

Identifying Strategies for Adapting Agricultural Cooperatives to Learning Organization in Iran: Application of SWOT and SEM Models

E. Kiani¹, A. Noorollah Noorivandi^{1*}, A. R. Ommani¹, and T. Maghsoodi¹

ABSTRACT

The main purpose of this study was to identify strategies for adapting agricultural cooperatives to learning organization. Agricultural cooperatives are business organizations that fully examine all the economic, democratic and social dimensions of poverty reduction in rural areas simultaneously. This research is an exploratory research that was conducted in two parts: qualitative and quantitative. In the qualitative section, by holding several meetings with experts and through the method of brainstorming, the opportunities, threats, strengths and weaknesses for the adapting of the agricultural cooperative organization to learning organization were identified. Then, using the SWOT model, strategies and action plan were identified for adapting the cooperative organization to the learning organization. Also, in the quantitative part of the research that was conducted among the members of the cooperatives, through Structural Equation Modeling (SEM), the role of the identified strategies was evaluated and the designed model was approved. Based on the results, the predictive positive effect of identified strategies include: SO_1 ($\beta = 0.73$, $t\text{-Value} = 4.23$, $P < 0.001$), SO_2 ($\beta = 0.79$, $t\text{-Value} = 4.71$, $P < 0.001$), SO_3 ($\beta = 0.81$, $t\text{-Value} = 5.08$, $P < 0.001$) and SO_4 ($\beta = 0.82$, $t\text{-Value} = 4.97$, $P < 0.001$) on Adapting Cooperatives to the Learning Organization (ACLO). The findings showed that ($R^2 = 0.69$) the identified strategies determined 69% of the variance in the ACLO.

Keywords: Structural Equation Modeling, SWOT model.

INTRODUCTION

Agricultural Cooperatives (ACs) are one of the most important economic and social organizations in rural and agricultural communities (Kustepeli *et al.*, 2020). ACs are business organizations that fully examines all the economic, democratic and social dimensions of poverty reduction in rural areas simultaneously (Ahmed and Mesfin, 2017). In order to adapt to the growing changes of the new century, ACs must put knowledge and learning at the forefront of their work and find the necessary strategies to become a learning

organization (Fontanari and Sacchetti, 2020). In the information age, the key to competitive advantage, claim many contemporary management thinkers, is no longer land or capital, but knowledge, and specifically the capacity of organizations to acquire knowledge that translates into ongoing organizational innovations (Porth *et al.*, 1999; Ataei and Zamani, 2015). Today's global trade is increasingly competitive, complex, challenging and unpredictable (Liebhart and Garcia-Lorenzo, 2010). Traditional structures are not effective in effectively managing today's organizations. Organizations that thrive in today's competitive environment must be consistent,

¹ Department of Agricultural Extension and Education, Shoushtar Branch, Islamic Azad University, Shoushtar, Islamic Republic of Iran.

*Corresponding author; E-mail: a.noorivandi@iau-shoushtar.ac.ir



flexible, and strategic. They must develop different levels of learning at all levels of the organization. They must become learning organizations (Jensen, 2017). The concept of learning organizations was introduced over 40 years ago, and received recognition by Peter Senge in 1990 (Sachan et al., 2016). He defines the routes to learning organizations, which gives a power tool to a learning organization to develop three learning abilities: ability to inspire aspiration, ability to start reflective conversation, and ability to understand complexity (Sachan et al., 2016). Therefore, a learning organization is an organization that needs the duties and responsibilities of an individual to achieve the desired results, it also requires individuals to work as a team and have a common vision (Celik et al., 2016). Learning organizations enables organizations to remain or achieve competitive advantages in the business environment (Farrukh and Waheed, 2015; Rezaei and Amin Fanak, 2019). To stimulate creativity and generate new insights and innovative practices, a learning organization takes a balanced approach to the importance of both planned and emergent learning (Serrat, 2017). A learning organization is an organization that encourages all employees to learn and motivates them to improve themselves continually (Allouzi, et al, 2018). Also, a learning organization is an organization with the philosophy and resolution to create sustainable solutions and outcomes, as well as to integrate and exchange perspectives with partners in order to promote the organization, its corporate culture is to build learning awareness and to develop according to the strategies of the organization as well as to assimilate and modernize the organization (Khunsoonthornkit and Panjakajornsak, 2018). According to Örtenblad (2015), there are numerous studies that claim that industries and sectors, in general, need or should become, learning organizations. Bak (2016), in his research entitled "Universities: can they be considered as learning organizations? A preliminary micro-level

perspective", examined this issue about the university. Also, several researchers in other organizations have conducted similar research, such as hospitals (Şengün and Sahin, 2017), military (Dyson, 2019), school (Harris and Jones, 2018). If previous researchers had examined the relevance of the learning organization idea to organizations in specific organizational contexts, previous studies could have been fruitful and concluded that this idea is actually relevant without first adaptation. In most cases, however, the authors did not conduct such a critical examination, at least not explicitly, before strongly recommending that all organizations in a particular generalized organizational context should become learning organizations (Örtenblad, 2015). Several studies put the idea of a learning organization in the context. However, a review of this literature shows that even these works approach the learning organization as if it were a way out of problems (Örtenblad, 2013a, 2015; Örtenblad and Koris, 2014). The main theory on which this research based on designed is Örtenblad (2002) theory. Örtenblad (2002) to identify and prioritize strategies for adapting cooperative-based organizations to the learning organization by considering threats, opportunities, weaknesses and strengths. The main question was that why the cooperatives in the country are not learning organization to a certain extent. According to the research literature, the main reasons can be considered as not paying attention to teamwork (Sadeghi et al., 2017), not paying attention to collaborative learning (Varamini et al., 2020) and not paying attention to organizational learning (Rezaei et al., 2017). It is very important that the concept of learning organization be adapted somewhat to fully fit the particular context (e.g., cooperatives in the present case). Such "balancing" is not an easy task to accomplish, and this is also a major reason why there is a need for such studies (Örtenblad, 2013a, b). Therefore, it is very vital to find strategies to get out of the

current situation and adapt the cooperatives to the learning organization.

To create an order between vague and ambiguous definitions of learning organization, Örtenblad (2002) constructed a term of definition of learning organization idea based on a literature review and, therefore, included many definitions somewhat different from the existing idea:

Learning at Work (LW): An organization in which the employees learn while working instead of at formal courses (Ahmadpour *et al.*, 2016).

Organizational Learning (OL): An organization with awareness of the need for different levels of learning.

Climate for Learning (CL): An organization that facilitates the learning of its individuals by creating a positive atmosphere that makes learning easy and natural, and by offering space and time for experimenting and reflection, as well as an allowance for failure.

Learning Structure (LS): An organization with a flexible, decentralized and organic team-based structure, enabling the organization members to make their own decisions to quickly satisfy the continuously

changing customer expectations, and which needs continual learning to occur and redundancy for it to become and remain flexible (Ommani *et al.*, 2016).

This article is based on the definitions proposed by Örtenblad (2002). The purpose of this article is to identify and prioritize strategies for Adapting Cooperatives to the Learning Organization (ACLO) by considering threats, opportunities, weaknesses and strengths.

MATERIALS AND METHODS

This research was an exploratory research (Figure 1) consisting of two parts: qualitative and quantitative. In the qualitative part, the method of holding meetings with experts and the technique of brainstorming was used. The data were collected by performing in-depth semi-structured interviews with 20 cooperative experts in this field. In the quantitative part, the population of the study consisted of members of agricultural cooperatives of Alborz Province, Iran (N=25,000). The sample size was determined according to Krejcie and Morgan (1970) ($n=$

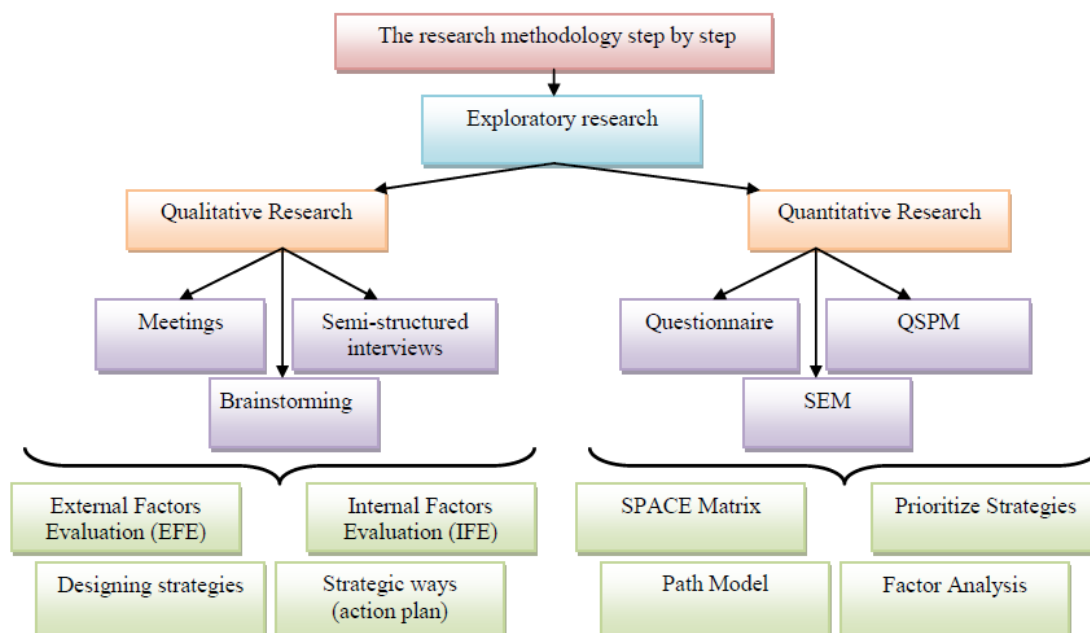


Figure 1. The steps of the methodology (visual presentation) to follow the analysis process.



379). The sampling method was stratified random sampling. A researcher-made questionnaire was the main instrument to collect data. Data analysis was done by using SWOT (Strengths, Weaknesses, Opportunities and Threats) and SEM (Structural Equation Modeling) analysis. The SWOT analysis is designed to facilitate a realistic, fact-based, data-driven look at the strengths, weaknesses, opportunities and threats of an organization, its initiatives, or an industry. The SWOT analysis has focused on analyzing organizations for recommended strategic actions (Helms and Nixon, 2010). The Strengths identified through the SWOT analysis should be "Leveraged", the Weaknesses should be "Improved upon", the Opportunities need to be "Seized" and, finally, the Threats can be mitigated if there is "Awareness" about the same (Pandya, 2017). Ommani (2011) explained that the SWOT analysis indicates a framework for helping the researchers or planners to identify and prioritize the business goals, and to further identify the strategies of achieving them. In this study, the following phases were used: I) Designing external and internal factors matrix to turn agricultural cooperatives organization into learning organizations, II) Analyzing the SWOT matrix to identify strategies, and III) Designing Quantitative Strategic Programming Matrix (QSPM) for prioritizing the identified strategies. The SEM was used to test for the direct, indirect and mediating effects of the variables in the prediction of learning organization. According to Hair *et al.* (2010), it is appropriate to adopt a two-step approach for SEM: first, assessment of the measurement model; second, assessment of the structural model. The field part of the present research was conducted between January and May, 2020.

RESULTS

Identifying External and Internal Factors Evaluation Matrix

To conduct the first part of the research, i.e. identifying internal and external factors, 5 two-hour sessions were held with experts, and in the sessions, the brainstorming

technique was used. Four main questions in these sessions were the criteria for action. What are the opportunities, threats, strengths and weaknesses to transform a cooperative organization into a learning organization, in terms of Learning at Work (LW), Organizational Learning (OL), Climate for Learning (CL), and Learning Structure (LS)? In this research, the audience was asked to express their idea in the form of brainstorming method (Brahm and Kleiner, 1996). It is the method for a situation when a group of people meets to generate new ideas around a specific area of interest. In this method, people are able to think more freely, and move into new areas of thought and, so, create numerous new ideas and solutions. In the first step in a free environment, 51 phrases were expressed by the audience. Then, in the second step, they were asked to refine the expressions and reach a consensus on them. In the third step, they were asked to categorize all the phrases about ACLO, in terms of LW, OL, CL, and LS in format of SWOT. In the end, 4 phrases were identified for each item and 16 phrases in total.

At this phase of the research, external (opportunities and threats) and internal (strengths and weaknesses) factors that had been identified were evaluated. Based on the experts' idea, each item was evaluated, ranked, and the importance ratio coefficient was identified. To conduct the second part of the research, i.e. evaluation internal and external factors, 4 two-hour sessions were held with experts, and in the sessions, the brainstorming technique was used. The EFE and IFE matrix process uses the following five steps (Ommani, 2011):

- 1) List Factors: The first step is to gather a list of external and internal factors.

- 2) Assign Weights: Weight is assigned to each factor. The value of each weight should be between 0 and 1. Zero means the factor is not important, while 1 means the most influential and critical factor. However, the total value of all weights put together should equal one.

- 3) Rate Factors: Rating is assigned to each factor, and is between 1 and 4. Rating

Table 1. External Factors Evaluation (EFE) and Internal Factors Evaluation (IFE) Matrix.

Factors		Weight	Rating	Weighted score	
External factors	Opportunities	In the environment around the organization, learning at work is considered as a privilege.	0.12	4	0.48
		Organizational learning is leading the way in today's competitive world.	0.14	4	0.56
		In the market around the agricultural cooperatives, climate for learning has an effective role in increasing the empowerment of people.	0.13	4	0.52
		Extra-organizational perspectives place more value on organizations with a learning-based structure.	0.14	3	0.42
	Threats	Cooperatives do not pay attention to the competitors that their employees learn while working.	0.13	1	0.13
		In a competitive world, competing organizations see organizational learning as the key to success.	0.12	1	0.12
		Competitors have been very successful in creating a learning environment in their organization.	0.14	2	0.28
		The organizational structure of competitors is based on a learning structure.	0.08	1	0.08
Total weighted score		1		2.59	
Internal factors	Strengths	Cooperative members pay attention to on-the-job learning.	0.11	4	0.44
		Cooperatives consider organizational learning at all levels as a criterion for action.	0.15	3	0.45
		The atmosphere of cooperatives is based on learning.	0.16	4	0.64
		The structure of cooperatives is based on the structure of learning.	0.13	3	0.39
	Weaknesses	Some managers of cooperatives do not believe in learning at work.	0.11	1	0.11
		Organizational learning is not institutionalized in cooperatives.	0.12	2	0.24
		Cooperative managers do not provide a good space for learning.	0.12	2	0.24
		There is no flexibility for continuous learning in cooperatives.	0.1	1	0.1
Total weighted score		1		2.61	

indicates how effective the firm's current strategies respond to the factor. Rating captures whether the factor represents a major threat (Rating= 1), a minor threat (Rating= 2), a minor opportunity (Rating= 3), or a major opportunity (Rating= 4). Also, a major weakness (Rating= 1), a minor weakness (Rating= 2), a minor strength (Rating= 3), or a major strength (Rating= 4).

4) Multiply Weights by Ratings: Multiply each factor weight with its rating in order to calculate its weighted score.

5) Total Weighted Scores: Add all the weighted scores of each factor, in order to calculate the company's total weighted score. Based on the results of Table 1, the score of the external factors was 2.59 and the score of the internal factors was 2.61.

Strategic Position and Action Evaluation (SPACE) Matrix

The SPACE matrix is a management tool used to analyze a company's business. It is used to determine what type of strategy a business should undertake. The SPACE matrix breaks down into four quadrants, where each quadrant suggests a different type or nature of strategy: aggressive, conservative, defensive and competitive (Ommani, 2011). Based on SPACE matrix, group I strategies (aggressive) are the suggested strategies to transform a cooperative organization into a learning organization (Figure 2).

**Table 2.** Strengths, Weaknesses, Opportunities, Threats (SWOT) Matrix.

Internal factors		Weaknesses (W)	Strengths (S)
		W ₁ , W ₂ , W ₃ , W ₄	S ₁ , S ₂ , S ₃ , S ₄
External factors			
Opportunities	O ₁ , O ₂ , O ₃ , O ₄	II Conservative	I Aggressive SO ₁ , SO ₂ , SO ₃ , SO ₄
Threats	T ₁ , T ₂ , T ₃ , T ₄	IV Defensive	III Competitive

SWOT Matrix

SWOT is the first step of planning and it helps planners to focus on key subjects. SWOT method is a key tool used in businesses to formulate strategic plans. SWOT matrix comprises four strategic groups (Ommani, 2011):

Group 1 (Aggressive Strategies): How strengths are used to take advantage of opportunities.

Group 2 (Conservative Strategies): How weaknesses are reduced by taking advantage of opportunities.

Group 3 (Competitive Strategies): How strengths are used to reduce the impact of threats.

Group 4 (Defensive Strategies): How weaknesses that will make these threats a reality are addressed.

Designing Strategies

Based on SPACE matrix Aggressive Strategies (SO strategies) are suggested for adapting cooperative-based organizations to the learning organization. To conduct the third part of the research, i.e. identifying aggressive strategies, 3 two-hour sessions were held with experts, and in the sessions, the brainstorming technique was used. Finally, with the consensus of experts, 4 strategies were identified (Figure 2). The SO strategies were as follow (Table 2):

SO₁: Benefit from the community mentality about the importance of learning in the workplace and human resource development through this capability that exists in cooperatives.

SO₂: In order to surpass competitors in the market, use all organizational learning techniques at all levels to develop human resources.

SO₃: Utilize the learning space available in cooperatives as a valuable potential for human resource development.

SO₄: Given the existing capacity, development of a learning structure based on group learning, flexibility, empathy and collaboration should be considered.

Quantitative Strategic Planning Matrix (QSPM)

A basic principle of the QSPM is that businesses need to systematically assess their internal environments, conduct research, carefully evaluate the pros and cons of various alternatives, perform analyses, and then decide upon a particular course of action (Ommani, 2011). The QSPM approach attempts to objectively select the best strategy for a business (Ommani, 2011). Attractiveness Scores (AS) in the QSPM indicate how each factor is important or attractive to each strategy. The range for attractiveness scores is: 1= Not attractive, 2= Somewhat attractive, 3= Reasonably attractive and 4= Highly attractive. Total Attractiveness Scores (TAS) indicates the relative attractiveness of each key factor and the related individual strategy. However, the Sum of the Total Attractiveness Score (STAS) is calculated by adding the total attractiveness scores in

Table 3. Quantitative Strategic Planning Matrix (QSPM).

Key factor	Weight (W)	SO1		SO2		SO3		SO4	
		AS ^a	AS×W	AS	AS×W	AS	AS×W	AS	AS×W
O ₁	0.12	4	0.48	3	0.36	3	0.36	4	0.48
O ₂	0.14	3	0.42	4	0.56	3	0.42	3	0.42
O ₃	0.13	3	0.39	3	0.39	4	0.52	3	0.39
O ₄	0.14	4	0.56	4	0.56	3	0.42	4	0.56
S ₁	0.11	4	0.44	3	0.33	3	0.33	4	0.44
S ₂	0.15	4	0.6	4	0.6	3	0.45	4	0.6
S ₃	0.16	4	0.64	3	0.48	4	0.64	3	0.48
S ₄	0.13	4	0.52	4	0.52	3	0.39	4	0.52
W ₁	0.11	4	0.44	3	0.33	3	0.33	3	0.33
W ₂	0.12	4	0.48	4	0.48	3	0.36	4	0.48
W ₃	0.12	3	0.36	3	0.36	3	0.36	3	0.36
W ₄	0.1	3	0.3	3	0.3	3	0.3	4	0.4
T ₁	0.13	3	0.39	3	0.39	3	0.39	3	0.39
T ₂	0.12	3	0.36	3	0.36	4	0.48	3	0.36
T ₃	0.14	3	0.42	3	0.42	3	0.42	3	0.42
T ₄	0.08	3	0.24	3	0.24	3	0.24	3	0.24
STAS		56	7.04	53	6.68	51	6.41	55	6.87
Priority		1		3		4		2	

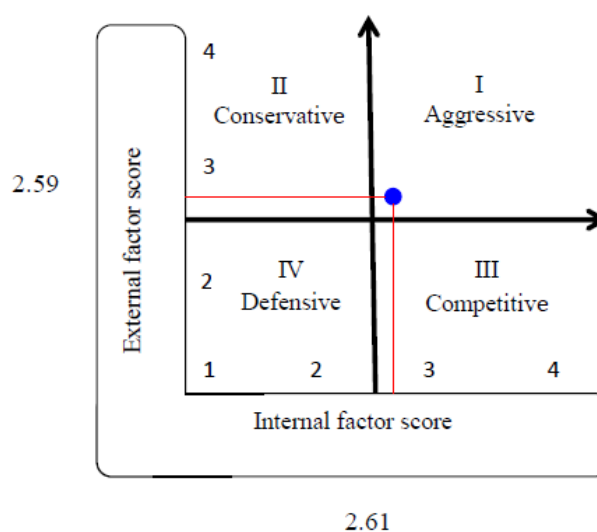
^a Attractiveness Scores (AS) is: 1= Not attractive, 2= Somewhat attractive, 3= Reasonably attractive, and 4= Highly attractive, STAS: Sum of the Total Attractiveness Score.

each strategy column of the QSPM (Ommani, 2011). The QSPM sum total attractiveness scores reveal which strategy is most attractive. Higher scores point at a more attractive strategy, considering all the relevant external and internal critical factors that could affect the strategic decision (Table 3). Based on the results of QSPM, the

SO strategies are prioritized as follows: SO1, SO4, SO2, and SO3 (Table 2).

Strategic Ways (Action Plan)

To identify strategic ways for the realization of each strategy, 3 two-hour

**Figure 2.** Strategic Position and Action Evaluation (SPACE) matrix.



sessions with experts in the form of the brainstorming method were used. Strategic ways for each strategy were identified as follows:

Strategic ways of SO₁:

SO₁₋₁: Encouraging team learning among cooperative members in the workplace.

SO₁₋₂: Making the necessary time for people to exchange opinions at work.

SO₁₋₃: Conducting brainstorming sessions at work to strengthen people's knowledge and skills.

Strategic ways of SO₂:

SO₂₋₁: Using the unit learning method in the organization.

SO₂₋₂: Using the two-loop learning method in the organization.

Strategic ways of SO₃:

SO₃₋₁: Providing space and time for testing and reflection as well as grants for failure.

SO₃₋₂: Create a positive atmosphere that makes learning easy and natural.

Strategic ways of SO₄:

SO₄₋₁: Creating a structure based on continuous learning.

SO₄₋₂: Creating a flexible organization.

SO₄₋₃: Create conditions for the members of the organization to have a holistic view of the whole work of the organization.

Structural Equation Modeling (SEM)

SEM was used to test for the direct, indirect and mediating effects of the identified strategies in the prediction for Adapting Cooperatives to the Learning Organization (ACLO). The SEM is a statistical analytic framework that allows researchers to specify and test models with observed and latent (or unobservable) variables and their generally linear

relationships (Sarstedt and Ringle, 2020). The results of confirmatory factor analysis showed the initial measurement model to provide an acceptable fit for the data ($X^2=712.048$; GFI= 0.94; TLI=0.96; CFI= 0.94; IFI=0.97; RMSEA= 0.073). Therefore, the measurement model provided a reasonable fit (Table 4). Thus, the hypothesized model was judged suitable for the SEM.

Convergent validity

A first condition for convergent validity is that the standardized factor loadings should all be significant ($t\text{-Value} > 1.96$) with a value of more than 0.50 (Hair *et al*, 2010). The results in Table 4 show the t -value for the factor loadings to all exceed 4.73 ($P < 0.01$) and the standardized factor loading to all have values greater than 0.569. This shows good convergent validity for the constructs of this study.

Construct Reliability (CR)

For the composite or construct reliability to be adequate, a value of CR= 0.70 or higher is recommended (Nunnally and Bernstein, 1994). As shown in Table 5, all of the constructs had CR values greater than the recommended 0.70. The results also show the AVE estimate for all of the constructs to be above or close to the recommended threshold of 0.50 (Fornell and Larcker, 1981). This shows good composite or CR for the constructs of this study.

Discriminant Validity

If the square root of the AVE estimate for each construct is greater than the correlation between that and all of the other constructs in the model, then, discriminant validity is

Table 4. Summary of Goodness of Fit Indices for the measurement model.^a

Fit indices	X^2	P	GFI	CFI	TLI	IFI	RMSEA
Value in study	712.048	0.000	0.94	0.94	0.96	0.97	0.073
Suggest value	-	> 0.05	> 0.80	> 0.90	> 0.90	> 0.90	< 0.08

^a Goodness of Fit Index (GFI), Tucker-Lewis Index (TLI), Comparative Fit Index (CFI), Incremental Fit Index (IFI), Root Mean Square Error of Approximation (RMSEA).

Table 5. Results of confirmatory factor analysis for the measurement model.

Constructs	Indictors	Standardized factor loading	t-Value	CR	AVE
SO ₁	SO ₁₋₁	0.575	5.14	0.86	0.821
	SO ₁₋₂	0.592	6.85		
	SO ₁₋₃	0.683	4.73		
SO ₂	SO ₂₋₁	0.569	6.81	0.81	0.713
	SO ₂₋₂	0.598	4.98		
SO ₃	SO ₃₋₁	0.622	5.05	0.87	0.765
	SO ₃₋₂	0.712	7.19		
SO ₄	SO ₄₋₁	0.619	6.65	0.82	0.781
	SO ₄₋₂	0.720	6.12		
	SO ₄₋₃	0.701	6.94		

demonstrated (Fornell and Larcker, 1981). As shown in Table 6, the square root of each AVE is greater than its correlations with the other constructs. This means that the indicators have more in common with the mentioned construct than the correlation of that construct with other constructs. Thus, discriminant validity has been demonstrated for the constructs in the measurement model.

positive effect of SO₁ ($\beta = 0.73$, t-Value= 4.23, $P < 0.001$), SO₂ ($\beta = 0.79$, t-Value= 4.71, $P < 0.001$), SO₃ ($\beta = 0.81$, t-Value= 5.08, $P < 0.001$), and SO₄ ($\beta = 0.82$, t-Value= 4.97, $P < 0.001$) on the ACLO can be seen. The findings showed that R^2 was 0.69, indicating that these ten construct determinants accounted for 69% of the variance in the ACLO.

Assessment of the Structural Model:

The first step was to obtain a satisfactory measurement model. The second step, including SEM, involved testing the structural model. The structural model included the hypothesized relationships among constructs in the research model. The overall goodness of fit statistics showed that the structural model fitted the data well. Having assessed the fit indices for the measurement model and the structural model, the estimated coefficients of the causal relationships among constructs were examined (Figure 3).

From Table 7 and Figure 3, the predictive

DISCUSSION

The results of this study showed that SO₁ had a significant and positive effect on the ACLO. This finding is consistent with the results of Örténblad (2015), Ahmadvpour *et al.* (2016), and Onstenk (1995) who argued changes in technology, organizational renewal, optimization of the quality of production (efficiency, flexibility, product quality) and orientation to changing consumer demands require higher standards of skills and flexibility in the work force. In order to meet these standards, it is necessary to deliver more training to the work force and define training in terms of investment

Table 6. Means, SD and Correlations with Square Roots of the AVE.

	Mean	SD	SO ₁	SO ₂	SO ₃	SO ₄
SO ₁	4.38	0.87	0.906 ^a			
SO ₂	4.16	0.81	0.801	0.844 ^a		
SO ₃	4.00	0.99	0.749	0.823	0.875 ^a	
SO ₄	3.96	1.05	0.712	0.783	0.684	0.885 ^a

^a The square roots of AVE estimates, AVE: Average Variance Extracted. ** Correlation is significant at the < 0.01 level;

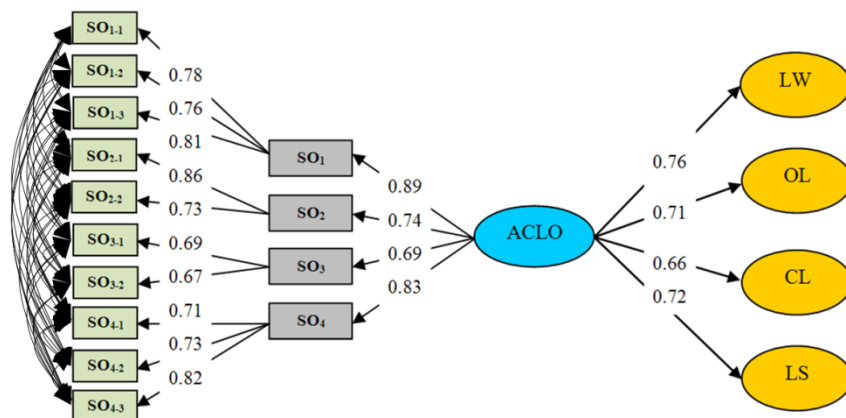


Figure 3. Path Model with Standardized Factor Loadings: ACLO: Adapting Cooperatives to the Learning Organization, LW: Learning at Work, OL: Organizational Learning, CL: Climate for Learning, LS: Learning Structure.

Table 7. The effects of constructs on Adapting Cooperatives to the Learning Organization (ACLO).

Construct	Outcome ₁	Path coefficient ₁	t-Value	Outcome ₂	Path coefficient ₂	t-Value	R ²
SO ₁₋₁	SO ₁	0.78	4.92	ACLO	0.73	4.23	0.69
SO ₁₋₂		0.76	3.96				
SO ₁₋₃		0.81	4.08				
SO ₂₋₁	SO ₂	0.86	4.81		0.79	4.71	
SO ₂₋₂		0.73	5.12				
SO ₃₋₁	SO ₃	0.69	6.09		0.81	5.08	
SO ₃₋₂		0.67	4.09				
SO ₄₋₁	SO ₄	0.71	5.71		0.82	4.97	
SO ₄₋₂		0.73	4.92				
SO ₄₋₃		0.82	5.07				

P < 0.01

rather than costs. Similarly, Moore and Klein (2020) argued that informal learning at work and facilitating the process play an important role in increasing performance. Also, the results of this study showed that SO₂ had a significant and positive effect on the ACLO. This finding is consistent with the results of Döös *et al.* (2015), Zhu *et al.* (2019), North and Kumta (2018), and Noruzy *et al.* (2013) who argued organizational learning had been recognized as a substantial element enabling companies to obtain competitive advantages and improve organizational performance. Similarly, Dee and Leisyte (2016) argued that organizational learning is a conceptually rich construct that can inform understandings of a wide range of

organizational phenomena. In addition, based on the results, SO₃ had a significant and positive effect on the ACLO. This finding is consistent with the results of Örténblad (2015) who explained that a learning organization is an organization that develops its employees' learning by creating a positive environment that makes learning easy and natural. In the same way, Kersh (2015) argued that individual motivation, skills development and institutional context strongly relate to the spaces and learning processes. Also, SO₄ had a significant and positive effect on the ACLO, consistent with the results of Gokhale (2012), Deed *et al.* (2020), and Hartnett (2020). Likewise, Naidu (2017) stated that flexible learning is a state of being in which learning and

teaching is increasingly freed from the limitations of the time, place, and pace of study. However, this kind of flexibility does not end there. For learners, flexibility in learning may include choices in relation to selection of learning activities, assessment tasks, and educational resources; and for the educators, it can involve choices in relation to the allocation of their time and the mode and methods of communication with learners as well as the educational institution.

CONCLUSIONS

Overall, by brainstorming method, 16 phrases were identified as internal and external factors for ACLO. Then, based on SPACE matrix, group I strategies (aggressive strategies) are the suggested strategies for ACLO. Finally, with the consensus of experts, 4 strategies were identified as aggressive strategies. Then, the identified strategies were ranked using the QSPM matrix. The strategies were as follows:

1) **SO₁**: Benefit from the community mentality about the importance of learning in the workplace and human resource development through this capability that exists in cooperatives.

2) **SO₄**: Given the existing capacity, development of a learning structure based on group learning, flexibility, empathy and collaboration should be considered.

3) **SO₂**: In order to surpass competitors in the market, use all organizational learning techniques at all levels to develop human resources.

4) **SO₃**: Utilize the learning space available in cooperatives as a valuable potential for human resource development.

Afterwards, SEM was used to test for the direct, indirect and mediating effects of the identified strategies in the prediction for ACLO. Based on the results, the measurement model provided a reasonable fit and the hypothesized model was judged suitable for the SEM. Also, the results

showed good convergent validity for the constructs of this study and good composite or construct reliability for the constructs of the study. In addition, discriminant validity was demonstrated for the constructs in the measurement model. Based on the results, the predictive positive effect of SO₁, SO₂, SO₃ and SO₄ on the ACLO can be seen. The findings showed that ten constructs' determinants account for 69% of the variance in the ACLO. According to the results of the study, the following recommendations are presented to improve ACLO:

Put emphasis on learning at work by using formal and informal methods,

Develop a learning environment by improving work teams, interactive meetings, collaborative decision-making and competency-based promotion,

Create a flexible structure and provide learning conditions through practice and experimentation

Pay attention to organizational learning at all organizational levels.

REFERENCES

1. Ahmadpour, A., Mirdamadi, S., M. and Soltani, S. 2016. Attitude towards On-the-Job E-Learning: The Case of Agricultural Extension Workers in Iran. *J. Agr. Sci. Tech.*, **18 (1)**: 27-38.
2. Ahmed, M. H. and Mesfin, H. M. 2017. The Impact of Agricultural Cooperatives Membership on the Wellbeing of Smallholder Farmers: Empirical Evidence from Eastern Ethiopia. *Agric. Econ.* **5(6)**: 175-185.
3. Allouzi, R. A. R., Suifan, T.S. and Alnuaimi, M. 2018. Learning Organizations and Innovation Mediated by Job Satisfaction. *Int. J. Bus. Econ. Res.*, **7(1)**: 7-19.
4. Ataei, P. and Zamani, N. 2015. Determinants of the Transfer of Sustainability Learning in Agricultural Sector of Iran. *J. Agr. Sci. Tech.*, **17(6)**: 1437-1447.
5. Bak, O. 2012. Universities: Can They be Considered as Learning Organizations? A Preliminary Micro-Level Perspective. *Learn. Organ.*, **19(2)**: 163-172.



6. Brahm, C. and Kleiner, B. H. 1996. Advantages and Disadvantages of Group Decision-Making Approaches. *Team Perform. Manag. Int. J.*, **2(1)**: 30–35.
7. Celik, A., Akyazi, T. E. and Akgemci, T. 2016. The Relationship between Shared Vision and Organizational Climate in Learning Organizations: A Study in the Banking Sector. *Int. J. Acad. Res. Bus. Soc. Sci.*, **6(2)**: 197-210.
8. Dee, J. and Leisyte, L. 2016. Organizational Learning in Higher Education Institutions: Theories, Frameworks, and a Potential Research Agenda. In: “Higher Education: Handbook of Theory and Research”, (Ed.): Paulsen, M. B. Springer, Cham, Heidelberg, New York, **31**: 275-348.
9. Deed, C., Blake, D. and Henriksen, J. 2020. Teacher Adaptation to Flexible Learning Environments. *Learn. Environ. Res.*, **23**: 153–165.
10. Döös, M., Johansson, P. and Wilhelmson, L. 2015. Organizational Learning as an Analogy to Individual Learning? A Case of Augmented Interaction Intensity. *Vocat. Learn.*, **8**: 55–73.
11. Dyson, T. 2019. The Military as a Learning Organization: Establishing the Fundamentals of Best-Practice in Lessons-Learned, *Def. Stud.*, **19(2)**, 107-129.
12. Farrukh, M. and Waheed, A. 2015. Learning Organization and Competitive Advantage-An Integrated Approach, *J. Asian Bus. Strategy*, **5(4)**, 73-79.
13. Fontanari, E. and Sacchetti, S. 2019. The Knowledge-based Agricultural Cooperative: A Validation from the Trentino Case. *JEOD*, **8(2)**: 46-70.,
14. Fornell, C. and Larcker, D. F. 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *J. Mark. Res.*, **18(1)**: 39-45.
15. Gokhale A. A. 2012. Collaborative Learning and Critical Thinking. In: “*Encyclopedia of the Sciences of Learning*”, (Ed.): Seel N. M. Springer, Boston, MA.
16. Hair, J. F., Black, W. C., Babin, B. J. and Andersen, R. E. 2010. *Multivariate Data Analysis*. 7th Edition, Upper Saddle River, Pearson Prentice Hall, NJ.
17. Harris, A. and Jones, M. 2018. Leading Schools as Learning Organizations. *School Leadersh. Manag.*, **38(4)**: 351-354.
18. Hartnett M. 2020. Flexible and Distance Learning. In: “*Encyclopedia of Education and Information Technologies*”, (Ed.): Tatnall A. Springer, Cham.
19. Helms, M. M. and Nixon, J. 2010. Exploring SWOT Analysis: Where Are We Now? A Review of Academic Research from the Last Decade. *J. Strategy Manag.*, **3(3)**: 215-251.
20. Jensen, D. 2017. The Learning Organization: A Strategic Approach to Today’s Global Business Environment. *J. Int. Manag. Stud.*, **12(1)**: 55-66.
21. Kersh, N. 2015. Rethinking the Learning Space at Work and Beyond: The Achievement of Agency across the Boundaries of Work-Related Spaces and Environments. *Int. Rev. Educ.*, **61**: 835–851. (2015).
22. Khunsoonthornkit, A. and Panjakajornsak, V. 2018. Structural Equation Model to Assess the Impact of Learning Organization and Commitment on the Performance of Research Organizations. *Kasetsart J. Soc. Sci.*, **39(3)**: 457-462.
23. Krejcie, R. V. and Morgan, D. W. 1970. Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, **30(3)**: 607–610.
24. Kustepeli, Y., Gulcan, Y., Yercan, M. and Yidirim, B. 2020. The Role of Agricultural Development Cooperatives in Establishing Social Capital. *Ann. Reg. Sci.*, 1-24. <https://doi.org/10.1007/s00168-019-00965-4>
25. Liebhart, M. and Garcia-Lorenzo, L. 2010. Between Planned and Emergent Change: Decision Maker’s Perceptions of Managing Change in Organizations. *Int. J. Knowl. Cult. Change Manag.*, **10(5)**: 214-225.
26. Moore, A. L. and Klein, J. D. 2020. Facilitating Informal Learning at Work. *Tech. Trends*, **64**: 219–228.
27. Naidu, S. 2017. How Flexible Is Flexible Learning, Who Is to Decide and What Are Its Implications?. *Distance Educ.*, **38(3)**: 269-272
28. North, K. and Kumta, G. 2018. Knowledge Management: Value Creation through Organizational Learning. Springer, Gewerbestrasse.
29. Noruzy, A., Dalfard, V. M., Azhdari, B., Nazari-Shirkouhi, S., and Rezazadeh, A. 2013. Relations between Transformational Leadership, Organizational Learning, Knowledge Management, Organizational Innovation, and Organizational Performance: An Empirical Investigation of Manufacturing Firms. *Int. J. Adv. Manuf. Technol.*, **64(5–8)**: 1073–1085.

30. Nunnally, J. C. and Bernstein, I. H. 1994. *Psychometric Theory*. 3rd Edition, McGraw-Hill, New York.
31. Ommani, A. R., Chizari, M. and Noorivandi, A. 2016. Analyzing the Effects of Computer-Supported Collaborative Learning on Agricultural Students Knowledge regarding Sustainable Water Resources Management: Case Study of Iran. *J. Agr. Sci. Tech.*, **18(7)**: 1735-1747.
32. Ommani, A. R. 2011. Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis for Farming System Businesses Management: Case of Wheat Farmers of Shadervan District, Shoushtar Township, Iran. *Afr. J. Bus. Manag.*, **5(22)**: 9448-9454.
33. Onstenk J. H. 1995. Human Resources Development and On-the-job Learning. In: *Corporate Training for Effective Performance. Eva. Educ. Human Services*, **43**.
34. Örtenblad, A. 2002. "A typology of the idea of learning organization", *Management Learning*, **33**, 2: 213-230.
35. Örtenblad, A. 2013a. Contextualizing the Learning Organization: Approaches to Research Design. In: *"Handbook of Research on the Learning Organization: Adaptation and Context"*, (Ed.): Örtenblad, A. and Elgar, E. Cheltenham, Northampton, MA, PP. 51-67.
36. Örtenblad, A. 2013b. What Do We Mean by 'Learning Organization'?. *"Handbook of Research on the Learning Organization: Adaptation and Context"*, (Ed.): Örtenblad, A. and Elgar, E. Cheltenham, Northampton, MA, PP. 22-34.
37. Örtenblad, A. 2015. Towards Increased Relevance: Context-Adapted Models of the Learning Organization. *Learn. Organ.*, **22(3)**: 163-181.
38. Örtenblad, A. and Koris, R. 2014. Is the Learning Organization Idea Relevant to Higher Educational Institutions? A Literature Review and a 'Multi-Stakeholder Contingency Approach'. *Int. J. Educ. Manag.*, **28(2)**: 173-214.
39. Pandya, S. 2017. Improving the Learning and Developmental Potential of SWOT Analysis: Introducing the LISA Framework". *Strategic Direction*, **33(3)**: 12-14.
40. Porth, S. J., McCall, J. and Bausch, T. A. 1999. Spiritual Themes of the "Learning Organization. *J. Organ. Change Manag.*, **12(3)**: 211-220.
41. Rezaei, R., and Amin Fanak, D. 2019. Mediation Effect of Organizational Learning on the Relationship between Entrepreneurial Orientation and Organizational Performance in the Agriculture Jihad Organization of West Azerbaijan Province, Iran. *J. Agr. Sci. Tech.*, **21(1)**: 37-50.
42. Rezaei, R., Amin Fanak, D. and Badsar, M. 2017. Relationship of Organizational Learning and Entrepreneurial Orientation in the Governmental Organizations: The Case of West Azerbaijan Province Organization of Agriculture Jihad. *Iran. Agric. Ext. Educ. J.*, **12(2)**: 107-121.
43. Sachan, S., Aroua, S. and Pandey, S. 2016. Concept of Learning Organization: Facilitators and Flow of Learning. *J. Eng. Res. Appl.*, **6(2)**: 42-47.
44. Sadeghi, S., Zandi, K., and Sadeghi, P. 2017. Pathology of Teamwork in the Agricultural Cooperatives of Hamadan City. *Public Policy in Administration*, **8(25)**: 45-58.
45. Sarstedt, M. and Ringle, C. M. 2020. Structural Equation Models: From Paths to Networks. *Psychometrika*, **85**: 841-844.
46. Şengün, H. and Sahin, K. 2017. Hospitals As a Learning Organization Model In Health Services. *Int. J. Curr., Res.*, **9(2)**: 46349-46355.
47. Serrat, O. 2017. Knowledge Solutions Tools, Methods, and Approaches to Drive Organizational Performance. Asian Development Bank, ISBN 978-981-10-0983-9 (eBook), DOI 10.1007/978-981-10-0983-9
<http://library.oapen.org/bitstream/handle/20.500.12657/28041/1001955.pdf?sequence=1>
48. Varamini, N., Rezvanfar, A., Movahed Mohammadi, H. and Pishbin, S. 2020. The Impact of Group Learning on the Application of Innovation in Agricultural Cooperatives (Case Study: Agricultural Cooperatives of Tehran Province. *Journal of Agricultural Education Administration Research*, **12(52)**: 94-117.
49. Zhu, C., Liu, A. and Wang, Y. 2019. Integrating Organizational Learning with High-Performance Work System and Entrepreneurial Orientation: A Moderated Mediation Framework. *Front. Bus. Res. China*, **13**: 11-20.



شناسایی راهبردهایی برای انطباق تعاونی‌های کشاورزی با سازمان یادگیرنده در ایران کاربرد مدل‌های SWOT و SEM

۱. کیانی، آ. نوراله نوری‌وندی، ا. ر. عمانی و ط. مقصودی

چکیده

هدف اصلی این مطالعه شناسایی راهبردهایی برای انطباق تعاونی‌های کشاورزی با سازمان یادگیرنده است. تعاونی‌های کشاورزی یک سازمان تجاری است که تمام ابعاد اقتصادی، دموکراتیک و اجتماعی کاهش فقر در مناطق روستایی را به طور همزمان ارزیابی می‌کند. این تحقیق یک تحقیق اکتشافی است که در دو بخش کیفی و کمی انجام می‌شود. در بخش کیفی، با برگزاری جلسات متعدد با کارشناسان و از طریق روش طوفان اندیشه، فرصت‌ها، تهدیدها، نقاط قوت و ضعف برای انطباق تعاونی کشاورزی با سازمان یادگیرنده شناسایی شد. سپس، با استفاده از مدل SWOT، راهبردها و برنامه عملیاتی برای انطباق تعاونی با سازمان یادگیرنده مشخص شد. همچنین، در قسمت کمی تحقیق که در بین اعضای تعاونی‌ها انجام شد، از طریق SEM، نقش راهبردهای شناسایی شده ارزیابی و مدل طراحی شده تأیید شد. بر اساس نتایج، می‌توان تأثیر مثبت پیش‌بینی کننده راهبردهای شناسایی شده برای انطباق با سازمان یادگیرنده را مشاهده کرد. بر اساس نتایج به دست آمده در تحقیق، راهبردهای SO_1 ($\beta=0.73$, t -value=4.23, $p<0.001$)، SO_2 ($\beta=0.79$, t -value=4.71, $p<0.001$)، SO_3 ($\beta=0.81$, t -value=5.08, $p<0.001$) و SO_4 ($\beta=0.82$, t -value=4.97, $p<0.001$) مجموعاً 69 درصد واریانس ACLO را تبیین می‌کنند.