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Socio– economic factors affecting rural WP in productive co operations: Case study of Paveh ball-making cooperative

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Over the past two decades, the issue of rural women in developing countries has evolved from relative obscurity to a primary concern among the growing community of researchers and policy makers who are interested in women's economic and social situation status. In respect to developing countries, rural women play a vital role in agriculture, daily reproductive tasks and income generating activities, etc. However, it is the reality that less value is given to their contributions, and rural women are less likely to realize their status to make a life better for themselves, families and communities. In this regard, participation of rural women in productive cooperation is an appropriate means for empowering them and reduction their poverty. This study was undertaken to review individual-economic factors affecting rural WP in "Paveh ball-making project" as a productive cooperative (co-op) in Iran. As an exploratory and descriptive-survey study, 120 rural women were selected from the cooperative in Paveh district using systematic probability method. The project was the first of its kind in the region. The study area is located in the west of Kermanshah province, in the mid-west of Iran. Necessary data and information were gathered using several methods such as documentary review, observation, PRA techniques, and a designed questionnaire. The result of path analysis showed that the socio–economic variables could explain about 61% of dependent variable (women participation). Trust to co-op staff, awareness, number of family, economical motivation, economic improvement of women's family, years of membership, years of management at the cooperative, land and livestock ownership, were among the highly prevalent socio –economic factors that potentially have affected the participation of women in this co-op. As the factors influencing the participation of women are multiple and complex, a holistic approach should be adopted with emphasis on improving access to education, enhancing social status, increasing external funds and supports especially for rural women, encouraging ownership of local projects, and mechanisms to enhancing participation.

Key words: Socio- economic factors, women participation, productive projects.

INTRODUCTION

Since the introduction of development to countries after

the Second World War, this process has been the most significant issue, especially in developing countries. The realization of development demands exploiting the talents, capacities and active participation of people in different stages of development process, so that development and participation are considered to be interwoven and the process is succeeded when it is concurrent with the increase of people's participation, especially local people (Roling and DeJong, 1998;

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Abbreviations: **PP**, People's participation; **RD**, rural development; **RDP**, rural development process; **WP**, women participation.

Oakley, 1991; Jiggins, 1998; Bell et al., 2004; Lockie, 2006).

Based on the recent statistics released from the UN, 33% of Iranian women participate in the economic sector in contrast with 77% of men's participation, of which 34% of women attend the agricultural sector versus 24% for men (Economic World Forum, 2009). Rural women, as the half of human population in rural areas, play significant role in social and cultural realms along with economic roles in rural areas. Accordingly, it is important to pay attention to how we can increase their participation and involvement in development process, especially because past research efforts, so often ignored, or misrepresented them (Tomm, 1989). Most of the women are illiterate or less educated and often unable to attend or continue formal training courses, social or economic services. In these conditions, rural women remain inactive with less chance to develop their own abilities. As a result, this situation has caused the women to be the most vulnerable group in rural development programs (Safilios-Rothschild, 1994; Das, 1995). In spite of their active role in socio-economic aspects, promotion of rural women's status, having participated them in formal economic sector is of greater importance and regarded to be the necessary condition for sustainable development in developing country (FAO, 2007). To recognize the manner of WP in development process and identifying influential factors, during 1970s the term "women in development", and in the 1980s "Gender and development" were applied in resources and discourses (Ellis and Biggs, 2001). Thereafter, in most developing countries, strategies for active participation of women in development put into practice to remove or reduce existing barriers and obstacles.

Most planners of rural development policy believe erroneously that farmers and rural workers are mostly men (Kloppenborg, 1991; Wallace, 1999; Grace, 2005), however, in recent decades, social scientists focus on the importance of individual, economic, and social factors that affecting women's life, directly or indirectly, to provide an environment for the promotion of their participation in rural development process (World Bank, 2005, 2003). The co-ops established in rural areas are the main institutions as NGOs which could enhance rural communities' capacity through applying unique practices and approaches (Jones and Garforth, 1997; Liepins and Schick, 1998; Trauger et al., 2008).

Subsequently, attention to rural women's situation, attempt to recognize and evaluate their activities and remove the main barriers of improving their participation in different formal institutes at village level, including co-ops are the necessary steps towards sustainable rural development (UNFPA, 2005). The logic beyond this attempt is the necessity of using all the potential human resources toward development goals. The participation of women needs to be strengthened for making the co-operations in rural areas more successful and to achieve

sustainable rural development (RD) in countries such Iran. In this respect, factors affecting the level of WP need to be determined to achieve an effective and balanced participation of rural women as poorest group of people. The purpose of this study is to analyse factors affecting WP in rural co-operatives. Therefore, the main question of this study is what factors affect WP in participatory activities that is, rural cooperative? The study mainly explores some socio-economic factors affecting woman's participation in rural co-op from members' point of view. In the present study, the researchers have attempted to analyze the relationship of some socio-economic factors such as: age profile of the women, levels of education, woman awareness, and family financial status, ate with their participation in the participatory activities like co-ops. The paper is an effort to identify the socio-economic and demographic factors which affecting WP directly or indirectly. It begins with an overview of the theoretical concepts on the issue of participation, especially on the case of rural women, and follows by a description of methodology of the study, and then findings are presented following by conclusion and recommendations.

Women participation in rural development

Concerning people's participation (PP) in participatory activities in particular, propounding the subject of participatory approaches like PRA and RRA was the result of dissatisfaction and lack of success of rural development (RD) activities before the 1980s (Hamd-e-Heidari, 1998). During that time, the dominant thought and direction of RD was based on two essential principles: 1) emphasizing the role of 'individuals outside the social system' as the planners and decision-makers of the main projects and activities of RD. 2) the thought "we know and they do not know" where 'we' referred to the outsiders and experts and 'they' referred to local people, so they ignored indigenous knowledge (Aazami, 2004). Considering the failure of many RD projects and programmes in the period before the 1980s, impressions, attitudes and ideas in relation to RD were changed during the subsequent three decades. The issue of 'project ownership' and local NGOs gained significance up to date. It was realized that rural people had to have a sense of ownership of development process to follow and achieve the desired results. Before the 1980s, existing approaches to RD paid little attention to the active role of local people in RD, especially the marginalized groups (women) in rural areas. Therefore, in this period, decision-making and allocation of resources were carried out mostly by outsider experts of RD (that is, in the capital or in the local governmental organizations) in developing countries. Thereafter, people's involvement in making decisions on RD projects was determined as a significant issue. Local people's ideas and opinions about

their needs and problems related to their environment were gradually considered and the issue of PP became a central topic in the development literature (Aazami, 2004).

Through the relevant literature, a number of studies can be observed in the literature relating to the issue of WP and factors might affect it. Kozel and Alderman (1990) have studied the factors affecting work participation and labor supply decision in the urban areas of Pakistan. They have used OLS regression and Tobit model for their purpose of the study. The study concludes that the women work participation rises with an increase in the expected earnings, wages and level of education.

Malik et al. (1994) has studied the factors that influence female labor force participation in economic activities. They have identified that women labor supply is significantly and positively affected by women wage rate and predicted male wage rate.

Aly and Quisi (1996) has argued socio-economic factors that affect Kuwaiti women's labor market participation decision. They have concludes that females' wage rate and education are positively related with labor force participation rate. It has been also found that marital status, the number of children and age is inversely related with labor force participation rate.

Azid et al. (2001) have studied the factors influencing WP in cottage industry of Pakistan. The main objective of the study is to analyze the economic behavior of the female workers involved in the business of embroidery. The study has concluded that the number of children, age of the females, education, and poverty status have a positive and significant impact on female labor force participation.

Naqvi and Shahnaz (2002) have examined the effects of various demographic and socio-economic factors on WP in economic activities. They have used cross-sectional data from integrated household survey for the age group between 15 to 49 years. They used a probit and multinomial logit model to estimate the parameters. The results show that marital status, primary education, number of children and female head of households are inversely related with WP in economic activities.

Aazami (2004) has analyzed the process and outcomes of people's participation (both men and women) in participatory activities in Iran. He has concluded that women were beginning to participate in managerial responsibilities but they still remained outside the decision-making process because they were neglected or there were not enough educated women with the appropriate qualifications. Certain socio-economic and cultural constraints and barriers may have contributed the failure of the process of power transformation such as: the location of meetings in public places from which women were effectively excluded made it difficult for some of them to attend; time to come to the meetings and have a say in discussions; lack of experience in public voice; lack of experience in

management of participatory projects low level of illiteracy and little access to vital services of which education is the most important.

The status of WP in participatory activities in Iran

After 1980s, the issue of considering poor, rural individuals and groups such as landless people or women was recognized as a good solution to solve their problems at international level (Chambers, 1998). This was due to the acceptance of the fact that the poor can have clear understanding of their own position of poverty and life (Aazami, 2004). The changes of the ideas of PP were being made from action and work 'for' local people without their involvement to action 'with' them and even 'by' themselves. 'Self-reliance' and 'empowerment' are the obvious results of progression. Accordingly, during recent decades, PP has always been an important issue in the poverty reduction discussions; however, the issue is now perhaps better understood as one of governance (Ashley and Maxwell, 2001).

The recent RD debate, as Ashley and Maxwell (2001) argued, emphasizes not just participation, but governance, with a particular emphasis on democratic decentralization. Nowadays, local cooperatives can be seen as a widespread form of people's involvement in their own affairs in Iran. Concerning the issue of WP, in the ancient times, all over the east realms, the span of women's activities were not limited to house and house chores but they participated in social and economical affairs the same as men (Grishman, 1954).

Based on the information from international organizations, women in most developing countries often contribute to 65 to 70% of the labor in agriculture (FAO, 2010). They are responsible to prepare food for two thirds of world population, but they have limited control over resources due to definite cultural and legal reasons, and about 5% of rural women benefit from the development recourses and services in rural areas (Rivera and Corning, 1990; Lipiens and Schick, 1998; FAO, 2006). The resources, comprises not only financial but also human resources, that is, women's education and social resources such as women's spontaneous organizations, women's co-ops or self-help groups in local area who are constructive to enhance women's abilities to choose more consciously and to reduce the vulnerabilities in their life. For the case of Iranian women, the situation is alike to this (FAO, 2010).

A co-operative is a very common participatory action or a formal NGO established and managed by a group of people democratically and their activities are based on the common interests. In Iran, enacted laws on co-operative organizations do not have a long history. While Iran's social and community life was anchored on traditional forms of co-operation, the co-operatives gained legal status for the first time in the country's trade

laws in 1922 (MJS¹, unpublished). The program for establishing formal co-operatives has been followed since late 1930s. It proceeded slowly, with only 19 co-operatives established during the first 9 years. The activity of co-ops started for the first time in 1935. At that time, the government established the first rural co-op in Davar-Abad Garmsar district Semnan province. This mostly included consumption co-operatives. Rural co-operatives developed from 1957 and were fairly welcome by people (Sadrulashrafi, 1998).

The co-operative movement began to grow slowly in this country in the early 1960s. According to Mohajerani (1999), by March 1962, only 1,178 co-operatives had been created, covering 2.5% of the total population. Of these, 960 co-operatives were rural co-operatives, with 351,973 members, 125 were urban co-operatives with 54,242 members, and 93 workers co-operatives with 52,793 members. On the other hand, the urban workers' co-operatives did not grow at the same pace. In the 1960s, with the land reform movement, contrary to the international norm, membership in the rural co-operative societies became obligatory. Any farmer wishing to benefit from the land reform legislation had first to join the co-operative society of the village. Within the first ten years after Iran's land reform, the number of co-operative societies increased 9 times, the number of members increased 5 times, and the capital increased 11 times (Aazami, 2004).

After the Islamic Revolution (1979), the co-operative sector has become an integral part of the Iranian economy. The co-operative societies have become a potential vehicle for PP. The new Constitution (1979) has paid more attention to co-operative activities and it has included these activities as one of the ways of fulfilling the country's independence and has considered it as one of the three economic sectors as pillars-governmental, cooperative, and private. The Constitution strives to create favorable employment opportunities for all those who seek work, but who do not have a job, through co-operatives. These provisions have facilitated positive attitudes to the place of women in the workforce. The Constitutional law treats women as producers, and as both contributors and beneficiaries of the development process (Aazami, 2004).

After being marginalized for decades, women had a chance to have a voice in their affairs so they began to establish their own co-operatives. However, a comparison of the national census figures shows a huge gap in participation of men and women in economically active jobs (Aazami, 2004). Participation in the co-operatives provided women with opportunities for economic empowerment and the means for combating feminization of poverty. Women were able to have access to government funds, to gain employment, to improve their means of livelihood relatively, and to obtain more financial security and independence.

According to MJS reports, there were 480 women's co-operatives in the different provinces of the country with 30000 members in 1995 (MJS, undated). These co-operatives were engaged in handicraft products, services, education, research, film products, cultural activities, athletics, hairdressing, carpet weaving, manufacture of clothes, textiles and weaving, (for example, paveh ball-making cooperative). Despite the increase, women still make up only 15% of the members of the co-operatives (Aazami, 2004). Rural women co-operations played an important role in local, regional and national level through rural housing co-ops, rural credit co-ops, rural production co-ops, rural treatment and health co-ops, marketing co-ops and rural services co-ops to create growth and development in rural areas.

The basic principle of rural co-ops is voluntary participation of local people. Based on UN research, participation is organized effort to increase control over resources and institutions regulating social situations by some groups and movements which were previously deprived of applying such control (Monzon and Chaves, 2008). The issue of co-op and its aims, the manner of PP in it and its role in reducing poverty are wide research conducted in rural communities in developing countries, in Asia (Baland and Platteau, 1996; Ostrom, 1990; Ostrom et al., 1994). Some of the most important results and the surveys performed about villagers' participation in co-ops are expressed further.

METHODS AND MATERIALS

This is an 'exploratory study' involving case study dealing with the issue of PP in participatory activities (co-ops). The exploratory research methodology is followed by an interpretative study to enable a deeper and clearer picture of the issue of PP in the study area. Therefore, research data in this study are both quantitative and qualitative in nature. The research strategy considered "case study" research to achieve the main objectives of the study. Literature shows that case study research is becoming increasingly important in current researches on rural development (Robson, 1993; Miles and Huberman, 1994; Yin, 1994). Case can be individuals, programmes and projects, institutions, or groups which are defined in different ways. This kind of study could help gain a deeper identification of the process of PP and allow clarification of the appropriate information on the factors that affect PP as well. In this study, the appropriate methods chosen for collecting data were: document analysis, observation, PRA techniques, and questionnaire survey.

In this study, a survey-based approach was applied to collect necessary data from the field. This was useful for gathering data regarding to quantitative aspects of the WP which mainly produce numerical data that is quantified using statistical techniques. Members of the project were the units used in the survey. A main strength of the survey is that it typically uses statistical sampling, which enables the researcher to make inferences about a greater population. This allowed findings to be generalized, which is essential for the purpose of this study, for example, general demographic characteristics of members of the project and factors affecting their participation.

A questionnaire survey was embedded into the research to gather rich and deeper information from the studied community to support the qualitative data. Since access to all members of the

¹ Ministry of Jihad-e-Sazandagi

projects was difficult, thus, this process requires a sampling method to select appropriate samples from the community. The sampling unit, in research, can be an individual, group, or other entity that is selected for survey (Fink, 1995). A sampling unit, in case of this study, consisted of an individual who was a member (beneficiary) of the selected project. Members were supposed equally members of the population, and so equally eligible to be selected in the sampling procedure.

The statistical population were women who were about 1210 persons in 2007. The sample were selected from active members of ball-making co-op consisting of about half of whole members (the rest of members were nominal members and non-active). The size of the sample refers to the numbers of units that need to be surveyed to get precise and reliable findings (Fink, 1995). Sample size can be determined through using proper statistical formulae which require some basic information such as variability of responses within the population. Sampling process in this study, as a qualitative-quantitative mode, involved selecting samples from project members through suitable sampling method. Bailey (1987) believes that the general rules are hard to make without knowledge of specific population, around 30 cases seem to be the bare minimum for studies in which statistical data to be done. Statistical advisories, suggest that it is reliable to select up to 20% of members of the cooperative (Aazami, 2004). Therefore, the sample size in this study was selected from total of 600 active members, which had participated in the project activities (such as ball-making). To estimate the sample volume, a pilot study was done on 30 respondents to specify the variance of study trait (the rate of woman's participation in co-op). Then, by using Chookran's formula with confidence level of 95% and probable precision of 5%, the sample volume was determined to be 120 from active members of co-op.

Out of the two broad sampling type, "probability" and "non-probability", probability sampling was adopted in this study. A probability sample is one in which each individual in the population has an equal, or at least a known chance (probability) of being selected. This type is more likely to produce representative samples and enable estimates of the sample's accuracy (De-Vaus, 1996).

Data collection and analysis

The data for this study is collected through filed survey in the year 2008, concentrating on the sample of women who were active members of Paveh ball-making co-ops. Women are examined by studying certain socio-economic and demographic factors. Based on the research approach and strategy, the fieldwork generated two kinds of data sets, qualitative and quantitative. Qualitative data was examined and coded (open and axial) based on what Strauss and Corbin (1990) and Miles and Huberman (1994) have suggested. These references were useful in finding an analytic strategy for data analysis. Thereafter, the data were prepared for computer analysis; usually this involves coding of the data with verification and quality control procedures in place. Quantitative data collected through questionnaire, the reliability of which was by Chronbach ($\alpha > 0.88$) and questionnaire reliability was confirmed by experts, the women who were members of co-op and agricultural organization experts. The questionnaire was completed by researchers through interview and path analysis model was used to survey the socio-economic factors. The path analysis in a type of applied regression known as structural equation model which provides the possibility of testing causal relationships between two or more variables in relational-causal researches (independent, dependent, continuous or discrete, overt or covert) applied in a linear equation. In this research, discovery patch analysis was used to causality and SPSS software to analyse the data.

RESULTS

Description of the case study

Paveh ball-making project was the first of its kind in the region. Although there were some socio-political objectives within the project design, it seems to be mostly an economic project. Seen as a complement to the existing skills of working with thread and needle for stitching by women in Paveh district, producing sports balls by hand seemed to be possible. Therefore, the initiators of the project with the awareness of this potential began to propose and design a participatory project in the district.

According to MJS (1997), local government organization played a significant role in initiating the project. In this connection, the officials proposed the idea that there is a huge potential for applying the skills of producing light cotton summer shoes by hand among skilled and interested women in that area in making sport balls by hand. They considered the idea and the officials started their investigations in the area. The first studies were launched in early 1990 by local government officials and then the early stages of the project activities were launched in late 1991.

The project was aimed at fighting extreme poverty and unemployment in this area, and thereby, to improve livelihoods of poor households and build the capacity of women to satisfy their essential needs. One of the main strategies of the project was focused on producing various kinds of sport balls, for example, for football, volleyball, handball using skilled women's abilities (Aazami, 2004).

The initial managers of the project aimed to pay the earnings to members based on the number of balls which each individual produces. However, they offered relatively low wages in order to attract mostly poor, unemployed workers as participants. Nevertheless, many women were interested to join the project. The project was initially administered through the state employed offices, but after a few years, a board of directors has been responsible for the project. At present, the organisational structure of the project consists of a general assembly, a board of directors, a managing director, and executive staffs (Figure 1).

Descriptive analysis

The elementary analysis of our study is concerned with establishing descriptive statistics of some selected variables. The elementary analysis aims to give an overview of the variables and provide the behavioral patterns of variables. Table 1 presents the results of the summary statistics of the descriptive analysis. Individual characteristics of a community are various, however, in this study the following characteristics were considered.

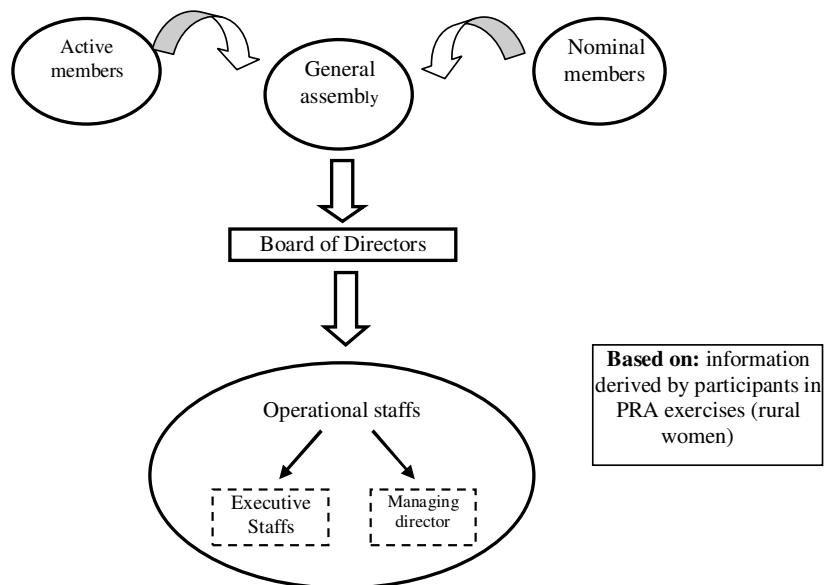


Figure 1. The organizational structure of Paveh ball-making project.

Table 1. Personal features of women.

Features	Frequency	%
Age groups		
15-20	14	11.5
21-30	56	46.9
31-40	35	29.2
41+	15	12.5
Education levels		
Illiterate	19	15.6
Literate (not primary school)	29	24
Primary school	31	26
Secondary school	31	26
High school	6	5.2
University (2 years)	4	3
Marital status		
Single	50	41.8
Married	68	57.0
Widow	2	1.2
Number of people in the family		
0-3	24	20
4-6	58	48.3
7-9	34	28.3
10+	4	3.4
Years of membership		
>7	59	49
7-9	19	15.6
9>	42	35.4

Age

The age of women is a very vital factor for their participation. Four categorical age dummy variables have been included in the model to identify the effect of different age groups on WP. The obtained results show that the relationship between age and WP is positive or negative with respect to different age groups.

Education level

Education is a very important factor in increasing WP. To capture the effect of different educational levels on WP, the researchers have included six categorical education dummy variables in our model. The expected relationship between education and FLFP is positive.

Marital status

This variable was categorized as single, married and widow. Married women have more likely to participate in the CO-Ops activities. So, both positive and negative signs are expected among marital status and WP.

Family or household size

Family size was another factor which affects WP. The larger the household size, are more likely to participate co-ops. So, positive sign is expected between household size and WP.

Years of membership

The results of this study showed that the relationship between years of membership in the co-ops and WP is positive.

Economic situation of the family

This includes some types of assets such as financial assets, gold, landholding, livestock, shops etc. It is therefore expected that assets and WP are related.

Family income from the co-op

In this study, we have considered the amount of women's income from ball-making activity. The expected relationship between WP and family income is positive.

The findings show that the rural women studied were in the range between 15 to 55 years with the average of 29 years, while most were located in 21 to 30 ranges. The survey of family members showed that 68.4% of

respondent families were up to 6 persons; 41.8% were single and 57.0% were married; two persons are the family guardian (widow). Also, of the 120 rural women, 15.6% were illiterate; 24% were educated by literacy movement; 26% had primary school; 26% had secondary school; 5.2% had high school; and the rest 3% were graduates. The factor which could facilitate or ban the motivation to participate in an activity is the individual's background of participation (years of participation). Evidence shows that the successful individuals are in a more favorable situation to repeat an activity. The years of membership of rural women in co-op showed that 49% of women had less than 7 years of experience of membership; 15.6% women had 7 to 9 years; and 35.4% had over 9 years of membership experience.

Related to economic situation of members of the co-op rural women, the data obtained showed that revenue from participation in co-op is not very considerable and that 56.3% of the women earned less than 100 US \$ monthly; 35% earned 100 to 200 US \$; and only 8.7% more than 200 US \$ from knitting balls. The low income is due to the fact that the job is part-time and not economically beneficial for members.

In the next stage of the study, improving the economical situation of rural women was analyzed by adding increase of family savings, and of family revenue, improvement in family nutrition, and in clothing, improvement of children's situation and total improvement in the economic situation of family before and after participating in co-op to specify the improvement index of rural woman's economical situation. The results show that only 21.9% of the participants indicated that they had a high income from the co-op; while 36.6% said that they had low income and the rest 41.5% had medium income.

The economic motivation of rural women to participate in the co-op is an important factor studied in participants' opinions. The components were including access to governmental services, finding permanent job, and revenue increase are combined with each other to be considered in data analysis. From the results, it was evident that more than 85% of studied group were motivated by economic reasons to participate in the project.

The process of PP in the cooperative stages

The process of PP was explored by identifying how much the community members were involved in project activities. Participation was seen as a process not an event and, generally, indicating the involvement of a considerable number of people in actions aiming at enhancing their well-being, for example, their income, food security, self-esteem, abilities and/or other personal benefits. To understand the participation of people's involvement in three major stages of the project cycle,

Table 2. WP at three stages of cooperative activities (project cycle).

Participation levels	Low (%)	Medium (%)	High (%)
Stages of the project cycle			
Problem identification	92.1	6.7	1.2
Decision making	75.0	20.0	5.0
Implementation	36.7	44.2	19.1

Table 3. Correlation coefficient between WP and individual and economical variables.

Variable	Correlation coefficient	Significant
Awareness level	0.146*	0.017
Trust	0.491	0.000
Number of family	-0.245**	0.000
Years of membership	0.572**	0.000
Years of management	0.355**	0.000
Family financial improvement	0.659**	0.000
Years of benefit from co-op	0.275**	0.000
Land ownership	-0.084	0.062
Livestock ownership	-0.211*	0.005

that is, problem identification, decision-making, and implementation was investigated. A summary of respondents' viewpoint about their involvement at three stages of the project cycle is shown in Table 2. From the table, it is perceived that the involvement of respondents in the project's activities has increased such that the percentage of people who felt involved actively (from medium up to very strong) has increased from only 7.9% in the problem identification stage to 25% in the decision-making process, and 63.3% in the implementation stage during the life of the project. The results show that women's participation in co-op was noticeable in implementation stage (knitting balls by hands) while it is not so in other stage like problem identification and decision making.

Analytical statistics: Correlation coefficient between WP and individual and economical variables

Literature reveals that some socio-economic factors such as age, education level, and number of family members of individuals have direct or indirect effect on WP in participatory activities like cooperatives, so it is important to identify the amount of the effect of these factors. In this study, all intended factors involved in the stepwise regression analysis to recognize the most powerful factors. Then, to avoid from complexity of the model, the less important factors were omitted from it.

The relationship between participation variable of rural women with each of socio-economic components was

investigated by Spearman and Pearson correlation coefficient.

According to Table 3, the variables awareness level, trust to co-op staff, years of membership, years of management, improvement of family economic situation, project profitability, and utilization years from co-op benefits shows a positive relationship with woman's participation in the level of $p = 0.01$, similar to the findings of Lechine (1994), Hoddinott and Haddad (1995), Schultz (1990), Browning et al. (1990) and Thomas, (1990) in the past. Other variables in Table 3 show that the livestock ownership and the number of family members have negative relationship with woman's participation. Therefore, increasing number of family members and ownership of land or livestock have reduced women's participation.

To survey the effects of women socio-economic component on their participation and also to recognize their direct and indirect effects on each other, path analysis method was applied in the next step. Twelve socio-economical components considered in the research as the main variables related to rural woman's participation to draw structural-causal model in the level of 12 variables to explain their effect on woman's economical ability, as in Table 4.

The direct and indirect effects of independent variable 'years of membership in co-op' on dependent variable (rural woman's participation):

Table 4 shows that the effect of this variable is 0.476 and 0.177 directly and indirectly, respectively, therefore, the

Table 4. Individual and economical effects on rural WP.

Priority	Sum	Indirect effect	Direct effect	Variables	Label
1	0.653	0.177	0.476	Years of membership	YOM
2	0.567	0.192	0.375	Economical family Improvement	EFI
	0.402	0.294	0.108	Trust	T
3	0.37	0.094	0.276	Years of co-op management	YOCM
4	0.365	0.165	0.200	Economical motivation	EM
5	0.333	0.005	0.328	Benefit from co-op	BC
6	0.324	0.162	0.162	Years of benefit from co-op	YB
7	0.167	0.056	0.111	Awareness	A
8	0.127	0.043	0.084	Income	IN
10	0.05	0.016	0.034	Livestock ownership	LIO
11	-0.049	-0.097	0.048	Land ownership	LAO
12	-0.17	-0.01	-0.160	Number of family	NOF

total sum of causal effect is 0.653 with the highest priority (first rank). The indirect effects of this variable are through age, literacy, revenue from co-op improvement economical situation and livestock ownership on woman's participation.

The direct and indirect effects of independent variable 'the improvement of family economic situation' on the mentioned dependent variable (woman's participation): Table 4 shows the direct and indirect effect of this are 0.375 and 0.192 respectively, therefore, the total value of causal effect is 0.567 having the second important priority. The indirect effects of this variable are through the variables of family member number, ownership (livestock or land), years of management, years of membership, woman's revenue from co-op, economic motivation, and benefit duration of woman's participation.

The direct and indirect effects of independent variable of "years of management" of the cooperative on the dependent variable: Table 4 shows this to be 0.276 and 0.094 for direct and indirect effects respectively, with a total value of 0.37 at the third rank of priority. The indirect effects of this variable are by means of variables 'improvement of economic situation', 'years of membership', 'years of benefit', and 'economic interests'.

The direct and indirect effects of independent variable of "economic interest" in the cooperative on dependent variable "WP": Table 4 shows this to be 0.2 and 0.165 for direct and indirect effects respectively, with a total value of 0.365 at the fourth rank of priority. The indirect effects of this variable are by means of variables 'improvement of economic situation', 'years of membership', 'years of benefit', 'income from the project', 'ownership (livestock and land)', 'members of family' 'age' and 'economic interests'.

The direct and indirect effects of independent variable of 'benefit from project' on the dependent variable: Table 4 shows this to be 0.328 and 0.005 directly and indirectly with the total of 0.333 at the fifth rank. The indirect effects of this variable obtained through the amount of income from the co-op and years of benefit from it.

The direct and indirect effects of independent variable of 'years of benefit from project' on the dependent variable: As Table 4 illustrates, this is 0.162 for both direct and indirect effects with the total of 0.324 at the sixth rank. The indirect effects are from 'years of membership', 'years of management', 'revenue from co-op', and 'benefit amount on WP'.

In the next step, a path analysis of independent variables effect on WP was applied. In Figure 2, some key variable that had major effect on the participation have been shown and the others were eliminated from it. The multiple correlations coefficients ($R = 0.61$) reveals that the relationship of independent variables with dependent variables in the research is highly remarkable and F is significant statistically ($P = 0.00$). Also the determination coefficient shows that the variables introduced in the model consist of 61% of variation in dependent variables, as predicting all independent variables influencing the dependent variables is not possible in social studies. A value of the rest is estimated in path analysis which is $R_2 = 1 - e_2$, in which e_2 is 0.34. It can be expressed that 39% of dependent variable variance is explained by other variables not introduced in this research.

DISCUSSION AND CONCLUSION

Based on the results obtained from documentary analysis, PRA techniques and the applied survey, suitable

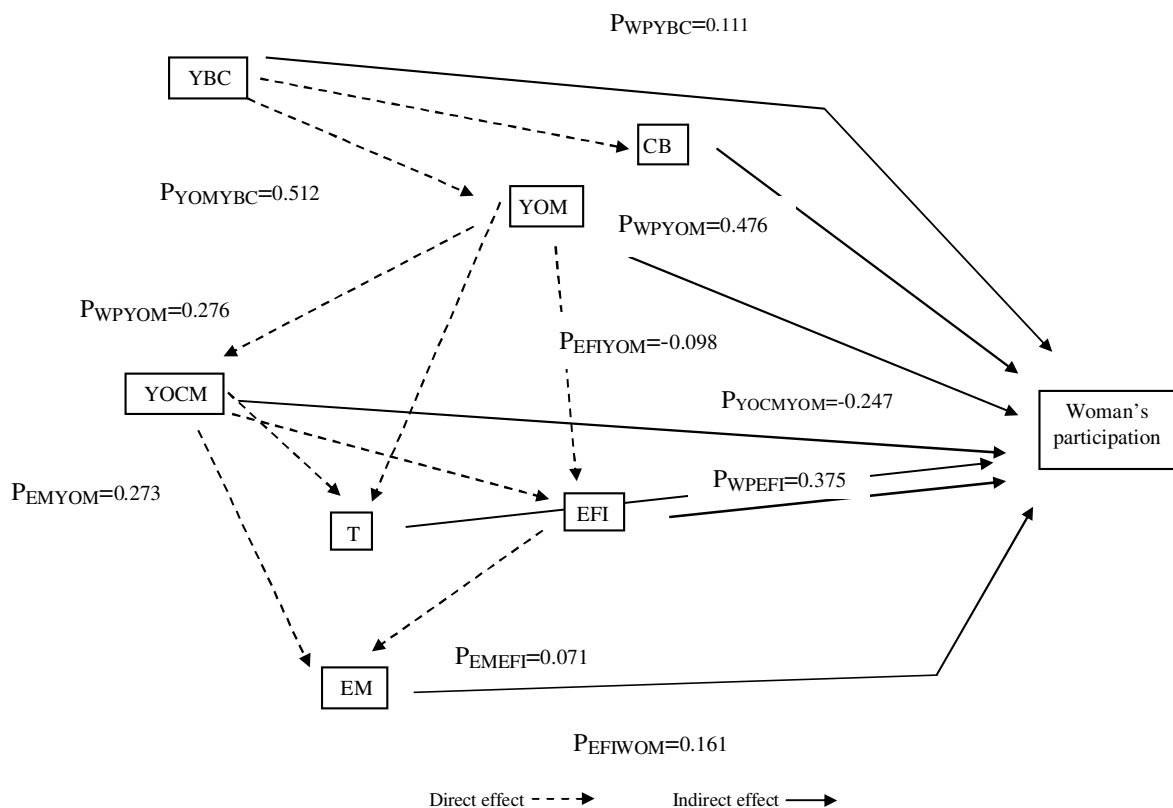


Figure 2. Path analysis of independent variables effect on women's participation.

use of such co-operatives in rural regions leads to improvement of knowledge and information of members, and of slightly economical growth for the members. However, from point of participation, the participation of local people in initial stages of the projects demonstrates their genuine participation, though it is believed that this is a decisive factor in the success of the projects. WP in the problem identification stage has not reached a suitable level yet, in the case of their actual involvement.

In the case of decision-making (planning stage), women were mainly informed at this stage. For such participatory projects, an underlying aim should be to empower people through transferring the decision-making process into a process engagement 'with' and 'by' local people, especially poor and marginalized groups, rather than by elites and outsiders. It seems that many of key decisions were made with little engagement from those affected. The role and status of women often made it hard for them to be publicly involved when meetings and decision-making processes have been held. Some women with more ability and confidence have become active in decision-making processes; however, this study shows that these few successful women are placed in large number in the lower position.

Thus far, a reasonable progress regarding PP has been achieved during the implementation and operation stage of the project. Participation had given some

opportunity and power to the members, who had deciding who should be involved in the project; shared influence in making ongoing decision, that is, what activities to be implemented; and what each individual had to contribute to the project. However, the main conclusion is that decision-making power is still concentrated in the board of directors. The results from this study clearly show that there are still wide disparities between men and women in participating in decision-making processes and in their abilities in take on the leadership position.

It is not only the case in Iran, as empirical evidence from a number of countries establishes the fact that women have substantial disadvantage over men, both within households and in economic social life (Haddad et al., 1997; Drpze and Sen, 1995; Filmer et al., 1998). Women have begun to participate in managerial responsibilities but still remain outside the realms of power and decision making because the majority are neglected or there are not enough educated and experienced women with the appropriate qualifications. Their access to education and their participation in the overall development is poor with the cultural values blocking their way. Some women with their education are supposed to become active in decision-making processes; however, this study shows that these few successful women are placed in large number in the lower position among the members.

In the second step of this study, direct and indirect effects of socio-economic variables were analyzed by passed path analysis method. Twelve main components explained 61% of variation of participation variable. The total sum of effects showed that the higher rate 'years of membership', 'improvement of economic situation of family', 'trust to co-op staffs' and 'years of management in the co-op', are enumerated as the priorities to increase economical ability. WP showed that the greatest participation is in the stage of implementation. The criticism on the participation is based on these fact that the burden of participation is on the rural people's shoulders, in fact, they are motivated from outside to participate in a co-op or predetermined program so people have no conscious involvement in the management of co-ops.

Therefore, if the aim of establishing a co-op is not only in implementation stage (physical participation and as labour force or as a means), the local people must be involved in higher level of participation (intellectual and mental psycho or as an end) to empower them and increase their capacity to a continuous process. Local people's participation is considered to be as a means rather than an end in itself. The participation of people in the form of financial help or as labour force to implement project is at the lowest level of participation as if doesn't different option for participants. In medium level, local people take the greater decisions of participatory activities such as holding meetings; have a voice in public; and supervision on co-op activities. In the highest level of participation, local people take the management role and have control over their own affairs so they hired more authority to have control over local resources and manage based on their indigenous knowledge successfully (Aazami, 2004). Based on the result of this research, rural WP in early stages of co-op activities, that is, problem identification and decision making couldn't guaranty the sustainability of the benefits of it. The result from both PRA discussions and the survey indicates majority of members had a low income where it comprises, on an average, less than a quarter of the whole family income.

Despite many attempts made by the different actors as local government officials and local propel in meeting economic outcomes, the project still faces challenges in generating enough income through providing a stable job for its participants. It means that the project's economic outcome and success has not met expectations. From many factors which might affect the pattern of participation in these projects, and eventually, the level of success of the projects (Cohen and Uphoff, 1980), it appears that history and background of participation in this area, and simple technology are required, while immediacy of results, and sensibility of benefits and results might assist the project to meet its objectives. However, factors such as: methods of distributing the benefits of the project, ability and availability of its

management, and possibility of making more profits (benefits) might have had a negative effect on the success of the project.

The arguments in the PRA techniques exposed that due to incapability of the project's managers, e.g. inability in planning and making accurate decisions, the members have not reached a desirable and stable job. It can be concluded that the project did not help the community in fighting the poverty and high unemployment rate in the area. The participants believed that project economical benefits have positive relationship with participation level; therefore, reinforcing and increasing the revenue resource is necessary to achieve sustainable participation of women.

Evidence showed that the project has had to some extend social effects on its participants. Some meetings-educational or administrative and coordinative- were held throughout the life of the project. Through these meetings the participants were notified about the process of ball-making and their rights and responsibilities as the beneficiaries of the project. Moreover, necessary general meetings, like general assembly and elections, were held in the project site in Paveh city. Results from both the survey and PRA techniques, however, show that the members were not satisfied very much with the way the meetings were organized and held. Although the meetings have had some effect on the participants, they could not empower women to control and manage their own project well.

Women face many constraints to participate in participatory activities out of home. For example, in the cultural setting of the area, women may attend public meetings but, sitting at the back of the room, they are expected to remain silent and not actively contribute to debates. In addition, even if allowed to speak and/or have an opportunity to say in the meetings, they are unable to represent their views properly. Thus women neither have a real opportunity to speak nor can they gain the experience to speak in public. Only if women can be persuaded to attend meetings in greater numbers and create a "critical mass" are they likely to begin to break this "mould of silence" and to engage in the process of their own development and that of their community. Critical mass of women can enable them gain the confidence to speak out in public (Aazami, 2004).

Despite these constraints and problems, the level of PP moved up to higher levels of the participation hierarchy:

1. From '*Passive participation*' (Bass et al., 1995; typology), '*Therapy*' and '*Manipulation*' (Arnstein's typology, 1969), and also '*Nominal participation*' (White, 1996; typology) as in that people actually did not play any role and they participated by being informed what was happening or has already happened in the problem identification stage;
2. To '*Partnership*' and '*Delegated power*' form (Arnstein, 1969; typology), '*Decision-making*' (Uphoff and Cohen,

1977; definition), '*Involvement*' (Oakley, 1988; typology), '*Instrumental*' (White, 1996; typology), '*Participation through consultation*' (Bass et al., 1995; typology) '*Encounter*', (Pears and Stiefel, 1980; definition), in that they become involved together with government officials in making current decisions of the project in the planning stage;

3. To '*Participation for material incentives*' form (Bass et al., 1995; typology), '*Community development*' (Oakley, 1988; typology), '*Representative*' (White, 1996; typology), '*Group/movement*' and '*Individual*' (Pearse and Stiefel, 1980; definition,) as in the context of the respondents considering themselves as a group of women bound together by a common goal which is the provision of labour for the project. As individuals, the members see their respective positions and involvement in the project in relation to their membership, where their roles as labour providers, or members, were constantly emphasized by the project managers in the implementation stage;

4. To '*Citizen control*' form (Arnstein, 1969 typology), and to some extent with a form of '*Empowerment*' in Oakley's typology of participation (1988) in the evaluation stage of the project cycle.

Their participation in the co-op enables them to have a say in the decision-making process. Moreover, for the members, taking part in both the meetings and in negotiations with outsiders, served to ensure 'leverage' to influence the shape that the project should take and its subsequent management. Therefore, participation took a representative form, being an effective tool through which the people had an opportunity to express their own interests. Thereafter, the idea of participation as empowerment was to involve women practically in considering options and making decisions. Although empowerment is often seen as an agenda controlled in a bottom-up way, it can be identified as the interest of participation from top-down when outsiders are working in solidarity with the poor. Participation is often both a means to empowerment and an end in itself (White, 1996).

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