



## A COMPARATIVE STUDY OF PERFORMANCES BETWEEN MANUFACTURING COOPERATIVES AND MANUFACTURING PRIVATE FIRMS

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### Abstract

Cooperative sector is a new form of economic activities which emerge a new generation of people taking advantage of legitimate and balanced ownership by using public potentials and facilities and sharing benefits of their work. The present study compares performances of manufacturing cooperatives and manufacturing private firms in Bostan Abad, Iran. The methodology used for current study is a descriptive survey. Data gathering instrument was an author-developed questionnaire which was used after determining its validity and reliability. Results from testing studied hypotheses indicate that mutual trust and satisfaction are higher among workers of cooperatives than private firms (99%) are. There is also a significant difference between incomes of cooperative and private workers. Responsibility as well as participation in decisions is higher within cooperatives than private firms (99%) are. In general, it can be concluded that social aspects are stronger in terms of selected indices in cooperatives than private firms and demands of workers and members are more and better satisfied in cooperatives than private firms.

## 1. INTRODUCTION

According to different theorists, cooperation is in a common sense to work with each other. More clearly, cooperation is an essential technique for production and organization in a united form or it is a form of relations between firms in a vertical supply chain (Arrighetti *et al.*, 1997). Many economic and social theorists believe that relying on cooperative methods in the form of small and large

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economic enterprises can be followed by undeniable advantages; for example, it incorporates innovation and freedom in public ownership principle in a desirable and meaningful way and provides a fundamental solution for problems; it values work more than wealth and logically considers money and financial benefits and its role in production far from biases resulted from huge difference between income and ownership; accordingly, it often re-supplies national production by its more or less financial assets in different ways (Kabiri, 2002).

Through development stages, decreased poverty, increased income balance and social welfare as well as decreased unemployment are considered as important indices improving which indicates more successful development plans. Cooperatives are the most important non-governmental associations advantage of which is realized in poverty decreasing plans by volunteer members, special facilities and advantages (Birchall, 1996). As global economic perspective suggests, global economic growth in supplying raw material and food as well as increasing wages developed a new view in cooperatives through the second phase of market economic evolution to develop their activities along with global economic growth. Hence, they require a multidimensional planning to support members and feel strength in the growing economics. Therefore, a coordinated and multilateral movement started through second phase of developing cooperatives to improve work, income, education, health and social welfare of members. Thus, cooperatives were known as proper models to decrease poverty and increase social welfare throughout the world (Lawson, 2000).

Despite three decades of development plans in Iran, economic system and its practitioners failed to achieve 25% role of cooperation in national economy emphasized in development plans; while, many people practicing economic activities, particularly manufacturing, do not possess clear information on advantages of manufacturing cooperatives over manufacturing private firms. Unfortunately, productivity practically decreased in most such firms due to their links with administrative bureaucratic system and long-term procedures resulted in their bankruptcy. In modern advancing world, limited resources are considered as an economic principle and a profound characteristic of total developing and developed economies. Accordingly, optimal resource allocation and or reallocation of available resources are instruments to increase efficiency of production factors. Governmental dominance on great part of economy is based on various factors in different countries. In Iran, dependence on oil incomes is considered as the most factors of governmental dominance on economy. Adopting strategies to decrease reliance on oil incomes and inefficient performance of government-dependent private firms necessitate reallocation of public resources to social per capita; also, essential participation of private sector due to its potentials in economy, on the other hand to avoid exact capitalism and dominance of capital on human and elimination of human values as well as to realize social justice necessitate establishment of cooperatives (Hamyar Quarterly).

A main problem with development in under-developing and developing countries, including Iran, is lack of capital. A main problem preventing their development is capital and its application in manufacturing sector and increasing wealth. Despite this, available capitals are not optimally utilized. Therefore, it is necessary to study above problem in order to develop essential solutions for utilizing small capitals and their application in manufacturing practices. Collecting small capitals and focusing on manufacturing sector, manufacturing cooperatives grow production and increase wealth whereby centralize small and waiting capitals. Using capitals in manufacturing and productive sectors, they increase income and grow production followed by eliminated poverty and established development. Therefore, manufacturing cooperatives are considered as an important and valuable solution for development, increased social welfare, and eliminated poverty.

## **2. THEORETICAL CONCEPTS**

### **2.1. Principles and structure of cooperation**

P1. Volunteering and open doors: cooperatives are volunteering organizations with open doors to people who tend to provide their required services from cooperatives and take the responsibilities of membership. There are no sexual, social, racial, political and religious limitations for membership.

P2. Democratic supervision of members: cooperatives are democratic organizations managed by their members who actively participate in decision-making and strategies.

P3. Participation of members: members fairly participate in providing capital and democratic supervision of cooperative and receive limited profit on capital.

P4. Autonomy and independence: cooperatives are self-help and autonomic organization controlled by their members.

P5. Training and informing: cooperatives provide their members with training facilities and train managers, agencies and workers in order to develop cooperative.

P6. Collaboration between cooperatives: cooperatives effectively use their members to improve cooperative movement through common activity in structures available in local, national, regional and international levels.

P7. Participation in developing cooperatives: they act through adopted policies by members for sustainable development of their societies (Taleb, 2000).

Rabinz (2001) believes that organizations have different structures and structure influences on attitudes and behaviors of workers. On the other word, organizational structure can considerably influence on members (Rabinz, 2001). Considering organizational structure, behavior of workers can be justified or predicted. That is, both individual and team factors and structural relations emerged within the organization considerably influence on attitude and behavior of workers. Structure imposes limitations on workers and influences on things they do. If organizational structure is in such a way that tasks are very formal, then strict observation of leadership, authorization, limited control area (mechanical structure) cause very low freedom for workers. In such organizations, an individual works within a certain area and has nothing to do with other areas. On the contrary, if organizational structure is in such a way that tasks are not very formal, organizational structure is distributed horizontally and tasks are organized on expert, then workers will have more freedom and can show different behaviors (Rabinz, 2000).

Vanek believes that cooperative activity causes better results; because it provides an environment to collectively use skills, knowledge and resources. In the light of closely social cooperatives, better goals are set and performance will be optimal. He also believes that ownership influences on the structure. Cooperatives are structurally bureaucratic (organic); for this reason, they are more capable of environmental adjustment, innovation and leadership.

On the contrary, Williamson believes that social goals precede economic ones within cooperatives. The firm reduces to an entertaining club and its integrity and stability is eventually destroyed (Abasi, 2001).

Hakmanand Parer believes that participation of employee (organic structure) can influence on increased efficiency and effectiveness in two ways:

- a) Participation of employee can make more and valid information on task-related procedures, conditions and environmental requirements available for him;
- b) Participation of employees in task-related decisions increases his sense of ownership to job and thus possible emergence of team norms to support job and procedures (Taleb, 2000).

Moser addresses empowerment and emphasizes on making people participate in decision-making about different issues. He believes that extensive formalization of bureaucratic relations and structures decreases empowerment; on the contrary, participation in decision-making, forming groups for volunteering and flexibility of communicational structures cause empowerment.

## 2.2. Theories on the relationship between structure (organic-cooperative) and satisfaction

Neoclassic theorists believe that the role of communications and participation in decision-making as well as leadership in organizations is not solely achieved by providing top beliefs and philosophies of management; instead, members need to play a relative role for this (organic structure). However, classic theorists emphasize on establishing an exact organization (mechanical structure). People like Taylor, Fayol and Weber insisted that tasks had to be exactly determined and an exact defined network of tasks needed to be assigned and authorized (Rezaeian, 1990).

To gain satisfaction and coordination of organizational individuals, Elton Mayo believes that workers not only can be satisfied by material reward, but also their mental and psychological needs should be considered to achieve more efficiency. Based on extensive studies on Hawthorne factories from late 1920s to early 1930s, Mayo showed that it is not financial factors which increased team performance; instead, non-financial factors including more freedom, improved relations with administrator etc. improved performances (Parhizgar, 1994).

Herzberg believes that those factors which make workers dissatisfied are naturally exogenous. If workplace cannot provide them optimally, dissatisfaction will extend through the organization. Herzberg claims that most organizations do not regard motivational factors and most managers try to meet needs which are inconsistent with job content. Herzberg believes that job satisfaction increases in an organization in which there are freedom, skill diversity, job occupational respect and required feedback (Nayeli, 1994).

Trust has two different aspects in literature of sociology: one as personal characteristic which is considered in psychology and social psychology and defines trust as a personal characteristic emphasizing on emotions and personal values. The other which is mostly considered in sociologic field defines trust as characteristic of social relations; despite the former, it emphasizes on social contexts considered as a collective characteristic. When addressing trust, however, it may be more effective to adopt a mixed view rather than exclusively rely on each of the above (Mistal, 1996).

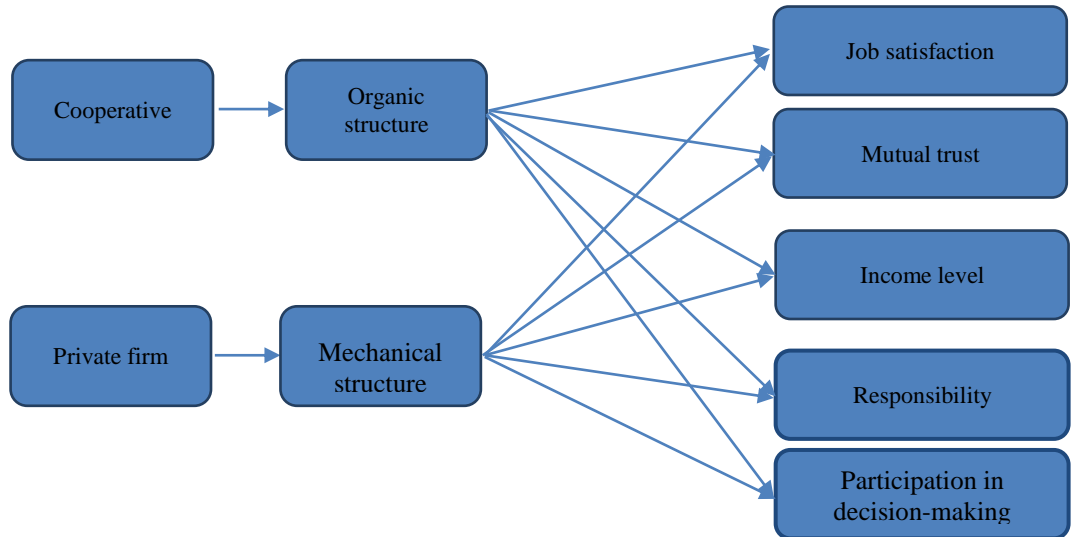
Fokoyama (1995) believes that trust levels of people vary within different contexts. That how people can trust each other is an issue which Fokoyama (1995) attributes to structural factors and cultural characteristics. Fokoyama believes that social capitals including job security, dominance of trustor on trustee within social network and family honor are also effective on trust (Fokoyama, 1995).

Kolman (1998) believes that a common situation creates a mutual trust system. According to Kolman (1998), in a place where people practice an activity which they similarly take advantage of and each makes benefit of not sacrificing others to practice considered activity a trust system emerges (Kolman, 1998).

Engel (1994) considers mutual social trust as a requisite of modern cultures and sustainable democracy. According to Engel (1994), massive support from democratic institutions and trust to each other develops even to trust to opposite members within democratic (organic) societies (Engel, 1994). He also concludes that societies with high level of life satisfaction and mutual trust are more likely to accept and maintain democratic institutions than (ibid, p. 44).

## 3. HYPOTHESES

- 1) Trust seems to be more among workers of cooperatives than that of private firms.
- 2) Job satisfaction seems to be more in cooperatives than private firms.
- 3) There seems to be a significant relationship between type of firm (cooperative or private) and income level.
- 4) Responsibility seems to be more among workers of cooperatives than that of private firms.
- 5) Participation in decision-making seems to be more among workers of cooperatives than that of private firms.



**Figure 1: Theoretical model**

**4. METHODOLOGY**

A descriptive method was used for the survey. To collect and prepare a theoretical framework documentaries and libraries were used. Participants included 311 workers and members of manufacturing (industrial) cooperatives and manufacturing private firms located in Bostan Abad, Iran. It is noteworthy that manufacturing cooperatives here included those active firms in manufacturing industrial goods and manufacturing agricultural cooperatives were not included.

Workers and members of manufacturing cooperatives and private manufacturing firms located in Bostan Abad and in some cases firms themselves are considered as statistical units. Among workers and members of manufacturing cooperatives (industrial) and manufacturing private firms, 311 workers and members were selected and compared from 20 cooperatives and private firms. Here, sample size calculated by Cochran formula was 144.

$$n = \frac{N t^2 s^2}{N d^2 + t^2 s^2} \quad n = \frac{311(3/84)(22)}{311(0/313) + (3/84)(22)} \quad n = 144$$

Where,

N= 311 (total workers)

t=1.66 (t quantity in 95% confidence)

d<sup>2</sup> = 56% (optimal probable accuracy)

s<sup>2</sup> = 22 (variance obtained by preliminary studies)

n= 144 (samples)

Sampling was done according to stratified sampling method and based on number of workers in both firms by  $n_i = n \left( \frac{N_i}{N} \right)$ .

Among several approaches developed for definitions of performance, the present study used strategic approach and measured considered elements to measure performance, including satisfaction, trust, rewards, wages etc. It is noteworthy that performance may include other indices in addition to above elements; due to limitations, however, the present study addresses few elements including responsibility of workers and their participation in decision-making.

## 5. RESULTS

Results from first hypothesis (h1) show that mean trust among workers of cooperatives and private firms are 20.83 and 14.69 respectively. Their mean difference is 6.14. Moreover, T significance shows that significance of above test is  $<0.05$ ; thus, above hypothesis is supported that trust of workers in cooperatives is more than that of private firms.

**Table 1: Descriptive statistics related to changes in trust within two types of firms**

	Type of firms	Observations	Mean	Standard deviation	Standard error	Mean difference
Trust	Cooperative	72	20.83	2.7	0.33	6.14
	Private firms	78	14.69	4.0	0.46	

**Table 2: T. test and homogeneity of variances for trust separated by type of firms**

Trust	F homogeneity of variances	Significant F	T quantity	Degree of freedom	Significant T
	8.11	0.05	10.72	148	0.00

Results from h2 show that mean satisfaction among workers of cooperatives and private firms are 30.61 and 26.30 respectively. Their mean difference is 4.30. Moreover, T significance (sig = 0.000) shows that there is a significant difference between satisfactions among workers of cooperatives and private firms. Because obtained sig is less than acceptable  $\alpha$  ( $<0.05$ ); thus, h2 is supported.

**Table 3: Descriptive statistics related to changes in satisfaction within two types of firms**

	Type of firms	Observations	Mean	Standard deviation	Standard error	Mean difference
Satisfaction	Cooperative	72	30.61	4.81	0.56	4.30
	Private firms	78	26.30	6.35	0.72	

**Table 4: T. test and homogeneity of variances for satisfaction separated by type of firms**

Trust	F homogeneity of variances	Significant F	T quantity	Degree of freedom	Significant T
	2.65	0.11	4.24	148	0.00

The present study used Chi-square to test h3. Results show that there is a significant relationship between type of firm and income level. Significance level (sig = 0.000) is less than acceptable  $\alpha$  in social studies (0.05). Therefore, h3 is supported.

Results from h4 show that mean responsibility among workers of cooperatives and private firms are 25.70 and 19.94 respectively. Their mean difference is 5.75. Therefore, mean responsibility within cooperatives is more than that of private firms. Moreover, T significance (sig = 0.000) shows that there is a significant difference between responsibilities among workers of cooperatives and private firms.

**Table 5: Descriptive statistics related to changes in responsibility within two types of firms**

	Type of firms	Observations	Mean	Standard deviation	Standard error	Mean difference
Responsibility	Cooperative	72	25.70	3.52	0.41	5.75
	Private firms	78	19.94	6.36	0.72	

**Table 1: T. test and homogeneity of variances for responsibility separated by type of firms**

Responsibility	F homogeneity of variances	Significant F	T quantity	Degree of freedom	Significant T
	26.52	0.05	6.77	148	0.00

Results from h5 show that mean participations in decision-making among workers of cooperatives and private firms are 18.40 and 11.32, respectively. Their mean difference is 7.08. Moreover, T significance (sig = 0.000) shows that there is a significant difference between participations in decision-making among workers of cooperatives and private firms.

**Table 7: Descriptive statistics related to changes in participation within two types of firms**

	Type of firms	Observations	Mean	Standard deviation	Standard error	Mean difference
Participation	Cooperative	72	18.40	2.74	0.32	7.08
	Private firms	78	11.32	3.99	0.45	

**Table 8: T. test and homogeneity of variances for participation separated by type of firms**

Participation	F homogeneity of variances	Significant F	T quantity	Degree of freedom	Significant T
	7.32	0.008	12.56	148	0.00

## 6. DISCUSSION AND CONCLUSION

Concluding results obtained from descriptive statistics indicates relative superiority of cooperatives over private firms in terms of strategic approaches. As Table 9 shows, average score of all indices achieved by members of cooperatives is more than that of private firms suggesting superiority of cooperatives in terms of strategic approach.

**Table 9: Indices used for comparing cooperatives and private firms**

Indices	Average score	
	Cooperative	Private firm
Satisfaction	30	26
Mutual trust	20.83	14.69
Responsibility	25.70	19.94
Participation	18.40	11.32

The first assumption studied here was that ‘workers of cooperatives trust each other more than workers of private firms’. Results from comparing means of two firms showed that mean trust of cooperatives is more than that of private firms. Significant t (sig = 0.000) also showed that there is a significant difference between trusts of cooperatives and private firms. Therefore, above assumption supports [Fokoyama \(1995\)](#) and [Kolman \(1998\)](#) who believe that trust in organic structure (cooperative) is more than mechanical structure (private).

The second assumption studied here was that ‘job satisfaction of workers from cooperatives is more than from private firms’. Testing above assumption showed that mean trust of cooperatives is more than that of private firms. Significant t (sig = 0.000) also showed that there is a significant difference between satisfactions of cooperatives and private firms. Therefore, results support [Elton Mayo](#) and [Herzberg](#) who believe both material and non-material factors need to be emphasized to increase satisfaction of workers and the more freedom and skill diversity, the more job satisfaction.

The third assumption studied here was that ‘there is a significant difference between firm type (cooperative and private) and income levels’. Results showed that there is a significant difference (sig = 0.000) between income levels of cooperatives and private firms; that is, income is differently distributed within these two firms.

The fourth assumption studied here was that ‘workers of cooperatives feel more responsibility than workers of private firms’. Results showed that mean responsibility of cooperatives is more than that of private firms. Significant t (sig = 0.000) also showed that there is a significant difference between responsibilities of cooperatives and private firms. Therefore, seven principles of cooperation from which the assumption was taken are supported; particularly the first principle related to free entrance and exit, second principle related to democratic administration and supervision and third principle considering autonomy and independence.

The fifth and the last assumption studied here was that ‘workers of cooperatives participate in decision-making more than workers of private firms’. Results from testing hypothesis showed that mean participation of cooperatives is more than that of private firms. Significant t (sig = 0.000) also showed that there is a significant difference between participations of cooperatives and private firms. Therefore, managers of cooperatives get involved in decision-making more than others do. This is because most workers of cooperatives are also members of them. Therefore, the assumption supports Blanchard and Goodman who believe that participating members in decisions satisfies their needs to freedom, mental health and increases satisfaction.

According to results from present study suggesting success and superiority of cooperatives in terms of income levels, responsibility, participation in decision, mutual trust and job satisfaction of workers in both cooperative and private firms, manufacturing cooperatives can be considered as a strong productive arm in this era when Iran is transiting from traditional society to industrial one. They also can insist on human values while facilitating industrialization. Cooperatives can on one hand flourish economy and business by providing primary capital which is a requisite of economic development and on the other hand can increase innovation and productivity and wealth production by giving opportunities to members in decision making. Therefore, authorities are recommended to form manufacturing cooperatives and do not hesitate their supports in forming and surviving cooperatives. Authorities are also expected to facilitate growth of cooperatives by providing requirements and facilities.

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