

Research paper

## Evaluation of the Efficient Management of Greenhouses for Healthy Items in the Province of Alborz

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### ABSTRACT

This study aimed to examine greenhouse productivity throughout generating greenhouse's safe goods in the province of Alborz. A basic randomized sample consisted of 150 greenhouse makers in Nazarabad, Hashtgerd and Chaharbagh districts of the Alborz Province is introduced and the demographic population of this experiment was incorporated. This analysis instruments were questionnaires verified by the University of Mohaghegh Ardebili and the University of Tehran, the faculty of water and agricultural management. Cronbach alpha 0.84 verified the specificity of the checklist. Based on the findings of the analysis, all leadership qualities of greenhouse stakeholders have a productive and important association with the development of safe greenhouse products in the province of Alborz, including interpersonal proficiencies, technological proficiencies, preparation proficiencies, arrangement proficiencies, success proficiencies, and control proficiencies. The findings of the regression analysis prove the 0.090 coefficient contact ability (beta) to generate safe greenhouse commodities in Alborz province to be substantially favorable.

### Introduction

Numerous ecological and health issues have emerged globally, following the Green Movement and growing the concept of increasing yields per unit region through facilitating usage of pesticide and chemical fertilizer in farming. So the health and quality of organic food and goods are among the biggest problems in the world. There are therefore significant elements towards durable agriculture and the healthcare community by producing healthier goods, particularly in green housing, which is regulated by synthetic chemicals and unique culture techniques in the community food basket (Chakeri, Eslami et al. 2018, Hagab, Kotp et al. 2018,

Naliukhin, Glinushkin et al. 2018). Throughout the processing of such goods, alternate mechanisms of management, including the agricultural and biological monitoring and the application of organic fertilizers, like vermicompost, will typically ensure ecological protection and constitute, in effect, a progressive shift towards stable farming. Nevertheless, the farmers' lack of comprehension and understanding is a critical constraint during the application of product farming guidelines (Banzon, Mojica et al. 2013). Without an awareness of modern approaches and logical leadership in related to financial operations, greenhouse administrators cannot perform the position of producer (Lashgary, Abdpour et al.

2019). In order to boost the resource effectiveness of the industry, the degree of expertise and capabilities of executives in service companies and agricultural producers must continuously be increased. Due to inadequate administration, mostly given the lack of professional knowledge by greenhouse stakeholders for optimum utilization of agricultural inputs, cultivation tends to be more dysfunctional (Lashgary, Abdpour et al. 2019). The utilization of chemicals in the farming industry has therefore grown massively, showing that in the last decade, the usage of nitrogen fertilizer in Iran has enhanced from 2,400,000 tons in 1999 to 3,300,000 tons in 2008 (MoteshareZadeh, Savaghebi et al. 2009, Ranjbarshamsi, Omid Najafabadi et al. 2016) and more than 27,000 tons of organic pesticides are ingested yearly in the farming industry. In this respect it is critical to pay particular attention to the quality of goods to maintain a sustainable lifestyle and a flexible existence (Soltani, Azadi et al. 2014). Appropriate education and understanding of the hazards of pesticide and fertilizer by manufacturers and customers will also dramatically alleviate chemical usage in the development and application of safe goods (MoteshareZadeh, Savaghebi et al. 2009). The 2001 Safe Food Initiative was introduced (Bakhtiyari, Yazdanpanah et al. 2017). The safe food requirement is a collection of values, laws, guidelines and technological policies to reduce environmental, bacterial and physical emissions throughout farm manufacturing (Hekmat 2012). Integrated Pest Management (IPM), Good Agricultural Practices (GAP), Critical Control Point Risk Analysis (HACCP), and Good Handling Practices (GHP) involve the four standards and management plans. Some investigators like Shaw et al. (2015) offered GAP instruction and seminars and identified the most successful form of encouraging instruction for small-scale farmers in Iowa, a positive part of improving the believes and awareness of community farmers across the US. Bakhtiyari et al. (2017) indicated that technical expertise on durable farming is not just intragenerational but also a one-dimensional principle based on the environment and its facilities with intergenerational fairness. It's presumably because either durable farmers are misunderstood or domestic environmental organizations are unilaterally defined by themselves may or may not rely on the government. For 171 olive farmers in Roodbar, Iran, Alhariy et al. (2016) defined and completed the questionnaire for the acceptability and control of pestilence about flies in the olive fruit market (Allahyari, Saburi et al. 2011, Allahyari, Damalas et al. 2016). The findings indicate that annual varying producers' incomes, crop location, farming competence, technological activity,

technological awareness and standard olive fruit yield are some of the aspects that influence the approval of olive flies' unified operations of pest control. The accomplishment and repercussions of the Global GAP involve growing revenue and food protection as well as the usage of natural and renewable resources and enhancing the safety of speech, and the function of independent variables, the importance of local variables, motivation to use them, availability of deployment merits, foundation services, bower status, mart access, fiscal stock, natural wealth, and physical fund in the relative destitution of nurseryman in a pattern throughout analyzing the results and influence of using the Global GAP on the comparative hardship conditions of smallholders in Central and Eastern Kenya were evaluated by Lashgary (2019). Hekmat (2012) has researched cultivation leadership qualities for higher education graduates employed in the farming industry (Case study: Shooshtar and Shoaibiyah). A correlation analysis indicated farming knowledge and age parameters, involvement in extension courses, usage of communication networks, community involvement, degree of industrialization and kind of utilization at a 95 per cent level, and parameters among agriculture regulation competences of graduates and age factors. Professional know-how has a positive and meaningful partnership at 99%. The agricultural leadership qualities of poultry farmers in Iran were studied by Allahiari et al. (2011). The findings of the Friedman evaluation revealed that producers had the greatest technological expertise. Test findings also suggest that farm leadership qualities and advertising will improve through engaging producers in promotional courses. Hagab et al. (2018) found that organic agriculture in major and wide producers is more likely than that in the case examining Nepal's tea farms and factor analyzes indicated that ecological consciousness, vibrant promotion, obvious economic advantages and recognition of the values of organic and biological goods are among the variables affecting producers' dedications. Ranjbarshamsi et al. (2016) demonstrated that era, the research area and the greenhouse expertise may provide an impact on the extent of favorable regulation, in their evaluation called, "Researching the importance of local and physical parameters on the sustainability of foreshore greenhouses of Khuzestan Province". The statistical association among greenhouse managers' awareness and their actions towards durable farming with optimum leadership was also positively significant at 99%. There's optimistic and substantive associations with 99% confidence between agricultural duration, social properties and consumption experiences. Six concealed

parametr were described by Hekmat (2012) as obstacles to the adoption of the Global Gap in the Iranian farming industry, with systemic organizational obstacles, mindset, and lack of knowledge of suppliers and users in view of the existence of the structural differences of the different elements.

**Methods**

This study is intended to perform comparative research in applied research with information gathered in the province of Alborz for 2016-2017. The survey's statistical population is a single random sample comprising of 150 greenhouse farmers in Nazarabad, Chaharbagh and Hashtgerd, the three major centers for greenhouse commodity manufacturing in the Alborz province.

**Findings**

Table 1 reveals, for study areas pertaining to the Chaharbagh district, the maximum average age of greenhouse stakeholders is 48 years, and Nazarabad region is 42 years. This is regardless of the note that the greenhouse in the Chaharbagh area has the most greenhouse expertise relative to the other two, and that the producers in the Nazarabad area have fewer greenhouse knowledge, and that the period of possession of the greenhouse in the Chaharbagh sector is the maximum rate in the Nazarabad region. In the Hashtgerd zone the overall greenhouse gas training has been higher than in the other two districts and the annual training in greenhouses above 15 years shows that it is a college experience.

Table 1. Mean age and social variables of greenhouse in different research areas

year	Hashtgerd region	Charbagh region	Nazarabad region	Total
Age	43	47	42	43
Experience in greenhouse	10	12	9	10
Period of ownership of the greenhouse	10	13	9	10
Education levels	16	14	15	15

Table 2. Multiple regressions of management variables in research areas

Region	R	R2	F
Nazarabad	0.91	0.83	39
Charbagh	0.93	0.87	27
Hashtgerd	0.84	0.71	24
Total	0.88	0.78	84

The Chaharbagh region has strong and important ties with the development of healthier goods, with technological expertise, preparation and regulation proficiencies of 99 %. In addition, 95 percent degree of efficiency and leadership competencies have a significant correlation with the creation and organization of balanced greenhouse goods. In the field of development of safe vegetables, there is no substantive connection between organizational competencies. In Hashtgerd, greenhouse leadership and interpersonal competencies at 95% level get a substantial and positive association with the development of nutritious goods, and other leadership qualities have a positive and significant connection with 99% confidence. In general, the strong and meaningful correlation between all management competencies and the development of a safe item is 99%. There is no major impact on the development of a healthier commodity from other professional knowledge in this sector. Throughout the Chaharbagh region, emotional intelligence with a factor (Beta) of 0.273,

technological competencies with a factor (Beta) of 0.349, and regulation competencies with a factor (Beta) of 0.387 with a likelihood of failure of 1% had a strong and important impact on the development of safe greenhouse goods. The 0.025 factor of success with 95 percent confidence has a favorable and important influence on the development of safe greenhouse goods in this area. Abilities and management skills in this sector do not have any essential impact on the development of safe greenhouse goods. The development of safe greenhouse items is not influenced by other leadership qualities in this field.

**Conclusion and Discussion**

Development of safe greenhouse goods is optimistic and beneficial in comparison to greenhouse owners' leadership qualities. Technical knowledge, strategic thinking, efficiency management abilities were important in creating greenhouse goods by 65.8%, 12.8%, 26.2% and 9%, respectively. Greenhouse's scientific know-how

foresees the gap between various greenhouse products of the province of Alborz. Findings like as Shaw et al., (2015), Hekmet (2012) and Alhiyari et al., (2011) are compatible with our findings (Allahyari, Saburi et al. 2011, Hekmat 2012, Shaw, Strohbahn et al. 2015). According to the conclusions, the technological capacities of greenhouse operators in the province of Alborz are growing and the development of good green households can be improved by growing the contact abilities of greenhouse stakeholders to the Ministry and supplying instructional content and booklets for the agriculture in the province by ministry enhanced the operational abilities of greenhouse bowers. In view of the position of the virtual environment in people's beings, the numbers of greenhouse administrators is growing in the province of Alborz via virtual networks in the Telegram app and IT. Furthermore, greenhouses may be created by establishing a college for growing safe greenhouse in the Hashtgerd district with the expertise of preparing and managing greenhouse pests, improving greenhouse requirements by growing the planting and infection management efficiency and increase their implantation expertise.

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