

ABSTRACT

Weaving in addition to being one of the oldest art forms is also one of the most prolific employment generating industries in India. However, of late the Industry has faced a significant amount of weaver dropout. 'Dropout' here is defined as the phenomenon of deserting weaving as a key full time career option for other avenues, after they have learnt the art of weaving or have practiced it for a certain length of time. The current study specifically focuses on the weaving cluster of Majuli, a culturally rich river island based in one of the upcoming states of India, Assam. The study uses the Porter's Strategic Five Forces Model of Industry Attractiveness to gauge into the potential competitive advantages and disadvantages of the Majuli Weaving Industry. It then goes on to briefly look into some policies meant to enhance the weaving (craft based) scenario in India, and relating it to the aforementioned competitive disadvantages faced by the weavers of Majuli. The discussion on the policies and scope of potential improvement is primarily looked into from a Behavioural Economic perspective.

Keywords: Weaver Dropout, Majuli, Porter's Five Forces Analysis, Policy Design, Behavioural Economics

INTRODUCTION

Weaving in India is one of the oldest art forms dating as far back as 5000 years (Przybylek 2018). While handloom weaving itself requires extreme high levels of skill, weavers on the contrary have been placed among the lower strata in the Indian caste system. The skill set is usually handed down through generations in the Indian system among families. Growing exploitation, globalisation, poverty, stringent competition in the apparel industry, electric looms and an opportunity to pursue other "more regarded" careers has caused a significant fall in the number of weavers in India (Minsitry of Textiles, GoI 2017). This is a major challenge for the Indian economy as weaving provides one of the most significant non-farm employment opportunities in India, with almost 4.33 million individuals engaged in the sector across the nation (Handloom Census, 2009-10). The current

study focuses on the case of Majuli handloom weavers, who like most other weavers have learnt their art through generations within their families rather than any formal mode of education. The study attempts to identify some of the key reasons that may have caused the “dropout” (the phenomenon where existing weaver families are moving away from weaving to other career options as their key profession) of the weavers from the mentioned trade. As can be inferred from *fig. 1* the percentage of adult weavers and allied workers vis a vis total weavers and allied workers, is dismally low in the North Eastern Region of India (NER). This is indicative of a significant dropout as a person matures into an adult. So while the total number of households practicing weaving in NER is not diminishing, unlike most other part in the country, NER faces a challenge of different sort. Here even though a person is trained in weaving, they chose to go for other career options over weaving. While for the rest of the country, almost 88.8% of the individuals trained in weaving go on to become adult weavers, in the North East is about 43.78%.

The current study attempts to understand this phenomenon of “dropping out” or migrating off to a different career option, as the person matures, in NER of India, by focusing on the case of Majuli. The study uses the Porter’s 5-forces model (Porter 1980) to look into the competitive or strategic implication faced, from the artisan’s perspective. It then tries to correlate the various factors faced by the artisan’s to socio-psychological or behavioural implications that may have resulted into the dropout. Most studies on issues pertaining to craft clusters, focus on technical, political, economic or socio-logical aspects. As far as the authors are aware, there have been negligible studies on the socio-psychological or behavioural aspect of the issue. The methodology adopted to understand the same is the ethnographic approach along with in-depth interviews with weavers. Models from behavioural economics have been referred to understand such behaviour. The purpose of the study is primarily to pave way for future research with an attempt to prevent such dropouts in the future in various handloom clusters of NER and India at large.

LITERATURE REVIEW

The Art of Weaving and Majuli

Apparels or cloths go way beyond its functional aspect of adorning and covering up the body. In various cultures across the world cloths intensifies sociality, especially during specific occasions such as marriages, deaths, rituals of birth, initiation and curing (Schneider 1987). For example in the outer islands of Indonesia, cloths of specific types are valued to “swaddle the new born”, “wrap and heal the sick”, “embraces and unites the brides and grooms” and even “enshronds the dead” (Fox 1977). India much like other cultures, if not more so, has had a very rich history related to woven fabric and

apparel. While apparel meant to be adorned as cloth, forms a significant part of all weaving; an increasing significance is being associated to other woven fabric, with greater non-functional attributes, such as the Assamese “*gamosa*”, which is a symbol of the Assamese culture and is often used in public events to infer respect to the recipient.

Indian handloom weaving which has found its mention in the Vedas dating back to 5000 years still occupy a significant economic role in the country, employing nearly 4.3 million people. To add to the significance of the handloom sector, it is a part of a much larger textile sector accounting for 14% of Industrial Production, 4% of GDP and 27% of India’s Foreign Exchange Inflows, employment to almost 45 million employees (India Brand Equity Foundation 2014). Indirectly through linkage with other industries it generates employment to a much larger number. Considering the mere dimension of employment, even a slight drop in its popularity as a career, poses significant threat to the demand-supply equilibrium and hence the entire industry.

Through the vast spread of the country and among its heterogeneity, the weavers and their weaves tell unique stories about their rich cultural heritage. In more ways than one, weaving is not just merely an economic support for the country in terms of providing employment, but also a means by which a rich story of India’s heritage is being retained, thereby gaining cultural importance as well (Chutia and Sarma 2015).

Majuli, in Assam, India, is often considered to be one of the largest river island of the world, and is home to 600 year old Vaishnavite culture. It is also home to a varied group of tribes such as the Mishings, Deoris, Sonowals, Matakas to name a few. Although most have been involved in weaving, the Mishings are one of the most proficient as well as prolific weavers in the island.

The art of Weaving in Majuli like most other craft clusters, has evolved at its own pace. Art often tends to change itself as artists attempt to reposition themselves, to make their art more relevant in the ever changing environment (Tolentino 2012). Market forces (Ondrusova 2004) as well as economic forces or forces of commercialization (Parezo 1981) often results in alterations in the craft. Such forces can often be mitigated by the artisans or craftsmen in one of two ways. First, they can keep up with the market demand and alter their art accordingly. The art of Weaving in Majuli like most other craft clusters, has evolved due to the above mentioned forces (Chutia & Sharma, 2015). Second, they can revert back to those products which do not require them to make much alteration, such as typically traditional items, that is known for its authenticity. Examples of such items with respect to Majuli would be the Assamese “*Gamosa*”. This phenomenon however restricts their productivity, as they are unable to venture into too many varied product. A significant result of the

above is that the weavers then may stop attempting to become competitive and restrict their production for consumption purposes only. At best they may venture into selling in the local markets, which in turn would fetch them a miniscule profit margin, finally resulting into this being written off as a career option, especially for the bread-earners of the family.

The key problem being addressed in this paper is resulting from the second type. For, the weavers of Majuli, with each passing generation, writing off weaving as a career option is what seems to be threatening the art. Overall in the country, according to official surveys published by the Office of the Development Commissioner (Handlooms) it was reported that the number of weavers dropped from 12.4 million in 1970's to 6.4 million in 1995, all the way down to 4.33 million in 2010. In the NER of India, it is the conversion from a mere art to profession, is what has caused a downward spiral of the sector. Thus in terms of number of people taking up weaving as a life line, it is as much a problem with Majuli, as it is with the entire nation.

	Across country	In the North East Region	% of total
Total looms	23.77 lakh	14.11 lakh	59.36
Persons engaged in weaving and allied activities	43.32 lakh	21.56 lakh	49.76
Adult weaver and allied workers	38.47 lakh	9.44 lakh	24.54

Table 1: Comparative analysis between weaving industry of India vis-a-vis NER (Source: "A Ready Recknor Of Major Government Handloom Schemes - Explained In A Nut Shell" 2018)

Schemes and Initiatives of the Government and other Associations

To assume that the handloom sector has not been given its due share of importance, in terms of policies, would be a gross error. It has been recognised by the Government to be a key employment generator, and there have been policies to protect the sector. The Ashok Mehta Committee (1978) recommendations, The Handloom Reservation Act (1985), the Handloom Marks (2000), Geographical Indicator Act (2003) and most recently All India Handloom Brand (2015), have all demonstrated the awareness on the part of the Government regarding the importance of the handloom sector.

The All India Artisans and Craftworkers Welfare Association (AIACA), established in 2004 as a Society, is a membership-based organization for the handloom and handicrafts sector in India, aiming to develop craft-based enterprises and explore new and commercially sustainable models of livelihood generation (AIACA, 2016). The association engages into activities such as Enterprise development, Design and Product Development, access to finances, Market access, and digital empowerment. Under the Enterprise Development Program AIACA initiates organization building, registration and statutory compliance, financial management, production and inventory management, business planning, marketing and branding. Under the Design and Product Development program focuses on up-skilling, developing new product ranges and new designs, as well as training and skill building in areas which can help the organization to diversify its product lines. Financial access for infrastructure development, managing working capital, by helping weavers access financial schemes of the Government and other financial institution, is also an area of AIACA. It also facilitates market access by developing the enterprise and providing Craftmark, to validate the authenticity of craft items. The whole effort of developing market access by AIACA includes issuing Craftmark, listing members name in Craftmarks website, representing members in annual catalogues as well as gifting catalogues for corporate, representing members in tradeshows, retail exhibitions, wholesale fairs, and social media. It also provides national and international linkages. It also aids members in terms of quality, timely delivery and logistics. The Digital Empowerment program of AIACA lays stress on training members on digital media especially for high visibility and market promotion.

India Handloom Bazaar, a Ministry of Textiles initiative also focuses on giving direct marketing access to weavers. It is designed to operate like a ecommerce portal, with the idea of linking all members to the national as well as the international market. It is specifically designed for certain product categories.

The Ambedkar Hastshilp Vikas Yojana (2002) primarily directed to the handicraft industry, consists of various features that are equally relevant to the Handloom Industry, and has been adopted in similar schemes directed to the Handloom Sector, such as the NERTPS directed specifically to the NER of India. It has various components such as the Community empowerment program, targeted at mobilizing artisans to form SHG or societies. This is assisted by financial support also. Subsequently these societies or SHGs are supported by engaging Implementing agencies helping them design detailed project reports and diagnostic study reports. The scheme also provides training to the artisans and even innovation programs to help the artisans create new design prototypes.

The Ministry of Textiles has also signed MoUs with private e-commerce firms such as Flipkartv(2014) to give the artisans the necessary support as well as direct access to markets by providing online

marketing platform. This is aided by the analytical capabilities of the e-commerce firms, helping the artisans in acquiring customers, scaling up their business and getting remunerative prices. The above mentioned schemes are by no stretch of imagination exhaustive. There are other schemes such as Comprehensive Handloom Cluster Development Scheme (CHCDS), Mahatma Gandhi Bunkar Bima Yojana (MGBBY), Rashtriya Swasthya Bima Yojana (RSBY), Cluster Development Project in NER (CDPNER), North Eastern Region Textile Promotion Scheme (NERTPS), Market Promotion of North East Textiles and Handloom Products etc. which operate on the lines of formation of handloom societies/SHGs; providing insurance to weavers; financial assistance at various levels and activities; forward and backward linkage to market and suppliers respectively; training, innovation and technological upgradations to weavers.

But as the numbers show, the policies have not been able to reverse the dropout of handloom weavers. The current paper studies the issue from a very different perspective. Rather than focussing first on the policy issues, the current paper qualitatively attempts to understand the various issues faced by the weavers from the Industry Attractiveness perspective. It then goes on to identify the various schemes designed to address the issues. Finally, the probable pitfall of the schemes in resolving the key issues is discussed from a socio-psychological or behavioural standpoint.

Methodology

The current paper is predominantly an exploratory study into the dropout of the weavers of Majuli. It primarily adopts a qualitative means of research. The research has been done via in-depth interviews of artisans, their relatives and certain stake holders in order to understand the issue or causes of dropouts from various perspectives. The same has been done by studying them in their natural working environment of Majuli, at their homes and work places (ethnographic research). The current paper attempts to classify the various issues uncovered during the study by using the Porter's Five forces model (Porter, 1980) of the weaving Industry in Majuli. The 5-Forces model by Porter studies the competitiveness of an Industry in order to find out how attractive or lucrative is a certain Industry. Porter's Five Forces Model has been used for evaluating industry attractiveness in several studies. Some of the interesting analysis consists of the application of 5-forces on the Romanian book publishing Industry by Grigore (2014), especially due to the turbulence and diverse nature of the business. Similar to the Romanian book publishing industry, handloom products are often meant for gifts and mementos. Some of the other notable fields in which Porter's model has been applied recently is Indian Information Technology Industry (Saji and Harikumar, 2014), Malaysian Higher Education Industry (Hua, 2011), European Automotive Manufacturing (Ahmadinia

and Karim, 2016), Social Media (Musonera and Weber, 2018), South African Healthcare Industry (O'hara et. al., 2017) to name a few. As can be observed from the above cases, Porter's 5 forces is relevant in a variety of fields across the globe.

The assumption made in the current paper is that the major cause of the "dropout" is a depleting attractiveness of the weaving industry, among the weavers of Majuli, vis a vis other career options.

The various loopholes or variables causing unattractiveness of the industry are categorised on one of four factors, based on the source from which the unattractiveness stems. Then we look into some Government schemes from the perspective of finding out, if the schemes consist of the necessary components to resolve the key factors or issues. Finally, the policies or schemes are briefly discussed from the perspective of socio-psychological behaviour. The objective here is to explore the potential pitfalls of the schemes.

Since the purpose of the current paper is to understand the dropout in numbers of weavers in Majuli, we consider the weaving industry of Majuli as one industry. Based on the above assumption we attempt to understand the attractiveness of the industry. It is critical to acknowledge that variables affecting other clusters such as increase in price of yarns, or drop in overall handloom demand are variables cutting across all clusters and hence need to be treated as Generic External variables which are not the key issue being addressed here. After identifying the roles of the five forces; the sources of the reducing popularity of weaving in Majuli is attempted to be identified, based on the five forces. Subsequently some of the schemes that may target the key inadequacies or the pillars are identified.

Findings and Analysis

The data is evaluated from the perspective of Porter's Five Forces Model. The data has been gathered by conducting individual interviews, group discussions and observation during the ethnographic study.

Bargaining power of Suppliers:

As gathered during the interviews, the weavers in Majuli rarely use dyes. They are into using dyed yarn. Yarn is the most important input to the weaving industry of Majuli. There are three major sources of yarns i.e the yarn banks, handloom office as well as private players from local and nearby markets. Yarn Banks as well as Handloom offices are run by the Government, and provide yarns at highly subsidised rates. However, as stated by the weavers, the amount of yarn available with these institutions only forms a minor portion of the overall yarn requirement. Moreover, the subsidisation

depends on availability of Artisan Cards. The number of Artisan Cards is significantly fewer than the number of weavers in Majuli. This pushes a majority of the weavers to purchase yarn from certain private players. The weavers, source the yarn from private players at an individual level, and also at a relatively small quantities. Considering the number of weavers vis a vis private players selling yarns, there is little or no bargaining power with the weavers. The upper hand rests with the suppliers. Some of the weavers do try and make their own silk by rearing silkworms, but the quantity that they generate combined with their level of expertise, does not give them a great deal of backward integration capability. While the weavers can switch suppliers comparatively easily, without having to bother much about the switching cost; suppliers often tend to place orders of finished goods with the weavers. This gives the suppliers a scope to forward integrate. Also due to this knowledge that large orders of finished goods may be placed by the yarn retailers; some sort of switching cost is created, as weavers are aware that if they switch to a new supplier, they will not get orders from the existing suppliers. Also the new suppliers will take time to settle down with the new weavers, before themselves placing orders. This will result in loss in business opportunities for the weavers. Also, the knowledge of cost of various yarns and that of market conditions is limited with the weavers. During the research it was found that most of the weavers considered a certain branded synthetic yarn, locally referred to as the "Padmini" yarn, as cotton yarn. The lack of knowledge is primarily due to lack of training regarding yarns among the weavers. This too puts the weavers at a loss, when it comes to negotiating with the suppliers.

The handloom machine itself is either made by the weavers, or procured through government sources. Although the capacity of manufacturing the looms may seem to be giving an upper hand to the artisans, in reality these looms are relatively old fashioned, and hence extremely inefficient. Therefore, this capability of backward integration is actually hurting the industry more than helping it. The Government under its various schemes provides handloom to the weavers, but this too is in limited numbers. Private players are seldom used by the weaving industry directly to provide looms.

Similarly, reeds produced by the weavers are made of bamboo, which gives the product a poor and coarse finish, not appropriate for commercial purposes. The other source from where reeds can be purchased is the private players from nearby cities. Iron reeds available with suppliers, although produce much better results, are attached with certain social taboos in Majuli. Iron reeds are said to bring bad omen to the people using or even carrying it.

Spools required in the process of weaving are purchased from private players from nearby cities. Here too the private players gain the upper hand, since the procurement is mainly done by individual weavers.

One of the major supplies for this industry is trained human resources. While weavers are trained since their childhood, especially among the Mishing tribes, taking up weaving as a profession, especially for males is not promoted by the society. Other professions such as agriculture, handicraft, seeking employment outside of Majuli, severely compete for the human resources, resulting in a lot of drop out of weavers.

Overall, supplier's bargaining power is pretty high for the weaving industry in Majuli. This is further amplified by the geographic isolation of the river island.

Bargaining power of Buyers

The buyers of the weaving industry mainly comprise of Private stores in Majuli, Jorhat and nearby cities; certain NGOs; International Buyers; Tourists from India as well as abroad; and also localites.

Much as in case of suppliers, the buyers are more organized and have more options in terms of vendors. Individual weavers are not in a position to bargain with them, because of lack of price knowledge. Also the buyers are more co-ordinated gaining them a little bit of Monopsony. Buyers often tend to negotiate long term tie ups with the weavers in exchange of tighter margins, which also works to the advantage of the buyers. In case if the weavers are not able to provide the desired prices, the buyers can change vendors, since the switching cost of renegotiation with a different weaver is miniscule. This is further aided by lack of product differentiation, with almost all weavers providing similar products, with similar finish and motifs. The same is also true for local buyers, who are aware of the various vendors selling the undifferentiated products.

The upper hand however is enjoyed over the tourists, who are neither price sensitive, nor organized buyers. Also they do not have sufficient price information, resulting in greater bargaining power of the incumbents.

Overall, the bargaining power lies with the buyers.

Industry Rivalry

Here a clear distinction needs to be made, between the competition within the weaving cluster of Majuli (since weaving in Majuli is considered as an Industry); and the competition among the various nearby comparable clusters. This paper basically attempts to understand the within industry rivalry rather than among dusters; since comparing other clusters is beyond the scope and purpose of this paper.

The number of competitors in the industry is very high as almost every household seems to be having handlooms and each of them tend to act individually. Majuli with a population of 1,67,304 (Directorate of Census Operations, Assam 2011) has around 85,000 people who are engaged in some sort of fund generating activities. While about 37,000 of them are cultivators and about 31,000 marginal earners. Another about 2,600 comprises of household industries and roughly 12,000 of them are into other work. Majority of the marginal earners and the ones involved in household industries are into weaving. This results in a very high concentration of players in the weaving industry. There is a lack of any major player, resulting in a high concentration ratio and low Herfindahl index ("Herfindahl-Hirschman Index" 2018). Although, of late certain co-operative societies and NGOs are starting to fill the gap of a market leader, market growth itself is poor with a nationwide growth of around 1% in the year 2014-2015 (Vyshnavi and Nair 2017); with most of the artisans having similar skill sets and training resulting in low scope of differentiation. Exit costs on the other hand for incumbents are rather high, since almost all of them are trained in weaving, especially among the Mishing Tribe. Usually demand for the products is cyclical, with festive seasons such as Bihu being the peak time. This results in excess inventory pushing down the supply curve and making it an unattractive industry. Due to the above mentioned situation and lack of education and therefore long term perspective of the weavers, tacit coordination does not occur, resulting often in price wars among neighbours and fellow weavers.

Industry Substitutes

Woven apparels from Majuli are primarily bought for daily use by the localites for its functional attributes. Alternatively, it is purchased by tourists and other entities such as NGOs, as a memento for its symbolic attribute. As far as daily use is concerned the products sold by them such as the "*Mekhela Sador*" or the "*Gamosa*", two of the most popular products of the local weavers, are often substituted by power loom products which has a similar appearance, better finish and is much cheaper and faster in terms of turnaround time. The cross price elasticity of the power loom products vis-a-vis handloom products, especially for functional purposes is extremely high. It can be reasoned from the perspective of literally no switching cost.

On the contrary the other type of buyers who are interested in the symbolic attribute may procure alternatives such as handicraft items or even masks, since it provides them with the symbol of Majuli and its heritage. Handicraft items are also easier to demonstrate in the residences or offices of the buyers, thus better fulfilling the purpose of the purchase. Handicraft items such as a "*jaapi*" can be displayed continuously at a place of the buyer, while handloom product such as a "*Mekhela Sador*" can only be worn on certain occasions, that too at the risk of repetition. While the cross price

elasticity of the handicraft items is not expected to be as high, vis a vis handloom products, this phenomena is true because of demand inelasticity of tourists.

Threat of New Entrant

The industry at its current state is not able to attract too many new players. The weavers entering the market are usually the individuals who are trained in weaving since childhood, such as members of the Mishing Tribe. Lack of economies of scale; low sunk cost; very little competitive advantage for incumbents; make the industry extremely undesirable.

The weaving industry of Majuli is not protected by means of Patents or Licences. Individual weavers rarely engage into creating new designs for their products and as a result the products are usually undifferentiated. Lack of Jacquard based handlooms is a major cause for the weavers, not being able to create new designs. The learning curve in the industry is rather low, since the industry is not innovation oriented one based on number of patents filed in different industries (Friedmen 2015). There is also no pioneering brand that has been able to establish itself. All of the above factors make the industry easy to enter and undesirable for the incumbents.

<i>Competitive Forces</i>	<i>Remarks</i>	<i>Attractiveness high/low</i>
<i>Threat from Suppliers</i>		
<i>Sellers Concentration</i>	<i>Relatively High</i>	<i>Low</i>
<i>Substitute for Supplier Products</i>	<i>Non-Substitutable</i>	<i>Low</i>
<i>Supplier Switching cost</i>	<i>Neutral</i>	<i>Neutral</i>
<i>Supplier Forward Integration</i>	<i>Highly Unlikely; Tie ups common</i>	<i>Neutral</i>
<i>Price Information with Incumbents</i>	<i>Low</i>	<i>Low</i>
<i>Threat from Buyers</i>		
<i>Buyers Concentration</i>	<i>High (Except Tourists)</i>	<i>Low</i>
<i>Buyer Size</i>	<i>Higher than sellers</i>	<i>Low</i>
<i>Product Differentiation</i>	<i>Low</i>	<i>Low</i>
<i>Switching Cost for buyers</i>	<i>Low</i>	<i>Low</i>
<i>Buyer backward Integration</i>	<i>Low; Tie ups common</i>	<i>Neutral</i>
<i>Industry Rivalry</i>		
<i>Number of Competitors</i>	<i>Very high, unorganized and small</i>	<i>Low</i>

<i>Market Growth</i>	<i>Low</i>	<i>Low</i>
<i>Opportunities to differentiate</i>	<i>Low due to technical inadequacy</i>	<i>Low</i>
<i>Exit costs</i>	<i>Neutral</i>	<i>Neutral</i>
<i>Excess Capacity</i>	<i>Cyclical demand results in excess capacity</i>	<i>Low</i>
<i>Possibility of Coordination among rivals</i>	<i>Low as they are small, numerous and no clear market leader</i>	

Threat of Substitutes

<i>Switching Cost to Substitute</i>	<i>Low</i>	<i>Low</i>
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Threat of New Entrants

<i>Sunk Cost</i>	<i>Low</i>	<i>Low</i>
<i>Patents and Licences</i>	<i>Not Available</i>	<i>Low</i>
<i>Pioneering Brands</i>	<i>None</i>	<i>Low</i>
<i>Pre-commitment Contract</i>	<i>None</i>	<i>Low</i>
<i>Economies of scale</i>	<i>Low</i>	<i>Low</i>
<i>Learning Curves</i>	<i>Low due to lack of innovation</i>	<i>Low</i>
<i>Retaliation by incumbents</i>	<i>None</i>	<i>Low</i>

Table 2: Showing the various industry attractiveness factors and Majuli Weaving Industry Attractiveness levels

Key Sources of the Inadequacies depicted in the five-forces analysis

Based on the above analysis, the underlying reasons can be linked to one of the four following issues:

Disorganized nature of Weavers

The fact that most of the weavers in Majuli are operating at an individual level without any form of collaboration among each other, renders them weak, with literally no negotiating powers. This leads to a variety of issues such as both sellers' concentration and buyers' concentration being higher than that of the weavers. The unorganized nature also results in increasing the number of competitors, giving it the form of almost a perfect competition, where the best the weavers can do is to earn normal profits. On similar lines, the numerous unorganized weavers make co-ordination among them impossible. Also this makes creating a pioneering brand or any form of organised incumbent retaliation impossible.

Lack of Innovation

Although over generations the weavers in Majuli have altered certain ancillary aspects of their designs; overall the innovation and the speed of it is not keeping up pace with the environmental change. This is evident from the fact that they are still committed to using bamboo reeds, self made handlooms, without the scope of any jacquard. For those using jacquards, most of the punching cards developed for designs are made in other places such as Guwahati. Another evidence of their lack of innovation comes from the fact that they are mostly unfamiliar with dyeing process. They purchase only the limited option of pre-dyed yarns available in the local markets. Certain traditional beliefs have prevented them from exploring new options such as iron reeds, or even creative motifs. Even the idea of using different motifs in different garments, is something they avoid in fear of causing social upheaval.

This rigidity in turn reduces the option for the weavers in terms of using other inputs and hence the substitutability of suppliers is reduced. This rigidity and lack of innovation also results in difficulties in product differentiation, taking away any opportunity of differential pricing, such as in case of oligopolies. This in turn makes supernormal profits impossible. Switching cost for buyer are also reduced by this lack of differentiation also providing the seasoned buyers with perfect price information, further eating away into the weavers profits. Since there is a severe lack of innovation, weavers over their entire careers are pretty much doing the same thing, which in turn keeps their profit margins almost same. This is primarily due to a very low learning curve, rendering experienced weavers very little advantage over young ones. This is one of the clear reasons why individuals do not rush to make it their first choice career, knowing full well that if other career options do not work, they can always start weaving at a later date.

Access to Information

The weavers who have spent a majority of their time isolated from the mainland suffer from the lack of information regarding pricing and other aspects of the value chain, especially marketing. The lack of information of prices buyers are willing to pay; eats away into their producers' surplus. The weavers of Majuli only exercise a very basic form of price discrimination. The prices for tourists with a highly inelastic demand are charged higher prices compared to all the other segments of their buyers. Tourists however account for a very nominal proportion of their buyers. Mostly their buyers comprises of other middle men such as retailers and dealers of garments etc. The weavers' inaccessibility of price information with respect to these buyers, gives them very little bargaining power. However, these buyers as discussed previously have complete knowledge of the weavers' prices. In fact on many occasions, the same vendors selling yarns to the weavers are the ones buying the finished garments from them. On the other end of the scale their suppliers, e.g private players

selling yarns, have an information advantage over the weavers, when it comes to pricing. The predominant lack of knowledge of buyer's price curve as well as nature of demand renders the weavers ineffective when it comes negotiating prices or making any supernormal profits.

Infrastructure

Infrastructure is one of the biggest weaknesses of the handloom weaving industry of Majuli. The fact that a large portion of the Island is submerged under water for a majority of the year due to floods has caused the structure of houses to alter. The majority of the population stays in bamboo based raised houses called "*chang ghar*". The weaving mainly goes on underneath these houses. The height of these spaces restrict the use and spread of Jacquard based handloom, which in turn restricts design innovation and hence product differentiation. The traditional loom which is predominantly being used by the weavers, is extremely inefficient when it comes to productivity, and is also ergonomically inadequate preventing weavers from spending long hours with it. The island's lack of a developed transportation infrastructure, especially to the main land, also has a severe negative impact on the supply chain activities. Of late, the advent of telecommunication based infrastructure has helped some of the younger educated weavers to access the internet, helping them learn some of the newer aspects of their art. However, the educated youth is also keen on leaving the art of weaving and moving on to other means of livelihood, thereby making the whole telecommunication based development somewhat meaningless. Given the infrastructural hurdles, the weavers of the island struggle to alter their designs at the rate, they would have liked. This also limits their capacity to produce, thereby compromising their ability to scale up production and hence taking away the advantages of economies of scale. This low productivity prohibits market growth, as order fulfilment has often being cited as a key reason for deterioration of the relationship between the buyer and the weavers.

The below model summarizes the four key issues lying at the core of the Industry Attractiveness analysis.

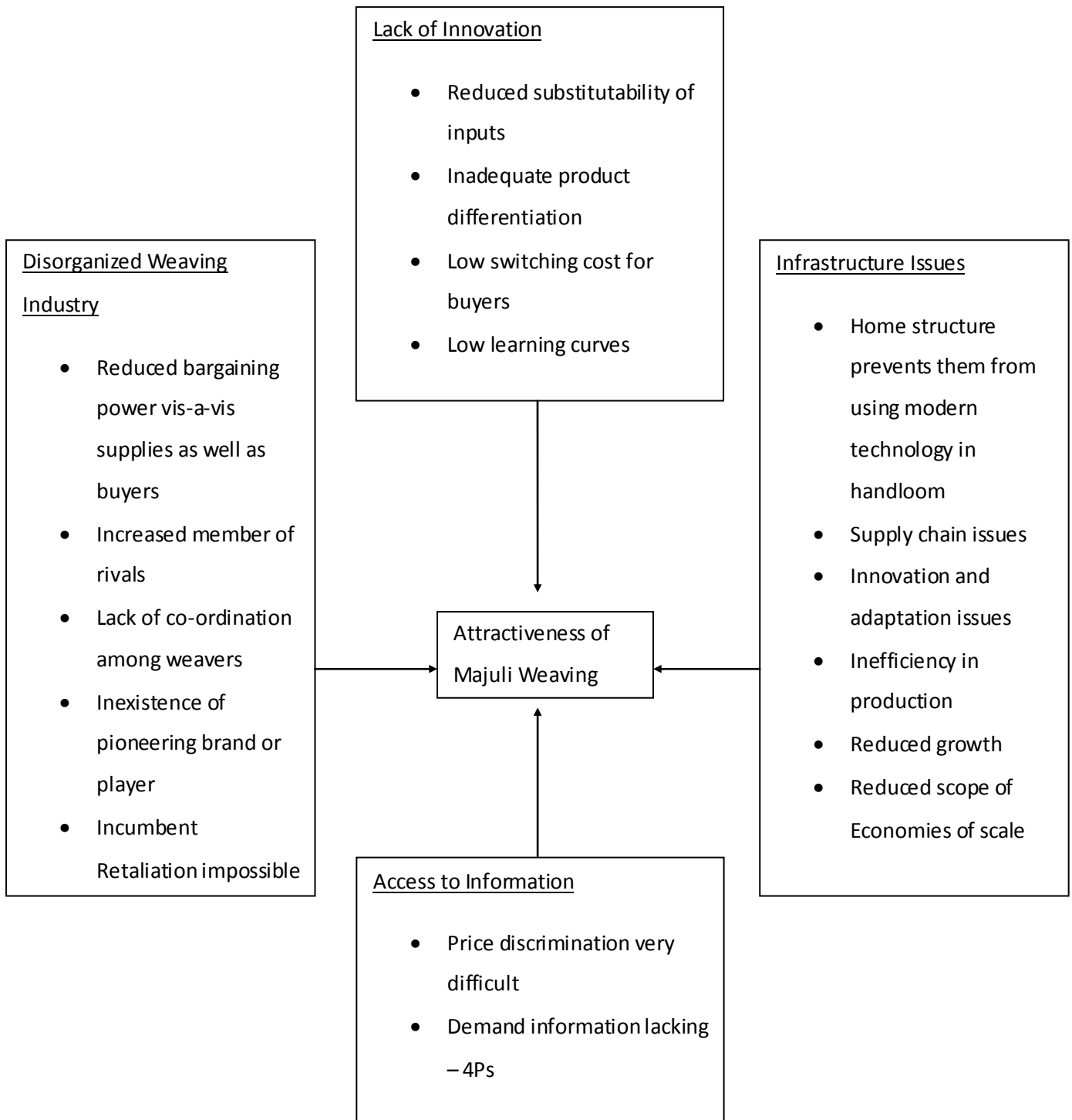


Fig 1: Model depicting the 4 four core sources of difficulties faced by the weaving industry of Majuli

Discussion

In the current section, the various schemes addressing the four pillars analysed in the previous section is discussed with respect to their attributes. Subsequently, the schemes are discussed from a socio-psychological and behavioural economics perspective, with reference to past experiments

performed in the fields of Behavioural Economics. The reason why Behavioural Economics models are referred to is because; Human Beings more often than not behave irrationally due to several forces beyond his control, such as affective or sociological forces among others. The objective of this section is to identify the areas currently not being addressed by the nationalised schemes or policies as well as to identify aspects of the schemes that may create a problem in executing those policies in Majuli.

Schemes addressing the various issue of Weaver Dropout

As depicted in fig. 2(a) schemes such as the Ambedkar Hastshilp Vikas Yojana's (AHVY) Dastkar Shashaktikaran Yojana (DSY), Comprehensive Handloom Cluster Development Scheme (CHCDS), Mahatma Gandhi Bunkar Bima Yojana (MGBBY), Rashtriya Swasthya Bima Yojana (RSBY) and EDP scheme under AIACA all help organize the sector or the Industry better , through providing security, mobilizing artisans to form societies or SHGs among others.

The issue of Infrastructure support is also addressed by a multiple schemes such as CHCDS, Cluster Development Program of NER, NERTPS, Yarn Supply Scheme and AIACAs EDP policy. (fig 2(b)).

On similar lines fig. 2(c) depicts the various schemes addressing the issue of *Innovation* such as CHCDS, Cluster Development Project in NER (CDPNER), North Eastern Region Textile Promotion Scheme (NERTPS), AIACA's Policy Advocacy and EDP program, Ambedkar Hastshilp Vikas Yojana.

The issue of lack of information with the artisans in terms of backward and forward linkage is being covered by schemes such as Market Promotion of North East Textiles and Handloom Products, Craftmark and Market Access policy of AIACA, India Handloom Bazaar and MOUs between Ministry of Textiles and private players such as Flipkart. (fig: 2.d).

From the above discussion, one thing that can be established is the fact that the loopholes have been correctly identified by the policy makers. In fact for virtually all the issues, there are multiple schemes that the Industry may resort to. However, as discussed earlier the dwindling numbers or the dropout from the industry nationwide does not justify the schemes. Therefore, the interaction between the schemes and the weavers are looked at from a socio-psychological or Behavioural Economics perspective.

Default Effect

Individuals in Majuli, especially the Mishing Tribe, start learning the art of weaving at a rather early age within the household from their family members. The various schemes available to the artisans are of rather complex nature. It requires the artisans to provide a host of documents. In rural India, especially for the illiterate, documentation processes are one of the greatest hurdles in performing a task. The default effect states that when there is uncertainty regarding decision making situation, individuals tend to go with status quo or the existing option (Samson 2014). The tendency to go with the status quo (Madrian and Shea 2001) increases further when the choice of reversing the status quo requires effort (Samson 2014). This is also referred to as inertia.

Since the default option for the artisans is not having the requisite documents or ID cards to benefit from the schemes, they prefer to go with it, and therefore end up foregoing benefits of the various schemes.

This situation can be altered by reversing the choice architecture. Artisan Cards are often used as a starting point for the weavers to get benefits out of the various Government schemes. The weavers or the artisans may be given a artisan card or ID card, once they achieve the appropriate age unless a major fault is found, for which the card may be withheld. The local bodies, undertaking the verification processes, are usually required to mention the names of the individuals required to be given a Artisan Card. Ideally this process should also be reversed, where the inspectors are mandated to visit each household where individuals are expected to turn a certain age, and in case if a card is withheld, the clearly identified remarks are provided. This process in turn can be facilitated by linking the database with the Directorate of Births and Deaths, which has the records of all births in their jurisdiction.

The default availability of artisan cards with the weavers would make pursuing a weaver's role easier and expected of them. Other options such as supply of handlooms, yarns etc. and purchase of their finished good by private players such as Flipkart, may also be made the default option. In case if the weaver wants to drop out of the cycle of receiving the ID card, Handloom, raw materials etc. and having to produce the expected garment, they can be asked to fill a series of documents, thereby making dropout the more difficult and non-default option.

Besides the Mishing Tribe, the above strategy can also be applied for those individuals, one of whose parents hold a artisan card or practice weaving.

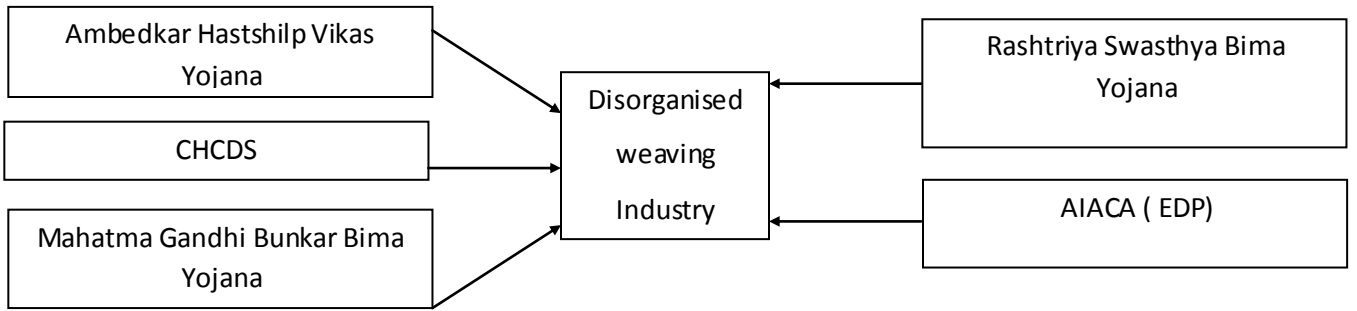


Fig: 2a Depicting Schemes addressing issues related to Disorganized Weaving Sector

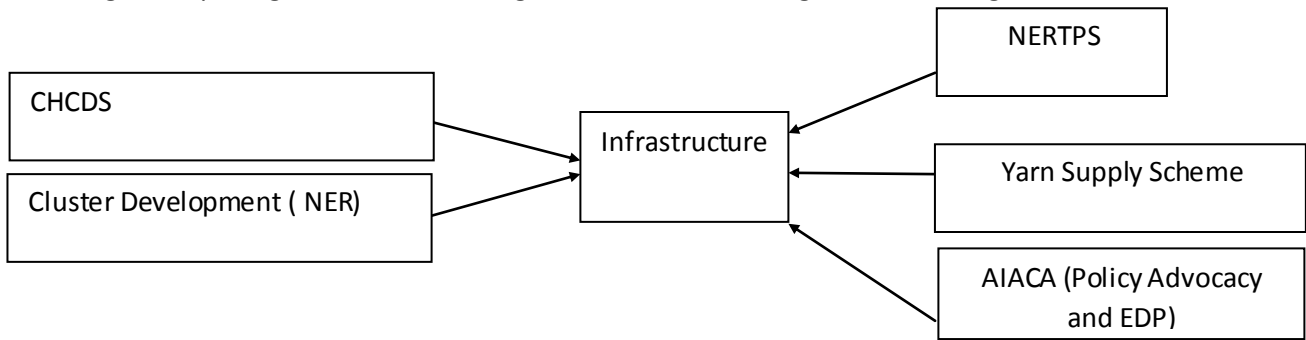


Fig: 2b Depicting Schemes addressing issues related to Infrastructural Development of Clusters

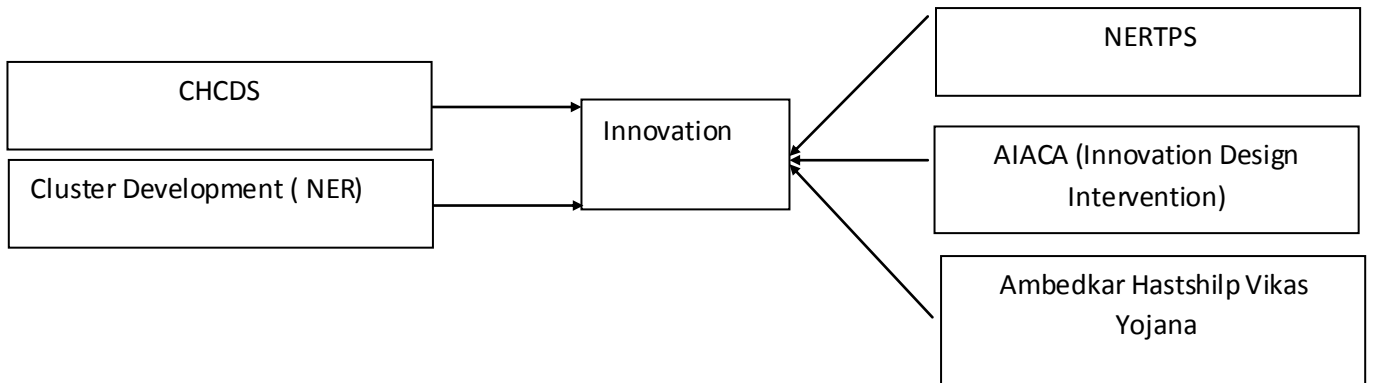


Fig: 2c Depicting Schemes addressing issues related to Lack of Innovation in Clusters

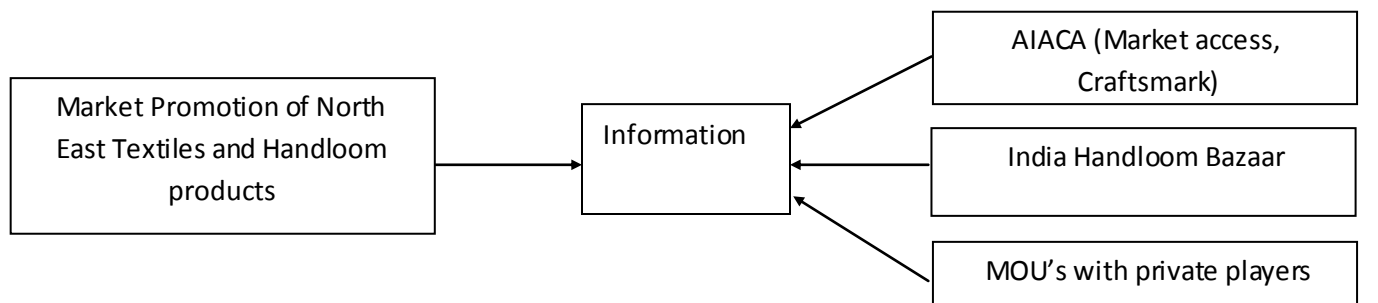


Fig: 2d Depicting Schemes addressing issues related to Lack of Information in Clusters

Choice Overload, Inter-temporal discounting and Reverse Partitioning

Also referred to as 'overchoice', the phenomenon occurs as a result of too many choices being available to consumers. Over choice may refer to either choice attributes or alternatives. Choice Overload increases when the nature of choice has a significant impact on the decision maker hence making it more complex (Iyenger, Wells and Schwartz 2006; Schwartz 2004). Choice overload also exerts more pressure when there is a lack of a dominant choice and when the decision maker does not have much expertise with respect to the choice situation. All of the above, results in them going with the default situation, or decision deferral resulting in avoiding making any decision altogether (Iyengar and Lepper 2000). Choice overload can be counteracted by simplifying choice attributes or the number of available options (Johnson et al. 2012).

The weavers in Majuli, when facing decisions that have a long term impact on their lives, find it difficult to decide. This is true for any individual and more so for individuals with lesser exposure. What adds to the complexity is the impoverished household conditions, that makes long term planning and execution all the more difficult. Anticipation, self control and representation, the three key determinants of inter-temporal choices (Berns, Laibson and Loewenstein 2007) are heavily skewed to the immediate present resulting in high time discounting ((Frederick, Loewenstein, & O'Donoghue 2002) and therefore extremely biased. The lack of clarity among the artisans regarding the various schemes, series of decisions to be made such as getting a card, buying subsidised yarns, developing the appropriate garment and finally being able to get the right price on a regular basis, makes the entire process extremely complex in the minds of the weavers. The weavers are weary of the fact that the venture would fail, even if one of the factors do not work out in their favour. Hence taking the first step itself is a big barrier for the weavers.

The issue of choice overload is also pertinent with respect to the options the weavers have of earning livelihood. They can opt for agriculture, migrating to nearby cities for services or simply gaining from unemployment benefits such as MGNREGA.

The above issues of Choice Overload, Inter-temporal decision making and time discounting can be addressed by making slight alterations to the policies and hence the decision situations. The number of policies being made available to weavers needs to be controlled. Currently as is evident from the above discussions, there are quite a few schemes addressing and functioning similarly. From the weaver's or artisan level since they lack expertise regarding components of the schemes, it could very easily lead to decision fatigue.

Secondly, the existing schemes require the weavers to take up a series of steps one after the other, thereby increasing Partitioning (Cheema and Soman 2008). Partitioning is the phenomenon of breaking down a decision into a set of smaller equally complex decisions, often resulting into reduction of consumption (Dhar, Huber, and Khan 2007). Policies can be better consumed by the weavers if they take it as a one step decision process, rather than a series of multiple decisions which often causes them to drop out from executing the activity.

Finally, it is evident from the interactions with weavers that they look for faster returns to their efforts, else significant time discounting takes place. Most schemes offered to them are long shots, resulting in loss of interest from the weaver's perspective. This can be resolved by partial financial rewards given to the weavers at the end of each stage. The same may be adjusted at the end of the cycle, once the weavers complete the entire series of activities. The existing schemes financially reward the artisans after completion of certain designated steps only. For example, once a society or SHG is formed by the weavers, under the DSY of AHVY, a certain amount gets deposited to the account of the organization. However the processes before the formation itself may take up a commendable amount of time, causing the artisans to stay in the status quo. Also, the schemes often do not specify time lapse between organization formation and deposit of money, simply stating the amount will be paid in advance. Such inter-temporal discounting can be reduced by sticking to consistent time line for the advance. The existence of unemployment benefit schemes has been found to drive the Majuli weavers steeper down the inter-temporal discounting curve, making the need of frequent and faster rewards more relevant.

Mental Accounting Practices and Social Norms

According to the theory of mental accounting, people treat money differently, depending on factors such as the money's origin and intended use, rather than thinking of it in terms of the "bottom line" as in formal accounting (Thaler, 1999). The art of weaving in Majuli is often practiced by homemakers as a leisure activities rather than a profession. The production is primarily targeted to self consumption or at times for sales in the local market. The funds thus earned is mentally thought of as extra income, and therefore spent in a different pattern; unlike that of the funds generated from agriculture harvest. This results in most of the weavers not relying on the funds being generated from weaving. This in turn has a negative impact on the whole competitive outlook of the industry, reflected in the below average production efficiency, lack of infrastructural development and innovation. The schemes addressing these gaps such as Technological Upgradation of Handlooms in NER, a sub-scheme of NERTPS focuses directly on providing technological support such as providing Jacquard for existing looms. The weavers in Majuli often cite lack of necessity of

such upgradations, as the reason for non-adoption. Hence, the policy needs to factor in the idea of mental accounting. Therefore, it needs to create a component under the scheme to alter this idea of “weave for leisure” and motivate them to “weave for survival”. This may be done by interventions, where designers using Jacquards are given certain social benefits held dear to the rural population, instead of simply extra income.

Another interesting finding related to Majuli is the taboo associated activities such as using Iron reeds in looms as well as males pursuing weaving as a profession. Using Iron reed instead of a homemade bamboo reed is considered as a terrible omen, bringing bad luck to the entire community. The belief is held so closely that if the neighbourhood comes to know about such practices, the individual indulging in using the iron reed will be socially boycotted. Similarly, weaving is considered as a feminine profession in Majuli, and men found to be practicing the art as a profession are ridiculed in the society, more often than not compelling the weaver in giving up weaving altogether. The aforementioned scheme, while creating a provision of providing reeds for improvement of product quality, assumes that it will diffuse into the social sub-system without any such barriers. However, Dolan et. al. (2010) through their research had proven that social norms signal appropriate behaviour and are dassed as behavioural expectations or rules within a group of people. These rules are extremely sticky, especially in the rural context, where diffusion of new ideas is relatively harder in comparison to the urban population. Hence, the schemes need to be complemented with provisions that may aid to find and alter such faulty concepts. It can be achieved by creating and telecasting biographical documentaries of local heroes who may have defied such odds or even through engaging respectable local figures to be the advocate of the new ideas.

Conclusion

The idea of the heterogeneity of rural India is well conceived in various forms of literature. The current paper takes up the case of Weaving Cluster of Majuli, Assam and studies it from the perspective of Five Forces Strategic Analysis, to understand the phenomenon of an alarming drop in the number of weavers over generations, not just in Majuli, but across the country. Four key issues underlying the drop is identified in the study. Subsequently various Government schemes are mapped to these four key issues. It was found that there are many relevant schemes that have been designed to address these issues. However, the schemes or policies could be further improved by incorporating concepts from Behavioural Economics. Accordingly certain specific suggestions have been made to improve the design of the policies. The current paper however is of qualitative nature and empirical studies to prove the findings and discussions may be desirable.

Reference

- "A Ready Recknor Of Major Government Handloom Schemes - Explained In A Nut Shell". 2018. *Swadesh | Official Blog Of Unnati Silks*. <https://www.unnatisilks.com/blog/a-ready-recknor-of-major-government-handloom-schemes-explained-in-a-nut-shell/2/>.
- Berns, G. S., Laibson, D., Loewenstein, G. 2007. "Intertemporal choice – Toward an Integrative Framework" . *Trends in Cognitive Sciences*. 11(11): 482
- Cheema, A., and Soman, D. 2008. "The effect of partitions on controlling consumption". *Journal of Marketing Research*, 45(6): 665-675.
- Chutia, Lakhimi J, and Sarma, Mrinmoy K.. 2015. "Commercial Endeavour In The Island Of Majuli In Assam: Traditional Mishing Textiles In Transition". *Chitrolekha International Magazine On Art And Design* 5 (2): 27-39.
- Dhar, R., Huber, J., and Khan, U. 2007. "The shopping momentum effect". *Journal of Marketing Research*, 44: 370-378.
- Directorate of Census Operations, Assam. 2011. "District Census Handbook Jorhat: VILLAGE AND TOWN DIRECTORY". Census Of India
- Dolan, P., Hallsworth, M., Halpern, D., King, D., and Vlaev, I. 2010. "*MINDSPACE: Influencing behaviour through public policy*". London, UK: Cabinet Office
- Fox, James J. 1977. *Harvest Of The Palm*. Cambridge, Mass.: Harvard University Press.
- Frederick, S., Loewenstein, G., & O'Donoghue, T. 2002. "Time discounting and time preference: A critical review". *Journal of Economic Literature*, 40: 351-401
- Friedmen, Lauren. 2015. "The Unprecedented Innovation In One Industry Puts The Rest Of Them To Shame". *Business Insider*. <https://www.businessinsider.in/The-unprecedented-innovation-in-one-industry-puts-the-rest-of-them-to-shame/artideshow/47475912.cms>.
- India Brand Equity Foundation. 2014. "Textile Industry In India Report". <https://www.ibef.org/archives/detail/b3ZlcnZpZXcmMzY5NDZlMTEy>.
- Iyengar, S., & Lepper, M. 2000. "When choice is demotivating: Can one desire too much of a good thing?". *Journal of Personality and Social Psychology*, 79: 995-1006.
- Iyengar, Sheena S., Rachael E. Wells, and Barry Schwartz. 2006 "Doing Better but Feeling Worse: Looking for the "Best" Job Undermines Satisfaction." *Psychological Science* : 17, 2, 143-50.
- Johnson, E. J., Shu, S. B., Dellaert, B. G.C., Fox, C. R., Goldstein, D. G., Häubl, G., Larrick, R. P., Payne, J. W., Peters, E., Schkade, D., Wansink, B., & Weber, E. U. 2012. "Beyond nudges: Tools of a choice architecture". *Marketing Letters* 23: 487-504.
- Madrian, B., and Shea, D. 2001. "The power of suggestion: Inertia in 401(k) participation and savings behavior. *Quarterly Journal of Economics*: 116, 1149-1187
- Minsitry of Textiles, Gol. 2017. "Stitch By Stitch". Annual Report. Ministry of Textiles.

Ondrusova, V. 2004. "The Use And Safeguarding Of Folk Handicraft As Sui Generis Intellectual Property". In *Proceedings Of United Nations Conference On Trade And Development*, 107-109. UNCTAD.

Parezo, Nancy J. 1981. "Navajo Sand Paintings: From Religious Act To Commercial Art". University of Arizona.

Porter, Michael E. 1980. *Competitive Strategy: Techniques For Analyzing Industries And Competitors*. 1st ed. New York Free Press.

Przybylek, Stephanie. 2018. "Indian Weaving: History & Patterns | Study.Com". *Study.Com*. <https://study.com/academy/lesson/indian-weaving-history-patterns.html>.

Samson, Alaine. 2014. "A Simple Change That Could Help Everyone Drink Less". <https://www.psychologytoday.com/intl/blog/consumed/201402/simple-change-could-help-everyone-drink-less>.

Schneider, J. 1987. "The Anthropology Of Cloth". *Annual Review Of Anthropology*16 (1): 409-448. doi:10.1146/annurev.anthro.16.1.409.

Schwartz, B. 2004. *"The paradox of choice: Why more is less."* New York: Ecco.

Thaler, R. H. 1999. "Mental accounting matters". *Journal of Behavioral Decision Making*, 12: 183-206.

Tolentino, D. 2012. "Authentic/Adulterated Artifacts: Material Culture And Ethnicity In Contemporary Java And Ifugao.". *Wacana Seni Journal Of Arts Discourse* 11: 39-61.

Vaishnavi, P.V.S, and S.S Nair. 2017. "HANDLOOM SECTOR IN INDIA: A LITERATURE REVIEW OF GOVERNMENT REPORTS". *International Research Journal Of Management And Commerce* 4 (8): 418-438.