bhuyan (2014).
	Unethical practices in sanctioning loans (F2)	Harriss-White, (2020); Wani and Irshad (2021).
	High-interest rate (F3)	Akter and Ghosh (2005); Varghese and Salim (2015); Bhuvanewari and Kannan (2018).
	Delay in loan Sanctioning (F4)	Parvin and Birner (2021).
	Long return on investment (F5)	Tanusree (2015); Singha and Singha (2020).
	Less profit on investment (F6)	Malarkodi et al., (2020).

Marketing and outreach (M)	Lack of information regarding customer preferences (M1)	Narzary (2012); Rao and Rao (2015); Shamitha and Balasubramanian, (2018); Mahapatra et al., (2019).
	Lack of information regarding selling strategies (M2)	Bortamuly and Goswami (2015); Varghese and Salim (2015).
	Lack of branding of product/ Advertising (M3)	Akter and Ghosh (2005); Narzary, (2012); Rao and Rao (2015); Bhuvanewari and Kannan (2018).
	Competition from the other sellers (M4)	Akter and Ghosh (2005); Malarkodi et al., (2020); Ahmed et al., (2022); Khatoon and Iffat (2022).
	lack of export facility (M5)	Narzary (2012); Rao and Rao, (2015); Gardas et al., (2018).
Technology (T)	Lack of information about technology (T1)	Bortamuly and Goswami (2015); Hazarika et al. (2016); Patra (2019).
	Lack of availability of technology (T2)	Bortamuly and Goswami (2015); Hazarika et al. (2016); Bhuvanewari and Kannan (2018).
	High cost of advanced technology (T3)	Bortamuly and Goswami (2015); Hazarika et al. (2016); Bhuvanewari and Kannan (2018).
Workers-Related (W)	Poor Health (W1)	Chutia and Bhuyan (2014); Durlov et al. (2014); Varghese and Salim (2015); Shamitha and Balasubramanian (2018).
	Poor skills (W2)	Akter and Ghosh (2005); Varghese and Salim (2015); Gardas et al., (2018); Shamitha and Balasubramanian (2018); Kazancoglu et al., (2022).
	Lack of Education(W3)	Boruah and Kaur (2015); Bhowmik (2021); Khatoon and Iffat (2021).
	Migration of workers(W4)	Balaji and Mani (2014); Shamitha and Balasubramanian (2018); Das (2021).
	Poor coordination between workers (W5)	Khatoon and Iffat (2021); Kazancoglu et al., (2022).
Government (G)	Poor advertising about government schemes (G1)	Rao and Rao (2015); Sivasakthi and Basariya (2018); Rathinamoorthy and Prathiba Devi (2021).
	Poor enforcement of laws and legislation for violation of handloom reservation (G2)	Jayachitra and Leeson (2016); Bhushan and Anand (2022); Khatoon and Iffat, (2022)
	Ineffective Implementation of Schemes (G3)	Basole (2015); Mishra et al. (2016); Khatoon and Iffat, (2022)

So, as highlighted above, this research work focuses on these challenges to be prioritized for each type/structure of the weavers.

### **3.2 Methodology**

The research methodology adopted in this study is shown in Figure 3.1. As a first step, a literature review was carried out to identify significant challenges faced by handloom weavers. The expert opinion of six experts (Two academic experts, one from a government agency, one Master Weaver (MW), one Independent Weaver (IW), and one Cooperative-Society Weaver (CW) with working experience of more than ten years related to the handloom sector) was sought on the identified challenges to finalize these in relation to the case of Varanasi. The expert's response is collected through one-to-one personal interviews to find the relevancy, adequacy, and similarity of the challenges (Liu et al., 2018; Yadav and Samuel, 2022). In the third step, data was obtained to implement the AHP method.

#### **3.2.1 Analytical Hierarchy Process**

The analytical hierarchy process is one of the Multi-Criteria Decision Making (MCDM) methods, and it is applied to a wide variety of decisions and the human judgment process (Chourabi et al., 2019). This was developed by Thomas L. Saaty in 1990 to organize the problem into a hierarchical framework consisting of objectives, criteria, and sub-criteria (Saaty,1990). Other methods can also be used in the MCDM problems, like ELECTRE and TOPSIS, but AHP has wide applicability for the system defined by various criteria and sub-criteria (Luthra et al., 2016). Researchers in the textile industry have widely used the AHP method because it is the most suitable technique to address the problem with its ability to handle complex decision-making scenarios by structuring

problems hierarchically and systematically evaluating criteria and alternatives. For instance, Bathrinath et al. (2021) employed this method to identify the risk factors that lead to accidents in the textile industry. Similarly, Wang et al. (2020) utilized this method for supplier selection in the textile industry. Piprani et al. (2020) applied the AHP method to prioritize resilient capability factors for dealing with supply chain disruptions in the textile industry. This method provides a quick, easy, and reliable approach to decision-making (Canco et al., 2021).

The AHP method is better than the other methods, as discussed in the previous section 2.8.1. The AHP method quantifies the expert's subjective response to choose the best possible solution for the systems while considering all the possible dimensions. In this current work, the AHP methodology was also utilized to evaluate the challenges of the handloom sector weavers. Figure 3.2 shows the flow chart. After the identification and refinement of challenges, data was collected through a questionnaire survey.

### **3.3 Data Collection**

For pairwise comparison, a survey was conducted by contacting weavers. It has been reported that the AHP method does not have a minimum and maximum limit on data. In their research, Govindan et al. (2014) worked out the barriers to a green supply chain with just 103 responses for AHP analysis. Similarly, Nikou and Mezei (2013) also worked with 100 responses. On the other hand, Daim et al. (2013) only used ten responses to implement the AHP method for their problem. For the AHP analysis, a questionnaire was distributed to 211 independent weavers, 72 master weavers, and 40 cooperative society weavers in the Varanasi handloom sector. Out of these, 176 independent weavers, 58 masters' weavers, and 34 cooperative societies weavers responded. For normalizing, the

respondent's data geometrical mean was used in the AHP method (Aull-Hyde et al., 2006; Yumoto, 2019).

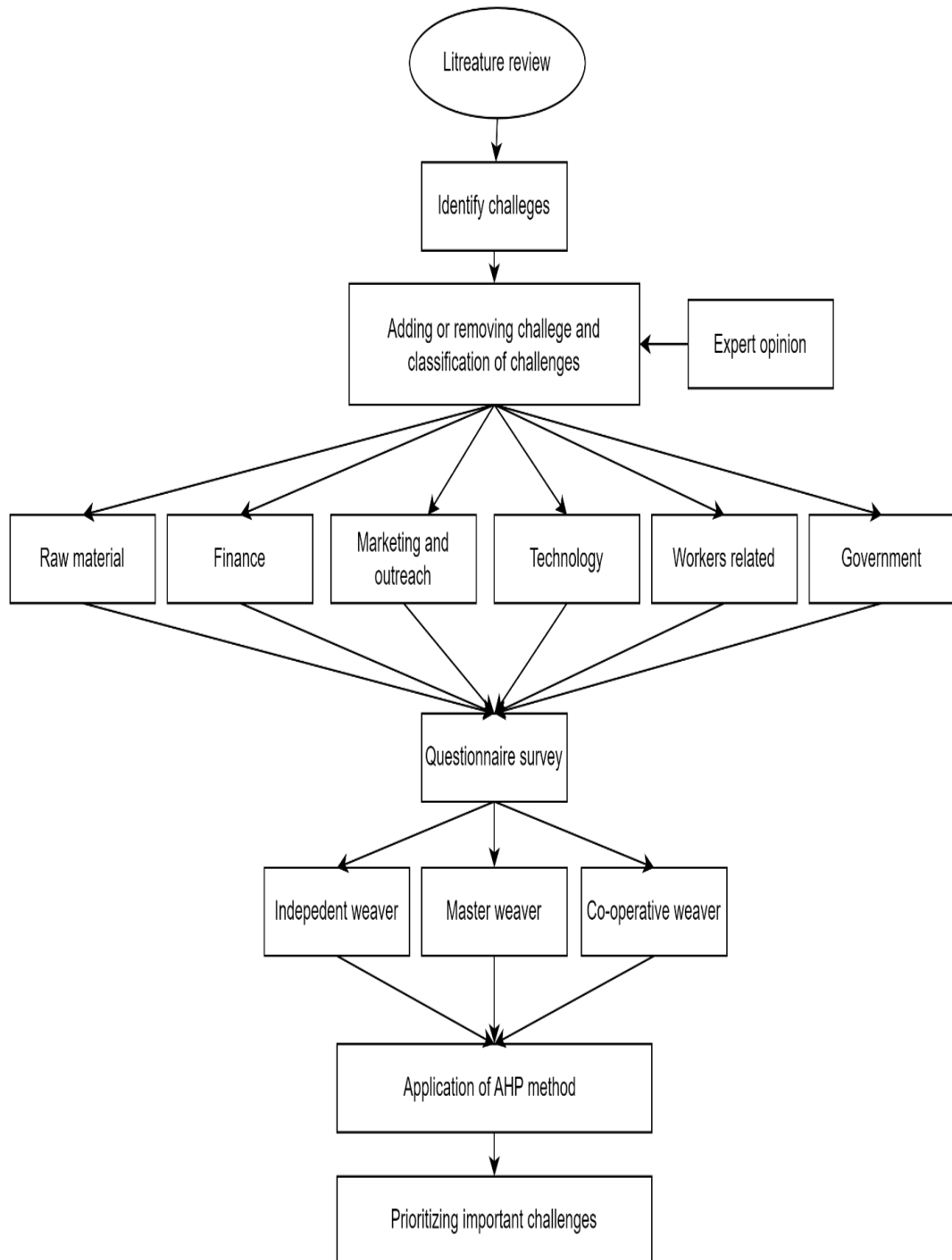


Figure 3.1: Research flow work for identification of the Weaver challenge

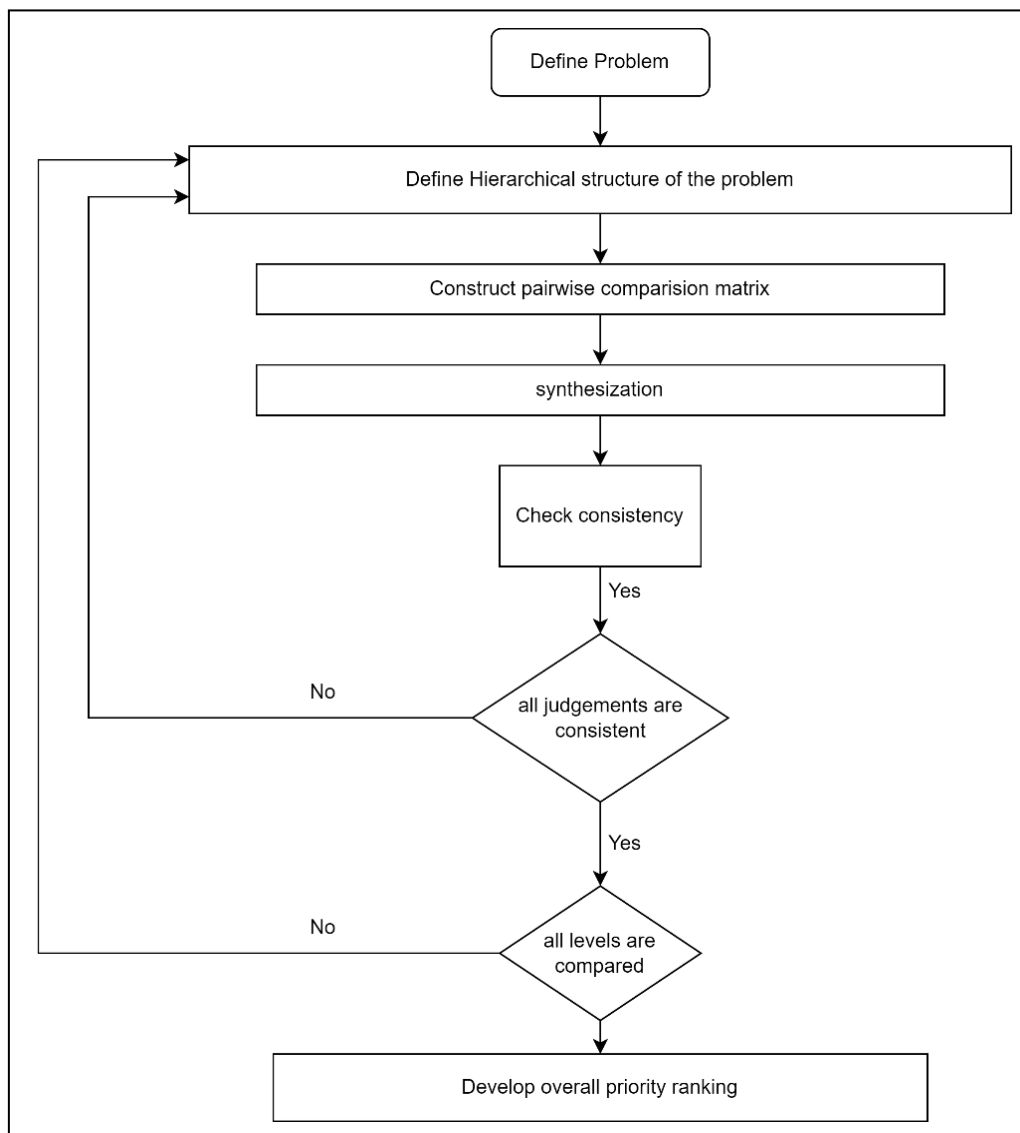


Figure 3.2: AHP method outline (Source: An adaptation of Hussain et al. (2016))

### 3.4 Implementation of AHP Method and Results

#### Step 1: Structuring the AHP Hierarchy

The purpose of the research is to identify and prioritize the challenges faced by the independent, master, cooperative society weaver in the Handloom sector based on their structure. As shown in Figure 3.1, the challenges were identified in the first step. For this purpose, a hierarchal structure was used. According to Pal et al. (2018), there are various approaches to defining the hierarchal structure of criteria, such as literature reviews or

using experts' opinions. Similarly, the challenges were identified through a literature survey and then grouped into their respective category based on the expert's opinion (Sequeira et al., 2021) in relation to Raw Material, Finance, Marketing and outreach, Technology, Workers-Related, and Government. The details of the categories (criteria) and their challenges (sub-criteria) are shown in Table 3.2. To rank the challenges, the AHP research framework was implemented, as shown in Figure 3.2.

Step 2: Data collection from weavers

In accordance with the objective of the study, a questionnaire having two parts was prepared. The questions related to the Pairwise comparisons of criteria were asked in the first part, and in the second part, pairwise comparisons of the sub-criteria questions were asked. For importance levels, a rating scale of 1 to 9 was used as 1- Equally challenge, 3- Moderate challenge, 5- Strong challenge, 7-Very strong challenge, 9- extremely important challenge and was adopted from Wind and Saaty (1980). For example, while comparing challenge 1 with challenge 2, if the respondent feels that both challenges are equally challenging, the respondent will mark as 1 or if the respondent feels challenge 1 is extremely more important than challenge 2, the respondent will mark it as 9. Figure 3.3 shows the sample of pairwise comparison questionnaires circulated to the independent weavers, Master weavers, and cooperative society weavers.

Please compare the level of relative challenge importance between Challenge 1 and Challenge 2								
1/9	1/7	1/5	1/3	1	3	5	7	9
○	○	○	○	○	○	○	○	○
Extremely less important challenge				Equally Challenge				Extremely more important challenge

Figure 3.3: Pairwise comparison questions

Step 3: Pairwise comparison of each criterion and sub-criteria

The questionnaire response from weavers is collected from the independent weavers, Master weavers, and cooperative society weavers. For example, the pairwise comparison of six main criteria for the independent weavers in level one had 15 pairwise comparisons (i.e.,  $n(n-1)/2$  with  $n=6$  pairwise comparison needs to be obtained in this study). The pairwise comparison data of the 10<sup>th</sup> independent weaver response is shown in Table 3.3. Similarly, respondents were asked to compare the importance of challenges concerning each sub-criteria, which yielded into 3×3 matrix, 6×6 matrix, 5×5 matrix, 3×3 matrix, 5×5 matrix, and 3×3 matrix for each sub-criteria. Table 3.3 indicates respondents feel that Criteria F (Finance) is (moderately) more important than Criteria R (Raw Material), whereas Criteria R is (moderately) more important than Criteria M, T, and W. Comparison of Criteria R and G gives equal importance.

Table 3.3: Example of pairwise comparison matrix data collected from 10<sup>th</sup> independent weaver.

<b>Criteria</b>	<b>R</b>	<b>F</b>	<b>M</b>	<b>T</b>	<b>W</b>	<b>G</b>
<b>R</b>	1	1/3	3	3	3	1
<b>F</b>		1	3	7	5	1
<b>M</b>			1	3	1	1/3
<b>T</b>				1	1/3	1/5
<b>W</b>					1	1/3
<b>G</b>						1

In order to aggregate individual respondent data of 176 responses from the independent weavers, 58 master weavers, and 34 cooperative society weavers into a single representative data, a geometric mean was used (Nithya et al., 2019; Coffey and Claudio, 2021). The aggregate criteria weight of the independent weavers, for example, is shown in Table 3.4. The complete calculations are provided in Appendix A.

Table 3.4: Aggregate criteria data for pairwise comparison of independent weavers

Criteria*	R	F	M	T	W	G
R	1	0.34	3.05	2.99	2.97	3.03
F		1	3.06	6.84	5.05	1.20
M			1	4.75	1.18	0.39
T				1	0.42	0.23
W					1	0.41
G						1

\* The meaning of each letter showing the criteria is defined in Table 3.2.

The computed results are used as input for the pairwise comparison matrix of criteria and sub-criteria. For each pairwise comparison matrix, the consistency ratio (CoR) is computed. To calculate CoR, the weighted sum vector is first obtained by matrix multiplication of the priority vector and pairwise comparison matrix. Each element of the weighted sum vector is divided by the corresponding priority to obtain eigenvector B. The maximum eigenvalue ( $\lambda_{max}$ ) is obtained by averaging numbers in vector B (Singh, 2016). CoR is expressed in mathematical expression as  $CoR = CI/RI$ , where  $CI = (\lambda_{max} - n)/(n - 1)$ ,  $\lambda_{max} = \text{avg value}$ , Random Index (RI) depends upon the n, i.e., number of criteria. The standard values of RI for up to 10 criteria are shown in Table 3.5. The value of CoR should be less than 0.10 for a better level of consistency. For each pairwise comparison matrix of criteria and sub-criteria for respondents, the consistency ratio is calculated to avoid inconsistent judgment by the respondents. If  $CoR \leq 0.10$  (acceptable value), then weight results are valid and can be used for further analysis of research. Otherwise, the respondent's data should be improved and revised (Wind and Saaty, 1980).

Table 3.5: The value of the random index (Source: An adoption of Wind and Saaty (1980))

n	1	2	3	4	5	6	7	8	9	10
RI	0	0	0.52	0.89	1.11	1.25	1.35	1.40	1.40	1.49

In this study, the value of CoR is observed as 0.07 and 0.02 (as shown in Tables 3.6 and 3.7) main criteria and sub-criteria of raw material for IW. While Table 3.6 shows

the relative weights of each criteria for IW in the priority vector column, and Table 3.7 for the sub-criteria of raw material. Similarly, these relative priority weights are calculated for MW and CW and used for calculating the overall weight for ranking in order to identify the important challenges faced by each type of weaver. The calculation of weights are shown in Appendix A, B, C. Such values of CoR for every type of weaver are shown in Table 3.8. These CoR values are less than 0.10, indicating that respondents' data used in the pairwise comparison are consistent, and hence, the results can be used for further analysis.

Table 3.6: Aggregate pairwise comparison weights of criteria for independent weavers.

Criteria	R	F	M	T	W	G	Weight of criteria
<b>R</b>	0.19	0.12	0.28	0.13	0.23	0.48	0.240
<b>F</b>	0.56	0.35	0.29	0.31	0.39	0.19	0.347
<b>M</b>	0.06	0.11	0.09	0.21	0.09	0.06	0.106
<b>T</b>	0.06	0.05	0.02	0.04	0.03	0.04	0.041
<b>W</b>	0.06	0.07	0.08	0.11	0.08	0.07	0.077
<b>G</b>	0.06	0.29	0.24	0.19	0.19	0.16	0.189

$\lambda_{\max}= 6.50$ ,  $CI= 0.10$ ,  $CoR= 0.07 < 0.10$  (Accepted)

Table 3.7: Aggregate data of independent weavers for sub-criteria raw material

	R1	R2	R3	Weights of sub-criteria
<b>R1</b>	0.48	0.42	0.50	0.465
<b>R2</b>	0.13	0.11	0.10	0.114
<b>R3</b>	0.39	0.47	0.40	0.421

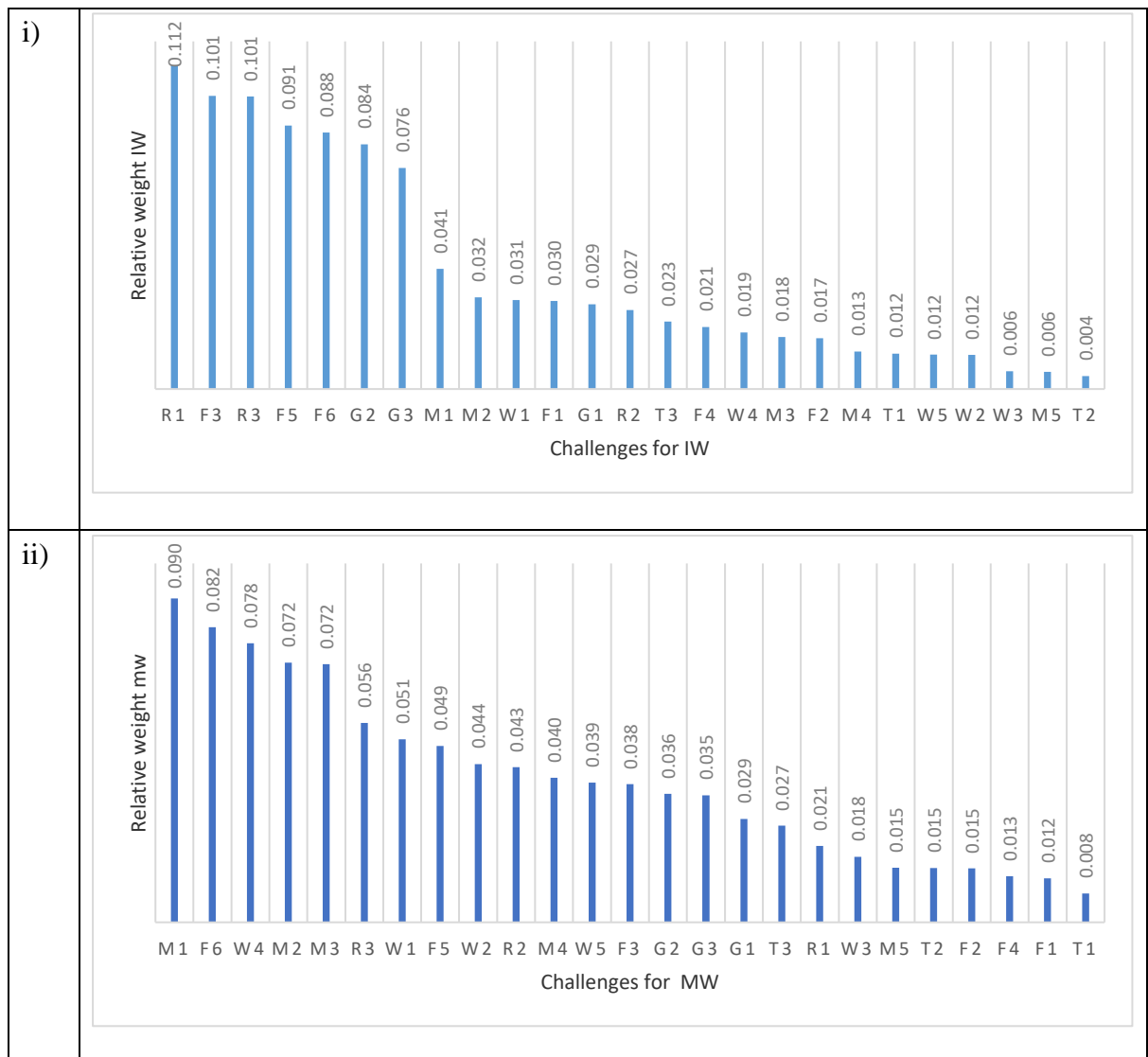
$\lambda_{\max}= 3.02$ ,  $CI= 0.01$ ,  $CoR= 0.02 < 0.10$  (Accepted)

Table 3.8: Criteria weight of weavers

IW		MW		CW	
Criteria	Weight	Criteria	Weight	Criteria	Weight
F	0.347	M	0.288	W	0.238
R	0.24	W	0.225	M	0.216
G	0.189	F	0.212	F	0.206
M	0.106	R	0.123	R	0.149
W	0.077	G	0.101	G	0.108
T	0.041	T	0.051	T	0.083

CoR= (Accepted)	0.07<0.10	CoR= (Accepted)	0.05<0.10	CoR=0.07<0.10 (Accepted)
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Table 3.8 shows the criteria for IW, MW, and CW arranged in decreasing order of the computed weight and shows the importance of criteria for each type of weaver like. Finance (F) is the most important criteria (weight of 0.347) for independent weavers, while Marketing and outreach (M) is for master weavers. Similarly, weights of other criteria for each of the weaver types can be identified in Table 3.8. The CoR values of all three criteria are below 0.10, so these weights can be used for the calculation of overall weight.



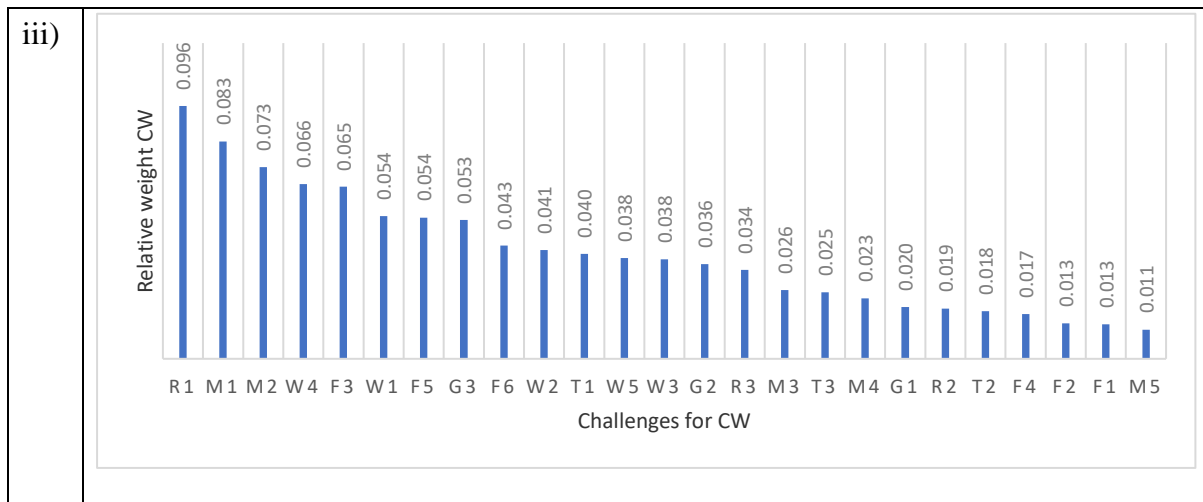


Figure 3.4: Recheck the References for completeness and std format.

#### Step 4: Calculating rank for the challenges faced by the weavers

The next step is to find an overall weight for the weight obtained in criteria, and sub-criteria were then synthesized. First, the second-level sub-criteria weight was multiplied by the criteria weight to get the overall weight of the challenge. The weight is calculated for each challenge faced by the weaver using the formula Challenge weight of  $R1 = R1(\text{sub-criteria weight}) * R(\text{criteria weight})$ . For example, the challenge weight of  $R1 = (0.465) * (0.240) = 0.112$ . Similarly, the weights of the other challenges are calculated and arranged in decreasing to rank the challenges. Once again, the expert opinion was obtained on the results, and it was opined to include ten such top challenges. Figure 3.4 shows these results.

Challenge R1, the price of the raw material is very important to the IW and CW, while MW are least concerned about this challenge as they can afford high prices as well. R3, the quality of the raw material is creating more concern for IW and MW, while CW are facing relatively less concern with it. F3 high interest rate seems to be more affecting and challenging to all types of weavers. F5, return on the investment is a greater concern

to all types of weavers. Their business cycle may be too long to give the return on time. Challenge F6: less profit on investment is more or less important to all types of weavers. This shows that all types of weavers are not satisfied by the profit margins. IW are highly affected by the challenge G2, poor enforcement of laws, while the same do exist, look as a great concern for MW and CW. Similarly, G3, ineffective implementation of schemes affects IW and CW more, their business conditions can be improved well by proper implementation of each scheme.

Challenge M1, lack of customer preference, and M2 lack of selling strategies are greatly affecting the business of all types of weavers orientation of thinking of such weavers to these challenges may bring them more business. Also, W1 poor health of weaver are greatly affected.

The operations of all types of weavers. W2, poor skills are not a concern in the case of IW, while it is highly affecting MW and CW. This is because of the level of skill that flows over ages from one generation to another generation, in the case of IW while MW and CW depend on the skills of hired weavers.

From Figure 3.4 the price of the raw material is the top challenge to the independent weaver (relative weight of 0.112), and the second top challenge is the high interest rate (0.101) and quality of raw material (0.101). The top three challenges of the master weavers are Lack of information regarding customer preferences/trends (0.090), Low profit on investment (0.082), and Migration of weavers (0.078). Similarly, the top three challenges for the cooperative society weaver are the price of raw material (0.096), Low profit on investment (0.083), and lack of information regarding selling strategies (0.073).

### 3.5 Discussion and Conclusion

An Analytic Hierarchy Process (AHP) approach was implemented to identify various challenges of weavers in the handloom sector after COVID pandemic. Table 3.8 shows the prioritized challenges faced by weavers after COVID pandemic. Finance (F) is the top challenge that independent weavers are facing, while marketing (M) and worker-related problems (W) are for master weavers and cooperative society weavers. It was evident from the weaver community that IW and CW are facing a paucity of funds to run their operations smoothly, while master weavers are unable to promote their produce. All types of weavers were found to be adamant about changing technology. Table 3.9 shows the prioritized sub-criteria with their weights. Looking at the top three sub-criteria, IW has bigger concern for the challenges as “price of raw material (0.112)” at the top, followed by “the rate of interest of the loan (0.101)”, and “quality of raw materials (0.101)”. A study by Rosyidi et al. (2021) also showed that the price of raw materials played a major role, and the fluctuation in the price of raw materials affected the sector's profit. So, for the development of independent weavers, there is a need for work in the supply of raw materials at low cost with high quality. The second important challenge is the high rate of interest in the Varanasi handloom sector, which is also coming in line with the study of Varghese and Salim (2015) on the Kerala handloom sector, highlighting the problems with the high rate of interest. Bhuvanewari and Kannan (2018) also suggested that the government and private banks must be assured of the credit facilities to the weavers at a lower rate of interest. The third challenge faced by the IW is the quality of raw materials, which surfaced very similar to the findings of Tanusree (2015) (who showed the lack of standard quality and its measurements in the Varanasi handloom sector) and the studies of Rao and Rao (2015), Jayachitra and Leeson (2016). It shows that there is a requirement to take preventive steps for the availability and quality assurance of raw materials.

For the master weaver, lack of information regarding customer preferences (M1) and selling strategies (M2), Low profit on Investment (F6), and migration of weavers (W4) are dominant in the sector. This shows that the master weavers are facing various challenges caused by the middleman or different types of traders' involvement in the supply chain network. They usually don't face the customer rather, middlemen interact with them and the customers. So M1 and M2 challenges related to the lack of information are looking to be the top challenges. The study results are in accordance with the study of Shamitha and Balasubramanian (2018), which also revealed weavers are not able to supply the products in tune with customers. Also, Gilboa et al. (2019) reported that in business, the customer seeks personal care and information sharing so that the customers will gain confidence in the business and they will trust. So, there is a need for close attention to the customers' needs and preferences to prevent a decline in revenue. So, it is necessary for the weaves to explore the customer's interests and make products suitable for them (Mahapatra et al., 2019). Another dominant challenge for master weaves is the migration of the weavers. The old weaves. Because of health issues, they are not willing to work on the looms, while the younger generation is not willing to adopt weaving as a full-time job because of a lack of recognition in society and low salaries. While some of the weavers do not have the skills to weave complicated designs. So, there is a scarcity of skilled weavers to work under the master weaver. The study by Balaji and Mani (2014) and Das (2021) also stated that skilled workers are migrating to other sectors, such as construction workers, rickshaw pullers, and vendors.

The weavers who are managing the cooperative society are facing the challenges of the price of the raw material (R1), the lack of information regarding customer preferences (M1), and the lack of information regarding selling strategies (M2), etc. Similar to IW, CW also faces the challenge of price (R1). Cooperative societies are provided with

a discount rate for raw materials by government agencies but sufficient to meet the peak/seasonal demand. So, to fulfill the demand of the customer, cooperatives will procure material from the open market at a high cost, which may be due to a short period of notice. Very similar to MW, the CW also faces challenges related to customer preference (M1 and M2), which may be due to a lack of understanding about customer taste, a good management system and governance, and the role of the middleman and traders. The CW has a poor understanding of e-commerce platforms to sell their produce and is also unable to utilize the full potential of any social media platform. Most of the cooperative societies need to be updated with the technology for that real-time update of the products is needed. This weaver has to be trained for using the e-commerce platforms.

It is evident that the priorities of the challenges for the weavers working in different structures (i.e., the types as IW, MW, and CW) are different, with few as common to all. In order to mitigate the risk due to these challenges, there is a need to focus on different strategies for different types of handloom weavers than strategies usually designed for the whole weaver community for common issues. Like customer reachability is a major common issue related to the MW and CW. In the present market mechanism, the weavers are not able to reach the customers directly, and so the weavers usually do not innovate on the requirements of the customers during the design thinking. This leads to a situation where customers do not like some of the products. In order to improve the situation of the handloom sector in Varanasi City, it is evident that various strategies are needed for different types of weavers due to the varying challenges faced by them. The policymaker can use these results to make new policies according to the weaver's category, like developing a training program for weavers to use social media platforms for their sales and marketing. Similarly, other challenges, like migration, raw material, etc., can be addressed.

This chapter ranks the challenges of the weavers according to the weaver's structure; among them, lack of information regarding customer preferences is one of the major barriers to the master, cooperative society weavers, and even to independent weavers but with low priority. The next chapters will discuss handloom customer requirements and develop strategies to fulfill those requirements. On the other hand, IW faces challenges related to raw materials as a top priority. Government interventions are required to address such issues.

