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The Role of Livestock Cooperatives in Improving Economic Status of Animal Raisers: A Case Study on Cattle Breeders, Hamedan, Iran

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The aim of this study was to investigate the role of livestock cooperatives in improving economic status of animal holders in Hamedan province. The study has used a surveying methodology. For gathering data a structured questionnaire was used and its reliability was calculated by Cronbach's Alpha test and it was (α=0.80). The research samples consisted of 300 animal holders (beef cattle breeders) included 150 members of livestock cooperatives and 150 non-members. In order to data analysis both correlation coefficients and t test were used. Results showed that there was a negative relationship between the age and membership in the livestock co-ops, there was also a positive relationship between education level and membership. Results revealed a difference between two groups of animal holders in terms of red meat production. This shows that members of livestock co-ops had a higher meat production in comparison with the non-members. In addition, the members of livestock co-ops participated in more training courses and they had a higher mean on technical knowledge than non-members. **[Samira Jeyhooni et al. The Role of Livestock Cooperatives in Improving Economic Status of Animal Raisers: A Case Study on Cattle Breeders, Hamedan, Iran. International Journal of Agricultural Science, Research and Technology, 2011; 1(4):165-169].**

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1. Introduction

According to the nature of human life, to create cooperative enterprises is one of the most rational and basic approaches. Cooperatives are built based on group agreement, volunteer membership and collaboration (Torabi, et al., 2011). Therefore, today promoting of cooperation in the world is an integral part of national economic and social development policies. Cooperatives are collective mode of production and are able to make major changes in production and exchange relations in society. They encourage the development of productive forces in society, and facilitate the exchange of interaction between production and dynamic labor. Rural production cooperatives can be known as a pioneer of privatization which creates new products and new markets (Azkia, 2000). According to part 26 Iran's law, economy section, productive cooperatives are ones active in affair related to agriculture, cattle, fish hunting, fishery, industry, mineral, urban, rural and nomads. Cattle cooperatives are a subdivision of agricultural production cooperatives with a highest number in size. Cattle cooperatives play an important role in the production of meat in Hamadan province. There are eight cooperatives with 29794 members in this province (Agricultural Jihad, 2011).

Animal husbandry is one of the major sources of Iranian rural population's income and livelihoods. Despite of great efforts and emerging techniques in husbandry innovations, productivity and production of real products in developing countries, including Iran, in comparison with developed countries, still located in the lower stages (Rezvanfar, 2002). Hamadan province with having 420 thousand cows is not only able to reduce the import of red meat but also has potential to be as meat exporter (Agricultural Jihad, 2011).with attention to Hamadan's potentials e. i. proper pasture and environmental and climate properties, Hamadan province has a very good opportunity to produce red meat in Iran (Bostani et al, 2010).The main aim of this study was to evaluate the role of cattle cooperatives in increasing cattle products (red meat). Cattle cooperatives can play role in this field offering courses with a focus on promoting public participation (Rezvanfar, 2002). The research hypotheses are:

1- The animal raisers' personal characteristics (age) are effective in their member in the cattle cooperative.
2- There is significant difference between personal characteristics of members and nonmembers of Cattle Production cooperative in Hamadan province is effective in increasing the production of red meat.
3- There is significant difference between personal characteristics of members and nonmembers of Cattle production corporative in Hamadan province is effective in decreasing the cost of meat production for the members.
4- There is significant difference between personal characteristics of members and nonmembers of Cattle production corporative in Hamadan province is effective in increasing technical knowledge of members.

Table 1. The livestock cooperatives' status in Hamadan province

Township	Number Of Members	Number Of Livestock
Hamadan	3667	26101
Malayer	4820	43500
Nahavand	5750	48000
Toysrkan	2248	8428
Kabodarahang	4920	48500
Asadabad	2050	13830
Bahar	2357	27164
Razan	4082	12626

However, a number of studies have been conducted in relation to this subject around the world. Below some of these studies are mentioned.

Safari (2002), in a study states the role of rural production cooperatives in improving economic status of farmers. Is positive the goals of these co-ops were integration of agriculture lands, increasing of income, environment conservation and movement toward sustainable development. He believes requirement conditions to success cooperative are citizen of cooperative principles, attention to management in corporative and their programming and specification of corporative framework. Taher khani (2005) shows role in the development of production cooperatives in rural areas Meshkinshahr states that total production in production cooperative social-cultural indicators and eventually is influenced the development of rural Meshkinshahr areas. Karami & Razaimoghadam (2006) in research as the production of agricultural cooperatives in the production process concludes that the correlation between education, technical knowledge, efficient use of inputs, crop cultivation, yield and net income, positive and significant relationship between age, experience agricultural work, the cost of land preparation, planting costs and significant negative relationship has been rural production cooperative member variable.

Motamed (2008) illustrated the impact of socio-economic status of rural co-operatives farmers in Gillan, which members of production co-production mean more technical knowledge than average, average production less costs has non-members cooperative.

Jiaang and Hung (2012) indicated agreement discipline between agriculture cooperatives and buyers, after studying 157 agriculture professional cooperatives in china concluded most contracts were related to livestock section and is dependent on a scale production.

2. Materials and methods

This is applied research having a survey methodology. Survey population involves producers of red meat. The study has been carried out through census: 29894 members of producers of meat red cooperative, 15000 non-cooperative members, were selected for investigation. Next step was done for producers of meat red samples, based on Cocheran formula a number of 150 families were selected randomly. Data was collected through a questionnaire whose validity and reliability have been investigated and its Cranach's alpha for cooperative and non-cooperative members has been 0.74. Eventually a questionnaire consisted of two parts: First section of the characteristics of individual (Age, education, province education of livestock, the kind of animal husbandry …), and the second section in connection with the main basic research (production, cost production, technical knowledge and …). Comparison of the means (t-test,) and correlation coefficients, Cramer's, have been used for investigating research hypotheses. to calculate technical knowledge of both groups responsible for a test of 18 question regarding the didactic materials in the class of didactic promote you used to calculate the amount of knowledge of every two groups into action to return right response has been average. The based on average grades get difference between them and in the status of technical knowledge in both groups and individual's cooperatives' non-member cooperative were clear.

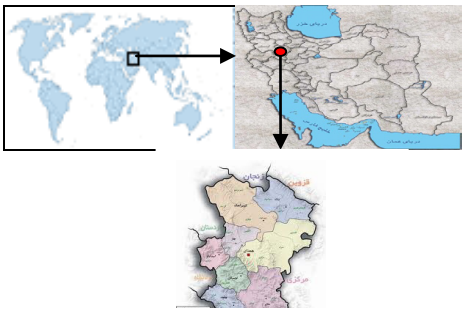

Figure1. Geographical area of the study

3. Results and discussion

Obtained results on age of repliers showed the average age of stockbreeder's cooperative company members was 48 years with standard deviation of 12.420. While the average age of stockbreeders who were not member of cooperative was 62 years with standard deviation of 12.420. In both groups, the minimum and maximum ages were 20 and 80 years, respectively.

Results on the education of repliers demonstrated that of 150 stockbreeder's cooperative company members, 25 people (16.7 %) were illiterate, 76 people (50.7 %) had primary school and secondary education, 37 people (24.7 %) diploma and 12 people (8%) academic education. While of 150 who were not cooperative company members, 37 people (48.7 %) were illiterate, 63 people (42 %) had primary school and secondary education and 14 people (9.3 %) diploma. The results on Husbandry type demonstrated that of 150 member, 30 people (20%) had industrial husbandry, 92 (61.3 %) and 28 (18.7%) had traditional and semi industrial husbandry,. Of 150 husbandry which were not cooperative member, 2 people (1.3%), 139 (92.7) and 9 people (6%) had industrial, traditional semi industrial husbandry, respectively.

Analysis of obtained data on red meat production cost showed that of 150 members of cooperative, the production cost of 48 (32%), 22 (14.7%), 19 (12.7%), 33 (22%) and 10 (6.7) 18 (12%) husbandries were 75000, 75500, 76000, 77000, 78000, 74000 and 74500 Rials per kg, respectively. In this group the average cost of meat production and standard deviation were Rials per kg and 135.394, respectively.

The obtained results on participation at training and extension classes revealed that of 150 cooperative members 119 people (79.3%) attended at these classes, while of 150 people who were not corporative member, only 55 people (36.7%) participated at these classes.

Table 2. Livestock Cooperatives characteristics of respondents

Characteristics	frequency	percentage
Age		
20-35	11.3	17
36-50	48.8	73
51-65	25.3	38
66-80	14.7	22
Education		
Illiterate	16.7	25
elementary	50.7	76
diploma	24.7	37
academic	8	12
Province of castle(year)		
17.3	26	2-14
11.3	17	15-26
15.3	23	27-38
56	84	39-50
Kind of animal husbandry		
Industrial	30	20
Traditional	92	61.3
Semi-industrial	28	18.7
Meat production		
100-250	78	52
260-400	38	25.3
410-550	34	22.7
participation at training and extension classes		
yes	119	79.3
No	31	20.7

Findings indicated that there is a positive and meaningful relationship between two variables of 'age of responding' and 'member in the cooperative'; in this regard, Cramer'swas and revealed that there is a meaningful relationship with the confidence of more than 99 percent between the above two variables. This reveals withincrease in age wailings to member in cooperative decreases. Cramer's (k=0.396, meaningfulness coefficient=0.000) reveals that there is a meaningful 1 percent relationship between two variables of 'education' and 'member in the cooperative'. The results of Cramer's revealed that there is a non significant relationship between two variables of 'provinceof castle meat' and 'member in the cooperative' (k=0.082, r=0.568). The results of Mann Whitney test between two variables of 'animal husbandry production red meat' and 'member in the cooperative' reveals that there is a meaningful relationship between these two variables. The average production cost ranchers cooperative members and non-member significant difference. While cooperative in decreasing expenditure members were not effective.

According to the results of table 3, member of stockbreeders cooperative were on the average 75320 Rials cost production, while ranchers that

cooperative were not a member of the average 759.330 Rials meat production.

Table 3. The impact cooperative animal husbandry in the average production cost

Member cooperative	Numbers	Cost average (kg)	t	Sig
Yes	150	7532	0.532	0.626
No	150	7593.33		

The results reveal that there is a meaningful relationship between two variables of 'technical knowledge' and 'member in the cooperative' that is, member of the ranchers cooperative have moretechnical knowledge as compared to non-members. According to the results of table 4, member of stockbreeders cooperative were on the average score them technical knowledge 24.20, while you ranchers that cooperative were not a member of the average score them technical knowledge 19.54.

Table 4: The impact cooperative animal husbandry average scores in technical knowledge

Member cooperative	Numbers	Score technological knowledge average (kg)	t	Sig
Yes	150	24.20	0.000	5.906
No	150	19.540		

4. Conclusion and Recommendations

The results of Cramer's test showed that between the age ranchers and member in cooperative relationship and 99% significant negative. In other words with increasing the age, member in cooperative decreases, it shows that the younger ranchers more inclined to member cooperative and ranchers older due to illiteracy, ideas traditional, lack of motivation, relying on self experience, lack of confidence to government and lack of spirit acceptance of the new innovation, this results confirm the findings of Sadeghi, 2008, Moinifar, 2008, Dosti, 2010.

The average red meat production stockbreeders cooperative members and non-member cooperative significant difference in 99 percent, the other hand, there is a member of the rancher's cooperative of a higher level of productive. Members cooperative, due to higher education, having industrial animal husbandry and semi-industrial, number of livestock, better financial condition, more participation in training classes, the use of innovation and technology, the average having scorehighest technical knowledge, this results corresponds to the findings of studies in Sadighi, 2008, Latifian 2007 and Kinifar 2002.

The average production cost ranchers cooperative members and non-member significant, on other hand, the cost reduce in cooperative of stockbreeders It is not effective member cooperative, and cooperatives due to the lack of facilities loan governmental and provide forage enough subsidies, reduce cost. This result confirms the findings of Pezeshkirad and Kinani mehr, 2002; safdar khlekhi and hosini, 2002; felii et al., 2012.

There is between two variables "Average scores technical knowledge" and the rancher's member cooperative a positive and meaningful relationship in 99 percent, in other words, there is member cooperative highest of technical knowledge. ranchers a member of the most cooperative stockbreeders in non-member extension course educational, Also, member of stockbreeders cooperative learned educations modern techniques of animal husbandry, and in the revising their traditional experiences used of educations, the result average scores in the technical knowledge was more cooperative members of the non-member cooperative company, this confirms the results of the studies Saadi, 2008 and Lashaki, 2005.

Regard to the findings of research on animal husbandry cooperatives role in improving production and increase the technical knowledge is suggested that ranchers to facilitate activities cooperative sector animal husbandry in Hamadan province in culture and institutionalized cooperative Iran's cooperative, appropriate legal for development and strengthening cooperative in order to should be to provided attract more ranchers to these organizations.

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