JEOD JOURNAL OF ENTREPRENEURIAL AND ORGANIZATIONAL DIVERSITY

Volume 9, Issue 1 (2020) 45-61 | Published online 23 September 2020

AUTHOR

MANAS RANJAN BHOWMIK
Ramakrishna Mission Vidyamandira, Kolkata (West Bengal, India)
manashcu@gmail.com

Advancing the Theory of Cooperative Organization: Interrogating the Developing Country Perspectives

ABSTRACT

This paper attempts to theorize producers' cooperatives as an organizational form in the context of developing countries, by using Williamson's approach of comparative economic organizations. The idea of composite efficiency has been introduced here, by bringing in the notion of distributional efficiency. Detailed theorization of different types of organizations following the market-hierarchy continuum has been attempted. Institutional factors behind longevity, stability of cooperatives and logic behind coexistence of cooperatives along with hierarchical capitalist firms, by focusing on the Indian handloom weaving sector, have been theoretically established.

KEY-WORDS

ORGANIZATIONS, COOPERATIVES, INSTITUTIONS, TRANSACTION COST ECONOMICS, BUSINESS ADMINISTRATION

JEL Classification: L23, L31, L25 | **DOI:** http://dx.doi.org/10.5947/jeod.2020.003

1. Introduction

This paper attempts to theorize producers' cooperatives as an organizational form in the context of developing countries, following Indian experiences, by using Williamson's approach of comparative economic organizations. Further, this article also interrogates the institutional factors behind the longevity and stability of cooperatives and the logic behind the coexistence of cooperatives along with hierarchical capitalist firms, by focusing on the Indian handloom weaving sector. Williamson (1991: 269) succinctly articulated this approach in what follows.

> "Comparative economic organization never examines organization forms separately but always in relation to alternatives. Transaction-cost economics places the principal burden of analysis on comparisons of transaction costs-which, broadly, are the 'costs of running the economic system'".

Although this novel approach of studying different economic organizations from a comparative institutional perspective has been applied widely in the context of Western developed countries, its application remains scanty in the context of developing countries such as India, especially while theorizing producers' cooperative type of economic organization. Williamson himself (1991: 270) clearly pointed out this issue.

> "Transaction-cost economics purport to have general application but has been developed almost entirely with reference to Western capitalist economies [...] Is a unified treatment of Western and non-Western, capitalist and non-capitalist economies really feasible?"

Historically, producers' cooperatives have existed in India in different industries in order to generate employment and to create countervailing power for the workers (Sen, 1996). However, cooperatives in developing countries, as organizational forms, lack rigorous theorization. This paper is an attempt to fill this gap. In the recent World Cooperative Monitor's report (Euricse and ICA, 2018), the Indian Farmers Fertilizers Cooperative Limited (IFFCO) held the first rank, while the Gujarat Cooperative Milk Marketing Federation (GCMMF) or Anand Milk Union Limited (AMUL) held the fourth rank. Cooperatives in agriculture, in general, and those in the dairy sector, in particular, have been studied by many scholars; yet cooperatives within the handloom weaving sector have received little attention. The handloom weaving sector is a major component in India's textile sector; the other components within the textile sector are big mills and the power loom sector. The focus of this paper remains on developing a comparative analysis of existing producers' cooperatives within the handloom weaving sector. The textile industry, in general, and the handloom weaving sector, in particular, are major employment generating sectors of the Indian economy, next only to the agriculture sector. As per the latest handloom census, the handloom weaving sector provides employment to 3.1 million weaver-households (Ministry of Textiles, 2019). In India, handloom weaving is mainly a rural, labor-intensive, skilled activity. There are three key organizational forms within the handloom weaving sector: independent weavers, master weavers and weavers' (producers') cooperatives. An elaborate discussion concerning these organizations is provided in Section 3.

Ever since the work of Helmberger and Hoos (1962), the theoretical debate on cooperatives has shifted focus towards conceptualizing cooperatives as independent organizational forms. Later, theorizations were made following the property rights perspective (Cook, 1995), the coalition perspective (Staatz, 1983; Sexton, 1986) as well as the nexus of contracts perspective (Jensen and Meckling, 1976; Staatz, 1987). Furthermore, the issue of governance has become important following the works of Williamson (1980; 1985; 1991; 1996) and Valentinov and Fritzsch (2007). Moreover, cooperatives have been later theorized as hybrids (Menard, 2004; Chaddad, 2012). Williamson (1991) pointed out that markets and hierarchies are polar modes and set out to theorize the hybrid modes which represent the various intermediate arrangements such as reciprocal trading, long-term contracting, franchising, etc. Note here that Williamson (1991) did not explicitly claim that cooperatives are hybrids. Rather, later scholars such as Menard (2004) and Chaddad (2012) put forward emphatic arguments in favor of theorizing cooperatives as hybrids. While the aforementioned aspect is one stream of the theoretical debate, the other crucial stream is regarding the rarity and degeneration of cooperatives (Doucouliagos, 1990). The degeneration thesis proclaims that cooperatives are doomed to fail due to their internal contradictions (Langmead, 2017); and this proposition has been countered by other scholars such as Dow (2003) by interrogating institutional strengths and weaknesses of cooperatives. Scholars who promote degeneration thesis argue that due to various internal structural problems concerning—decision making, monitoring and supervision, incentive alignment, free riding—cooperatives are inherently unstable production organizations. Moreover, another stream of literature has focused on comparing efficiency of cooperatives versus other firms and nothing conclusive has come up because of mixed findings (Doucouliagos, 1995).

With regard to the debate about the rarity and degeneration of cooperatives and countering the degeneration thesis, the following research questions have come up lately. Why are there a large number of successful cooperatives (Iliopoulos and Valentinov, 2018a; 2018b)? How do we conceptualize a cooperative organization within the context of a developing country? Is the cooperative a form of vertical integration, an independent organization or a hybrid? What are the factors that explain the co-existence, longevity and stability of cooperatives? How does the notion of efficiency relate to the earlier questions? In this paper, the issue of the efficiency of cooperatives has been theoretically coupled with the issues of its co-existence, stability and longevity in a comparative manner. Critics have raised this issue of longevity of cooperatives many times by citing problems of free riding and collective action. Tortia (2018) has encountered such assertions by citing the role of non-divided, common assets in promoting inter-temporal harmony within cooperatives which improve longevity of such enterprises. Also, through fundamentally addressing the issue of member heterogeneity by focusing on true range of common interests among members', it is also possible to optimize longevity of cooperatives (Iliopoulos and Valentinov, 2018b).

On the basis of the aforementioned issues, this paper focuses on the two following research questions. What is/are the determinant institutional factor/s for explaining the stability and longevity of cooperatives in the context of a developing country? How does the role of efficiency impact the co-existence of cooperatives and capitalist hierarchical firm organizations in the Indian handloom

weaving sector? The objective of this paper is to delineate the features of informal manufacturing organizations from a comparative perspective in order to understand the stability, the longevity and the co-existence of different economic organizations in the context of developing countries. By employing this comparative perspective, currently existing organizations have been examined and theoretical insights have been developed. Following the logic of transaction costs (Coase, 1937; Williamson, 1991), several existing organizational firms have been studied, keeping in mind that organizations which are not cost-efficient would disappear over time due to competition.

This paper has built on the recent theoretical developments (Tortia, Valentinov and Iliopoulos, 2013) in economics of organization; here each form of organization has been characterized as a "syndrome" or a "system of attributes" (Williamson, 1991; Chaddad, 2012). Organizations can be distinguished by their different governance structures, i.e., by the different coordination, control and incentive mechanisms, as explained in Section 2. Section 3 discusses the organizational architecture of the Indian handloom weaving industry and, following Williamson (1991) and Chaddad (2012), the main instruments of governance are identified and each of them are theorized in continuum from market-type to hierarchy-type organizations. Following this, in Section 4, the idea of composite efficiency is elaborated and an analysis of the main problem is provided. Next, in Section 5, i.e. in the conclusions, the usefulness of this approach in studying several other sectors (other than the handloom weaving sector), especially for developing countries, is pointed out. A tentative guideline is also presented for the impending task of locating the institutional determinants of prevailing organizations in developing countries in a sector-specific way.

2. Reconceptualizing alternative governance structures

Ronald Coase's (1937) reformulation theorized a firm as an organization and helped in explaining the transaction cost logic regarding the existence, size, scope and internal organization of the firm. According to Coase's understanding (1937), markets and firms can be conceptualized as alternative institutional arrangements for governing transactions. Following this line of thought, whenever the cost of organizing a transaction is lower within a firm in comparison to the market, the firm becomes better suited than the market. Scholars such as Coase (1937), Alchian and Demsetz (1972) and Jensen and Meckling (1976) made significant contributions to the theory of the firm from various perspectives; and Alchian and Demsetz (1972) examined the problems of metering in team production and the problems regarding information and designing incentives in an organization. Williamson (1980; 1985), in several of his works, developed a theory from the transaction costs perspective in order to compare the efficiency of the different modes of economic organizations (Jones and Kalmi, 2012). For Williamson (1996) the issue of governance is about identifying, explicating and mitigating all kinds of contractual hazards. Not only did Williamson theorize about markets and hierarchies, he also attempted to theorize hybrids, as intermediate forms of organization within these two polar forms: markets and hierarchies.

The efficiency of cooperatives as compared to other organizational forms remains a contentious issue. This has been a focal point in the debate on cooperatives for a long time and there have been several viewpoints regarding this (Zamagni, 2012). The first viewpoint focuses on the cooperatives' institutional advantages by economizing transaction costs and developing countervailing power (Staatz, 1987). A second contrary viewpoint comes from the agency theorists (Jensen and Meckling, 1976) who pointed out the problem of incentives in cooperatives and the corresponding institutional disadvantages. A third viewpoint suggests that the existence of cooperatives is determined, to a large extent, by the trade-off between the market contracting costs and the ownership costs borne by the cooperative-members (Hansmann, 1996). Some of the recent studies on cooperatives have focused on issues such as social responsibility (Sacchetti and Tortia, 2020), protective function and multiple sets of motivation (Tortia, Sacchetti and Valentinov, 2020) and satisfaction with creativity (Sacchetti and Tortia, 2013). Such new developments in line of questioning the traditional idea of efficiency have important bearings regarding the theorization that happens in this paper (Dow, 2003). Also, in this paper, an attempt has been made to approach this conceptualization of efficiency from a fresh standpoint by considering developing country perspectives. Hence, in the following section, a brief description of the developing country perspectives has been presented.

2.1 Developing country perspectives

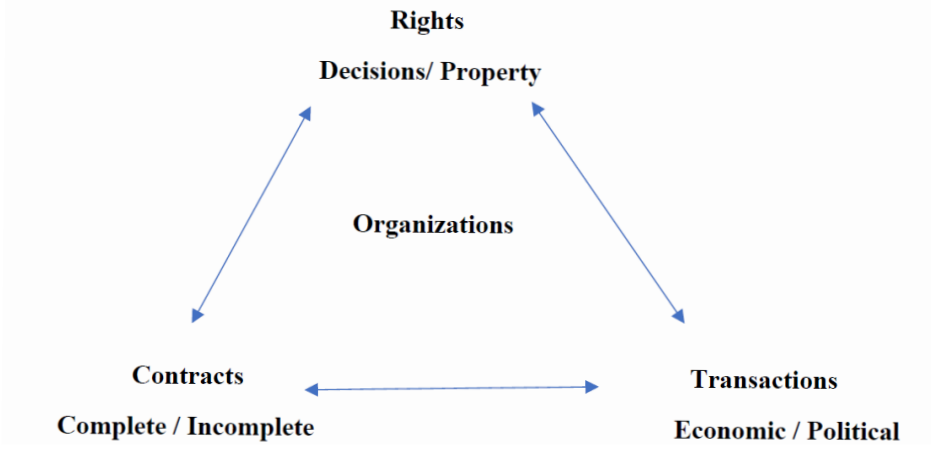
Serious endeavors to understand economic organizations in developing countries from the perspective of the New Institutional Economics (NIE) are quite insufficient. At this juncture, it is important to mention some basic features of contracting in developing countries: contracts are mainly informal, mostly verbal, written contracts are hardly visible and legal arbitration for any breach of contract is extremely costly or altogether absent (Bardhan and Udry, 1999). In such a situation, it is intriguing to explore the dimensions of bounded rationality, opportunism and adaptation. A third issue which is of critical importance, but has hitherto remained untouched, is the issue of fiat of the employer even outside the firm. In development economics, this issue has been theorized as interlinked markets or interlocking market transactions (Basu, 1986). The bounded rationality of the agents creates huge barriers for them both in the input and output markets, especially in rural informal settings such as the Indian handloom weaving manufacturing industry. Consequently, agents (handloom weavers or primary producers) encounter the issue of opportunism on the part of the intermediaries both in the input and output markets and, as a result, the expropriation of quasi rents by these intermediaries remain a serious problem for the primary producers. The role of fiat is of critical importance, as it does not restrict itself to only the firm or the farm. Rather, due to the interlinked market structure, the employer or the intermediary can not only expropriate quasi rents from an agent in one market, but the same intermediary may also be able to further extract quasi rents from the same agent in another market by using the interlinkage (Basu, 1986; Bardhan and Udry, 1999). This issue of fiat or power outside the

ambit of the firm or farm often plays a prohibitive role in cases of adaptation and coordination. Autonomous moves towards collectivization, by forming cooperatives or through the coordination of economic activities by the formation of cooperative type organizations by primary producers, may be hindered due to the power asymmetry between the agents and the intermediaries who enjoy this fiat or power and authority even outside the firm. The following theoretical apparatus of the golden triangle of NIE is very useful in further probing these points.

2.2 The golden triangle of NIE

Menard's (2018) "golden triangle of NIE" is a conceptual apparatus that can be borrowed from the recent developments in the New Institutional Economics.

Figure 1: The golden triangle of NIE



Source: Menard, 2018

Rights, contracts and transactions are the key components of the golden triangle of NIE and interactions among these components lead to interesting results for organizational economics. Rights have been distinguished as property rights and decision rights, contracts can be of two types—complete and incomplete—, while transactions are mainly political and economic. The proper alignment of property rights and decision rights is a crucial issue that has significant implications for the existence and performance of economic organizations. Contracts remain mostly incomplete and, as a result, create adjustment issues. This paper considers only the economic transactions. With respect to organizational economics, all these components of the golden triangle have important bearings, leading to questions like: can decision rights influence transaction costs? In this paper, it will be emphasized that decision rights can have serious implications for transaction costs which, in

turn, influence efficiency of economic organizations. Decision rights can be of two types: individual and collective. It will be argued in this paper that collective decision rights in cooperatives play a crucial role in economizing transaction costs, which, in turn, influence the efficiency dimension.

3. The organizational architecture of the Indian handloom weaving industry

There are three different economic organizations prevailing in the Indian handloom weaving manufacturing sector: independent weaver (Indep), master weaver (MW) and cooperative (Coop). Independent weavers are similar to the NIE theorization of markets; master weavers are similar to the hierarchies; while cooperatives, contrary to the other two forms, follow an admixture of markets and hierarchies and can be identified as an intermediate form (Coase, 1937; Williamson, 1991). All over India, in general, and in the state of West Bengal, in particular, the master weaver institution dominates the other two institutions (independent weaver and cooperative) albeit West Bengal as a state comes under the group of strong cooperatives (Das, 2001). While discussing the organizational structure, it is important to briefly note the existing market structure within the handloom weaving sector in India. The market structure here is closer to a monopsony, i.e., there is a single buyer or only a few buyers for the handloom weaving products in the villages; hence, handloom weavers usually get limited opportunities to bargain and often have to settle for lower prices.

3.1 Independent weaver (Market)

In this economic organization, the individual weavers, i.e. the primary producers of clothing, operate autonomously and there is no central authority. Hence, the individual weavers govern all the transactions independently. An individual weaver transacts with the input sellers as well as with the marketing agents. In such a pure market transaction, the ownership is separated as the weaver possesses the residual claims and control rights over the firm assets and no central structure or authority relationship exists to govern this transaction. Here, the price system provides "high powered incentives" for all the parties to become efficient and adapt autonomously to the changing market conditions. In such a situation, partner identity is irrelevant and there should not be any mutual dependency between the exchange partners. Thus, switching costs should also be negligible if one agent wants to buy from or sell to a new agent.

In case of independent weavers here, their stations are not located in a common facility. Rather, their stations are home-based and sparsely located, and each station owner interacts with all the other agents independently. The weaver buys raw materials and inputs independently, processes them at home using family labor, weaves and produces the fabric and then sells the produce in the market independently.

3.2 Master weaver (Hierarchy)

Owing to the issues of non-trivial transaction costs and market failure, a hierarchy may sometimes supersede the market. The master weaver arrangement can be described as one such organization. The putting-out system under the master weavers almost fully adheres to the characterization made by Landes, except for the complex interlinked contracts prevailing in India which will be elaborated later. Landes (1966: 12) has succinctly described this system as follows:

> "…merchant-manufacturers *(in our case master weavers)* "put-out" raw materials – raw wool, yarn, metal rods, as the case might be – to dispersed cottage labor, to be worked up into finished or unfinished products."

After finishing production, the master weaver collects the final product and does the marketing; master weavers here act as an intermediary and this economic organization becomes hierarchical. Here, unified ownership results in a situation where one party (the master weaver) has the residual claim and control rights over both the firm as well as all the assets, and this owner (the master weaver) has complete authority over decisions regarding the firm. Moreover, partner identity matters here. Autonomous adaptation (A type) has been replaced by coordinated adaptation (C type) for unanticipated disturbances, and low powered incentives prevail for the primary producers (the weavers). It is important to note that A type adaptation refers to those changes that can be undertaken by individual agents or by the autonomous independent efforts of any one party, while C type adaptation refers to those changes that require coordinated efforts from multiple parties participating in transactions. Moreover, an incentive structure where one agent can reap direct economic benefits is referred to as a high-powered incentive while an incentive structure where an agent cannot reap any direct benefit, and can only obtain indirect economic benefit from the price movements in the market, is referred to as a low powered incentive.

3.3 Cooperative (Hybrid)

In handloom cooperatives, weaving production takes place at the homes of the weavers. Thus, the workstations are individually owned. However, some departments of production (e.g., dyeing and marketing sections) can be owned collectively by the cooperative, and raw materials are also provided by the cooperative. Workers are paid according to their individual contribution and not the average product. In cooperatives, profits are shared with the weaver-members because of their collective ownership and management. Under this system, the role of the master-weaver, i.e. the putter-outer, is substituted by the collective association of the weavers which is the cooperative. Moreover, in cooperatives, the decision-making power rests with the board members who are elected by the weaver-members of the cooperative. In cooperatives, the weavers or the primary producers enjoy high-powered incentive as they are paid according to their individual contribution. Furthermore, ownership over the looms remains with the individual. Hence, the residual claims and control rights over production

remain in the hands of the individual. On the other hand, control rights over the production process, bargaining strength in both the input and output markets increase due to collective bargaining and collective decision-making. Thus, both A type adaptation and C type adaptation are compatible with the cooperative mode of economic organization in the Indian handloom industry.

Table 1. Organizations in the Indian handloom weaving industry

Components	**Indep**	**MW**	**Coop**
Rights	Property rights: separated	Property rights: separated	Property rights: separated, collective
	Decision rights: individual	Decision rights: individual, centralized	Decision rights: individual, collective
Contracts	Incomplete, informal	Incomplete, informal	Incomplete, partly formalized
Transactions	Economic	Economic	Economic

Source: Author

In Table 1, following the theorization of the golden triangle, the three different prevailing economic organizations have been theorized as per the three attributes: rights, contracts and transactions.

First, with respect to the independent weaver, property rights are separated, while decision rights are also separated and individualistic. In the case of the master weaver institution, property rights are separated while decision rights are individualistic but centralized and rest with the master weaver or the intermediary. In cooperatives, the property rights are separated (as looms are owned by the weaver-members), while the collective (if the cooperative owns a dyeing unit) and decision rights are both individualistic (the amount that a weaver-member would individually produce is an individual decision) and collective (what, how, for whom to produce, how to distribute profits: these are collective decisions in a cooperative).

Second, contracts are purely informal for independent weavers and master weavers, but they are partly formalized in cooperatives since both the cooperatives and their members are formally registered. Moreover, handloom cooperatives usually have either fully or partly formalized contracts with the government in terms of input procurement or sales in government exhibitions.

Third, in this paper, only the economic transactions have been considered, and not the political transactions, although it may be an interesting topic for future research to interrogate the interactions between political and economic transactions in developing countries. It must be pointed out here that in the rural informal context of a developing country like India, the issue of control over transactions remains of critical importance. In this regard, Mukund and Syamasundari (1998: 3331) made the following observation while studying Indian handloom weaving cooperatives.

> "Cooperatives have succeeded to the extent that they have emerged as an alternative institutional structure to challenge the control exercised by traders and middlemen over the production process and the weavers."

In the Indian handloom weaving industry, the exercise of control and the extraction of quasi rents by intermediaries (such as master weavers) are crucial issues and cooperatives may play the role of an institutional antidote to such problems. In their study of the institutional structure of the handloom weaving sector in Andhra Pradesh, S. Mahendra Dev and others advanced the following argument (Dev et al., 2008: 43):

> "One major finding is that the growth performance of cooperatives determines the growth of other institutions - the master weavers, middlemen and independent weavers. Well-performing cooperatives are the best safeguard for the handloom sector, as they protect the weaver and also provide a counterbalance to the master weaver."

4. Efficiency: composite efficiency

It is important to mention that the developing country's perspectives in organizational economics has remained an under-explored terrain. In this section, it is proposed that fundamental concepts such as "firm", "efficiency" and other such issues should be reconsidered in light of the evidence from developing countries. In this section, it will be shown that fundamental concepts such as "firm", "efficiency" and other such issues should be considered in light of evidences from developing countries. Here, in this paper a deeper theoretical interrogation of the idea of efficiency has been presented in what follows. The argument here is that the idea of efficiency can be extended from production to distributional aspects as well while theorizing institutions and economic organizations of developing countries such as India. Efficiency in production can be understood by focusing on productivity of the different factors of production; or, by following NIE theory, efficiency in production can be understood in terms of economizing transaction costs. In this paper, one key argument is that a firm needs not be conceptualized only as an economic organization for production purposes; it can also be understood as an engine of distribution. At the same time, the concept of efficiency can also be understood from both sides: production as well as distribution.

4.1. Beyond the firm as a production organization. The firm as an engine of distribution: handloom weavers' cooperatives

In order to conceptualize the firm as an engine of distribution and not merely as an economic organization for production, it is important to understand the concept of composite efficiency. This concept entails that, moving beyond the notion of production efficiency, other aspects should also be considered while evaluating the efficiency of economic organizations. This is because economic organizations have crucial roles in areas other than just production, and these roles may have important bearings on the existence, stability and longevity of such economic organizations.

Williamson (1980: 12) theorized the notion of efficiency while comparing the different modes of economic organizations in the following way.

> "...the question of efficient versus inefficient modes of internal organization comes down to an examination of their properties in bounded rationality and opportunism respects. Organizing modes that economize on scarce information processing and decision-making capability have superior properties in transaction cost terms, ceteris paribus. Similarly, modes that serve to attenuate subgoal pursuit and discourage information hoarding and distortion are favored, ceteris paribus. Economizing on bounded rationality and attenuating opportunism are thus the core issues on which a comparative assessment of transaction costs turns."

In this paper, the aforementioned notions of economizing on bounded rationality and attenuating opportunism have been applied in the production as well as in the distributional aspects (i.e., regarding implementation of the government's welfare schemes for the weavers). It must be noted that in developing countries where educational attainment remains relatively low among the masses and corruption within the bureaucracy is rampant, issues regarding bounded rationality and opportunism can wreak havoc when implementing the government's welfare schemes. Not only is the crafting of an appropriate welfare scheme for the poor important, its implementation is quite important too. Implementing a welfare scheme is not a costless affair in a developing country like India. Here, organizations such as producers' cooperatives play a crucial role and handloom cooperatives provide a good example in this regard.

Hence, by moving beyond the simplified idea of efficiency in production, this paper proffers the idea of composite efficiency, which can be defined as the economization of transaction costs both in production as well as in distribution. Additionally, it proffers that, in order to evaluate efficiency of any economic organization, efficiency in production and efficiency in distribution should both be considered. Composite efficiency can be understood as a conjugation of efficiency in production and efficiency in distribution. An economic organization may be efficient in production but may be relatively inefficient in terms of distribution. Finally, the existence, stability and longevity of any economic organization greatly depends on the issue of composite efficiency, and not only on production efficiency. In other words, in the context of developing countries, the efficiency of an economic organization should be judged not only in terms of its efficiency in production but also in terms of its efficiency in the distributional aspect.

The benefits of government schemes can be better implemented via cooperatives than via the other existing economic organizations in the handloom weaving sector. If not for wage or profit share, some weavers may find cooperatives useful because of their efficiency in better implementing the benefits of government schemes, which may either be impossible or very difficult to obtain in the independent weaver or master weaver type of organizations. Hence, handloom cooperatives in India provide dual benefits: first, in terms of jobs, wages and profit shares, and, second, in terms of an organization that implements the existing government schemes effectively. What follows in the tabular representation is this idea of composite efficiency, which has been elaborated by comparing the production and distributional efficiency

in different organizations. Precisely, economic organizations with better performances in terms of incentive intensity, administrative control and adaptation also should be able to economize transaction costs better, hence should be more efficient. This relationship can be studied in terms of production as well as in terms of distribution. Distributional efficiency refers to the issue of economizing transaction costs while implementing distributive welfare schemes. Which organization can economize transaction costs while implementing such policies, is the key question in this regard.

Table 2. Distinguishing attributes of governance structures in production

Attributes	Indep	MW	Coop
Incentive intensity	++	0	++
Administrative controls	0	++	+
Adaptation	0	++	+

Source: Author

In Table 2, three attributes have been considered and, with respect to these three attributes, all three organizations have been compared in terms of their production. When it comes to incentives, the independent weaver and the cooperative are ahead of the master weaver. On the other hand, in terms of administrative control and coordinated adaptation, the master weaver performs better than the independent weaver and the cooperative.

Table 3. Efficiency ranking in production

Rank	Modes	Count (++)	Count (+)	Count (0)
1	MW	2	0	1
2	Coop	1	2	2
3	Indep	0	0	2

Source: Author

In Table 3, the efficiency ranking has been presented following the depiction in Table 2. The MW or the hierarchic master weaver type of economic organization stands out as the most efficient organization in terms of production. It is followed by the Coop or the cooperative type of economic organization. The Indep or the independent weaver economic organization secures the third position in terms of efficiency in production.

Table 4. Distinguishing attributes of governance structures in the distribution

Attributes	Indep	MW	Coop
Incentive intensity	++	++	++
Administrative controls	0	0	++
Adaptation	0	0	++

Source: Author

In Table 4, three attributes have been considered and, with respect to these three attributes, all the three organizations have been compared in terms of distribution. In terms of incentive intensity, administrative control and adaptation, the Coop or the cooperative type of economic organization performs way better than the other organizations, as it can effectively economize on the issues of bounded rationality and the aspect of opportunism while implementing government schemes. The two other types of organizations—Indep and MW—lag behind cooperatives, especially in two counts: administrative control and adaptation.

Table 5. Efficiency ranking in distribution

Rank	Modes	Count (++)	Count (+)	Count (0)
1	Coop	3	0	-
2	Indep	1	0	2
3	MW	1	0	2

Source: Author

Table 5 presents the efficiency in distribution. The Coop or cooperative type of economic organization stands out as the most efficient organization in terms of distribution. Hence, the above-mentioned efficiency rankings in production and distribution reveal the following: in terms of production efficiency, MW (Master Weaver), which is a hierarchic organization, performs better. However, in terms of distributional efficiency, the Coop (Cooperative), which is not a hierarchical organization and where decision rights are collective, performs better than the other organizational modes. Hence, the idea of composite efficiency is quite effective here because it shows that when it comes to the existence and stability of the firm-organizations, especially in developing countries, it is not only the efficiency in production but also the efficiency in distribution that matters.

By introducing the issue of distribution into the analysis of firm-organizations, an attempt has been made to push the frontier of economics of organization. Here, the term distribution entails obtaining the benefits of the government's welfare schemes. It has been observed that the firm has a crucial role to play in this respect in the context of the handloom weaving manufacturing industry in India.

4.2 Rationalizing composite efficiency

Cooperatives: In this respect, cooperatives perform better because they are able to effectively economize the transaction costs in three ways. First, since they are better connected with government authorities, cooperatives are able to incur lesser transaction costs for searching and implementing the government schemes made for primary weavers. Second, since the decision rights in cooperatives are collective, weavers can collectively and easily push for benefits. Hence, incentives can be well aligned here and, as a result, the cost of decision-making is lesser. Therefore, regarding the distributional aspect, influence costs would be lesser in cooperatives; although, regarding the production aspect, influence cost may be higher in cooperatives. Third, search costs and the costs of lobbying for and implementing the government schemes need not be incurred by the individual weavers in cooperatives; rather, these costs are shared and economized. In these ways, the transaction costs for implementing government schemes can be economized in a better way than in other types of organizations. Hence, in all these respects —incentive, administrative control and adaptation— cooperatives are successfully able to economize on the transaction costs of implementing the government's welfare schemes for weavers.

Master Weavers: In the MW or master weavers organization, which is a hierarchical form of organization, the transaction costs of implementing different schemes would be relatively higher because of the following institutional aspects. First, the incentives of the master weaver and the primary weavers are not well aligned. Rather, in order to maintain control over the labor supply, the master weaver may want to create hindrances for the weavers to prevent them from obtaining benefits from the different government schemes. Hence, on the one hand, the influence cost is higher in this organization as the decision rights are not collective but fully centralized while, on the other hand, it is extremely difficult to push the master weaver to do anything that enables the primary weavers to benefit from the different government schemes. Second, master weavers generally do not have any linkages with the government, especially because the welfare schemes and incentives are not aligned. Hence, it is costlier for the individual weavers to search, enquire and finally get the benefits of the government schemes. Thus, in terms of incentives, these organizations are in a disadvantageous position. Also, both with respect to administrative control and adaptation, they are again at a disadvantage. Note that in terms of distributive equity it is difficult for the government to control the implementation aspects of government's schemes, hence there can be institutional failures happening in implementing such schemes. Thus, in terms of distribution the MW type of economic organization is in a disadvantageous position in the handloom weaving industry. In terms of efficiency in production, the MW type of organization can secure higher rank due to a hierarchic individualistic decision-making structure which can make coordinated adaptation (C type adaptation) less costly (transaction cost wise).

Independent Weavers: The economization of transaction costs remains a problem for independent weavers because of several issues. First, individual uneducated weavers usually do not have any direct linkage with the government authorities and, hence, the transaction costs—for

obtaining information, arranging the necessary documents, haggling cost, cost of lobbying, cost of bribing, etc.—have to be borne by the primary weavers themselves. Second, adapting to the needs of a scheme may be costlier for primary weavers. In this case, there is no conflict or problem in terms of incentives. When it comes to administrative control, these organizations do not have any advantage. Again, in terms of adaptation to the changing rules, they are again at a disadvantageous position.

Hence, hierarchical (MW) and non-hierarchical (Coop) organizations may coexist in the same industry and develop a stable formation for a long time for different transaction costs logic. In this way, issues regarding the co-existence, longevity and stability of cooperatives have been theorized in the context of developing countries by following the transaction cost economics (TCE) framework.

5. Conclusions

This paper has followed the Williamsonian (1985; 1991; 1996) tradition of microanalytic study on the different modes of economic organizations in the context of a developing country. With rigorous theoretical analysis, the importance of the distributional aspect as an important determinant to explain the stability and longevity of cooperatives has been established, which provides a coherent answer to the first research question. Moreover, regarding the second research question, by introducing the concept of composite efficiency it has been attempted to theoretically provide a transaction costs explanation in order to explain coexistence of hierarchic and non-hierarchical organizations within the handloom weaving industry. The small but novel contribution of this paper is the idea that a firm need not only concern itself about production; it may also take into account the distributional aspects. This paper proposes the idea of composite efficiency, which surpasses the simplified notion of efficiency in production, as a worthy explanatory apparatus in this regard. It has been delineated that, although the hierarchical master weaver organization is more efficient in terms of production, the cooperative organization is relatively more efficient in terms of distribution, hence these two different modes co-exist. Due to distributional efficiency in cooperatives, issues of stability and longevity of cooperatives also can be addressed.

To the best of this author's knowledge, no rigorous endeavor has hitherto been undertaken along this line, in the context of the rural Indian manufacturing sector. This paper seeks to emphasize that there are ample opportunities for applying such a synthetic TCE-NIE microanalytic framework in order to precisely capture prevailing diversity of organizations in developing countries. While this paper has particularly focused on the Indian handloom weaving sector, this theoretical framework can very well be applied to study organizations in other sectors, such as production in power-looms and other small and medium manufacturing units in the textile industry, agribusinesses, etc. Moreover, since the focus has been mainly on cooperatives, agricultural cooperatives of many kinds, credit cooperatives, multipurpose cooperatives and processing cooperatives, can be studied using this framework.

References

Alchian, A.A. & Demsetz, H. (1972). Production, Information Costs, and Economic Organization, *The American Economic Review*, 62(5): 777-795.

Bardhan, P. & Udry, C. (1999). *Development Microeconomics*. New York: Oxford University Press. DOI: https://doi.org/10.1093/0198773714.001.0001

Basu, K. (1986). One Kind of Power, *Oxford Economic Papers*, 38(2): 259-282. DOI: https://doi.org/10.1093/oxfordjournals.oep.a041740

Chaddad, F. (2012). Advancing the Theory of the Cooperative Organization: The Cooperative as a True Hybrid, *Annals of Public and Cooperative Economics*, 83(4): 445-461. DOI: https://doi.org/10.1111/j.1467-8292.2012.00472.x

Coase, R.H. (1937). The Nature of Firm, *Economica,* 4(16): 386-405. DOI: https://doi.org/10.1111/j.1468-0335.1937.tb00002.x

Cook, M.L. (1995). The Future of U.S. Agricultural Cooperatives: A New Institutional Approach, *American Journal of Agricultural Economics*, 77(5): 1153-1159. DOI: https://doi.org/10.2307/1243338

Das, S. (2001). *The Warp and Woof: An Enquiry into the Handloom Industry in West Bengal*. 1st ed. K.P. Bagchi & Co.

Dev, S.M., Galab, S., Reddy, P.P., & Vinayan, S. (2008). Economics of handloom weaving: a field study in Andhra Pradesh, *Economic & Political Weekly,* 43(21): 43-51.

Doucouliagos, C. (1990). Why Capitalist Firms Outnumber Labor-Managed Firms, *Review of Radical Political Economics*, 22(4): 44-67. DOI: https://doi.org/10.1177/048661349002200404

Doucouliagos, C. (1995). Worker Participation and Productivity in Labor-Managed and Participatory Capitalist Firms: a Meta Analysis, *ILR Review*, 49(1): 58-77. DOI: https://doi.org/10.1177/001979399504900104

Dow, G.K. (2003). *Governing the Firm: Workers' Control in Theory and Practice*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511615849

Euricse & ICA (2018). *World Cooperative Monitor: Exploring the Cooperative Economy Report 2018*. Available at: https://www.ica.coop/sites/default/files/publication-files/wcm2018-web-1542524747.pdf

Hansmann, H. (1996). *The Ownership of Enterprise*. Cambridge: The Belknap Press of Harvard University Press.

Helmberger, P. & Hoos, S. (1962). Cooperative Enterprise and Organization Theory, *Journal of Farm Economics*, 44(2): 275-290. DOI: https://doi.org/10.2307/1235830

Iliopoulos, C. & Valentinov, V. (2018a). Member heterogeneity in Agricultural Cooperatives: A Systems-Theoretic Perspective, *Sustainability*, 10(4): 1-22. DOI: https://doi.org/10.3390/su10041271

Iliopoulos, C. & Valentinov, V. (2018b). Cooperative Longevity: Why Are So Many Cooperatives So Successful? *Sustainability*, 10(10): 1-8. DOI: https://doi.org/10.3390/su10103449

Jensen, M.C. & Meckling, W.H. (1976). Theory of the firm: managerial behavior, agency costs, and ownership structure, *Journal of Financial Economics,* 3(4): 305-360. DOI: https://doi.org/10.1016/0304-405X(76)90026-X

Jones, D. & Kalmi, P. (2012). Economies of Scale versus Participation: a Cooperative Dilemma?, *Journal of Entrepreneurial and Organizational Diversity*, 1(1): 37-64. DOI: https://doi.org/10.5947/jeod.2012.003

Landes, D.S. (Eds.) (1966). *The Rise of Capitalism*, New York: The Macmillan Co.

Langmead, K. (2017). Challenging the Degeneration Thesis: the Role of Democracy in Worker Cooperatives?, *Journal of Entrepreneurial and Organizational Diversity*, 5(1): 79-98. DOI: https://doi.org/10.5947/jeod.2016.005

Menard, C. (2004). The Economics of Hybrid Organizations, *Journal of Institutional and Theoretical Economics*, 160(3): 345-376. DOI: https://doi.org/10.1628/0932456041960605

Menard, C. (2018). Research Frontiers of New Institutional Economics, *RAUSP Management Journal*, 53: 3-10. DOI: https://doi.org/10.1016/j.rauspm.2017.12.002

Ministry of Textiles, Government of India (2019). *Fourth All India Handloom Census 2019-20*. New Delhi.

Mukund, K. & Syamasundari, B. (1998). "Doomed to fail"- Handloom Weavers Co-operatives in Andhra Pradesh, *Economic & Political Weekly,* 33(52): 3323-3332.

Sacchetti, S. & Tortia, E.C. (2013). Satisfaction with Creativity: A Study of Organizational Characteristics and Individual Motivation, *Journal of Happiness Studies*, 14(6): 1789-1811. DOI: https://doi.org/10.1007/s10902-012-9410-y

Sacchetti, S. & Tortia, E.C. (2020). Social Responsibility in Non-Investor Owned Organizations, *Corporate International Journal of Business and Society*, 20(2): 343-363. DOI: https://doi.org/10.1108/CG-04-2019-0123

Sen, R. (1996). *Workers' Management: Some Industrial Cooperative Experiences*. Calcutta: Subarnarekha.

Sexton, R.J. (1986). The Formation of Cooperatives: A Game-Theoretic Approach with Implications for Cooperative Finance, Decision Making and Stability', *American Journal of Agricultural Economics*, 68(2): 214-225. DOI: https://doi.org/10.2307/1241423

Staatz, J.M. (1983). The Cooperative as a Coalition: A Game-Theoretic Approach, *American Journal of Agricultural Economics,* 65(5): 1084-1089. DOI: https://doi.org/10.2307/1240425

Staatz, J.M. (1987). Recent Developments in the Theory of Agricultural Cooperation, *Journal of Agricultural Cooperation*, 2: 74-95. DOI: 10.22004/ag.econ.46204

Tortia, E.C. (2018). The Firm as a Common, Non-Divided Ownership, Patrimonial Stability and Longevity of Co-Operative Enterprises, *Sustainability*, 10(4): 1-18. DOI: https://doi.org/10.3390/su10041023

Tortia, E.C., Sacchetti, S. & Valentinov, V. (2020). The "Protective Function" of Social Enterprises: Understanding the Renewal of Multiple Sets of Motivations, *Review of Social Economy,* 78(2): 1-31. DOI: https://doi.org/10.1080/00346764.2020.1744702

Tortia, E.C., Valentinov, V. & Iliopoulos, C. (2013). Agricultural Cooperatives, *Journal of Entrepreneurial and Organizational Diversity*, 2(1): 23-36. DOI: https://doi.org/10.5947/jeod.2013.002

Valentinov, V. & Fritzsch, J. (2007). Are Cooperatives Hybrids Organizations? An Alternative Viewpoint, *Journal of Rural Cooperation*, 35(2): 1-16. DOI: https://doi.org/10.22004/ag.econ.58688

Williamson, O.E. (1980), Organization of work a comparative institutional assessment, *Journal of Economic Behavior and Organizations*, 1(1): 5-38. DOI: https://doi.org/10.1016/0167-2681(80)90050-5

Williamson, O.E. (1985). *The Economic Institutions of Capitalism.* New York: Free Press.

Williamson, O.E. (1991). Comparative Economic Organizations: The Analysis of Discrete Structural Alternatives, *Administrative Science Quarterly*, 36(2): 269-296. DOI: https://doi.org/10.2307/2393356

Williamson, O.E. (1996). *The Mechanisms of Governance*. New York: Oxford University Press.

Zamagni, V.N. (2012). Interpreting the Roles and Economic Importance of Cooperative Enterprises in a Historical Perspective, *Journal of Entrepreneurial and Organizational Diversity*, 1(1): 21-36. DOI: https://doi.org/10.5947/jeod.2012.002