

Effect of risk management and development of mechanization on total factor productivity of agronomy and horticulture sub-sectors

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ABSTRACT

Economic growth as an important indicator has always considered by policy makers. In presence of production inputs constraints, the most appropriate way of growing each sector is increase of productivity. In the agricultural sector due to several risks that farmers face as a result of activity in an open environment, productivity is also affected by these risks. Because of the importance of agriculture in the economy and food security, some strategies should be devised to reduce the risk that mechanization and infrastructure development for reducing the risk of cropping, expansion of insurance and crop diversification are taking place in this category. Hence, the present study has measured total factor productivity of agronomy and horticulture subsectors by using the Tornquist-Theil Index for years 1974-2007 and then by estimating a regression model, influence of the above factors on productivity has been evaluation. The average of total factor productivity growth of agronomy and horticulture subsectors was 0.96 for this period. The results showed positive effect of crop diversification and insurance on productivity and also, it will be reduced by excessive use of tractor.

Keywords: crop diversification, infrastructure, insurance, mechanization, Tornquist-Theil Index.

Assessment of educational needs of greenhouse holders of ornamental plants and flowers in Tehran Province, using Borich's Model
(Case study: Applying alternative energies)

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ABSTRACT

The purpose of present research was studying the educational need assessment of greenhouse holders growing ornamental plants and flowers about applying alternative energies. This research is application with descriptive- correlative method. Statistical community was 499 subjects of greenhouse holders of ornamental plants and flowers in Tehran province. By using simple random sampling method and based on Cochran formula, 117 subjects measurement tool were used. This research was a questionnaire based on Borich's model. Gathered data were analyzed by Spss₁₈. Results showed that above-mentioned greenhouse holders have educational need to apply alternative energies. Various aspects including selecting energy type used in greenhouse, using necessary facilities to apply alternative energies in greenhouse and a method of communication to professionals of new energies organization in the context of using alternative energies in greenhouse were introduced as three primary needs. Results of correlation analysis suggested that there is a negative meaningful relationship among variables education level and background and educational need of greenhouse holders in level %99. The variables are covered by greenhouse culture. The costs of energy transporters have a positive meaningful relationship with educational needs of greenhouse holders at 99% level but variable age has no meaningful correlation with educational needs of greenhouse holders.

Keywords: alternative energies, Borich's model, educational need assessment, ornamental plants.

Extension of organizational intelligence component in Agricultural Organization (*Jihad-e- Keshavarzi*) of Guilan Province

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ABSTRACT

The main purpose of this descriptive–survey research was to analysis organizational intelligence components in Agricultural Organization (*Jihad-e-Keshavrzi*) of Guilan Province. The statistical population of the study consisted of Agricultural Organization of Guilan Province’s staffs (N=1296). In order to determine sample size (n=183), the table for determining sample from a given population, developed by Bartlett *et al.* (2001), was used. Cluster sampling technique was used as a sampling method. The instrument for this study was a closed form questionnaire adapted from Albrecht organizational intelligence standard scale (2003). The instruments included seven organizational intelligence components measured against 49 statements. The validity of the questionnaire was approved by face validity and content validity. In order to measure the reliability of the questionnaire, Cronbach Alpha coefficients were calculated ($\alpha= 0.95$). The data were analyzed by SPSS₁₈ software. The findings revealed moderate organizational intelligence level in Agricultural Organization of Guilan Province. Among the intelligence components, ‘shared fate’ received highest ratings and ‘appetite for change’ received the lowest ratings.

Keywords: intelligence, organizational intelligence, intelligent organization.

Factors affecting the development of wheat farming insurance in Hamedan County

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ABSTRACT

Agricultural insurance is the most efficient tool for governmental supports to deal with hazards. Also, it has the highest capability to deal with hazards. Agricultural insurance can be one of the most appropriate mechanisms for investment security in agricultural sector. The main purpose of this study was analyzing factors affecting development of wheat insurance in Hamedan County. This study is based on a correlation-descriptive methodology. The data were collected by questionnaire from wheat farmers' insured. To determine the validity of the questionnaire, opinions of professors and specialists were used. Assessment of the questionnaire's reliability was done during a pre-test step by gathering data from 30 samples related to the population. Thus, reliability of the questionnaire was calculated using Cranach's Alpha which was between 0.82. In this study, wheat farmers' insured were as the study population in the Hamadan County during 2010-2011 farming year. To determine the sample size, Cochran formula was used and the number of 225 wheat farmers' insured of Hamedan County selected by systematic random sampling. Results show that positive relationship between the variables such as satisfied insurance makers from services by the Agricultural Insurance Fund (AIF), administrative affairs in insurance contracts, the entire cultivated surface, reparation rate and payments, to be owed to banks, and the frequency of extending insurance contract with the variable development of wheat insurance. The six mentioned variables predict totally 88.6% of the wheat insurance development changes. Therefore, the findings of this study can be contributed agricultural planners and agricultural products insurance fund.

Keywords: agricultural risk, factors affecting, insurance development, wheat insurance.

Farmers' educational needs assessment related to quality management of agricultural products (Case study: Chaharmahal-va-Bakhtiari Province)

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ABSTRACT

The purpose of this study was to assess educational needs of Chaharmahal-va-Bakhtiari's farmers related to quality management of agricultural products. The research method was descriptive-correlational. 398 farmers have been selected through random and multi stage stratified sampling method. The questionnaire of Borich's needs assessment model was used to collecting data. Findings of study show the priority of farmer's educational needs as follow: 1. Storage of agricultural products, 2. Process of agricultural products, 3. Packing agricultural products, 4. Familiarity with the customer's behavior, 5. Marketing skills of agricultural products, 6. Agricultural practices influencing the quality of products. The amount of correlational coefficients indicates that there is significant and direct relationship between age and agricultural experience with the rate of educational needs. A significant but reverse relationship between farmers' education years and monthly income with the rate of their educational needs have been found. No significant relationships between land tenure size with the rate of educational need has been found.

Keywords: educational needs, quality management.

Sustainability status of potato cultivation, Bahar-plain of Hamedan province

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ABSTRACT

The main purpose of this paper is analyzing sustainability condition for potato cultivation in Bahar-Hamedan plain. Potato farmers Population in this plain is 2054 individuals. We obtained sample size, which are 162 by using Cochran's formula. For increasing accuracy 172 samples fill out the questionnaires. Data analyzed by SPSS software. Results showed that sustainability level was low or very low for more than fifty percent of farmers. Five factors including land under cultivation, the ratio of land under crop rotation to land under cultivation, amount of chemical fertilizers used by farmer, amount of poisons, and sustainable agriculture level can explain 69% of variation in Agricultural-Ecological sustainability. Area under Cultivation, the amount of damage per acres, seed cost, insured area and total revenue explain 62% of variation in terms of Economical sustainability. Furthermore, income diversity, level of communication facilities used by farmer, the knowledge level about the sustainable agriculture and farmer experience in potato cultivation explain 55% of variation in social sustainability.

Keywords: Bahar-plain, potato cultivation, measurement sustainability, regression analysis, sustainability.

Challenges and constraints of developing mushroom Ventures (Case study: Kermanshah Province)

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ABSTRACT

Understanding various aspects of the problems, challenges and constraints of agricultural activities such as mushroom ventures and trying to plan and policy for solving problems are suitable strategies for developing agri-businesses. The purpose of this qualitative study was to explain the challenges and constraints of developing mushroom Ventures in Kermanshah Province. Information were collected by observation and depth interview from five active and almost four inactive production firms by interviewing with seven executive and education experts in the Jihad agricultural organization and vocational- technical organization in Kermanshah Province. Using techniques in interviews was typical cases and snowball sampling. Content analysis of interviews showed challenges and constraints for developing mushroom Ventures in Kermanshah Province instance two major categories (performance problems and mushroom producers problems) and seven conceptual classes. A performance problem including five classes (poor infrastructure development, government failure in policy- protection support, organizational problems, problems in the production cycle and science- research problems). Also, in sector of production there are two classes (mushroom producers problems and producers compost problems). Results showed that according interviews opinion most problems of mushroom Ventures in Kermanshah Province instance: equipment failure, lack of financial support, inefficiencies in the banking, failure of management system, educational deficiencies, problems in mushroom firms rooms and high risk taking in agricultural production.

Keywords: agricultural Ventures, content analysis, Kermanshah Province, mushroom.

Extension education and food security of farmer households (Case study: Qorveh county, Kurdistan Province)

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ABSTRACT

Food security means that all people at all times have access to sufficient food, healthy and nutritious. Food security is a necessity for rural development. The main purpose of this study is survey of the role of extension education on food security of farmer households in Qorveh county (Kurdistan province). The research is an applied type in which descriptive method has been employed. Population of the research consisted of the farmer households in 2013, 198 of whom were selected as a sample through random sampling. To assess the level of food security HFIAS index was used. This index was 9 questions in validity and reliability has been proven in various studies. In addition to descriptive statistics, regression analysis and path analysis were used. The food security situation in survey results show that only 15% of households are food safe. 42.5 with low levels of food insecurity, 31.5 medium security and 11% are severely food insecure. Regression results showed that five variables, nutritional awareness, women's participation, grade promotion, economic strength and number of dependents have the greatest impact household food security.

Keyword: education, extension and education, farmer households, food security, Qorveh county.

Identifying and analyzing the barriers in women's economic participation in the rural regions of the Zanjan Province (Case study: Abhar- Rod Rural District)

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ABSTRACT

The main purpose of this survey was to identify and analyze the barriers in women's economic participation in the rural regions of the Zanjan Province. The study was an analytical- explanatory research regarding its method. The statistical population of the study were consisted of all the rural women in the Abhar-Rod rural district (N= 1300). According to the Krejcie and Morgan table, a sample size of 300 was selected using a stratified random sampling technique (n=300). A questionnaire was used to collect the data. A panel of experts confirmed the validity of the questionnaire. A pilot study was conducted to establish the reliability of the instrument. The Cronbach's Alpha coefficient for the main scales of the questionnaire was higher than 0.75. The descriptive results showed that the highest level of rural women's economic participation was in the three fields of: agriculture (including participation in farming and horticultural activities), keeping and breeding livestock and poultry, and processing and sales of household products (such as yogurt, curd, pickle, jam and etc.), respectively. The results of the factor analysis revealed that four factors namely, social- cultural, structural- institutional, personal- psychological and professional explained 67.76% of total variances of the barriers to rural women's economic participation.

Keywords: Abhar- Rod rural district, economic participation, rural women, Zanjan Province.

The effect of Constructivist teaching method on learning of metrology and climatology of agricultural students

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ABSTRACT

Because of implications for improving agricultural students' learning and finally problem solving, creativity and employability, nowadays the modern teaching methods are a matter of great concern. Therefore, this study explored the effect of teaching methods on learning of agricultural students in Campus of Agriculture and Natural Resources, University of Tehran. The study was carried out during a semester for metrology and climatology course. 75 students enrolled in the course were assigned to treatment and control groups. The experimental group was taught using the constructivist teaching method while the control group was taught using the traditional teaching method. Experiment was implemented for total of 20 hours over 12 weeks. The instruments used for measurement of learning in higher levels thinking and lower levels thinking were as follows, mid-term and final-term tests applying open-ended (free response) questions. The content validity of the tests was approved by several of teachers of metrology and climatology. The reliability of tests was measured through the examiners reliability based on scoring rubric method which respectively calculated as 0.997 and 0.991 for mid-term and final exams. The covariance analysis results revealed that the teaching methods had effect on total grades of the students at the semester. A further exploring of findings showed that there was no significant difference in the learning of two groups when it was separated based on levels of thinking and also when it was separated based on the mid-terms and final-term tests.

Keywords: agricultural higher education, teaching method, University of Tehran.

**The factors affecting the willingness to produce organic products:
(Case study: Tomato producer in Alborz Province)**

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ABSTRACT

The paper aimed to assess the factors affecting the willingness of tomato producer to produce organic products in Alborz province in crop year 2010-11. The collected data was analysis by descriptive analysis and Logit econometrics model. The results of descriptive analysis showed among 90 respondents, 42.2% willing for conversion to organic agriculture. The results of Logit model estimation indicate that experience, education, hygienic elements regard, positive attitudes to environment had positive and significance relationship, and age, chemical fertilizer and pesticides negative and significance effect on willingness for organic cultivation and production.

JEL: O13, Q55, Q56, P28

Keywords: Alborz province, organic farming, tomato.

Impact of financial market extension on agricultural sector's development of Kohgilouye & BoyerAhmad province

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ABSTRACT

Financial markets are considered because of their role in acquiring small and large savings of national economy, optimizing the flow of financial resources and distributing these resources to consumption and investment needs of economic sectors. The aim of this study was investigating the influence of financial market extension on agricultural sector's development of Kohgilouye and Boyer Ahmad province using VAR. The results of this study showed the effect of financial markets on agricultural sector's development is positive. Therefore, extending the financial markets of this province through the extension of bank credits and establishment of agricultural commodity exchange has undeniable effect on agricultural development.

Keywords: agricultural sector, financial market development, VAR model.

An Analysis of deterrent factors in horticultural greenhouse units development in Sistan & Baluchestan Province

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ABSTRACT

The purpose of this research was to analyze deterrent factors in horticultural greenhouse units development in Sistan and Baluchestan Province (N=718). A survey method of research has been employed. The statistical population was the greenhouse's Sistan and Baluchestan province. Based on Cochran's formula, 188 greenhouse units were selected as sample. The instrument of research was a questionnaire, developed as based on background of the subject. Cronbach's alpha coefficient was a calculated equal to 0.87 indicating the reliability appropriateness of the questionnaire. Also, content and face validity of the questionnaire was confirmed based on expert's opinion. Analysis of data has been done with the use of SPSS software. Findings of the research indicated that finance and legal factors were the most important deterrent factors in development of horticulture greenhouse units could explain 55.55% of the variation in dependent variable.

Keywords: deterrent factors, horticultural greenhouse units, horticultural greenhouse units development.

Analyzing food demand in Iran: Application of demand system models

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ABSTRACT

In this study the consumption behavior of Iranian urban households is analyzed for the eight main food commodities groups including cereal and its products, meat, milk and its products and eggs, fruits and vegetables, edible oils and butter, beverages, grains and nuts over 1974-2007. In this context, the flexible demand models such as Quadratic Expenditure, Rotterdam, Almost Ideal Demand System, Quadratic Almost Ideal Demand System, Inverse Almost Ideal Demand System (IADS) and CBS were estimated by seemingly unrelated regressions. Based on comparing the statistical tests and econometric criteria, the IADS was selected as the best model. Results showed that among the food items, dairy and meat have the least and highest quantity elasticity, respectively. The scale elasticities of meat and nuts were lower than those of other groups, which suggest that these goods are being luxurious. The results imply that there is a substitute relationship between meat and cereal, and also milk and other beverages. Furthermore, cereal has a complementary relationship with nut and oil.

Keywords: demand systems, inverse almost ideal demand system, main food commodities groups, quantity elasticity.

Factors influencing people participation in rural reclamations plans

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ABSTRACT

The purpose of this study was to determine factors influencing people participation in rural reclamations plans. The research method was descriptive-correlation and data collected using questionnaire. Statistical population of the research comprised 3400 villagers at Hoveize County. 246 members was randomly selected using Cochran formula and applying random sampling method. Validity of the instrument determined by opinions of some local experts of Hoveize County and professors at faculty of agricultural economics and development, University of Tehran, and reliability determined by Cronbach's alpha. Cronbach's alpha for the variable participation in rural reclamations plans was 0.94, showed excellent reliability. Data was analyzed using SPSS version 11.5. The findings showed that there was a significant and positive correlation between participation in reclamations plans and variables including educational level use of mass media, social participation, social solidarity, and satisfaction of past reclamations plans. In contrast, age and participation in reclamations plans were correlated negatively and positively. The finding of path analysis revealed that social participation has the most effect on Villagers' participation in reclamations plans.

Keywords: education, rural reclamations, social participation, social solidarity, villagers.

Analysis of the promoting factors of the development in participatory irrigation management (Case study: Miandarband rural district)

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ABSTRACT

The main purpose of this study was analyzing the promoting factors of the development in participatory irrigation management in the irrigation network of Miandarband villages located in Kermanshah County. The research population consisted of all beneficiaries of this area (N=417). By using the Cochran's formula, 126 people were chosen through a random stratified sampling method with appropriate attribution. The main instrument was questionnaire which validity was obtained by Regional Water organization expert of Kermanshah County and panel of faculty members of extension and rural development in Razi University. To measure reliability of questionnaire Cronbach's Alpha formula calculated ($\alpha=0.79$). Data was analyzed by SPSS₁₆ software. The results of the exploratory factor analysis classified the promoting factors of development of participatory management irrigation in seven factors of economic, educational-extension, supportive, technical, cultural, social and managerial. The results of this study gains many achievements for the institutions involved in irrigation management transfer to beneficiaries.

Keywords: irrigation networks, Kermanshah County, management, participation, promoting factors.

Identify the most distinguishing factors of wheat farmers' attitudes and behaviors regarding food security in Northern Province

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ABSTRACT

The purpose of this study is identify the most distinguishing factors of farmers' attitudes and behaviors regarding food security. The research method was survey and correlational research. The population was 25435 farmers of Shush, Shooshtar and Dezful district. 379 farmers were selected based on the table of Takman and Morgan. Finally, 237 questionnaires were collected. Data collection was a researcher-made questionnaire. Its validity based Expert Panel and reliability by carrying out a pilot study carried out in the study sample were confirmed. Cronbach's alpha coefficient for variables of knowledge, attitude and behavior of farmers related to food security was achieved respectively: 0.84, 0.92 and 0.92. After completion of the questionnaire, the coding of questionnaire was performed and description and analysis of data using statistical software SPSS₁₆ was done. The results showed that attitude of wheat farmers about the food security was positive and behavior was responsibly. Results of stepwise discriminate analysis showed that the amount of knowledge of wheat farmers about food security is the most effective variable in separating of attitude groups and variables of attitude and knowledge about food safety. The agricultural job experience is the most effective variables in separating of behavioral groups.

Keywords: attitude, behavior, food security, Khuzestan, wheat.