

A Social Study of the Factors Affecting the Cultivation of Artichoke (One Village One Product Model, Sidi Ghazi Village, Beheira Governorate)

Amr Saad Ahmed, Ibrahim Ibrahim Rihan, Samir Sayed Al-Shazly, Heba Nour Eldin Mohamad

Department of Rural Sociology and Agricultural Extension, Faculty of Agriculture, Ain Shams University.

ABSTRACT

This research aimed to determine the motivating values for artichoke crop cultivation, Identify the reasons for the concentration of artichoke crop cultivation in the study area, Determine the socio-economic status of artichoke farmers, determine factors affecting the reasons for the concentration of artichoke cultivation, and Determine factors affecting the socioeconomic status of artichoke farmers. The village of Sidi Ghazi was chosen from among the villages of the Beheira Governorate to conduct the study, and a stratified random sample of (226) farmers was chosen, representing 41.3% of the total artichoke farmers in the study community (Sidi Ghazi Credit Association). Data were collected using a questionnaire, and arithmetic means, standard deviations, correlation coefficient, Cronbach's alpha, and multiple stepwise regression analysis were used to analyze the data. The results showed that the level of the motivating values scale for the cultivation of artichokes for farmers in the study area was high, the level of the scale of the reasons for the concentration of artichoke cultivation in the village was high, the results also showed that more than half of the study sample (59.7%) fell into the middle-high category of the socio-economic level indicator. The results showed that two independent variables (the motivating values of artichoke cultivation, and the respondent's experience of artichoke cultivation) contributed by 35.9% in explaining the total variation in the reasons for the concentration of artichoke cultivation and industry, The results showed that there were three independent variables (monthly income, education of the respondent, Agricultural possession size) that contributed by 66.1% in explaining the total variance in the socio-economic level of artichoke farmers.

Key words: Specialized productive villages "one village one product", motivating values for artichoke cultivation, reasons for the concentration of artichoke cultivation and industry, the socio-economic level, Buhaira Governorate.

INTRODUCTION

Specialized villages are considered one of the most important tools and elements of comprehensive and sustainable regional development in most countries of the world, such as Japan, China, Thailand, and Indonesia. According to (Li et al, 2009) a specialized village refers to a village in which most rural households are engaged in a single production/service-related activity or many production/service activities that are closely related to each other in the production chain. Of course, not everyone in a village will engage in a single activity or production chain, but if this is the predominant activity in the village, that village can be considered specialized in that activity.

Globally in 1979, the Japanese philosophy of rural development emerged under the name One Village One Product. The idea behind this philosophy was that every city/county must have at least one competitive product distinct to bring to market; That is, communities produce highly selective (high-quality value added) competitive and marketable goods based on local resources, thus providing income and multiplying the income of the local population, improving the standard of living of the local population. Japanese philosophy has spread to many countries of the world, including China, Thailand, and Malaysia, under different

names, for example, China called the concept of one village one product, the specialized village after it was adopted from the Japanese philosophy (Kurokao, 2010).

At the local level, specialized villages in Egypt, rooted in the nature of social construction, have played an increasingly important role in improving the livelihood of rural residents over time, by providing job opportunities for farmers' families, and achieving food security. In the past years, Egypt has sought to achieve comprehensive, realistic, and sustainable development by adopting the 2030 sustainable development strategy, including the attempt to practically implement the idea of integrated agricultural societies (Egypt 2030 strategy). The Egyptian Government recognized that the "village" is the key to achieving sustainable, inclusive development, supporting investment objectives, and competing in Arab and global markets. The Egyptian Government has moved through stimulus programs and initiatives to support these villages, including the "One Village One Product Program" (Social Fund for Development, 2015).

In Egypt, there are 4740 villages, followed by 30,888 farms and villages, representing 57% of the population of Egypt. Many Egyptian villages, with their industries and crafts, managed to gain great fame at the local and foreign levels; Which

contributed to improving the income of the families of these villages and providing job opportunities for young people, and then their exit from the global list of least developed villages. Examples of villages dedicated to a single productive activity in Egypt include those specialized in fishing and boat making "Rasheed El-Beheira", artichoke villages "Sidi Ghazi El-Beheira", and villages famous for cultivating jasmine and exporting half of the world's production "Shubra Balula al-Gharbiya", and the villages of al-Talla "Shandawil Sohag", the villages of flax "the Western Shabrimless", the villages of ceramics and pottery "Tunisia all-Fayoum", etc. (State Information Service, 2018).

Although Specialized productive villages are rooted in the nature of Egyptian social construction and their role in improving the income of their families, studies of specialized productive villages are few. At the global level and during the early stage of the development of the concept of one single-product village in Japan, most studies were written in Japanese (Kurokao, 2010). Then, after widespread international acceptance of the concept, the number of studies on the concept of one village increased to one product in English (Kurokao, 2010). Despite this, there are still only a handful of studies on specialized productive villages internationally.

Research problem:

The agricultural sector in Egypt occupies a pivotal place in the national economy, through its contribution to economic development, increasing the rate of self-sufficiency of the most important food commodities and providing job opportunities, and its contribution to the domestic product, in addition to being an important source of foreign exchange, through the agricultural products that are exported Either in its raw form or after some production processes were introduced to it (Saleh et al. 2004).

Given the importance of the agricultural sector in Egypt, and the state's interest in rural development and the development of appropriate plans and visions, in addition to the lack of studies that dealt with specialized productive villages rooted in the nature of social construction, Not to mention the studies that dealt with the specialized productive villages from a social point of view, so this study tries to raise awareness and attention to a model of the specialized productive villages for the cultivation of the artichoke crop, and the reasons and values that helped its emergence, And its impact on the socio-economic status of families, **the research problem is answering the following questions:**

1. What are the motivating values of artichoke crop cultivation?

2. What are the reasons for the concentration of artichoke crop cultivation and industry in the study area?
3. What is the socio-economic status of the artichoke farmers in the study area?
4. What are the factors affecting the reasons for the concentration of artichoke cultivation and industry?
5. What are the factors affecting the socioeconomic status of artichoke farmers?

Study Objectives:

1. Determining the motivating values of artichoke crop cultivation.
2. Identify the reasons for the concentration of artichoke crop cultivation and industry in the study area.
3. Determining the socio-economic status of the artichoke farmers in the study area.
4. Determining the factors affecting the reasons for the concentration of artichoke cultivation and industry.
5. Determining the factors affecting the socioeconomic status of artichoke farmers.

Theoretical framework and reference review:

○ Analysis of the concepts of specialized productive villages and the factors influencing them:

Indicated Jiajun & Jiawei (2013) that scientists provided different interpretations of the concept of specialized villages from different perspectives. In the 1980s, Sun Hongzhi and others took the number of farmers engaged in specialized production and farmers' income as a criterion, believing that specialized villages relied mainly on one industry and the other supplemented, and also believed that villages with more than 30% of specialized families were called specialized villages, "whose specialized income constitutes more than 50% of specialized income called specialized families.

According to (Jiajun, 2013) Huang Yinghui, Shia Yajun and others believed that the traditional meaning of "one village one product" refers to the village within the scope of a certain area according to the requirements of the domestic and international market, to make full use of the advantages of local resources, traditional advantages and location advantages, through development Active for distinctive, high-value and influential competitive products, promotion, marketing, and branding, so that one or several villages have significant market potential and areas. One village one product is a model of agricultural and rural socio-economic development with obvious characteristics and high added value of leading products or industries, and greatly enhances the overall development and overall competitiveness of the rural economy.

As pointed out (Jiajun & Jiawei, 2013) Chen Jiansheng believed that specialized villages are the focal points and linkages of interrelated industries or occupations formed in the social division of labor as a result of specialization. Specialized villages refer to a particular product or industry with a certain reputation that gradually formed within a village or in several neighboring villages, with most of the villagers engaged in the same or similar economic activities.

Li Xiaojian & et al (2009) explained that a specialized village 1) refers to the commodity production of one or more interrelated production activities or services by most farmers in a rural area, and the production value constitutes the main part of the social production value of the village, and 2) the specialized village means Most of the rural households in a particular rural area work in one or more interrelated production or service activities that are related to each other, so that the economic total of the activity constitutes the main source of the economic total of the village.

Li Xiaojian and et al (2009) analyzed the concept of a specialized village from three aspects: industry and product standards, income standards, and organizational form. Li Xiaojian drew three conclusions for the formation and development of the niche village: 1) The entrepreneurial spirit of farmers determines the existence of the niche village. It is the entrepreneurial households who, by innovating traditional agricultural activities, encourage the emergence of new economic activities, and thus these entrepreneurial families create specialized villages. 2) The location of the village, the natural resources, and the historical tradition define the type of specialized village. In the formation and development of specialized villages, the village environment is directly or indirectly affected by geographical factors, and entrepreneurship is the result of the long-term impact of geographical factors. 3) Regional policies, markets and other environments determine the number and scope of specialized villages.

Issa (2014) identified nine key success factors in the One Village One Product model, Japan: land, labour, finance and capital, technology, marketing opportunities, networks, local government, media, the natural environment, international changes, and local diplomacy. The government helps in marketing the products of one village one product by organizing exhibitions of the products periodically and promoting local production. Human resource development is the third basic principle of the One Village One Product movement.

Wang Xiao and et al (2011) pointed out the factors affecting the development of specialized villages, which can be divided into two categories: internal factors and external factors: 1) Internal factors include: finance, technology, personal

relationships, personal capabilities, workforce, land, and the rich local environment. 2) External factors include: transportation, government guidance, government policies, competent people, good leadership, and market information.

According to Li Xiaojian et al (2018), agricultural specialization is mainly affected by transportation costs (Chisholm & Winsberg, 1979-1939), market transaction costs (Omamo, 1998), material and technical resources (Economiki, 1998), price risks and market scale (Emran, 2008), and national agricultural policy (Carter, 2002). Others point out that rural families with an entrepreneurial spirit play a leading role in promoting the formation of specialized villages, especially in rural areas dominated by a small-scale peasant economy (Zheng & Cheng, 2006). The new businesses they create may spread Pioneering families to other residents through apparent influences and social networks. The same type of innovative families may lead to different types of specialized villages in different environments, based on differences in available resources, geographic location, and economic strength, indigenous traditions, customs, customs and culture (Li, 2009).

Indicated Jiajun & Jiawei (2013) also that scholars differed about the reasons for the emergence of specialized villages. Huang Xianjun believes that the key to the formation of specialized villages is people's ability to take the initiative, and traditional skills, market attractiveness, and natural resources are the main reasons for forming specialized villages. Gao Genhe & Shi Lei, etc., believe that the formation of specialized villages is a combination of various factors, including geographical environment, competent people, government behavior, and characteristics of farmers. On the basis of using local resources, specialized villages are gradually formed under the guidance and leadership of Competent people. Pointed Li Xiaojian (2009) out that the formation and development of specialized villages in underdeveloped areas are influenced by three levels of factors: individuals, village and outside the village. Entrepreneurial farmers are the core of the formation of specialized villages. The second factor is resources Natural, traditional customs, economic basis, geographical location Technology, market, government and macroeconomic environment also play an important role in the development of specialized villages as a driving force. Division of labor, economies of scale, traditional innovation and social relations networks are some of the main mechanisms that have always played a role in the formation of specialized villages.

Previous studies:

The study of Niu & et al (2021) entitled "Exploring the spatiotemporal dynamics of the development of specialized agricultural villages in

the underdeveloped region of China" The study aimed to look at the spatial pattern of specialized agricultural villages, and to know the geographical factors that affected the continuous development of specialized agricultural villages in the underdeveloped regions, Henan Province. The study found that the importance of terrain and location factors in specialized agricultural villages decreases, while market factors and economic factors increased during the period of developing specialized agricultural villages. Geographical factors play a fundamental role in the farming villages specializing in the undeveloped regions of China. The development of specialized farming villages is influenced by several factors, such as rural elites and rural self-development capabilities.

The Study of Zhi, C. & et al (2020) entitled "Spatial Pattern and Influencing Factors in Specialized Villages and Cities in China" Analysis of Spatial Pattern and Influencing Factors in Specialized Villages and Cities in China. Based on the data of 2222 "One Village One Product" villages and towns (hereinafter referred to as "specialized villages and towns") under the Ministry of Agriculture and Rural Affairs of China. The study concluded that the distribution of specialized villages and towns is more affected by factors at the regional level than factors at the village level, and the explanatory value of market and economic factors was between 0.30 and 0.19, respectively. The effect of the topographic factor was more pronounced than the other factors at the village level, with an explanatory value of 0.15. The main factor that affected the distribution of specialized villages and towns was the market in the northern plain and the hilly region; Topographical and resource factors dominated the agro-pastoral environmental zone and the plateau region. Market factors, economic basis, and location all had a combined effect in the regions of northwest and the Tibetan Plateau. There were no outstanding factors in the hilly region and the southern plateau.

The Study of Li, X & et al (2018) "Specialized Villages in Inner China: Spatial and Developmental" Issues Explore whether geographic environment and developmental conditions influence rates of village specialization based on data from Henan, the largest province's agriculture in China. Regression analysis indicates that: (1) increased availability of labor force leads to lower specialization rate, (2) abundance of land promotes better production, (3) village proximity to the county seat at city level will benefit specialized villages, (4) Having a nearby wholesale market will improve the specialization ratio of all villages, especially those specialized in aquaculture, poultry and processing industries.

The study of Wanchai Sun Prasit (2017) titled "One Tambon One Product Success Factor Management Model in the Beverage Category" aimed at 1) identifying and examining the One Tambon One Product success factors, 2) developing a management model for the One Tambon One Product success factors in a beverage category. The research sample consisted of 360 five-star entrepreneurs in 2016. The results of the research revealed that: Ten success factors for one Tambon one product were initially summarized in nine factors, but when collecting data from the sample used in the study, it was found that there is a factor Additional in one aspect is the network of cooperation. Therefore, the success factors, one Tambon one product consist of ten factors, which are the network of cooperation, financial and accounting, production, management, external support, production, Leadership, management, marketing, community strength.

The study of Segal (2017) entitled "Beyond the One Village One Product Concept through Design Thinking Approach" aimed to develop a new model for the One Village One Product concept through the Design Thinking Approach in Senegal. The specific objectives of the study were, to identify and evaluate critical success factors for existing One Village One Product projects in Senegal, to identify lessons learned in implementing the One Village One Product concept in different countries, to develop a new prototype of the One Village One Product model through a design thinking and entrepreneurial approach The occasion for Senegalese entrepreneurs at One Village One Product. The study was conducted on six One Village One Product entrepreneurs in Senegal prepared by "JICA" within the framework of the One Village One Product project implemented in Senegal and data was collected through a case study and a questionnaire. The most important findings were as follows: Small entrepreneurs are shaping their lives by creating value for unique local products. While these entrepreneurs face many obstacles related to marketing, product development and improvement, limited capital, lack of access to financing, capacity building training and limited access to large markets. The One Village One Product project in Senegal provided significant support to selected enterprises in the areas targeted by the project for these companies to establish strong, long-term businesses and self-reliance. One Village One Product in Senegal has worked to improve product quality, develop sales networks, and build capacity among beneficiaries in Senegal. In addition, the "Un Village Un Produit" project enabled One Village One Product entrepreneurs to develop sustainable business partnerships and share experiences among them, and the One Village One

Product program also contributed to empowering women entrepreneurs.

The study of Wu Nalin & et al (2014) entitled "The Relationship between Household Behavior and the Formation of a Specialized Villages: A Case Study of Shilaoba Plywood Processing Village, Zhecheng County, Henan Province, China" aimed to explore the relationship between farmers' behavior. The speed of formation of Specialized Villages, the industrial division of labor, and the economic benefits. The most important results were as follows: The way in which farmers obtain factors of production such as information, capital, and technology has a profound effect to participate in specialized enterprises, which in turn affects the speed of formation of specialized villages. The social interaction of the farmers has a profound effect on the type of industrial division of labor in which they participate, which in turn influences the industrial structure of the specialized villages. For example, families who were good at communicating with specialized associations, neighbors, and entrepreneurs tended to choose the marketing of poplar wood. Farmers obtain production funds and frequent contact with professional associations associated with productive activity have a profound impact on the economic benefits of specialized villages. Agro-industrial areas need government guidance and support, but it is also necessary to adapt measures to local conditions and to combine the behavioral characteristics of farmers. Different geographical environments, customs and traditions have an important impact on families in different rural areas, and thus shaped these different behaviors in understanding, social communication, and so on. The construction and promotion of specialized villages and specialized agricultural industry zones should be in accordance with local resources, location advantages and natural advantages, especially the behavioral characteristics of households should receive more attention.

The study of Wang Xiao & Li Erling (2011) entitled "Study of the development of specialized rural areas in Henan based on the research of 17 specialized villages in Henan" analysis of the general situation of the development of rural specialization in Henan Province in 3 levels 1) to know the effect of the development of rural specialization on increasing income, 2) and technological improvement, and 3) as well as the influence of factors on specialized development in rural areas. Based on the survey data of 643 households in 17 specialized villages of 10 species of Henan Province. The most important results were as follows: The development of specialized in Henan Province followed three aspects: regional specialization of production, household specialization of production, and specialization of the production process. Specialized development in

the agricultural region is an important channel for farmers to increase income in Henan Province household income in industrial villages higher. The technological role of specialized development of farmers in rural areas results from the introduction and dissemination of technology. The diffusion occurs in the period of rising S-curve, and the diffusion of agricultural specialization technology is relatively slow. Internal factors are the decisive factors in the development specialized, with good leadership and sufficient financing being the most important factor influencing a village to become specialized.

The study of Li, X. J & et al (2009) entitled "A Study on the Formation and Development of Specialized Rural Villages" aimed at analyzing the factors affecting the growth of specialized villages and the mechanism for the formation and development of specialized villages on the basis of a comprehensive review of the relevant regional development theories and then analyzing the development of villages. The study concluded that: the entrepreneurial farmer is the decisive factor in shaping the specialized villages, the geographical location, the natural resources, the traditional customs, the economic foundation of the village, government promotion, the market, technology, and the macroeconomic environment determines the direction of the specialized villages. Thus, imitation innovation, Networking, economy of scale, and the economy of industrial division serve as a mechanism for the formation and development of specialized villages, which operate through the processes of complete development specialized villages.

The study of Kader & et al (2009) entitled "Success factors for small rural entrepreneurs within the framework of the One District One Industry Program in Malaysia" aimed at identifying the determinants of small business success as seen by rural entrepreneurs, by surveying a sample of entrepreneurs Small Rural Entrepreneurs under the One District One Industry Program in Malaysia Using a structured questionnaire, 116 entrepreneurs were randomly sampled. The most important results of the study were the following: The internal and external factors are critical to the success of small businesses as seen by rural entrepreneurs. This study, therefore reinforced the arguments of other researchers in the literature that the internal and external factors that have been shown to be determinants of small business success also apply to rural small business. However, the results of the study showed that external factors are more dominant than internal factors in contributing to the business success of entrepreneurs in the One District One Industry program in rural areas. All of the externalities extracted through factor analysis narrow down to the important role of government in

promoting small business success. The government must continuously provide assistance and an enabling environment for small entrepreneurship in rural areas. This means that internal factors are necessary, but not sufficient for the success of One District One Industry "ODOI" entrepreneurs' businesses. Government should actively play a pivotal role in 1) skills training as most rural businesses are labour-intensive and involve skills and creativity; 2) enhancing business competencies through more rigorous training; 3) Investing in infrastructure and facilities for a favorable local business environment; 4) Effective market support services in terms of product promotion, market access and networking.

And by reviewing previous studies, it became clear that it focused on studying specialized villages from different aspects of it, including geographical, economic, and social ones. It was also found that these studies paid attention to the internal and external factors surrounding the specialized villages, and noted the importance of integration among these factors. It was also found from these studies that they did not deal with the impact of specialization on the socio-economic status of individuals or farmers in specialized villages, except within the limits of income. It also became clear that some of these studies relied on secondary data, while others relied on primary data collected through the questionnaire and it's a little. The most important thing that distinguishes the current study from previous studies is that it dealt with the values that motivate the establishment of specialization, the reasons for the concentration of specialization, and the impact of specialization on the socio-economic status, using a structured questionnaire to collect data.

- **Study hypotheses:**

To achieve the objective of the fourth and fifth study, the following theoretical and statistical (research) hypotheses were formulated:

The first general theoretical hypothesis:

there is a significant relationship between the causes of the concentration of the cultivation and industry of artichokes and the independent variables studied. Based on the theoretical hypothesis, 9 statistical hypotheses were formulated as follows:

Statistical hypotheses (1-9): There are no significant relationship between the reasons for the concentration of artichoke cultivation and industry and the following studied variables: age, educational status, Expertise in artichoke cultivation, the monthly income, the size of the agricultural holding, the size of the area cultivated with artichoke, the production of the area cultivated with artichoke, satisfaction with the return from Artichoke cultivation, stimulating values for artichoke cultivation.

The tenth statistical hypothesis: relates to the combined effect of independent variables on the reasons for the concentration of artichoke cultivation and industry.

The second general hypothesis:

There is a significant relationship between the socio-economic status of the respondent and the independent variables. Based on the theoretical hypothesis, 9 statistical hypotheses were formulated as follows:

Statistical hypotheses (11-19): There are no significant relationship between the respondent's socioeconomic status and each of the following studied variables: age, educational status, Expertise in artichoke cultivation, the monthly income, the size of the agricultural holding, the size of the area cultivated with artichoke, the production of the area cultivated with artichoke, satisfaction with the return from Artichoke cultivation, stimulating values for artichoke cultivation.

The twenty statistical hypothesis: relates to the combined effect of independent variables on the respondent's socioeconomic status.

METHODOLOGY

This study belongs to the descriptive exploratory studies, and the researcher relied on the mixed method in his study, as he relied on quantitative and qualitative methods for data collection and analysis. The descriptive exploratory approach was used in this research, because the descriptive exploratory approach aims to study the phenomenon as it exists in reality and is concerned with describing it as an accurate description and expressing it qualitatively and quantitatively.

- **Study community**

This research was carried out in the Beheira Governorate because it is one of the largest productive Egyptian governors specializing in the cultivation of artichoke crop, where the area planted with artichokes represents 75.34% of the total area of artichokes in the Republic (Directorate of Agriculture in Beheira Governorate, 2020). Kafr El-Dawwar district was chosen as one of the largest artichoke cultivation district in Beheira Governorate, where the area planted in artichoke represents about 54% of the total artichoke area in the governorate (Directorate of Agriculture in Beheira Governorate, 2020), In addition, Kafr El-Dawwar district is one of the important and reliable district in the field of artichoke export to Arab and European countries, as it has a large number of artichoke export stations. The largest village in the district was chosen, and it was the village of Sidi Ghazi, where the area planted with artichoke in the village represents 62% of the total area of artichoke in the district, and represents about 33.4% of the total area of artichoke in the governorate, and represents about 13.4% of the total area of artichoke

at the level of the Republic (Directorate of Agriculture in Beheira Governorate, 2020).

- Sample of the study

An inventory was made of the number of agricultural associations in the village of Sidi Ghazi, and the number of associations reached five credit associations, and seven reform associations. According to the relative importance of the area planted with artichoke in these associations during the period (2016-2020), the study sample was selected. Table (1) indicates that the area of the Sidi Ghazi Credit Association ranked first out of the total area of agricultural associations in the village during the period (2017-2020) with an average of about 1335,918 acres and represented about 22.79% of the average area of agricultural associations in the village for the studied period, which amounted to about 5862.673 acres. The same table also indicates that the area of the Maroun Credit Association ranked second in the total area of agricultural societies in the village during the period (2017-2020) with an average of about 994.4825 acres, representing about 16.96296% of the average area of agricultural societies for the studied period. The table also indicates that the area of the Charlo Association, the area of the Al-Atribi Association, and the area of the Al-Helbawi Association occupied the third, fourth and fifth position, respectively, with an average of about 921.6425, 866.45, 443.43 acres, respectively, with rates of about 15.72052, 14.7791%, and 7.563615% of the average area of the agricultural associations in the village in the village.

Based on the foregoing, the agrarian reform associations were excluded, due to the decrease in the area planted with artichokes during the period (2016-2020), Credit associations were selected, including the Sidi Ghazi Credit Association, which is the highest in relative importance and average area during the period (2017-2020). The number of holders of the Sidi Ghazi Association is about (547) holders, representing the comprehensive study. A stratified random sample was selected according to the Cochran equation (Jalal, 2019), representing 41.3% of the total artichoke growers in the study population, the sample size was 226 respondents.

Table 2 shows some characteristics of the study sample. The data in Table (2) showed that more than half of the study sample ranged in age from (39 to less than 57 years) representing approximately (60.2%) of the total sample of the study, followed by approximately (25.2%) aged between (20 to less than 39 years) followed by approximately (14.6%) whose ages ranged from (57 to 75 years).

With regard to the educational status, it was found that (50%) of the study sample were illiterate (He does not read or write), followed by those with an intermediate qualification (diploma or high

school) with a percentage of (32.3%), then those with a university degree with a percentage of (7.5%), followed by those who read and write without a certificate with a percentage of Approximately (4.4%), followed by those with a primary certificate with a percentage of (2.7%), followed by those with a Preparatory Certificate with a percentage of (1.8%), and finally, those with an above-average qualification (institute) represent (1.3%) of the total sample of the study.

With regard to the monthly income of the respondents, it was found that approximately (43.4%) of the total sample of the study had a monthly income (less than 6000 pounds), followed by their monthly income ranged between (6000: 18000 pounds) approximately (31.4%), then their monthly income ranged from Between (18000 - 30000 pounds) at a rate of (20.8%) approximately, and finally (4.4%) their monthly income (30000 thousand or more).

With regard to the farmers' experience in cultivating artichokes, it was found that (46%) the number of years of their experience in cultivating artichokes (less than 12 years), They are followed by those whose experience ranges between (13:22 years) with a percentage of approximately (40.7%), And finally, (13.3%) have experience (23 years or more).

With regard to the Agricultural possession size, it was found that about (47.8%) their Agricultural possession ranged between 10-55 carats, and that about (27.9%) their Agricultural possession was 101 carats or more, and finally (24.3%) their Agricultural possession ranged between 56-100 carats.

With regard to area cultivated in artichoke, it was found that (51.3%) planted (less than or equal to 24 carats) of artichoke, and that (31.4%) cultivated between (24-72 carats) of artichoke, followed by (11.1%) planted what ranged between (24-72 carats) of artichoke Between (72-120 carats) of artichoke, and finally (6.2%) of them grow (120 carats and more) of artichoke.

With regard to Production of artichoke-grown area, it was found that a percentage (47.8%) of the production of their area planted with artichoke ranges between (31000 - 111,000 inflorescence), followed by a percentage (35.4%) of the production of their area planted with artichoke (less than 30000 inflorescence), and that the percentage of (10.6%) The production of their area planted with artichoke ranges (112000 - 190000 inflorescence), and finally about (6.2%) the production of their area planted with artichoke (191,000 inflorescence and more).

Finally, with regard to satisfaction with the return from cultivating artichokes, it was found that 61.9% had a satisfied response (Reasonable gain), followed by 33.2% who had a Fully Satisfied

response (Good Earning), and finally 4.9% had a satisfied to some extent response (Cover costs).

Measuring research variables and collecting data Data collection tool:

Using the personal interview questionnaire as a tool for collecting data from all research items. The questionnaire form was prepared and built based on the Scout Study and the theoretical framework related to the subject of the study, and the data were collected in the period from July to August 2022.

Measurements:

A. Characteristics of respondents:

- 1. Education:** It was measured by the number of years of formal education successfully passed by the respondent, given the respondents who neither read nor write (0), who read and wrote (3), and who obtained a primary certificate (6), Preparatory certificate holder (9), Medium qualification (diploma or high school) (12), Above average qualification (14), He holds a university degree (16). The arithmetic mean of the educational level was (5.72) years, with a standard deviation of (6.2) years.
- 2. Age:** It was measured in years to the nearest whole number since the birth until the date of data collection, as a numerical indicator for measuring age. The arithmetic mean was (46.8) years with a standard deviation of (10.3) years.
- 3. The respondent's experience in cultivating artichokes:** This variable was measured using the number of years the respondent spent in cultivating the artichoke crop until the date of data collection, as a numerical indicator to measure experience, and based on the actual range, this variable was divided into three

categories: less than 12 years, (13: 22 years old), (23 years and over). The arithmetic mean was (14.55) years with a standard deviation of (7.99) years.

- 4. Monthly income of the respondent:** It was measured by asking the respondent about his monthly income in pounds from all sources (the sum of what the respondent earned from a primary or secondary occupation) as a numerical indicator to measure the monthly income, and based on the actual range, this variable was divided into four categories: less than 6000 pounds, (6000: 18000 pounds), (18000: 30000 pounds), (30,000 thousand pounds and more). The arithmetic mean was (11866.6) years with a standard deviation of (9512,177) years.
- 5. Agricultural possession size:** This variable was measured using the raw numbers in carats as a digital indicator to measure the size of the agricultural holding, and based on the actual range this variable was divided into three categories: 10-55 carats, 56 - 100 carats, 101 carats and more. The arithmetic mean was (89.85) carats, with a standard deviation of (82.75) carats.
- 6. The area cultivated in artichoke:** This variable was measured using raw numbers in carats as a digital indicator to measure the area planted with artichoke, and based on the actual range, this variable was divided into four categories: less than or equal to 24 carats, 24 - 72 carats, 72 - 120 carats, 120 carats or more. The arithmetic mean was (46.63) carats with a standard deviation of (46.65) carats.

Table 1: The relative importance of agricultural associations according to the area of artichoke during the period (2017-2020). (area/acre)

Associations	2017	2018	2019	2020	Average	Importance	
Credit associations	Sidi Ghazi	2092.19	1022.3	1194	1035.18	1335.92	22.79
	Atrapy	666	858.5	1059.12	882.18	866.45	14.78
	Maron	902.3	1011.2	1062.23	1002.2	994.48	16.96
	Charlo	1026.12	1007	794.22	859.23	921.64	15.72
	Halbawi	652	464.22	392.5	265	443.43	7.56
reform associations	Abbas Sayed Ahmed	150	200	250	230	207.50	3.54
	Babah	118	98	130	105	112.75	1.92
	Adah	100	95	195	240	157.50	2.69
	Barakat	200	250	200	195	211.25	3.60
	Martana	199	191	250	200	210.00	3.58
	Sidi Ghazi Reform	250	234	300	230	253.50	4.32
	Elshareka	163	120	150	160	148.25	2.53
the total	6518.61	5551.22	5977.07	5403.79	5862.673	100.00	

Source: The Agricultural Administration in Kafr El-Dawwar, and the General Authority for Agrarian Reform Damanshour, Beheira Governorate.

Table 2: Characteristics of respondents

Variables	Categories	Frequency	Percentages	Variables	Categories	Frequency	Percentages
Education	He does not read or write (illiterate)	113	50	Age	From 20 to less than 39 years	57	25.2
	He reads and writes without a certificate	10	4.4		From 39 to less than 57 years	136	60.2
	Primary Certificate (6 years)	6	2.7		From 57 to 75 years	33	14.6
	Preparatory Certificate (3 years)	4	1.8		the total	226	100
	intermediate qualification (diploma or high school)	73	32.3	area cultivated in artichoke	Less than or equal to 24 carats	116	51.3
	Above average qualification (two-year institute)	3	1.3		From 24 - 72 carats	71	31.4
	university degree	17	7.5		From 72 - 120 carats	25	11.1
the total	226	100	From 120 carats and more		14	6.2	
Monthly income	Less than 6000 pounds	98	43.4	the total	226	100	
	From 6000: 18000 pounds	71	31.4	Experience with artichoke cultivation	Less than 12 years old	104	46
	From 18000: 30000 pounds	47	20.8		From 13:22 years	92	40.7
	From 3000 thousand or more	10	4.4		From 23 years old or more	30	13.3
	the total	226	100		the total	226	100
Satisfaction with the return from artichoke cultivation	Cover costs (satisfied to some extent)	11	4.9	Production of artichoke-grown area (thousands)	Less than 30000 inflorescence	80	35.4
	Reasonable gain(satisfied)	140	61.9		From 31000 - 111000 inflorescence	108	47.8
	Good Earning (Fully Satisfied)	75	33.2		From 112000 - 190000 inflorescence	24	10.6
	the total	226	100		From 191000 inflorescence and more	14	6.2
Agricultural possession size	From 10 - 55 carats	108	47.8	the total	226	100	
	From 56 - 100 carats	55	24.3				
	From 101 carats and more	63	27.9				
	the total	226	100				

Source: study's findings.

7. **Production of the area planted with artichokes:** This variable was measured using the raw numbers of the number of inflorescences (in thousand inflorescence per acre) for the cultivated area as a numerical indicator to measure the production of the area planted with artichokes, and based on the actual range, this variable was divided into four categories: less than 30000 inflorescence, 31000 - 111000 inflorescence, 112000 - 190000 inflorescence, 191,000 inflorescence or more. The arithmetic mean was (69303.46) thousand inflorescence with a standard deviation of (66079.87) thousand inflorescence.

8. **Satisfaction with the return from artichokes:** This variable was measured by giving the respondent scores of 3, 2, 1, in the event of his response, he Good Earning (Fully Satisfied), Reasonable gain (satisfied), Cover costs (satisfied to some extent) respectively, and then ranged The degree of response to this variable ranges from 1 to 3 degrees.

B. The motivating values of artichoke cultivation:

This variable was measured by designing a scale for the motivating values of artichoke cultivation based on Scout Study. The total number of items of the scale was (10) phrases distributed on one dimension only, and all items were measured using a five-point Likert scale (strongly agree, agree, neutral, not agree, strongly disagree), and those responses were given numerical weights (5, 4, 3, 2, 1) Respectively.

C. Reasons for the concentration of artichoke cultivation in the village:

This variable was measured by designing a scale for the causes of concentration based on Scout Study. The total number of items of the scale was (7) phrases distributed over one dimension only, and all items were measured using a five-point Likert (strongly agree, agree, neutral, not agree, strongly disagree), and those responses were given numerical weights (5, 4, 3, 2, 1) Respectively.

D. Socioeconomic status of artichoke farmers:

The socio-economic level of the family is a summary of its living conditions and its social and economic status. It is an important determinant of health and nutritional status, as well as mortality and morbidity. The socio-economic level of the family also influences the accessibility, affordability, acceptability and actual use of the various facilities available.

There have been many attempts to develop different scales to measure the socio-economic level, the first attempts to discover the social class of an individual from the point of view of psychologists. (1981, Parekh).

What is meant by the socio-economic level in this study: It is a measure prepared by (O.P. Aggarwal, S.K. Bhasin, A.K. Sharma, P. Chhabra, K. Aggarwal, O.P. Rajoura, 2005) to measure the living conditions of the family and its social and economic status, and it shows the total degree obtained by the family through (22) items to measure the socioeconomic level of the respondents' family After making the appropriate modifications to it to suit local conditions, So that it has acceptable indications of reliability and validity, and it can be applied to any local community.

This scale is based on the social level of the family and not on the individual or the head of the family, as some other commonly used measures. The scale consists of 22 items, and the appropriate weight was given for each item and each item was based on a scale ranging from 3 to 9. Question No. 18 for example regarding the presence of non-pet cows or pets in the family was measured on a 3-point scale and Question 12, with regard to living in the home type, was measured on a 9-point scale, with a maximum overall score of 100. Based on the final result, the family's socioeconomic status is divided into six socioeconomic categories as follows: very high socioeconomic level (a score of more than 76), high (61-75), medium, high (46-60), medium low (31-45), weak (16-30) and Very weak (total score less than or equal to 15), and these six categories were used as a tool to assess the socio-economic level of the study (Aggarwal et al 2005).

Statistical methods used in analyzing the study data

- Statistical Analysis:

Frequencies, percentages, weighted arithmetic averages, standard deviations, relative weight, Pearson's simple correlation coefficient, Stepwise regression analysis, and relative weight use to data analysis and presentation.

- Validity and reliability of the study scale

A. The validity of the questionnaire:

The internal Validity of the questionnaire was verified by calculating the Pearson correlation coefficient between each question and the total score of the scale, using the SPSS statistical program, and Table No. 3, 4 shows the correlation coefficients between each question and the total score of the scale.

From the results of Table (3), we find that all Pearson's correlation coefficients between the questions of the Motivating Values Scale and the total score of the scale are statistically significant at a significant level (0.01), where the minimum correlation coefficients were (. 522), while the upper limit was (. 756). Therefore, all the questions about the scale are internally consistent with the total score of the scale to which they belong, which

proves Validity of the internal consistency of the questions on the scale.

From the results of Table (4), we find that all the Pearson correlation coefficients between the questions of the reasons for the concentration of artichoke cultivation scale and the total score of the scale are statistically significant at a significant level (0.01), where the minimum correlation coefficients were (. 686), while the upper limit was (. 793).). Therefore, all the questions about the scale are internally consistent with the total score of the scale to which they belong, which proves Validity of the internal consistency of the questions on the scale.

B. The reliability of the questionnaire:

To measure the reliability of the study tool, the researcher used Cronbach's alpha equation, and Table No. (5) shows the stability of the study variables measures.

It is clear from Table (5) that the general reliability coefficient of the scale of motivating values is high, reaching (0.80) for the total questions

about the scale. It is also clear from the same table that the general reliability coefficient of the scale of the reasons for the concentration of artichoke cultivation is high, reaching (0.87) for the total of the total questions of the scale, while it ranged The values of the alpha coefficient of the study variables are between (0.80) as a minimum and (0.87) as a maximum, and this indicates that the questionnaire has a high degree of reliability that can be relied upon in the field application of the study, according to the Nanley Scale, which was adopted (0.70) as a minimum reliability (Nunnally & Bernstein: 264-265).

Accordingly, and through the results of reliability and Validity, internal in the previous tables, it becomes clear to us the reliability of the study tool, and the validity of its internal consistency, which makes us apply it to each sample of the study. These results indicate that the scales used in the study are valid for use in scientific research.

Table 3: Correlation coefficients between each question and the total score of the scale artichoke motivating values

question number	Scale questions	Correlation coefficient	significance value
1	The artichoke is a distinct crop from the rest of the other crops	.756**	0.01
2	Artichoke has a profitable economic return	.704**	0.01
3	Hereditary cultivation/Inherited Cultivation	.623**	0.01
4	The land is suitable and valid for the cultivation of artichokes	.614**	0.01
5	Ease of marketing artichoke in the village	.613**	0.01
6	The large number of processing and manufacturing stations (called nawalat) in the village	.625**	0.01
7	My livestock feed on the leaves and residues of the artichoke	.562**	0.01
8	My children and my family work in the artichoke stations	.663**	0.01
9	I sell the remaining seeds on the need of the land	.522**	0.01
10	A source of income every 10 days in the winter	.629**	0.01

Source: study's findings.

Table 4: Correlation coefficients between each question and the total score of the scale Reasons for the concentration of artichoke cultivation and industry

question number	Scale questions	Correlation coefficient	significance value
1	Villagers' experience in artichoke farming	.686**	0.01
2	Easy marketing of village proximity to manufactured and exported factories	.782**	0.01
3	There are a large number of processing stations (called Nolat) that equip artichokes for factories within the village and nearby villages	.760**	0.01
4	The presence of manufacture within the village	.776**	0.01
5	The village and area climate is suitable for artichoke cultivation	.793**	0.01
6	The soil is suitable for planting artichokes	.709**	0.01
7	Availability of manpower in the village	.759**	0.01

Source: study's findings.

Table 5: Results of the Cronbach's alpha test to measure the reliability of the study instrument.

Study variables	number of questions	Cronbach's alpha coefficient
The motivating values of the cultivation of artichoke (total scale)	10	0.80
The reasons for concentration (total scale)	7	0.87

Source: study's findings.

RESULTS AND DISCUSSION

1. The motivating values of artichoke cultivation crop for farmers in the study area:

To achieve this goal, the weighted arithmetic averages, standard deviations, and the relative weight of the answers of the study sample were calculated for each of the phrases of the scale and on the overall scale. The five-point Likert scale was divided into three categories to comment on the results. These categories are (from 1 to less than 2.33) for low motivating values, (2.34 to less than 3.66) for medium motivating values, and (from 3.67 to 5) for high motivating values, Table (6) shows these results.

From Table (6) it is clear that the total average of the values stimulating artichoke cultivation for farmers in the study area in general was high according to the scale adopted in this study, as the arithmetic average reached (3.9 out of 5 degrees) and the percentage of approval degree reached (78%), and this reflects a high approval rate for the research community, And the standard deviation was (0.66), which reflects the convergence in the views of the study sample.

The results presented in Table (6) also show that the averages of the motivating values phrases ranged between (3.87 and 4.26) degrees. Where eight phrases achieved high motivating values and two achieved medium values, and these phrases are:

- The ease of marketing artichokes in the village came first with an arithmetic average of (4.26) degrees, and an approval rate (85.2%) with a high level of importance with a strongly agreeable opinion direction, and the standard deviation was (0.63), which reflects the convergence in the views of the study sample.
- The large number of processing and manufacturing stations (called nawalat) in the village came in second place with an arithmetic average of (4.25) and an approval rate of (85%) with a high level of importance with a strongly agreeable opinion, and the standard deviation was (0.8), which reflects the convergence in the views of the study sample.
- The land is suitable and valid for the cultivation of artichokes, It came in third place with an arithmetic average of (4.23), and an approval rate of (84.6%) with a high level of importance with a strongly agreeable opinion direction, and the standard deviation was (0.66), which

reflects the convergence in the views of the study sample.

- Hereditary cultivation/Inherited Cultivation ranked fourth with an arithmetic average of (4.17), and an approval rate of (83.4%) with a high level of importance with an agreeable opinion direction, and the standard deviation was (0.82), which reflects the convergence in the views of the study sample.
- The source of income every 10 days in the winter came in the fifth place with an arithmetic average of (4.12) degrees, and an approval rate (82.4%) with a high level of importance with an agreeable opinion direction, and the standard deviation was (0.73), which reflects the convergence in the views of the study sample.
- The artichoke is a distinct crop from the rest of the other crops, It ranked sixth with an arithmetic average of (3.9) degrees, and an approval rate of (78%) with a high level of importance with an agreeable opinion direction, and the standard deviation was (1), which reflects the convergence in the views of the study sample.
- Artichoke has a profitable economic return, it ranked seventh with an arithmetic average of (3.81) degrees, and an approval rate (76.2%) with a high level of importance with an agreeable opinion direction, and the standard deviation was (0.94), which reflects the convergence in the views of the study sample.
- My livestock feed on the leaves and residues of the artichoke, it ranked eighth with an arithmetic average of (3.79) degrees, and an approval rate of (75.8%) has a high level of importance with an agreeable opinion direction, and the standard deviation was (1.17), which reflects the disparity in the views of the study sample.
- I sell the remaining seeds on the need of the land, came in ranked ninth with an arithmetic average of (3.62) degrees, and an approval rate (72.4%) with a medium importance level with an agreeing opinion direction, and the standard deviation was (1.24).
- My children and my family work in the artichoke stations, which came in the tenth rank with an arithmetic average of (2.87) degrees, and an approval rate of (57.4%) with a medium importance level with a neutral opinion direction, and the standard deviation was (1.55).

Table 6: Scale of motivating values for artichoke cultivation

Question number	questions	Repetitions	Strongly Agree	agree	neutral	not agree	Strongly Disagree	The weighted average	standard deviation	relative weights	response direction	The level of importance	order of importance
1	The artichoke is a distinct crop from the rest of the other crops	frequency %	74 32.7	82 36.3	47 20.8	20 8.8	3 1.3	3.9	1.002	78	agree	high	6
2	Artichoke has a profitable economic return	frequency %	55 24.3	97 42.9	55 24.3	15 6.6	4 1.8	3.81	0.94	76.2	agree	high	7
3	Hereditary cultivation/Inherited Cultivation	frequency %	82 36.3	112 49.6	23 10.2	6 2.7	3 1.3	4.17	0.82	83.4	agree	high	4
4	The land is suitable and valid for the cultivation of artichokes	frequency %	78 34.5	123 54.4	23 10.2	2 0.9	0 0	4.23	0.66	84.6	Strongly Agree	high	3
5	Ease of marketing artichoke in the village	frequency %	80 35.4	125 55.3	20 8.8	1 0.4	0 0	4.26	0.63	85.2	Strongly Agree	high	1
6	The large number of processing and manufacturing stations (called nawalat) in the village	frequency %	94 41.6	104 46	21 9.3	4 1.8	3 1.3	4.25	0.8	85	Strongly Agree	high	2
7	My livestock feed on the leaves and residues of the artichoke	frequency %	72 31.9	84 37.2	35 15.5	21 9.3	14 6.2	3.79	1.17	75.8	agree	high	8
8	My children and my family work in the artichoke stations	frequency %	44 19.5	59 26.1	13 5.8	43 19	67 29.6	2.87	1.55	57.4	Neutral	Average	10
9	I sell the remaining seeds on the need of the land	frequency %	60 26.5	88 38.9	25 11.1	37 16.4	16 7.1	3.62	1.24	72.4	agree	Average	9
10	A source of income every 10 days in the winter	frequency %	70 31	116 51.3	37 16.4	2 0.9	1 0.4	4.12	0.733	82.4	agree	high	5
The weighted average of themotivating values of the cultivation of artichoke (total scale)								3.9	0.66	78	agree	high	-----

Source: study's findings.

2. Reasons for the concentration of artichoke crop cultivation and industry:

To achieve this goal, the weighted arithmetic averages, standard deviations, and the relative weight of the answers of the study sample were calculated for each of the phrases of the scale and on the overall scale. The five-point Likert scale was divided into three categories to comment on the results. These categories are (from 1 to less than 2.33) for reasons of lower concentration, (2.34 to less than 3.66) for reasons of medium concentration, and (from 3.67 to 5) for reasons of high concentration. Table 7 shows these results.

It is clear from Table 7 that the total average of the Reasons for the concentration of artichoke cultivation and industry in the village for farmers in the study area in general was high according to the scale adopted in this study, as the arithmetic average was (4.25 out of 5 degrees) and the percentage of the degree of approval reached (85%), and this reflects a high approval rate. The research community has a strongly agreeable opinion, and the standard deviation is (0.53), which reflects the convergence in the views of the study sample.

The results presented in Table 7 also show that the averages of the phrases of the Reasons for the concentration of artichoke cultivation and industry in the village ranged between (4.13 and 4.32) degrees. Where all phrases achieved high values, and these phrases are:

- The experience of the villagers with artichoke cultivation came in the first ranked with an arithmetic average of (4.32) degrees, and an approval rate (86.4%) of a high level of importance with a strongly agreeable public opinion, and the standard deviation was (0.66), which reflects the convergence in the views of the study sample.
- There are a large number of processing stations (called Nolat) that equip artichokes for factories within the village and nearby villages, it came in second place with an arithmetic average of (4.32) degrees, and an approval rate (86.4%) of a high level of importance with a strong public opinion trend, and the standard deviation was (0.7), which It reflects the convergence in the views of the study sample.
- Availability of manpower in the village came in third place with an arithmetic average of (4.28) degrees, and an approval rate (85.6%) with a high level of importance with a strongly agreeable public opinion, and the standard deviation was (0.646), which reflects the convergence in the views of the study sample.
- The ease of marketing for the village's proximity to the factories that manufactured and exported artichoke came in fourth place with an arithmetic average of (4.25) degrees, and an approval rate (85%) of a high level of importance with a strong public opinion trend, and the standard deviation was (0.731), which reflects the convergence in the views of a sample the study.
- The soil is suitable for planting artichokes came in fifth place with an arithmetic average of (4.24) degrees, and an approval rate (84.8%) of a high level of importance with a strong public opinion trend, and the standard deviation was (0.704), which reflects the convergence in the views of the study sample.
- The presence of manufacture within the village came in sixth place with an arithmetic average of (4.23), and an approval rate (84.6%) with a high level of importance with a strongly agreeable public opinion, and the standard deviation was (0.782), which reflects the convergence in the views of the study sample.
- The suitable climate of the village and the region for the cultivation of artichoke came in seventh place with an arithmetic average of (4.13) degrees, and an approval rate (82.6%) with a high level of importance with an agreeable trend of public opinion, and the standard deviation was (0.71), which reflects the convergence in the views of the study sample.

3. Socio-economic level of artichoke farmers:

To measure the socio-economic level of artichoke farmers, the classification used in the scale (O.P. Aggarwal, S.K. Bhasin, A.K. Sharma, P. Chhabra, K. Aggarwal, O.P. Rajoura, 2005) was used. (Less than or equal to 15 "Very weak" units), (16-30 "weak" units), (31-45 "average low" units), (46-60 "Average high" units), (61-75" units "high"), (greater than 75 "very high" units) where the grades (1), (2) (3), (4), (5), (6) were given to each of them, respectively.

The results presented in Table 8 indicate that the arithmetic mean of the socio-economic level of the families of the study sample amounted to 50.02 units, and a standard deviation of 7.177 units. It is noted from the table that about 59.7% of the total sample of the study fall into the high average category (46-60 units), while lower average category in (31-45 units) represents about 30.5% of the total sample, while the high category represents (61-75 unit) about 9.7% of the total sample of the study. As for the categories of (weak), (very weak) and (very high), they did not have any of the study sample vocabulary, which means the average socio-economic level of the majority of the study sample.

Table 7: Scale of reasons for the concentration of artichoke cultivation and industry in the village

Question number	questions	Repetitions	Strongly Agree	agree	neutral	not agree	Strongly Disagree	The weighted average	standard deviation	relative weights	response direction	The level of importance	order of importance
1	Villagers' experience in artichoke farming	frequency	96	107	22	1	0	4.32	0.664	86.4	Strongly Agree	high	1
		%	42.5	47.3	9.7	0.4	0						
2	Easy marketing of village proximity to manufactured and exported factories	frequency	88	112	21	4	1	4.25	0.731	85	Strongly Agree	high	4
		%	38.9	49.6	9.3	1.8	0.4						
3	There are a large number of processing stations (called Nolat) that equip artichokes for factories within the village and nearby villages	frequency	98	106	19	2	1	4.32	0.703	86.4	Strongly Agree	high	2
		%	34.4	46.9	8.4	0.9	0.4						
4	The presence of manufacture within the village	frequency	93	97	31	4	1	4.23	0.782	84.6	Strongly Agree	high	6
		%	41.2	42.9	13.7	1.8	0.4						
5	The village and area climate is suitable for artichoke cultivation	frequency	69	121	32	4	0	4.13	0.71	82.6	agree	high	7
		%	30.5	53.5	14.2	1.8	0						
6	The soil is suitable for planting artichokes	frequency	89	104	32	1	0	4.24	0.704	84.8	Strongly Agree	high	5
		%	39.4	46	14.2	0.4	0						
7	Availability of manpower in the village	frequency	86	120	18	2	0	4.28	0.646	85.6	Strongly Agree	high	3
		%	38.1	53.1	8	0.9	0						
The weighted average for the reasons for concentration (total scale)								4.25	0.53	85	Strongly Agree	high	-----

Source: study's findings.

Table 8: Relative distribution of the study sample according to the socio-economic level scale for the families of the study sample

arithmetic average	standard deviation	Less than or equal to 15		16 - 30		31 - 45		46 - 60		61 - 75		More than or equal to 76	
		Very weak		weak		average low		Average high		high		very high	
		Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
50.02	7.177	-----	--	-----	--	69	30.5	135	59.7	22	9.7	-----	---

Source: study's findings.

4. Factors affecting the reasons for the concentration of artichoke cultivation and industry:

The results of the study presented in Table 9 showed that there is a significant correlation at the probability level (0.01) between the degree of reasons for the concentration of artichoke cultivation and industry, and between each of the following independent variables (Experience with artichoke cultivation, Satisfaction with the return from artichoke cultivation, motivating values of artichoke cultivation) Except for the variables (age, educational status of the respondent, monthly income, Agricultural possession size, area cultivated in artichoke, Production of artichoke-grown area), they are not significant at the probability level (0.01).

Accordingly, we reject the statistical hypotheses that state that there is no correlation between the studied independent variables and the degree of reasons for the concentration of artichoke cultivation and industry, and the acceptance of the alternative hypotheses. As shown in Table 9.

To estimate the percentage of the contribution of the independent variables studied in explaining the total variance of the studied dependent variable (the degree of reasons for the concentration of artichoke cultivation and industry), the researcher used Step-Wise Regression Analysis.

The model presented in Table 10 shows the result of the regression analysis based on two independent variables, which are the motivating values for artichoke cultivation, the experience of the respondent with artichoke cultivation, and indicates a positive relationship statistical

significance ($P 0.000 < 0.01$) with the dependent variable (the degree of reasons for the concentration of artichoke cultivation and industry). The independent variables represent 35.9% ($R^2 = 0.359$) of the changes that occur in the dependent variable (the degree of reasons for centralizing artichoke cultivation and industry in the village), according to the coefficient of determination, and the remaining percentage (64.1%) is due to other variables that have not been studied.

ANOVA tests the acceptability of the model from a statistical perspective; The significance value of the F statistic is less than 0.01, which means that the variance explained by the model is not due to chance. The results presented in Table 10 showed that the most important factor affecting the dependent variable (the degree of reasons for the concentration of artichoke cultivation and industry) is the values motivating artichoke cultivation (explaining about 34.7%), followed by the experience of the respondent in artichoke cultivation (explaining about 1.2%).

According to these results, it was possible to reject the statistical hypothesis and accept the alternative hypothesis after modifying it to be formulated as follows: Each of the following independent variables contributes: the motivating values of artichoke cultivation, the respondent's experience with artichoke cultivation, which has a correlational relationship in explaining the total variance of the change in the degree of formation of the reasons for the concentration of artichoke cultivation and industry in the village, as shown in Table 10.

Table 9: shows the correlation between the independent variables and the reasons for the concentration of artichoke cultivation and industry.

Hypothesis Number	Independent Variables	Pearson's correlation coefficient
1	the age	0.006
2	The Educational Status	0.082
3	Experience with artichoke cultivation	0.188**
4	Monthly income	-0.025
5	Agricultural possession size	0.017
6	area cultivated in artichoke	-0.019
7	Production of artichoke-grown area	-0.01
8	Satisfaction with the return from artichoke cultivation	0.215**
9	motivating values of artichoke cultivation	0.529**

Source: study's findings **significant at 0.01

Table 10: The cumulative effect of the studied variables on the reasons for the concentration of artichoke cultivation and industry.

Model	Variables	R	R ²	% of explained variance	F
1	motivating values of artichoke cultivation	0.589	0.347	34.7	119.2*
2	xperience with artichoke cultivation	0.599	0.359	1.2	62.4*

Source: study's findings **significant at 0.01

5. Factors affecting the degree of socio-economic level of artichoke farmers.

The results of the study presented in Table 11 showed that there is a significant correlation at the level of probability (0.01) between the degree of the socio-economic level of artichoke farmers, and each of the following independent variables (the educational status, the monthly income, Agricultural possession size, area cultivated in an artichoke, Production of artichoke-grown area) except for the variables (age, Experience with artichoke cultivation, Satisfaction with the return from artichoke cultivation, motivating values of artichoke cultivation) were not significant at the probability level (0.01).

Accordingly, we reject the statistical hypotheses, which state that there is no correlation between the studied independent variables and the degree of the socio-economic level of artichoke farmers, and accept the alternative hypotheses. And as shown in Table No. (11).

To estimate the contribution of the studied independent variables in explaining the total variance of the studied dependent variable (the degree of the socio-economic level of artichoke farmers), the researcher used the method of gradual regression analysis.

Table 12 shows the result of the regression analysis based on three independent variables, which are the monthly income, education, Agricultural possession size, and indicates a positive, statistically significant relationship

($P < 0.01$) with the dependent variable (the degree of the socio-economic level of artichoke farmers). The three independent variables represented 66.1% ($R^2 = 0.661$) of the changes that occurred in the dependent variable (the degree of the socio-economic level of artichoke farmers), according to the coefficient of determination, and the remaining percentage (33.9%) was due to other variables that were not studied.

ANOVA tests the acceptability of the model from a statistical point of view; the signed value of the F statistic is less than 0.01, which means that the variance explained by the model is not due to chance. The results presented in Table 12 showed that the most important factor affecting the dependent variable (the degree of the socio-economic level of artichoke farmers) was monthly income (explaining about 55.2%), followed by education (explaining about 9.2%), followed by the size of agricultural holdings (explaining about 1.8%).

According to these results, it was possible to reject the statistical hypothesis and accept the alternative hypothesis after modifying it to be formulated as follows: Each of the following independent variables contributes: monthly income, education, Agricultural possession size, which has a correlational relationship in explaining the total variance of the change in the degree of socio-economic level of artichoke farmers, as shown in Table 12.

Table 11: shows the correlation between the independent variables and the degree of the socio-economic level of artichoke farmers.

Hypothesis Number	Independent Variables	Pearson's correlation coefficient
1	the age	-0.048
2	The Educational Status	0.367**
3	Experience with artichoke cultivation	0.055
4	Monthly income	0.743**
5	Agricultural possession size	0.631**
6	area cultivated in artichoke	0.621**
7	Production of artichoke-grown area	0.653**
8	Satisfaction with the return from artichoke cultivation	0.034
9	motivating values of artichoke cultivation	0.064

Source: study's findings **significant at 0.01

Table 12: Cumulative effects of study variables on degree of socio-economic level of artichoke farmers.

Model	Variables	R	R ²	% of explained variance	F
1	Monthly income	0.743	0.552	55.2	275.82**
2	The Educational Status	0.802	0.643	9.1	201.08**
2	Agricultural possession size	0.813	0.661	1.8	144.38**

Source: study's findings **significant at 0.01

RECOMMENDATIONS

In light of the findings of the study, the following recommendations can be made:

1. The results revealed that the level of the motivating values scale for the cultivation of artichokes for farmers in the study area was high, as the percentage of the degree of approval reached (78%), and this result indicates that there is a strong opportunity to improve and promote villages specialized in artichoke cultivation. Hence, the motivating values that encourage specialization must be taken into account when planning the development of various specialized villages. With further studies to explore the motivating values for the establishment of disciplines.
2. The results showed that the level of the reasons for the concentration of artichoke cultivation and industry in the village was high, as the percentage of approval reached (85%). Hence, networks, and clusters must be established with neighboring regions and governorates to take advantage of the region's possibilities. With government support in terms of marketing and promotion.
3. The results also showed that more than half of the study sample (59.7%) fell into the medium-high category of the socio-economic level indicator, and this result highlights the importance of specializing in improving the socio-economic level. Hence, guidance and technical recommendations should be provided to artichoke farmers to increase productivity and reduce waste, so that the socio-economic level of artichoke farmers is not affected. With the discovery of traditional knowledge about artichoke cultivation, from the method of cultivation and industry, and methods of dealing with the remnants of cultivation and industry of artichokes, and the development of traditional knowledge to serve the diversity of sustainable livelihoods of the villagers.
4. Developing human resources for artichoke cultivation workers along the production chain, by building capabilities and enabling these workers to exploit those capabilities in agriculture using modern methods, manufacturing the product with high-quality added value, opening new markets locally and globally, and establishing a brand for the product so that we can compete at the level Global and the opposite of local pride. Thus improving the socio-economic level of artichoke farmers.

5. Conducting social studies on specialized productive villages, especially studies dealing with social capital and its role in supporting and enhancing social production, as well as studies dealing with the relationship between the behavior of rural families and the spread of specialization in order to bridge the gap in these studies.

REFERENCES

- Aggarwal, O. P., Bhasin, S. K., Sharma, A. K., Chhabra, P., Aggarwal, K., & Rajoura, O. P. (2005). A new instrument (scale) for measuring the socioeconomic status of a family: Preliminary study. *Indian J Community Med*, **30**(4), 111-114.
- Egypt's Strategy for Sustainable Development 2030, (2020). information General Association. Retrieved **October 31, 2022** from <https://www.sis.gov.eg/Story/179533/>
- information General Association. (2018). Egyptian villages do not know unemployment. Retrieved **October 31, 2022** from <https://www.sis.gov.eg/Story/179533/>
- Issa, F. O., 2014. One Village One Product (OVOP): A Tool for Sustainable Rural Transformation in Nigeria. *Nigerian Journal of Rural Sociology*, Volume **14**, No. **2**
- Issa, O. F., 2014. One Village One Product (OTOP): A Tool for Sustainable Rural Transformation in Nigeria. *Nigerian Journal of Rural Sociology*, Volume **14**, No. **2**.
- Jalal, Khaled (2019). Determination of sample size given population size, Cochran Equation 1977. Retrieved **June 28, 2022** from <https://safkh678.blogspot.com/2019/05/1977.html>
- Jiajun, Q., & Jiawei, Y. (2013). Recent progress in the specialized village study of China. *Human Geography*, **28**(5), 76-80. (Written in Chinese)
- Kurokawa, K., Tembo, F. and te Velde, D. W. (2010). Challenges for the OVOP movement in Sub-Saharan Africa – Insights from Malawi, Japan and Thailand. JICA-RI Working Paper No. **18**. JICA Research Institute, **June 2010**
- Li Xiaojian, Luo Qing, & Fan Xinsheng. (2009). A study on the formation and evolution of specialized rural villages. *China Soft Science*, 71-80. (Written in Chinese)
- Li, X., Ye, X., Zhou, X., Zheng, C., Leipnik, M., & Lou, F. (2018, **August 23**). *Specialized villages in inland China: Spatial and developmental issues*. MDPI. Retrieved **March 20, 2022**, from <https://www.mdpi.com/2071-1050/10/9/2994>

- Li, X., Ye, X., Zhou, X., Zheng, C., Leipnik, M., & Lou, F. (2018, August 23). *Specialized villages in inland China: Spatial and developmental issues*. MDPI. Retrieved March 20, 2022, from <https://www.mdpi.com/2071-1050/10/9/2994>
- Niu, N., Li, X., & Li, L. (2021, July 2). Exploring the spatio-temporal dynamics of development of specialized agricultural villages in the underdeveloped region of China. MDPI. Retrieved March 18, 2022, from <https://www.mdpi.com/2073445X/10/7/698>
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw-Hill.
- Pareekh U. (1981), *Manual of socioeconomic status (rural)*. Mansayan, 32, Netaji Subhash Marg, Delhi.
- Saleh, Sabri Mostafa, Mohamed Omar El-Tanouby, Soheir Mohamed Azmy, *Agricultural Extension: Its Fundamentals and Applications*, Faculty of Agriculture, Alexandria University, first edition, 2004.
- Sega, N. J. (2017). Beyond the ovop through design thinking approach. *Ritsumeikan Asia Pacific University*.
- Wanchai Sunprasit, Nawarat Prathumta, Wichai Waen Petch, Sathaporn ThavornAthiwat. (2017). The management model of success factors of products in one sub-district, one product, beverage category. *Thep Satree I-TECH*, 12 (2). , page-115.(Written in Thai)
- Wang Xiao & Li Erling.(2011). Research on the Specialized Development of Rural Areas in Henan Province Based on a Survey of 17 Specialized Villages in Henan Province. *Henan Science* (03), 368-373. doi:10.13537/j.issn.1004- 3918.2011.03.026." Written in Chinese"
- Wang Xiao et al. (2011): Research on the Development of Regional Specialization in Rural Areas of Henan Province—Based on a Survey of 17 Specialized Villages in Henan Province. (Written in Chinese)
- Wu Nalin, Li Xiaojian, & Qiao Jiajun. (2014). Research on the relationship between farmers' behavior and the formation of professional villages: A case study of Shilaoba Poplar Processing Professional Village in Zhecheng County, Henan Province. *Geographical Sciences*, 34(3), 322-331. "Written in Chinese"
- Zhi, C. A. O., Yansui, L. I. U., Yurui, L. I., & Yongsheng, W. A. N. G. (2020). Spatial pattern and its influencing factors of specialized villages and towns in China. *Acta Geographica Sinica*, 75(8), 08001647." Written in Chinese".

دراسة إجتماعية للعوامل المؤثرة في زراعة الخرشوف (نموذج قرية واحدة منتج واحد، قرية سيدي غازي، محافظة البحيرة)

عمرو سعد أحمد، إبراهيم إبراهيم ربحان، سمير سيد الشاذلي، هبة نور الدين محمد
قسم المجتمع الريفي والإرشاد الزراعي، كلية الزراعة، جامعة عين شمس.

يستهدف البحث الحالي تحديد القيم المحفزة لزراعة الخرشوف، والتعرف على أسباب تمركز زراعة وصناعة الخرشوف بالقرية، وتحديد الحالة الاقتصادية الاجتماعية لمزارعي الخرشوف، وتحديد نسبة إسهام المتغيرات المستقلة المدروسة في تفسير التباين الكلي لأسباب تمركز زراعة وصناعة الخرشوف، وتحديد نسبة إسهام المتغيرات المستقلة المدروسة في تفسير التباين الكلي للحالة الاقتصادية الاجتماعية لمزارعي الخرشوف. وتم اختيار قرية سيدي غازي من بين قرى محافظة البحيرة لإجراء الدراسة، واختيرت عينة عشوائية طبقية قوامها (٢٢٦) مزارع بما نسبة ٤١,٣% من إجمالي زراع الخرشوف بمجتمع الدراسة (جمعية سيدي غازي إئتمان). وجمعت البيانات باستخدام إستمارة إستبيان، واستخدمت المتوسطات الحسابية، والانحرافات المعيارية، ومعامل الارتباط، ومعامل ألفا كرونباخ، وتحليل الانحدار التدريجي المتعدد لتحليل البيانات. وبينت النتائج أن مستوى مقياس القيم المحفزة لزراعة الخرشوف للمزارعين بمنطقة الدراسة مرتفعا، وكذلك مستوى مقياس أسباب تمركز زراعة وصناعة الخرشوف بالقرية مرتفعا، كما أوضحت النتائج أن أكثر من نصف عينة الدراسة (٥٩,٧%) وقعوا في الفئة المتوسطة المرتفعة لمؤشر المستوى الاقتصادي الإجتماعي. وبينت النتائج وجود علاقة ارتباطية موجبة ودالة إحصائياً بين المستوى الاقتصادي الإجتماعي وكل من: الحالة التعليمية، الدخل الشهري، حجم الحيازة الزراعية، حجم المساحة المنزرعة بالخرشوف، إنتاج المساحة المنزرعة بالخرشوف. وكذلك وجود علاقة ارتباطية موجبة ودالة إحصائية بين أسباب تمركز زراعة وصناعة الخرشوف وكل من: خبرة المبحوث بزراعة الخرشوف، الرضا عن العائد من زراعة الخرشوف، القيم المحفزة لزراعة الخرشوف. كما تبين أن هناك متغيرين مستقلين (القيم المحفزة لزراعة الخرشوف، وخبرة المبحوث بزراعة الخرشوف) أسهموا بنسبة ٣٥,٩% في تفسير التباين الكلي في أسباب تمركز زراعة وصناعة الخرشوف، وأن هناك ثلاثة متغيرات مستقلة (الدخل الشهري، تعليم المبحوث، حجم الحيازة الزراعية) أسهموا بنسبة ٦٦,١% في تفسير التباين الكلي في المستوى الاقتصادي الاجتماعي لمزارعي الخرشوف.

الكلمات الدالة: القرية المتخصصة "قرية واحدة منتج واحد"، القيم المحفزة لزراعة الخرشوف، أسباب تمركز زراعة وصناعة الخرشوف، المستوى الاقتصادي الاجتماعي، محافظة البحيرة.