

INNOVATION AND SUCCESS: PERCEPTIONS, ATTITUDES AND PRACTICES OF YOUNG FARMERS

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Abstract: The adoption of innovations in business refers to a set of practices and actions which can contribute decisively to the successful development and progression of the enterprise. According to the National Development Law 3299/2004 (GR), innovation is an applied use of knowledge in the production and marketing of new or improved products, processes and services that find immediate productive, utilitarian and commercial application. Innovative practices and operations are an integral part of the organizational culture of the enterprise, and the result of the underlying assumptions and values of the operator itself. In other words, the mentality of the entrepreneur is the one that leads to the application of innovative practices in the business, and this mentality comprises of his beliefs, values and assumptions. The antonym of innovation is “archaism and routine”, and that is why innovation is facing fierce resistance.

In the agricultural sector, innovation is a set of practices associated with the organization, producing innovative products, innovative production practices, new technologies for the control and organization of production, and marketing innovations. The evaluation of firm performance, growth and success, linked to, financial measures as growth, profit and turnover and nonfinancial measures such as autonomy and job satisfaction. These two evaluative metrics, financial and non financial measures, are distinguished by the fact that the first relates to perfectly distinct and measurable criteria, while the second to more indistinct as it relates to quality indicators for the investigation of which requires the use of qualitative research tools. In this sense, the effective investigation of farmers’ attitudes on the concept of a successful farmer can be performed using qualitative research tools. While success requires active towards innovation, agribusiness face difficulties in this, as indeed other small companies in other sectors.

In this paper, the innovative practices of young farmers are explored, and also their attitudes and perceptions toward success. For this purpose, the case of 9 young farmers, which are professionally active at the Prefecture of Kilkis (Central Macedonia, GR), is studying. The sample size retrieved from the combine of two separate researches that took place in Kilkis, at deferent periods. The first study conducted in 2009 with a structured questionnaire tool, on a sample size of 110 young farmers; its objective was to identify the innovation profile of these farmers, and the results has already been published in Koutsou and Partalidou (2012). The second research was conducted in 2012 with the tool of in-depth interview to 29 young farmers; its objective was to detect the perceptions and attitudes about the successful farmer concept, and the results have not been published yet. Content analysis was the tool that used for the interviews’ study. The results designate two groups of farmers. The first group refers to these farmers who occurs success as a result of endogenous factors, such as the farmer’s personality, skills, and abilities, and these farmers, according to 2009’s research, are innovators or dormant. The second group, refers to those farmers who occurs success as a result of exogenous factors, such as God or weather, and combining their answers with the 2009’ results, these farmers are conservational.

Keywords: Young farmers, innovation, success, practices, attitudes, perceptions, perspectives

JEL Classification Codes: O13, O31

1. INTRODUCTION

In 1995, the European Commission published a Green Paper on Innovation. In there, innovation is defined as a synonym for the successful production, assimilation and exploitation of novelty in the economic and social spheres. These novelties mentioned in facilitating communications (mobile phones, teleconferences), open access to knowledge (ICT), new marketing methods, improved working conditions, the development of environmentally friendly production methods, and to more efficient public services (European Commission, 1995:1). Today innovation is one of the most important parameters for growth, at both national economy and in terms of business, and this is put in place high priority on the policy of almost all countries.

Success, in contrast to the innovation which has a clear definition, it is not easy to clearly define and give only one definition, as it is a concept which is basically subjective and refers to individuals' feelings about their accomplishments (Gattiker and Larwood, 1986; Peluchette, 1993). In our days, businessmen are being hit by a barrage of information that is related to development and sustainability. This barrage, inter alia, relating to novel or significantly improved marketing methods, processes and organization. However, the decision to adopt or otherwise, these innovations concerns to the operational culture (Schein, 2010).

Business performance affects of innovation and entrepreneurial culture (Georgellis et al. 2000). The values and attitudes of the entrepreneur, are not just part, but also forms the operational culture (Schein, 2010). The business culture provides qualitative and quantitative criteria of business and businessman success. These elements form the individual and organizational behavior in business, and give the potential to obstruct or support innovation (Schein, 2010:24).

The purpose of this paper is to combine and study the results of two separate researches that conducted in the same geographical area, in different time periods. The first survey conducted in 2009, its objective was to identify the innovation profile of the young farmers, and its results have already been published in Koutsou and Partalidou (2012). The second research was conducted in 2012, its objective was to collect perceptions about the concept of the successful farmer, and its results have not been published yet. Both surveys were taking place in Kilkis (Central Macedonia, Greece). In these two separate researches, 9 farmers are in common, and these farmers are the study population in this paper.

2. INNOVATION IN AGRICULTURE

The Greek Development Law 3299/2004 (GG 261, 2004) states that “*innovation is applied use of knowledge for the production and marketing of new or improved products, processes and services that find immediate productive, utilitarian or commercial application*”. It refers to the renew and expand the range of products and services business, the introduction of new methods of production, supply and distribution, and the introduction of changes in management, work organization, working conditions and skills of the workforce (MDCS, 2011:1). These changes are not just a test of something new, “*but integrating a new idea into a product or a process that includes technical, economic and social components*” (Davis et al., 2008:37). The antonym of innovation is “*archaism and routine*”, and that is why innovation is facing fierce resistance, but also the cause that dissemination of innovation culture of becomes crucial challenge for European societies (European Commission, 1995:1).

The culture that refers to the adoption of innovation is part both of the company's intangible assets and organizational culture. According Schein (2010:24) the basic underlying assumptions is the most important part of organizational culture. These are invisible elements which relates to norms, unwritten rules, shared assumptions, beliefs and values, which have the

potential to hinder or support innovation. These basic underlying assumptions, leads to espoused beliefs and values, i.e. conscious strategies, ideologies, philosophies and goals that are not visible or otherwise tangible, but have been realized by the entrepreneur. These artifacts are observable and occur to businessman's behavior of the entrepreneur, appearance of himself and his business, and working environment.

Based on Oslo Manual (OECD, 2005) and European Commission (2010), innovation in agribusiness can be distinguished to five areas. The first area is called product innovation, and related to novel directed production or qualitative improvement of the existing production (OECD, 2005). The market's demand for new product is the criterion to evaluate as successful a product innovation, and reflects the ability of agribusiness to interact creatively with the market. For example, superfoods is a new product with increased demand, and therefore the shifting to such products is a novelty for agribusiness. Also, the production of a significantly improved food, such as the production of organic foods, is an product innovation.

The second area relates to process innovation (OECD, 2005). This is the implementation of new or significantly improved production techniques, new organizational features with the introduction of new technologies, or the adoption of new technologies and software technologies such as precision agriculture and livestock production control. The adoption of such methods contributes to more efficient management of agricultural production.

The third area relates to innovative practices in marketing (OECD, 2005). In Greek rural areas, the promotion is mainly via third parties. The marketing innovation in the agricultural sector concerns to major changes in formulation, placement and promotion of the product which changes aimed at opening new markets or new product distribution, and are ultimately aimed at increasing the farms' sales and reach new consumers. The promotion of agricultural production with the use of ICT is also a marketing innovation.

The fourth area of innovative practices in agriculture relates to organizational innovation (OECD, 2005). These substantial changes in business practices, increase the size of the farm, management strategy, and capital replacement. Organizational innovation is also includes collaborative networks, such as producer groups.

The fifth innovative practice is ecoinnovation (European Commission, 2010). This term means any form of innovation aiming at significant and demonstrable progress towards the goal of sustainable development, through reducing impacts on the environment. It relates to the responsible use of natural resources, use of environmentally friendly production rates, and general practices that contribute to sustainable management of agricultural land.

Higher educated farmers are more likely to innovate, but also to follow a continuing education course (Weir and Knight, 2004). It could be beneficial to encourage farmers' participation to educational activities, and maybe it could increase the farmers' ability and willingness for changes in their business (Kilpatrick, 2000:105). The maintenance of a supportive educational system could be beneficial for the diffusion of innovation (Kilpatrick, 2000), since the educational level of farmers linked with it (Weir and Knight, 2003). Agribusinesses are facing difficulties to the adoption of innovations, like other micro and SMEs from other sectors (Senker and Faulkner, 2001). The farmer's personality is the one that will work as a catalyst for the final acceptance or rejection of an innovation (Knudson et al., 2004: 1333), since his personality affects the organizational culture of the firm (Schein, 2010).

3. THE MEANING OF SUCCESS

Success in agriculture requires active towards innovation (Gielen et al., 2003). But the meaning of success is not easy to clearly define and give only one definition, as it is a concept which is essentially subjective and refers to individuals' feelings about their accomplishments

(Gattiker and Larwood, 1986; Peluchette, 1993). This means that there is a common and widely accepted understanding of the meaning of success, but it depends on personal experiences and aspirations of the entrepreneur, and operational research scientists. For example, many researchers are studying only quantitative data as evaluative criteria such as the growth of the firm's profits, rate of return on investment (ROI), and volume of sales, elements that are objectively assessable and are easy to identify. Other researchers has evaluated qualitative criteria, i.e. non financial measures, such as satisfaction from the profession, and achieving goals and ambitions.

Many times in business research the meaning of success involved the concepts “*growth*” and “*performance*” (Reijonen and Komppula, 2007:689). A definition of the term success indicates that the business success is the continuation of activities, and vice versa, failure means going out of business (Simpson et al., 2004). According another definition “*the most obvious measures of success are profitability and growth*” (Hall and Fulshaw, 1993: 229) More detailed optical mentioned the efficiency, profit, market share, market value of the firm, business size, and the number of orders or contracts (Murphy et al., 1996; Virtanen, 1999; Gray, 1998 in Reijonen and Komppula, 2007:689). Business size, is another one financial measure that defines the business success based on to changes in turnover, total sum of the balance sheet or numbers of employees (Virtanen, 1999 in Reijonen and Komppula, 2007:689). A more broad perspective on business success defines success as “*the sustained satisfaction of principal stakeholder aspirations*” and argue that success can “*no longer (be) regarded as synonymous with optimal performance*” (Jennings and Beaver, 1997:68). From this point a business can be successful while failing to achieve optimal level of performance in terms of growth and business development (Simpson et al, 2012:273).

4. RESEARCH

4.1. Methodology and sample

The purpose of this paper is to study the case of 9 farmers, which are residents of Kilkis' Prefecture (Central Macedonia, Greece), about their innovation profile and attitudes toward success. These 9 farmers derived by the combine of two separate researches that conducted in the same geographical area (Prefecture of Kilkis, Central Macedonia, Greece). In both researches, young farmers were selected as they have an important role in the competitiveness and sustainability of agriculture (according to the EU Regulation 1257/99). These 9 farmers are common in these two researches.

The first research took place in 2009 and the second in 2012. The objective of 2009' research was to identify the innovation profile of 110 young farmers, and for this purpose the tool of a structured questionnaire was used. The sample of 2009 research conducted in nine villages of the Kilkis prefecture, and these villages were selected by the use of multistage stratified random sampling from all villages within the prefecture (Koutsou and Partalidou, 2012:449). The results of the first research have been published in Koutsou and Partalidou (2012).

On the second research, that took place in 2012, in-depth interviews were conducted to 29 farmers, in order to collect perspectives about the term “*successful farmer*”. The method of proportionate stratified random sampling was used to select the municipal units in which the 29 farmers were retrieved (Botsiou and Dagdilelis, 2013). The results of the second research have not been published yet. From these 29 farmers, nine (9) are common to Koutsou and Partalidou' s (2012) survey, and constitute the study population of this paper.

In this paper, the innovative profile of each one of these 9 farmers is present, and also farmers' states about success are following. These states are analyzed, with the tool of content

analysis, in order to identify farmers' energetic or pathetic attitudes towards success. The results are following.

4.2. Results

4.2.1 Description

The nine farmers that are studied in this work are all male and 5 of them are married. From the 9 farms, 5 is on vegetable production, direction, 3 on mixed (cattle, sheep, goats, vegetable), and one on a purely animal (sheep). Three of the nine farmers are primary school graduates, 4 are high school graduates, and 2 have progressed to 12 years formal education. Farmers with a high educational level are more likely to adopt innovations, but also to follow a path of continuing education (Weir and Knight, 2004). As regards to married farmers, the education level of the spouse is higher than the farmer. Two of 5 spouses have received 12 years of formal education and 3 more than 12 years. The educational level of the spouses is also an influencing factor for innovation adoption, as it is the wife that goes online and provides her husband with knowledge relevant to the farm (Koutsou and Partalidou, 2012).

The data basis of 2009 shows that regarding to the satisfaction of farmers with their level of knowledge in agriculture, 7 out of 9 states that they are not satisfied, and that they have additional education and training needs on new agricultural practices and the use of ICTs. The data from 2012 shows that in the last 3 years, 2 of these 7 farmers were familiarized with the use of ICTs, through informal education.

In 2009, 6 out of 9 studied farmers had attended a vocational training program, and they claimed that they were obliged to do so, in order to receive EU subsidies. Also, only 1 out of 9 farmers has paid for his training, a ratio that did not change in the 2012 survey.

In regard to collective actions, 7 out of 9 farmers are members of the local agricultural cooperative, and 5 out of these 7 have actual involvement. Two out of 9 farmers do participate in producers' groups (PGs), since 2009. Producer groups are organized collective actions of farmers, aimed at collective marketing of their products, collective education and general development through cooperation.

4.2.2 Innovative profile

The research of Koutsou and Partalidou (2012) revealed three types of farmers in innovation. The first type is referred as "*conventional*", and includes those young farmers who do not foster innovations, are satisfied with the level of knowledge on agriculture, and who do not participate in PGs. The second type labeled "*dormant*", includes those farmers that do not foster innovations, for the time being, nor participate in any PGs, they are not satisfied with their level of knowledge and seek to strengthen their skills further. The third type designated 'innovators', it includes those farmers, they are not satisfied with their knowledge level in agriculture, they articulate additional educational needs over technical matters in production, they pay for advisory services and vocational training, and they are members of PGs.

In this paper, we study the innovative profile of the nine common farmers, guided by principles of Oslo Manual (OECD, 2005) and European Commission (2010). This is relating to innovations that have been adopted by farmers on product, process, marketing, organization, and ecology. Specifically recorded innovative practices:

- Product (organic foods, super foods, tree crops)
- Process (pursing knowledge, ICT adoption)
- Marketing (vertical development, selling via the Internet, solidarity consumer groups, collective sale to local communities, selling to individuals in groups, consumer-supported agriculture)
- Organization (social innovations, participation in innovative collecting action, produces group, genetic improvement group)

- Ecoinnovation (precision agriculture).

In Table 1 are presenting the innovative practices of the 9 farmers, information that retrieved from the data basis of the 2009 survey, and also the type of each farmer innovation profile according to Koutsou and Partalidou (2012). In the first column of Table 1 there is a code name for each farmer, which code name subsequently will used for the presentation of the farmers' statements that reveal their attitudes about success.

Table 1. Adopted innovation by farmer and classification according to 2009 data basis

Farmer's code name	Product	Process	Marketing	Organization	Ecoinnovation	Classification
C.D.	Organic, super foods	Pursing knowledge, ICT		PG, member of genetic improvement group	IT monitoring estrus	Innovator
E.F.		ICT				Dormant
G.H.						Conventional
O.P.	Super foods, tree corps	Pursing knowledge				Dormant
P.S.		Pursing knowledge, ICT				Dormant
E.M.						Conventional
S.V.						Conventional
K.K.	Super foods, tree crops			PG		Dormant
S.B.						Conventional

Concerning the innovative profile of the farmers, and based on the innovations that each one have adopted, four persons out of 9 are belong to dormant category, four are belonging to the conventional category, and one is innovating.

Farmers classified as conventional (code names G.H., E.M., S.V., S.B.) are those who produce traditional crops, do not adopt any innovative process, not familiar with the use of ICT, not participating in seminars or training programs, not members of PG. Three out of these four farmers, are members of farm cooperatives in their area.

Farmers classified as dormant (E.F., O.P., P.S., K.K.) are those who have adopted a number of innovations for their business. The number and type of such innovations differ in each farmer. Fragmentary every farmer of this profile have adopted at least two innovations to the business. These innovations relate to the use of ICT, innovative products, participation in PG, and pursuing knowledge (seminars, etc.).

One farmer is an innovator (C.D.). This farmer is ICT user, produces innovative products, he is a lifelong learner, member of PGs, his farm is included in genetic improvement programs, he also is using precision agriculture. He is not participating in the agricultural cooperative of his village.

4.2.3 Attitudes on success

The next step of this study was to identify the farmers' attitudes on success. Specifically, farmers were interviewed about the features that they believe that surrounding the “*successful farmer*” concept, i.e. those elements that make a farmer successful or unsuccessful. This question aimed to study the beliefment of farmers about the influence that they can give on business success through their skills and attitudes, and so on to reveal the energetic attitude that

they believe that is required by the farmer in order to be successful. Using the method of content analysis, two groups were identified on answers given. The first one is the proactive group, which occurs on endogenous factors of success and includes 4 answers, and the second one is the passive group which occurs on exogenous factors and includes 5 answers.

4.2.3.1. Endogenous factors

This group of answers refers to those responses that indicate the existence of endogenous characteristics, i.e. factors that related to farmer's attitudes, skills and abilities.

“It’s not just a matter of knowledge, not a matter of school and university degrees. The successful farmer is the one who has the spirit of business. He must revs, should be brilliant, maneuvering in some cases, to grap the opportunity. He must also be able to do the financial management, not to bilk some stuff, because of that overlook he pays dearly. This is my opinion, that the farmers should have entrepreneurship ability. Basically, there are many farmers, but very few of them are entrepreneurs. Most of them are based on grants. A smart farmer can make awesome and rapid investments, and some other farmer look at him with the think “Wow, how he is doing all these stuffs?” Everything can be done; there is nothing that is not. For me, I can say that I am a successful farmer” (C.D.). The farmer which his code name is C.D. considers that the successful farmer is the one that his skills and attitudes regard to the administration and financial management of a farm. He features his own holding as successful, and he says that success is not associated with the typical educational level of the farmer. According to Table 1, C.D. farmer is an innovator, as he has adopted a lot of product, process, organizational, and ecological innovations. Specifically, he is organic and super food producer, pursuing knowledge, ICT user, member of PG and member of genetic improvement group, and he has adopted precision agriculture (IT monitoring estrus).

“In my opinion, the successful farmer is the one who produces a qualitative and a good product, but also can promote it in order to get the price that this product deserves. This moment, above all, is the computer. Without computers you cannot dig to find to sell your products, and so your products exploited by middlemen. The last two years my cousin helps me with his knowledge on computers, and I promote my products through internet. I can tell you that I doubled and tripled my gain due to computer” (O.P.). The farmer with the code name O.P. states that the quality product and self selling via internet are a key factor for success. According to Table 1, O.P. is dormant on innovation.

“The successful farmer is the one who can move comfortably in the market and wants to learn something every day of his life. There are many farmers who are leaving from the village for a few days, in order to go to Athens for retrieving information. I give my compliments to these farmers, because they are not only successful, but constantly evolving. I can not go to Athens, but I use information that I retrieve from the internet I have also had called some agronomist to inform me and some other farmers; it was something like a seminar. The Union cannot support us in the way that we need, so we forced to call some agronomist to inform us” (P.S.). Pursuing knowledge amounts as endogenous factor, because declares proactive for success. According to Table 1, P.S. is dormant in innovation.

“You have to be very careful with pesticides, in order to produce qualitative products. Also, the successful farmer is the one who sells his productivity by himself straight to the consumer, without broker” (K.K.). This farmer is classified as dormant on innovation (Table 1). The solely promotion (without brokers) that he mentions as a factor for success, declares on farmer action and demands proactive and energetic attitudes.

4.2.3.2. Exogenous factors

The second category is defined as passive and includes responses from 5 farmers. These responses were included in this category because they refer extrinsic characteristics as success

factors, i.e. factors that are independent of the abilities of the farmer, and in some responses indicated the luck.

“The location is important, and also to owns big size farmland. Also the water is an important element, to have a lot of water in the field. Actually, it's a matter of luck” (E.F.). This farmer does not occur any element about self responsibility for success, but only exogenous factors, even on luck. As we can see in Table 1, this farmer is conventional on innovation's adoption.

“In order to be successful, the farmer must not be owning money in mills and banks, and should reduce production costs in order to remain money for him” (G.H.). The farmer did not mention any characteristic that relates to skills and abilities. According to Table 1, he is conventional on innovation's adoption.

“Successful is the one who works alone, without partners. Because, if you have workers or partners you must pay them, and then no money left for you” (E.M). In this answer do not mention any farmer's skill or ability. According to Table 1, he is conventional.

“Success is the very good income that a farmer can have, but in nowadays success does not exist because the prices of fertilizers and medicines have increased. Today the cost is great and the farmers do not have much profit” (S.V.). The farmer with the code name S.V. defined as successful, the farmer who has a high income. He also correlates high income with the cost of production factors, rather than farmers' attitudes, skills, and abilities. According to Table 1, this farmer classified as conventional.

“In order to become someone a successful farmer, the raw materials should be cheaper. Seeds and fertilizers are expensive, while our product is sold in low price. All that stuff does not leave us to live in dignity. We did not want to make big money, just not to be charged to the bank and agronomist every March. So, how can be successful a farmer with low inputs?” (S.B.). This farmer states that success is linked to the prices that farm's products are sold, production factor cost, and do not mention anything about farmers' skills and abilities influence on success. According Table 1, S.B. is a conventional adopter farmer on innovation.

4.3. Discussion

Focusing on farmers' perspectives and attitudes about the concept of the successful farmer, two main groups were detecting. The first group includes these farmers who define success as a product of endogenous factors. The farmers of this group describe as important success factors, the ability of perception of market needs from the perspective of the farmer, the ability to understand business needs, the entrepreneurial spirit that possessed the farmer, knowledge on rural economics and management, the ability to integrate the farmer in an information network, and adaptability of the holding to market requirements. This categorization reflects the personal responsibility of the farmer on the course of business, but also his dynamic as an entrepreneur. The responders constitute, in most cases, a complex model of the characteristic that defines the successful farmer.

The second group comprises of those responds which occur success as a non self responsibility outcome; as a product of exogenous factors. These responses referred to the weather, on the sales price of the products, even luck or God. These farmers are conservatism, because they define success as something that does not rely to the personality of the farmer, but on external factors that are not controlled by him.

Relating the answers that occurs success as a product of endogenous factors with the innovative profile of the responders that is presented in Table 1 (according to 2009 data basis, the result of which have been already published on Koutsou and Partalidou (2012) paper), it is established that the states of the first group (which occurs endogenous factors on success) were given by innovator and dormant farmers. According to the same data basis, the responders of the second group, which occurs exogenous factors on success, are classified as conservatism.

5. CONCLUSION

Innovation is related to the renewal and expansion, of business products' range and services, and it is one of the most important parameters for development. In the agricultural sector, the adoption of innovations relates to product, process, marketing, organization changes and also ecoinnovation. The success of a company or businessman is related to innovation, both financial and non financial parameters.

The purpose of this paper was to study the cases of 9 farmers, about their innovation profile and attitudes toward success. These 9 farmers derived by the combine of two separate studies that conducted in the same geographical area (Kilkis, Central Macedonia, GR) in different time periods. The objective of the first study was to identify young farmer's innovation profile with the use of structured questionnaire, and the results have already been published in Koutsou and Partalidou (2012). The second study was aimed to collect young farmers' perceptions about the concept of the successful farmer via in-depth interviews, and the results have not been published yet. The 9 farmers that are studding in this paper are common between these two researches.

The results establish two main farmers' group of perspectives and attitudes about the concept of the successful farmer, and these groups related to the innovative profile's classification of each farmer (data basis of 2009, Koutsou and Partalidou, 2012). The first group includes the answers that occurs endogenous factors of success, i.e. abilities and skills of the farmer. The farmers of the first group have been classified as innovators or dormant. The second group includes the responses that occur exogenous factors, such as luck or God, and weather. Some of the second group responders occur the income as an important success factor, but without involve farmers' skills or abilities for this. According to 2009 data basis (Koutou and Partalidou, 2012) the farmers of the second group are classified as conservation.

The advantage of this paper is that descres two main attitudes on success. The first one is about farmer's activity and relates to farmer's skills, abilities, and personality, i.e. endogenous factors. The second one is the passive, and relates to exogenous factors, such as weather, God or luck. As a result, the farmer who is conservation in innovation adoption rely exogenous success factors.

The researchers did not use any statistical tool or method, due to small sample size. Also, due to sample size, the results cannot be generalized. The results of this survey could be referred in subsequent studies.

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