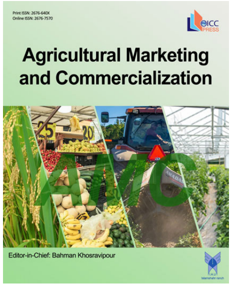

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Designing Sustainable Livelihood Extension Model (SLEM) in Rural Areas of Dezful Township, Iran

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Original Research

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Abstract:

The purpose of this research was designing sustainable livelihood extension model (SLEM) in rural areas of Dezful Township, Iran. This research is quantitative research. The statistical population of the research included all heads of households in the rural areas of Dezful Township (N=16693). The number of statistical samples was calculated through Cochran's formula (n=370). The sampling method was multi-stage random cluster method. Smart PLS3 software was used to design the Structural Equation Model (SEM). The findings of the research show that professional qualification of extension staff, educational facilities and desirable content of educational courses, institutionalization of entrepreneurship and innovation in agriculture, development of risk management and empowering users as a causal condition, institutional infrastructure, social platforms, communication and public participation and economic platforms as contextual conditions and motivators and incentives, knowledge management and learning and policy making and law enforcement as intervening factors, had a positive and significant effect on the axial phenomenon of SLEM. Finally, the identified strategies of SLEM had a positive and significant effect on the consequences of implementing the model. The consequences of implementing the model in order of priority were economic consequences, individual consequences, social consequences and management consequences that had a positive and significant effect on SLEM.

Keywords: Sustainable Livelihood Extension, Rural Development, Dezful Township

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Introduction

The approach of Sustainable Livelihood (SL) is one of the new analytical approaches in the field of rural development, and in recent years, it has been considered for the purpose of rural development and poverty reduction. The goal of SL in rural area is to use resources, assets without harming the environment (Ben Matiwane & Agnes Matiwane, 2023). Considering the role and position that villagers and rural areas have in local, national and regional growth and development, it is necessary and inevitable to review the ways of rural livelihood in order to achieve an optimal approach to SL (Kollmair and Juli, 2002). Achieving a SL means supporting human well-being through measures to improve human health, education, development opportunities, ensuring the sustainability and health of the environment and standards for life (Ibrahim et al., 2018). The goals of SL include reducing poverty, social justice, dealing with social exclusion, economic development, cultural development, promotion of human rights and protection of natural resources that form the basis of people's livelihood (Tao et al., 2010).

Achieving sustainable rural and agricultural development requires transitioning from traditional patterns to SL patterns that fit the needs of today's rural and agricultural society. In the past few decades, many approaches have been taken by different researchers and institutions to analyze livelihood sustainability (Bennett, 2010). The dependence of rural households on an economy based on agriculture has caused their livelihood to be endangered in the event of crises such as drought (Arce, 2003). In this regard, although there is a need to use different approaches in order to reduce the effects of drought and stabilize the livelihood of rural households, this issue has not been given much attention. Agricultural extension services are constantly evolving in less developed economies. Focusing on productivity and improving the livelihood of farmers, the agricultural sector has seen a wide range of reforms in the past decades (Joshi and Narayan, 2019). Planning to improve the living conditions, income and economy of rural households is an important and effective principle in achieving the goals of sustainable development. In their research, Eslami and Farajollahi (2022) have investigated the strategies of improving the livelihood of rural households by relying on the sustainable exploitation of natural resources through a survey method. The results of the network analysis of the factors showed that the human-educational, climatic-geographical, economic-financial factors will have the greatest influence in the promotion of rural livelihoods in the study area. This study introduces the use of educational and extension methods as a basic strategy in improving the livelihood of villagers. Realization of rural and agricultural development through the improvement of villagers' livelihood by public or private agricultural extension departments in rural areas where agriculture is one of the main sources of livelihood. The purpose of extension is to create change and intervene in matters related to production productivity and income enhancement by agricultural extension officers (Ndlela, 2015). Therefore, in the sustainable livelihood approach, extension officers should adopt a collaborative approach to ensure that all actors involved in improving the living standards of people or farming families in rural areas are employed. In the development of sustainable rural livelihoods, the role of extension should be broad and holistic in terms of content, that is, beyond the transfer of agricultural technology (Wang et al., 2016). The normal task of transferring and disseminating appropriate agricultural technologies and good agricultural practices to farmers will not be enough. In the process of Sustainable Livelihood Extension (SLE), introducing new technologies, helping farmers to make better use of resources and technology, helping farmers to use new information, promotion of risk management and knowledge management, empowerment of farmers and improvement of social, economic and cultural status are considered (Ndlela, 2015). Therefore, the main goal of SLE in rural areas is to change the perspective of farmers towards their problems in order to improve the condition of different aspects of life.

Method and Material

Quantitative method was used in this research. Smart PLS3 software was used to design the Structural Equation Model (SEM). In this research, the components of the paradigm model that was previously identified through the qualitative method were tested in the form of research hypotheses. At first, checking the validity of the factor structure and evaluating the measurement model of causal, contextual, intervening, axial phenomenon, strategies, and consequences using confirmatory factor analysis were investigated in two parts. To check the validity of the factor structure in the validity part, the degree of relationship between the variable and the desired construct was measured by the factor load of each variable on the desired construct. The greater the observed factor load of a variable on a factor, the more weight will be given to that variable. To evaluate the reliability of the structure, the composite reliability criterion (CR) was used, and the coefficient of determination (R^2) was used to evaluate the variable reliability. To check the fit of the measurement model of the SLE in rural areas of Dezful, the criteria of R^2, Q^2 and GOF goodness of fit index were used. In addition, the research model was designed and in it the effect of causal, intervening and contextual constructs on the central phenomenon of SLE and the effect of the central phenomenon of SLEM, contextual conditions and intervening factors on the strategies of SLEM and the effect of strategies on the consequences of SLEM were investigated. Finally, a model was obtained in which the role of different factors on the implementation of SLEM was obtained. In this model, the desired strategies for the realization of SLEM and the consequences of its implementation were determined. The statistical population of this research included all heads of households in the rural areas of Dezful Township, numbering 16,693 people. The number of statistical samples was calculated through Cochran's formula of 370 people. In this research, sampling was done using random cluster method.

Results and discussion

SLE Modeling

The implementation of this research is through the structural equation model. With this method, the direct and indirect effects of the variables in the assumed model can be checked. With this method, it is possible to examine the causal structure between a set of variables. This model provides conditions to determine the relationships between the set of variables and assume the causal effect of the variables and check the appropriateness of the assumed model.

Correlation test between variables

Because one of the prerequisites for the use of latent variables in structural equation modeling is the existence of correlation between the research variables, correlation analysis was performed between the research variables. Based on the results presented in Table 1, the correlation of the variables is shown. Based on the results, there is a significant relationship between all the variables. If the square root of the AVE estimate for each construct is greater than the correlation between it and the other constructs in the model, diagnostic validity has been achieved. As shown in Table 1, the square root of AVE in all cases exceeds its correlation with other constructs.

Confirmatory factor analysis

Before fitting the structural equation model, the measurement models were evaluated by performing confirmatory factor analysis in SMART PLS3 software.

Table 1. Correlation matrix between research variables

Variables	Causal	Contextual	Intervening	Axial	Strategies	Consequences
Causal	0.727[a]					
Contextual	0.632*	0.673[a]				
Intervening	0.551*	0.541*	0.659[a]			
Axial	0.464*	0.327*	0.481*	0.658[a]		
Strategies	0.552*	0.648*	0.398*	0.462*	0.657[a]	
Consequences	0.459*	0.358*	0.401*	0.553*	0.345*	0.683[a]

*Correlation significance at 0.01 level, a: square root of AVE estimate

Table 2. Evaluation of the factor measurement model of causal conditions using confirmatory factor analysis

Construct	Variable	Standardized factor loading	Standard error	t	R^2	CR
Causal conditions	Professional qualification of extension staff	0.61	0.19	2.612	0.78	0.803
	Educational facilities and desirable content of educational courses	0.538	0.21	1.562	0.53	
	Institutionalization of entrepreneurship and innovation in agriculture	0.65	0.23	2.868	0.59	
	Characteristics of users	0.59	0.17	3.434	0.58	
	Development of risk management	0.40	0.20	2.646	0.59	
	Empowering users	0.58	0.24	2.652	0.59	

This evaluation was done by using the fit indices of the software output and the significance of the factor loadings of the items of different constructs of the questionnaire.

Structural measurement model of causal conditions effective on SLEM

The results of checking the validity of the factor structure and evaluating the causal conditions factor measurement model using confirmatory factor analysis were presented in two parts:

Validity and reliability of the measurement model of causal conditions effective on SLEM

In order to check the validity of the measurement model of the structure of causal conditions effective on SLEM in rural areas of Dezful township, it is necessary to evaluate the extent and significance of the relationship of each observed variable with the factor of causal conditions effective on SLEM. The extent of this relationship was measured by the factor loading of each variable on the factor of causal conditions. The greater the observed factor load of a variable on a factor, the more weight will be given to that variable. In Table 2, the standardized factor loadings of the variables belonging to the construct of causal conditions are determined and using the t-test, the significance of its difference with zero is determined. Based on the results for each variable, it has been shown that the load of that variable on the construct of causal conditions is significant at the 5% error level. Based on this, 6 variables of the structure of causal conditions have a significant contribution in measuring this structure. This issue confirms that the validity of the causal condition structure measurement model is confirmed. In order to evaluate the reliability of the structure, the Composite Reliability (CR) was used and the coefficient of determination (R^2) was used to evaluate the variable reliability. The results are presented in Table 2. The value of CR above 0.7 indicates the reliability of the desired structure. Also, the higher the R^2 value for each variable, it indicates that that variable has high reliability in measuring the relevant construct. In this regard, Lybaert et al., (2022) on the importance of paying attention to the professional qualification of extension workers, Kurtsal et al., (2024) on the design of training and extension programs based on the needs of farmers and according to their level of knowledge, Charatsari et al., (2024) on the institutionalization of innovation and entrepreneurship in the agricultural sector, and Yue et al., (2023) on the necessity of empowering the humans workforce in the agricultural sector were emphasized.

The structural measurement model of causal conditions

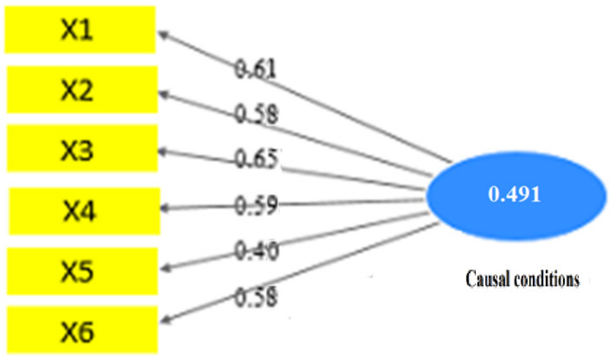

Figure 1. Structural measurement model of causal conditions affecting SLEM in rural areas

Table 3. R2, Q2, and GOF values for causal condition model fit

Construct	R^2	Q^2	GOF
Causal condition	0.718	0.474	0.591

affecting SLEM in rural areas of Dezful township is shown in Figure 1.

Assessment of the fit of the measurement model of causal conditions effective on SLEM

To check the fit of the model for measuring the causal conditions affecting SLEM in rural areas of Dezful, R^2, Q^2 and GOF goodness of fit index were used. The GOF index examines the structural and measurement fit simultaneously. Wetzles et al. (2009) considered three values to evaluate the GOF index:
Weak: if it is between 0.1 and 0.25.
Average if it is between 0.25 and 0.36.
Strong: if it is more than 0.36.
The second index is R^2. The higher the amount of R^2 related to the endogenous structures of the model, it indicates the appropriate fit of the model. Three values of 0.19, 0.33 and 0.67 have been introduced as weak, medium and strong values for this coefficient of determination (Chin, 1998). The third indicator of the predictive power of the model is the predictive correlation index or Q^2. This criterion, which was introduced by Stone and Geisser, determines the predictive power of the model in endogenous constructs. According to them, models that have an acceptable structural fit should be able to predict the endogenous variables of the model. This means that if in a model, the relationships between the structures are correctly defined, the structures have a sufficient influence on each other and in this way the hypotheses are correctly confirmed. If the value of the Q^2 index is positive, it indicates that the fit of the model is favorable and the model has good predictive power (Hensler et al., 2009). Based on the results of Table 33-4, R^2, Q^2 and GOF values are acceptable and appropriate.

Structural measurement model of contextual conditions effective on SLEM

The results of checking the validity of the factor structure and evaluating the factor measurement model of the contextual conditions using confirmatory factor analysis were presented in two parts:

Validity and reliability of the measurement model of contextual conditions effective on SLEM

Based on the results, it has been shown for each variable that the load of that variable on the structure of contextual conditions is significant at the 5% error level. Based on this, 4 structural variables of contextual conditions have a significant contribution in measuring this structure. This issue confirms that the validity of the measurement model of the contextual condition structure is confirmed. To evaluate the reliability of the structure, the combined reliability criterion (CR) was used and the coefficient of determination (R2) was used to evaluate the variable reliability. The results are presented in Table 4. The value of CR above 0.7 indicates the reliability of the desired structure. Also, the higher the R2 value for each variable, it indicates that that variable has high reliability in measuring the relevant construct. In this regard, Miani et al., (2023) emphasized the development of institutional infrastructures in improving sustainable rural livelihoods, Sajid et al., (2018) emphasized the social and economic aspects of sustainable rural livelihoods, and Odoom et al., (2022) emphasized the development of partnership and communication in improving rural livelihoods.
The structural measurement model of contextual conditions affecting SLEM in rural areas of Dezful township is shown in Figure 2.

Assessment of the fit of the measurement model of contextual conditions effective on SLEM

Based on the results of Table 5, the values of R^2, Q^2 and GOF have acceptable and suitable values and the model has a good fit.

Structural measurement model of intervening factors effective on SLEM

The results of checking the validity of the factor structure and evaluating the factor measurement model of the

Table 4. Evaluation of the factor measurement model of contextual conditions using confirmatory factor analysis

Construct	Variable	Standardized factor loading	Standard error	t	R^2	CR
Contextual conditions	Institutional infrastructure	0.60	0.19	2.668	0.46	0.706
	Social platforms	0.58	0.14	2.569	0.41	
	Communication and public participation	0.65	0.22	1.557	0.43	
	Economic platforms	0.69	0.22	2.851	0.54	

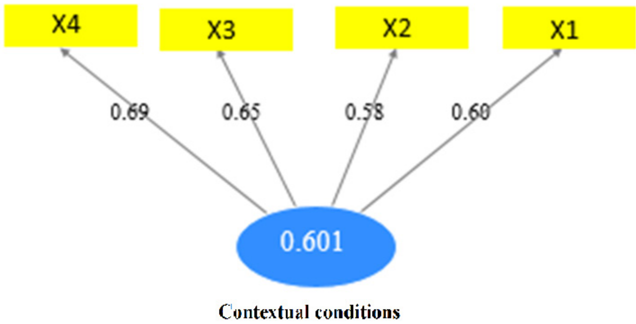

Figure 2. Structural measurement model of contextual conditions affecting SLEM in rural areas

Table 5. R2, Q2, and GOF values for contextual condition model fit

Construct	R^2	Q^2	GOF
Contextual condition	0.704	0.594	0.635

Table 6. Evaluation of the factor measurement model of intervening factors using confirmatory factor analysis

Construct	Variable	Standardized factor loading	Standard error	t	R^2	CR
Intervening factors	Motivators and incentives	0.61	0.31	3.575	0.51	0.721
	Knowledge management and learning	0.58	0.28	2.697	0.58	
	Policy making and law enforcement	0.49	0.42	3.337	0.46	

intervening factors using confirmatory factor analysis were presented in two parts:

Validity and reliability of the measurement model of intervening factors effective on SLEM

Based on the results, it has been shown for each variable that the load of that variable on the structure of intervening factors is significant at the 5% error level. Based on this, 3 structural variables of intervening factors have a significant contribution in measuring this structure. This issue confirms that the validity of the measurement model of the intervening factors structure is confirmed. The results are presented in Table 6. The value of CR above 0.7 indicates the reliability of the desired structure. Also, the higher the R2 value for each variable, it indicates that that variable has high reliability in measuring the relevant construct. The research results of Nyathi (2024) and Karami Dehkordi et al., (2023) are in this direction.

The structural measurement model of intervening factors affecting SLEM in rural areas of Dezful township is shown in Figure 3.

Assessment of the fit of the measurement model of intervening factors effective on SLEM

Based on the results of Table 7, the values of R^2, Q^2 and GOF have acceptable and suitable values and the model has a good fit.

Structural measurement model of axial phenomenon effective on SLEM

The results of checking the validity of the factor structure and evaluating the factor measurement model of the intervening factors using confirmatory factor analysis were presented in two parts:

Validity and reliability of the measurement model of axial phenomenon effective on SLEM

Based on the results, it has been shown for each variable

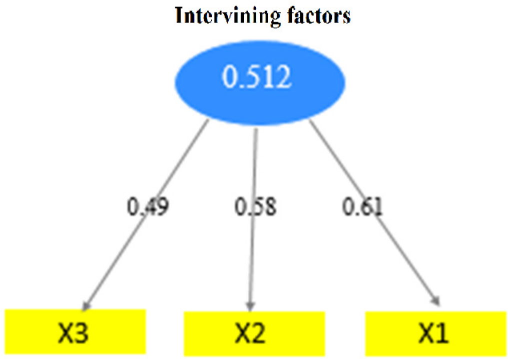

Figure 3. Structural measurement model of intervening factors affecting SLEM in rural areas

Table 7. R2, Q2, and GOF values for intervening factors model fit

Construct	R^2	Q^2	GOF
Intervening factors	0.748	0.529	0.612

Table 8. Evaluation of the factor measurement model of axial phenomenon using confirmatory factor analysis

Construct	Variable	Standardized factor loading	Standard error	t	R^2	CR
Axial phenomenon	Appropriate content of SLEM	0.61	0.37	2.649	0.58	0.716
	Suitable training methods for SLEM	0.57	0.35	2.355	0.51	
	Appropriate targets for SLEM	0.67	0.39	2.567	0.49	
	Suitable trainers for SLEM	0.65	0.41	2.512	0.46	
	The right audience for SLEM	0.59	0.28	3.154	0.56	

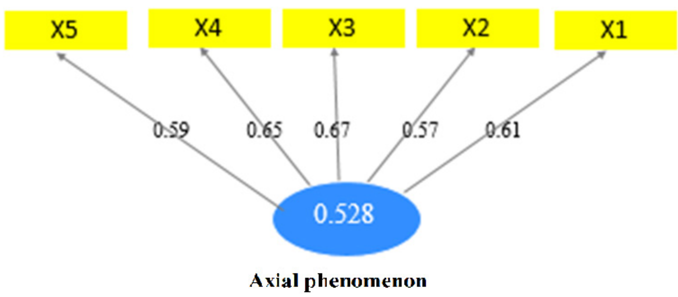

Figure 4. Structural measurement model of axial phenomenon affecting SLEM in rural areas

that the load of that variable on the structure of axial phenomenon is significant at the 5% error level. Based on this, 5 structural variables of axial phenomenon have a significant contribution in measuring this structure. This issue confirms that the validity of the measurement model of the axial phenomenon structure is confirmed. The results are presented in Table 8. The value of CR above 0.7 indicates the reliability of the desired structure. Also, the higher the R2 value for each variable, it indicates that that variable has high reliability in measuring the relevant construct. In this regard, Singh et al., (2015) on modern extension approaches for livelihood improvement for resource poor farmers emphasized.
The structural measurement model of axial phenomenon affecting SLEM in rural areas of Dezful township is shown in Figure 4.

Assessment of the fit of the measurement model of axial phenomenon effective on SLEM
Based on the results of Table 9, the values of R^2, Q^2 and GOF have acceptable and suitable values and the model has a good fit.

Table 9. R^2, Q^2, and GOF values for axial phenomenon model fit

Construct	R^2	Q^2	GOF
Intervening factors	0.638	0.617	0.561

Table 10. Evaluation of the factor measurement model of strategies using confirmatory factor analysis

Construct	Variable	Standardized factor loading	Standard error	t	R^2	CR
Strategies	Increasing knowledge and information of users	0.71	0.18	2.802	0.518	0.705
	Changing society's view of specialized and academic fields of agriculture	0.59	0.35	2.207	0.64	
	Improving the structural, institutional, organizational and managerial situation of the agricultural extension sector	0.51	0.24	2.601	0.46	
	Proper use of virtual networks and new communication tools for spreading practical knowledge	0.67	0.26	3.609	0.20	

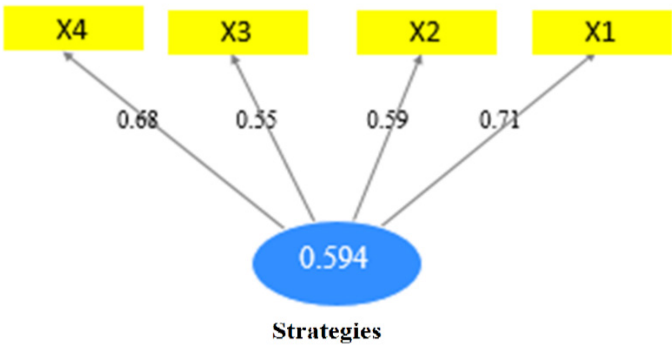

Figure 5. Structural measurement model of strategies affecting SLEM in rural areas

Table 11. R2, Q2, and GOF values for strategies model fit

Construct	R^2	Q^2	GOF
Strategies	0.718	0.604	0.554

Structural measurement model of strategies effective on SLEM

The results of checking the validity of the factor structure and evaluating the factor measurement model of the strategies using confirmatory factor analysis were presented in two parts:

Validity and reliability of the measurement model of strategies effective on SLEM

Based on the results, it has been shown for each variable that the load of that variable on the structure of strategies is significant at the 5% error level. Based on this, 4 structural variables of strategies have a significant contribution in measuring this structure. This issue confirms that the validity of the measurement model of the strategies structure is confirmed. The results are presented in Table 10. The value of CR above 0.7 indicates the reliability of the desired structure. Also, the higher the R^2 value for each variable, it indicates that that variable has high reliability in measuring the relevant construct.

The structural measurement model of strategies affecting SLEM in rural areas of Dezful township is shown in Figure 5.

Assessment of the fit of the measurement model of strategies effective on SLEM

Based on the results of Table 11, the values of R^2, Q^2 and GOF have acceptable and suitable values and the model has a good fit.

Structural measurement model of SLEM consequences

The results of checking the validity of the factor structure and evaluating the factor measurement model of the strategies using confirmatory factor analysis were presented in two parts:

Table 12. Evaluation of the factor measurement model of consequences using confirmatory factor analysis

Construct	Variable	Standardized factor loading	Standard error	t	R2	CR
Consequences	Economic consequences	0.67	0.22	2.347	0.547	0.801
	Individual consequences	0.63	0.25	2.239	0.631	
	Social consequences	0.57	0.35	3.647	0.644	
	Managerial consequences	0.51	0.18	3.251	0.632	

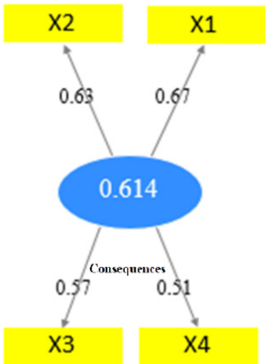

Figure 6. Structural measurement model of consequences affecting SLEM in rural areas

Table 13. R2, Q2, and GOF values for consequences model fit

Construct	R^2	Q^2	GOF
Consequences	0.708	0.657	0.681

Table 14. R2, Q2, and GOF values for SLEM fit

Construct	R^2	Q^2	GOF
SLEM	0.745	0.621	0.645

Validity and reliability of the measurement model of SLEM consequences

Based on the results, it has been shown for each variable that the load of that variable on the structure of consequences is significant at the 5% error level. Based on this, 4 structural variables of consequences have a significant contribution in measuring this structure. This issue confirms that the validity of the measurement model of the consequences structure is confirmed. The results are presented in Table 12. The value of CR above 0.7 indicates the reliability of the desired structure. Also, the higher the R^2 value for each variable, it indicates that that variable has high reliability in measuring the relevant construct.

The structural measurement model of consequences of SLEM in rural areas of Dezful township is shown in Figure 5.

Assessment of the fit of the measurement model of SLEM consequences

Based on the results of Table 13, the values of R^2, Q^2 and GOF have acceptable and suitable values and the model has a good fit.

The final test of the research model (SLEM)

To test the research model and hypotheses, the structural equation model was used using Smart PLS3 software. The fit of the structural model was also evaluated using R^2, Q^2 and GOF criteria. According to the results of Table 14, the fit criteria had acceptable values.

Next, the research hypotheses were tested. The way to decide to reject or confirm the hypotheses is to compare the t-value with the numbers +1.96 and -1.96. If the calculated values are between these two values, the hypothesis is rejected, and if it is not, the hypothesis is confirmed. The results of hypothesis testing are presented in Table 15 and the final research model is presented in Figures 7 and 8.

The results of Table 15 showed that causal conditions (β=0.638), contextual conditions (β=0.764) and intervening factors (β=0.711) had a positive and significant effect on SLEM. Also, based on the results, it can be concluded that contextual conditions (β=0.698) and intervening factors (β=0.738) have a positive and significant effect on SLEM strategies. Based on the results of figures 7 and 8, the output of Smart pls3 software, it can be said that 52.8% of SLEM changes are explained by the independent variables of causal conditions, contextual conditions and intervening

Table 15. The results of research hypothesis testing.

Independent variable	Dependent variable	Path coefficient	t-value	R^2	Result
Causal conditions	SLEM	0.638	8.847	0.512	Confirmed
Contextual conditions	SLEM	0.764	8.958	0.628	Confirmed
Intervening factors	SLEM	0.711	9.658	0.481	Confirmed
Contextual conditions	Strategies	0.698	7.657	0.623	Confirmed
Intervening factors	Strategies	0.738	8.953	0.661	Confirmed
Strategies	consequences	0.821	7.549	0.722	Confirmed

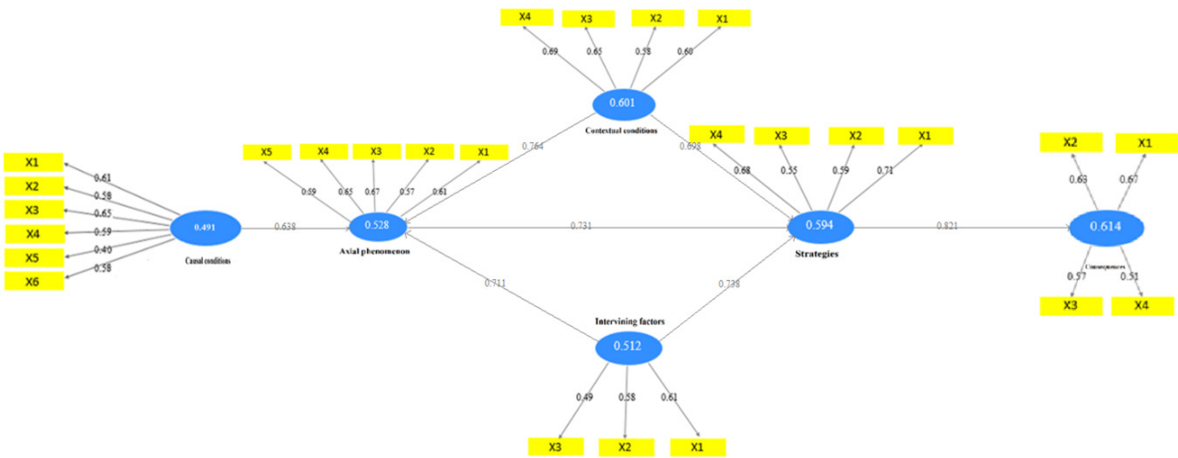

Figure 8. Standardized loading values for each of the factors and variables of the causal model of SLEM in rural areas of Dezful Township.

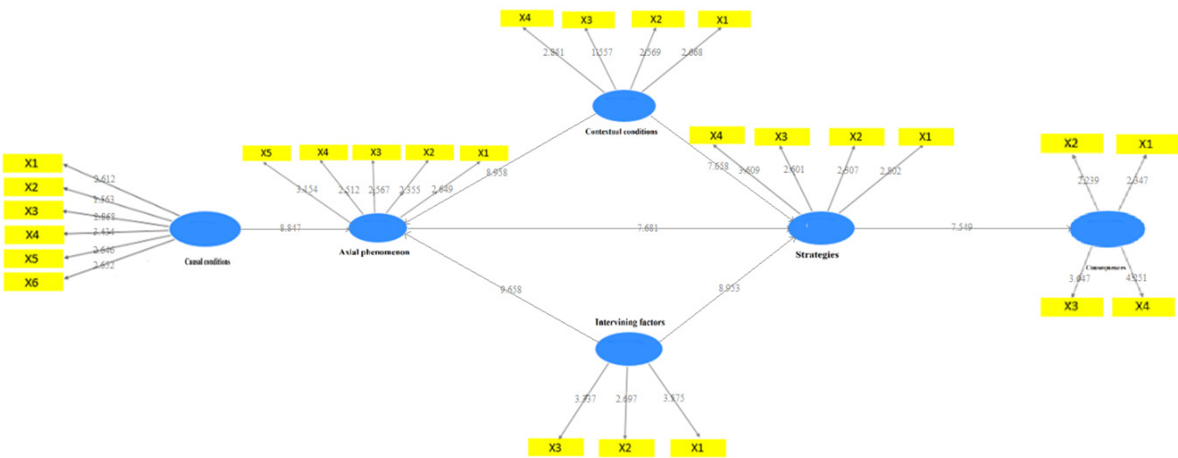

Figure 7. t-values for relationships between factors and variables of the causal model of SLEM in rural areas of Dezful Township

factors. Also, 59.4% of changes in strategies are affected by the state of the axial phenomenon, contextual conditions and intervening factors, and finally 82.1% of changes in consequences are caused by the use of identified strategies.

Conclusion and recommendation

The challenge that has threatened rural development in recent years is environmental unsustainability, drought, erosion of basic resources and rural social instability, migration, unemployment, economic problems, lack of inputs and market problems. Achieving sustainable rural development requires rapid movement from traditional livelihood models to sustainable livelihoods in rural society that are appropriate to the needs of today's society (Kamawi et al., 2018). It is a sustainable livelihood that can withstand pressures and shocks. It can maintain or strengthen its capabilities and assets both now and in the future, while not compromising the basic natural resources (Berchoux et al., 2019). One of the best strategies for dealing with poverty issues and empowering the poor and achieving the necessary conditions for realizing sustainable rural development is the sustainable livelihood approach. This approach has been one of the new analytical topics in the field of rural development during the past years. For the basis of numerous findings, structures and processes are the most important effective factors in the sustainability of rural households' livelihoods. In this research, in order to develop sustainable rural livelihood, the SLEM has been designed. Based on the designed model, 6 structural variables of causal conditions have a significant contribution in measuring this model. These variables include professional qualification of extension staff, educational facilities and desirable content of educational courses, institutionalization of entrepreneurship and innovation in agriculture, development of risk management and empowering users. Therefore, it is recommended to provide the necessary mechanisms to develop the professional competence of extension workers, provide educational facilities and the desired content for educational and extension courses, make necessary efforts to institutionalize entrepreneurship and innovation in agriculture, development mechanisms of risks management and the necessary action should be taken to develop the empowerment of the users. Based on the designed model, 5 structural variables of contextual conditions have a significant contribution in the measurement of this model. These variables include institutional infrastructures, social platforms, communication and public participation, and economic platforms. Therefore, it is recommended to use the necessary mechanisms for the development of support institutions for the sustainability of rural livelihoods, decentralization in the farmer extension system in the field of sustainable rural livelihoods, handing over extension services in the field of sustainable development to the private sector, strengthening interactions between research, extension, education and farmers in the field of sustainability, investing in research in the extension system of sustainable rural livelihoods and agriculture, providing extension services to farmers, increasing the level of coverage of agricultural extension services at the village level, emphasize the popularization of the economy and the increase of people's participation, and the culture of sustainable livelihood development. Based on the designed model, 3 structural variables of intervening factors have a significant contribution to the measurement of this model. These variables include motivators and incentives, knowledge management and learning, and policymaking and law enforcement. Therefore, it is recommended to implement the necessary incentives for the development of livelihood sustainability indicators, the necessary mechanisms for the development of knowledge management and increasing skills for the development of livelihood sustainability, and the development of the necessary rules and regulations to support the implementation of rural livelihoods. Based on the designed model, 4 strategies were identified for the development of SLEM. Therefore, it is recommended to take the necessary action for increasing knowledge and information of users, changing society's view of specialized and academic fields of agriculture, improving the structural, institutional, organizational and managerial situation of the agricultural extension sector and proper use of virtual networks and new communication tools for spreading applied knowledge. The designed paradigm model is a specific scenario that policy makers and planners in the field of rural development can take necessary measures to improve and stabilize rural livelihoods in the rural areas of Dezful Township according to the factors, conditions and strategies identified in the SLEM.

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