Applying Disciminant Analysis and D.Abased Artificial Neural Network to investigate discriminators of high and middle Waste Bakers and forecasting their categories (case of Mashhad)

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Abstract

This study contributes to reduce bread waste in the production process by determining effective factors that distinguish high bread wast bakers from low bread waste bakers using 250 bakeries over Mashhad in the year 2010. The discriminant analysis was used to predict the study bakers into one class of high or low waste groups. Results indicate that among discriminators, bakery status, bread waste price, dough fermentation time, daily consumption of flour, quality of produced bread, percentage of wet gluten, moisture percentage, quality of flour and maintenance costs have the highest share in distingushing between high and low bread waste bakers. Predicting bakers based on their bread waste was considered as a suitable instrument in order to identify effective actions for reducing bread waste. In this study, classification accuracy of discriminant analysis (DA) and DA-based artificial neural network indicates high accuracy of class prediction at training and testing data with DA-based artificial neural network model. Ultimately, based on the results, a number of applicable and executive recommendations to decrese bread waste in the production process were presented.

JEL Classification: C31, D22,C53.

Keywords: Discriminant Analysis, Artificial Neural Network, Bread Waste, Bakery, Mashhad.

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Financial Analysis of the Cultivation of GreenhoUse Products in Tehran Province

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Abstract

Production of greenhouse products shows increasing growth in recent years in Iran because of restriction in water resources. Tehran province occupied third place among all provinces of the country from the viewpoint of production and cultivated area of greenhouse products. Therefore, this study aims to investigate cost- benefit of greenhouse cucumber, tomato and green chili production and determination of economic optimum size of mentioned greenhouses in Tehran province. For this purpose, Cost- Benefit analysis applied. The necessary data for this study collected through completion of questionnaire from 70 greenhouse cucumber, tomato and green chili producers in Tehran province, which were selected by stratified cluster sampling method. The results showed that production of greenhouse products in Tehran province are without economic justification in greenhouse size less than 2500 square meter. Meanwhile, economic optimum size for greenhouses of these products is 8000-10000 square meter in Tehran.

JEL Classification*:* Q12, D24
Keywords*:* Cost– Benefit analysis, Greenhouse products, Economic size

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Determination of Optimal Replacement Time for Combines Harvester John Deere 955 under Uncertainty Condition, by Using Stochastic Dynamic Progmming

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Abstract

Efficiency and performance of agricultural machinery, including combine is quantity and quality of work per hour or per hectare of harvest. The combine grows older there is a tendency for economic efficiency and performance to decrease. So, there is no economical performance to use that anymore and it must be replaced with a new combine. The decision to replace an item of farm machinery can be made because of cost minimization, reliability, new technology, need for capacity, obsolescence, wear and tear. Therefore the optimal replacement time for combine in order to increase its performance is one of the most important objects of combine management. The decision to replace an item of farm machinery can be made because of cost minimization, reliability, new technology, need for capacity, obsolescence, wear and tear; and has a vital role in machinery management. In other words, most capital goods have an optimal lifespan and replacing machinery at a less or more than optimal age could significantly affect profitability. According to this study aims to investigate the optimal replacement time for combine harvester in Fars province. To this end, introduces stochastic elements into the models to show if uncertainty about future costs affects the replacement decision. Thus, a decision tree was drowning for each three year of life and it was then analyzed using stochastic dynamic programming. By a stratified random sampling method, 160 John Deere 955 combine which is dominant combine in Fars province were chosen for interview to collect the technical and economic data and other needed information. The results indicated that, the most appropriate time of replacement under uncertainty condition about future cost for the combine was 17^{th} year of its life.

JEL Classification: C6, C61, G11
Keywords: Combine John Deere 955, Replacement time, Uncertainty, Dynamic programming

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Economic evaluation of Rural Women Small Enterprise,s (RWSEs)

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Abstract

From the perspective of economics, Small Enterprise,s (SEs) is tool for economic and social development and can be effective in reducing unemployment and creating new employment opportunities. in Iran SEs has fewer than 10 workers. Many SEs are run by women and women are the first group who have welcomed of SEs. currently rural women are engaged in hundreds of SEs in iran and Formal and informal organizations supported them. In recent years, there is always a question, " Do SEs have an economic justification or not? In fact, this research has been done to answer this question.In this present study has evaluated a number of Rural Women Small Enterprise,s (RWSEs) in various service, agriculture and industry sectors, in Iran (hamedan province) in 2011.For evaluation the economic impact of SEs, use the Net Present Value (NPV) and Cost-Benefit Analysis(CBA). Based on research results economic performance RWSEs are in the optimal and positive point and NPV and CBA are favorable. This is the present value of the businesses surveyed is greater than zero (NPV>0) and The cost benefit ratio greater than one (B/C> 1). However, research results showed that different than the B/C in various SEs And has some SEs to about 4/00. This means that the economic results are different for Various SEs. SEs that are new or no it has been done and SEs with higher educated manager have higher B/C. The article suggested that, given limited resources, the training of rural women, it tends to be encouraged and the new jobs and SEs with high economic value.

JEL Classification: P25, L25, L26

Keywords: Small Enterprise,s (SEs), rural women, employment, cost-benefit analysis (CBA), net present value (NPV)

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Impact of trade liberalization on Green GDP

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Abstract

One of the most influential of the national economic indicators is gross domestic product, But since this measure does not consider the costs of eliminating pollution and the negative effects of environmental, has been criticized. In the other word, GDP is not an appropriate criteria for measuring economic welfare, so green GDP has been introduced for measuring of economic welfare. Major objective of green GDP is the accounting systems that are provided an exact and correct criteria of economic welfare. In this paper, to assess the impact of trade liberalization on green GDP, we used the Autoregressive Distributed Lag approach and time series data over the period 1357-1388. The results of estimating model show that increased trade liberalization leads to an increase in green GDP, So that elasticity of green GDP to the trade liberalization in the long term and short term respectively is 0.082 and 0.044.

JEL Classification: Q51, B22
Keywords: GDP, green GDP, Trade liberalization.

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Evaluation Government on Agricultural Production & Productivity (Case study: Member Countries of the Asian Productivity Organization)

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Abstract

Note that the overall agricultural economy in some developing countries are affected by government policies, not the free market, studding role and government indicators on agricultural production and productivity is important. Hence In this study, the role of government on production and productivity of agricultural inputs has been studied by using the World Bank indicators for APO contries in 2002-2010. So production and structural equation methods was used to test the hypothesis. The results of the two methods confirms the hypothesis. Results showed that a country with better government policies can be more agricultural production and labor creates more production in a country with better government policies. Appropriate government policies can also improve indirectly excitation agricultural productivity by investing in agriculture. So suggested that focus on improving performance and the control of corruption government index.

JEL Classification: D24, H11, L78
Keywords*:* productivity, government, agriculture, APO countries

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