Process Model of Ideas Generation for Service Innovations Designing of Agricultural Sector

Rolandas Drejeris¹

Vilnius Gediminas Technical University and Aleksandras Stulginskis University, Lithuania

One of the most difficult steps in the process of service innovations development is the first – idea generation. Yet many agricultural companies in their development programmers appear not appreciate the importance of this stage. An approach which has often been used to cover the idea generation stage and one which companies still follow is a procedure of random idea submission in which ideas are left to the people directly concerned in innovation development. So, many companies’ ideas arise without any aid of disciplined procedures. Although this may have a semblance of an approach it is basically a haphazard procedure which relies mainly on chance. This article describes a deep logical comparative and systematic analysis of the idea generation process. The use of content analysis also allows the best solutions to be found and for the model to be offered for the generation of ideas for agricultural service innovations. The suggested model provides clarifications of necessary procedures based on the researchers opinions, which are assessment in terms of logic and adaptability.

Keywords: process model, idea generation, innovations, agricultural sector, new service development.

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Introduction

Agriculture is an important sector of any economy because it feeds the population and therefore carries a certain strategic importance, and this sector also provides the raw materials required to drive some of the key manufacturing industries. Agricultural research and extension programs have been built in most of the world’s economies.

Service innovation can be described as a reconfiguration of resources in a service system with a business effect and it can be based on a new role for the customers as co-creators, a new customer interface, technological options or new ways of capturing value and business models. The term “idea” can be defined as something that is unrealized, unproven or untested. The meaning of innovation’s idea can be defined as a vague characterization of a new individual object that tells the need to be fulfilled or the problem to be solved with it. It can be a new formulation of an old service or tangible object that is redesigned. In other words this means reconstruction, rearrangement, or substitution of the process that make them (Berry and Lampo, 2000).

Changes in the agribusiness environment, such as shift in consumer demand, technology, and others, may encourage firms to be more innovative. The continuous hegemony of innovation and creativity arises from organizations recognizing that correctly harnessed creativity can offer companies a competitive advantage. Service innovation is important for the competitiveness of enterprises and agricultural and industrial sectors (Nieuwenhuis, 2002).

A major problem for agricultural industry is the high failure rate of innovations (Enzing et al., 2011). Many agricultural products have failed because of a rush to the market without shelf-life trails, with disastrous quality results. Companies can implement one or several ideas, but they can reveal one to be wrong and do not achieve customers’ satisfaction. So, one of the most difficult steps in the process of innovations development not only in the agricultural industry, but on the whole is the first – idea generation (Drejeris and Tuncikiene, 2010).

More often than not, result of “call for ideas” can be a flood of ideas; many people in the organization will have been waiting for an opportunity to bring forward the great idea they have had for a long time (Brown and Eisenhardt, 1995).

Therefore sometimes employees of agricultural organizations do not really know what kind of ideas is wanted and they often do not understand why their ideas are being selected or rejected.

¹ Dr.oec., associate professor of Vilnius Gediminas technical university and Aleksandras Stulginskis University.

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Mailing address: Department of Social Economics and Management, Vilnius Gediminas Technical University, Saulėtekio ave. 11, LT-10223 Vilnius; Department of Business Management, Aleksandras Stulginskis University, Studentu st. 11, LT-53361 Akademija, Lithuania.

E-mail: rdrejeris@gmail.com, rolandas.drejeris@vgtu.lt.
their personal touches in order to find ideas for service innovations. The agricultural service context is well suited to the study, since agriculture can be considered an archetypal professional service (Hogg et al., 2003). Recent efforts to provide an annual profile of the agricultural production quality and to identify agricultural disparities and use of agricultural services have served to stimulate design innovations. Idea generation is important step, because new idea or ideas are the starting point for service innovation developing. 

So, using of appropriate processes of generating innovative ideas in agricultural sector are called as a problem of the article, there is still a lack of studies focusing on the specific aspects of such product development process. The aim of this article is to present a model of ideas generation process for service innovations in the agricultural sector, which would show the steps and order of ideas generation process. So, the object of present analysis is a process of creation innovations in agriculture. The following tasks shall be accomplished to achieve mentioned aim:

1. to analyse opinions and approaches found in scientific literature in relation to process of idea generation, to subject them for critical assessment and to develop rational solutions in order to determine content requirements for the process model;
2. to propose a process model of ideas generation for service innovations of agricultural sector; and
3. to discuss components of ideas generation process model for service innovation of agricultural sector.

The main method of research is synthesis of scientific opinions and results of studies, which connected with innovations processes. The article suggests the deep logical comparative and systematic analysis of the idea generation process. Systematic analysis was used for the process of selecting papers and reports which are relevant to the main topic, and for assessing the quality of each study. The results of this comparative analysis highlight the strengths and limitations of researchers’ opinions. It means that based on the results of the comparative analysis, it can be argued that temporal logic has advantages over others, which face some constraints. The use of content analysis also allows the best solutions to be found and for the model to be offered for the generation of ideas for agricultural service innovations. The content analysis technique allows social interactions to be examined based on texts.

1. Requirements for the Process Model of Idea Generation for Service Innovations in Agriculture

Nieuwenhuis (2002) defines innovation as an embedded process within a knowledge context, in which the exchange of learning and technical sources is elementary, especially for a specific activity. Economic networks are the basis for transforming heterogeneous knowledge sources into useful “new Combinationen”. Mentioned author too argues that successful innovative enterprises are more externally oriented and deal more proactively with externally-developed knowledge than do their competitors who follow innovation. He explains that especially agricultural innovation is a complex process, based on interactive network learning and processes of trial and error on the shop floor. So, it means that it is need to determine demand for innovations because of purposefulness of potential high expenditures.

Growing competition in the field of agricultural services encourages companies to look for new ways in order to improve the satisfaction of the customer needs. The most appropriate service innovations will be those that help to meet customers’ needs more effectively than competitors’ services, and are therefore preferred by more customers. It is not only for business, but for public organizations also. Organizations need to identify those needs, and then generate ideas and solutions to address them. Agricultural service users have specific needs and their problems are specific. The key characteristic considered to distinguish agricultural service innovations from other innovations is in the peculiarities of their derivation. Kajanus (2000) also state, that peculiarity of agricultural services is that potential number of the users is not as high as agricultural product users. Every idea can be totally new for the market or it can be new to its producer or to the focus group. So identification of customers’ problems and needs are necessary component of the model.

Agricultural service innovations are considered under some specific conditions, because problems of agricultural sector are quite specific also. But not every problem of the customers or all sectors can be resolved by the implementing innovations. It depends of organizations’ possibilities and an amount of customers’ needs (Lovelock and Gummesson, 2004). So, problems screening is desirable and appropriate element of the process model.

Agricultural innovations include technical, market oriented and socio-organizational solutions, the most of which are connected with external environment (Nieuwenhuis, 2002). For example, analysis of sufficiency agricultural production in the market can show that productivity is insufficient, so it has to be enlarged. Many ideas (service ideas also) can challenge such situation. Increases in farm productivity will depend critically on agribusiness efficiency in supplying farmers with improved seeds, fertilizer, herbicides, feed and veterinary services (Haggblade, 2011). Raising agribusiness productivity likewise increases efficiency and incomes in the nonfarm agricultural sector. Farmers (or entrepreneurs) can start a new kind of business in addition to traditional farming also. So, according example increase productivity can challenge many new product (or service) ideas, therefore outcomes analysis of their realization is necessary.

The detailed investigation involved in-depth surveys of target users to determine the extent of agricultural innovations problems, to build a user profile, to gauge user perceptions, attitudes and usage and an evaluation of existing services. In this case agricultural ideas resources
would be exceptional, because scholarly march of scientific institutions can be the most important information. It is necessary to be at one end of the scale the collection of information from the user and at the other end - active participation by the agricultural innovations staff. Then appropriate idea-generation techniques aided in the generation of service ideas.

By and large, within the customer-as a-resource perspective, it is need to focuses on customers as a source of service innovation ideas. It is appropriate solution for agricultural organizations, because of their especially close relationship with their product users.

Business companies create service innovations for variety of reasons, but usually in attempt to increase profits. It must be remembered that innovations’ ideas need to create on the base of companies’ objectives and strategy suggestions (Kajanus, 2000).

As highlighted earlier, the involvement of users and agricultural staff varies according to the stage of ideas generating. It starts with information gathering and moves quickly to ideas receiving. Users of agricultural service innovations become part-of this process eventually at the service innovations ideas receiving stage. It is quite important peculiarity of the development agricultural innovations also.

Proposed model can be used to guide the involvement of users and agricultural staff in the process of new ideas generating. It also highlights the iterative nature of ideas development, which is shown by the arrow looping back into the first component. The model has to be useful to inform users and staff about necessity of their contributions and role in the process of ideas development and cooperation. According to many observers feedback of the suggested model means, that new product development should be a continuous process, oriented toward the long term, i.e. it is a strategic issue of agricultural organization (Enzing et al., 2011).

Further will be reasoned the content, necessity and sequence of the suggested model components.

2. Model of Ideas Generation Process for Agricultural Innovations

Based on above presented arguments the process model of ideas generation for agricultural service innovations analytically is shown in figure 1. It was found to fit in well with the new product context and local procedures. The purpose of creating this model is for better developing an appropriative service system for successful service processes. This model provides a visual guideline for better managing the process of generating ideas for agricultural innovations, because of the identification of participants and their functions during the process.

The linear construction of the model means that the actions are connected in series, which is necessary to achieve disciplined process making with better results. Every action proposed in the model is important and can’t be missed out.

![Fig 1. Model of ideas generation process for agricultural service innovations](image_url)

2.1. Determination Demands for Agricultural Service Innovations

Agricultural companies that are not actively pursuing innovation are likely to lose in the competition. However, there is no single reason that encourages companies to innovate; each company has its own reason and motivation for innovating and these reasons are different in various situations. Companies tend to put forth constant efforts to satisfy the needs of their customers, they are considered to be creating products that comply with their customers’ preferences (Najib, Kiminami, 2011). Understanding business demand for new product or other innovations is a difficult and important task that has probably been overlooked by both economists and policy makers (Musco et al., 2010; Bivainis and Drejeris, 2007).

Science and technology offer wide opportunities to change and improve taste of food products, preparation and nutritional characteristics, conditions for rearing, organizational solutions and many other elements for agricultural industry, but the introduction of innovations in the agricultural sector is strongly influenced by demand conditions. Although final consumers are getting every day more interested in characteristics of agricultural production and are showing greater willingness to pay for new and improved products, and some of they do not
change substantially their alimentary regime (Meeus and Oerlemans, 2000). Such circumstances challenge to determine demand of any agricultural innovation.

It follows that product innovations in the agricultural industry are hardly radical and much more often of incremental nature. This feature makes innovation dynamics as in the industry similar to those in other mature industries such as textiles, clothing and footwear and despite its relevant innovation potential, it differentiates from other science-based sectors and the contribution of scientific institutions for innovations is important a lot in agricultural sector.

Muscio et al. (2010) identify three main typologies of demand for innovations (real, latent, potential) and argued, that it is necessary to measure not only customers demand, but employees demand for innovations also. Mentioned authors present taxonomy of that measuring and conclude that innovative agricultural processing technologies can meet the needs of several other industries also, so other industries can challenge demand of agricultural innovations. It is commendable situation where increasing pressure for universities to raise research funding from industry and to contribute actively to industrial innovation. In a fast-changing environment, leaders cannot predict what kinds of new product may be needed. Thus it is not clear what kind of new product structure and culture are needed for the customers, so that kind of analysis is necessary (Wood, 2007).

Determination demand of service innovations is one of the most important stages and it is necessary with ideas generation as a first step of new product development process. Bivainis and Drejeris (2007) suggested quantitative methodology for determining purposefulness of new service developing. Mentioned methodology became classical and is used in many service companies.

2.2. Identifying Problems and Customers Needs

Historically, firms organized research and development internally and relied on outside contract research only for relatively simple functions or products underlying most such views are the assumption that customers are sources of information and that customer involvement can enhance product ideas effectiveness (Lundkvist and Yakhlef, 2004 and other authors). However, researchers are not at one as to the relevance of involving customers in idea generation, arguing this will only lead to imitative, unimaginative solutions (Ulwick, 2002). The role of customer in agricultural sector for idea generation has mainly been recognized in connection with incremental, continuous innovation. I means that role of customer is bigger comparing with other sectors. Although the processing of information, its reconfiguration through sorting, re-categorizing, recontextualising and combining it with internal information may lead to the generation of new ideas and knowledge. Schuber and Ginsburg (2000) state, that uncovering explicit and latent customer needs and wants is still bedeviled in that it takes place at many removes from the customers’ tacit dimension, and is carried out in abstraction from their feelings and their emotion.

Consumers are often innovators, especially users of agricultural services innovations. So, the best channels by which can be problems understood are personal face-to-face meetings with farmers and other clients and visits to their farms and work places. The role of conversation, as a rich mode of interaction, has long been recognized by researchers. According to Tannen (1998), conversation is not a passive (cognitive) process where a person actively speaks then remains passive while another speaks; rather it is always engaging and active. Involvement in a conversation is created as much through a listener’s participation as through that of the interlocutor. Both listener and interlocutor become involved in the work of making sense and sharing and creating ideas.

The most of cases potential users of agricultural service innovations readily speak about their problems, especially about problems of organizing of some service process. In the case of customer involvement in innovation-related activities, the conversation has included the various suggestions, feedback and various ideas. The text for discussions is not to be interpreted as a mirror or representation of realities, but as a vehicle for bringing forth new ones. According Berry and Lampo (2000) it is in this sense that the text acts, it sanctions action, it intervenes in the organizational realities, and it does things. The role of conversation is double: First, it serves to make sense of the circumstances in which the interactants find themselves, and that is by translating those circumstances into available representations of how things are in the world; second, it serves to transform those interactants from two or several individuals into a collective purpose that “acts” on their behalf, becoming thus a sort of quasi-actor. It is only through this transformation into a collective actor that interactants become capable of dealing with the situation, as it has been interactively defined by them. This process of translation of circumstance into a frame of knowledge and new ideas, and of interactants into a collective purpose is realized in language, both in the sharing of perceptions of the situation and in generating a collective response to the circumstances where the interactants are located (Lundkvist and Yakhlef, 2004). From the interviews it was possible to highlight that active learning happened during the interactions between extension advisors and farmers and between farmers where the more advanced farmers often provide assistance and guidance to other farmers (Zakaria and Nagata, 2010). Such circumstances allow identifying other kind of problems, which can be analyzed in the sequel and can challenge coming new ideas again.

Public and business organizations frequently draw on consumers’ experiences, creative thoughts and usage behaviors for inspiration. The rationale for using consumers for creative solutions is that different individuals have
different experiences, abilities, beliefs and needs (Shane and Venkataraman, 2000, Webster et al., 2010). Such differences lead to unique interpretations of existing functional capabilities, possible product transformations to develop new solutions and novel conjectures for applications in new product areas (Zahra and Nielsen, 2002).

The field of agricultural innovations is heterogeneous as it covers various profession sandactivities. It means, that agricultural problems go global quickly. Winds blow rust spores from Africa to South America to the United States. Insects and other pests hitchhike with international travelers and trade, and migratory birds carry diseases across international borders. The loss of environmental quality and the degradation of rural landscapes are major contemporary challenges in European agriculture, which need to solve, and solve in the short run (Damianos and Giannakopoulos, 2002).

Other situation can challenge conditions, when any implementation of innovation cannot get started without recognition that the organization faces a crisis that it can’t overcome without radical transformation. Leaders have to use the crisis to unfreeze the organization, weakening commitments to the status quo (Wood, 2007). So, problems for customers’ needs satisfaction can appear from inside of a company also, and some kind of such problems can be solved only by implementing certain innovation.

2.3. Problems Screening

According previous statements in order to be successful, a service innovation should be based on customers’ needs (Edvardsson et al., 2010 and other). On more concrete level a new service is a solution for a problem that customers have and which they will not or can solve themselves. The problem should be identified in order to find solution for it. An important point to note, that some problems of the customers can be very large and complex; in which case, and there’s no question of creating some service to solve them by service companies’ power. So, companies’ experts have to decide about companies’ possibilities to solve them by companies’ power. Again according to Argouslidis and McLean (2001) problems and needs should be clarified in an early phase of the development process in order to make sure that service/market fit, the most important success factor for the service innovations, is ensured. In this case information about markets, customers, and competitors can be compiled by market studies and experience (including that of the sales force) with existing products (Suwannaporn and Speece, 2000).

To gain insights from consumers, various combinations of data collection techniques have to be used in this stage. Consumers are brought into research laboratories, given trial service and their behaviors are observed or they are gathered together in focus group discussions and asked to respond with creative solutions to a particular problem or challenge given parameter constrained design choices (Crawford and Benedetto, 2011). According Webster et al. (2010) recent virtual technologies have allowed consumer researchers to integrate different techniques to engage consumers in actually designing new products. Some companies use a web portal with a virtual adviser to “listen in” to desired combinations of customer needs; following this, customers are offered a design palette with specified features of service that fulfills their unique requirements.

It has been stated that customers are not always actually aware of their need and problems, especially of future problems. Some customers’ problems and needs can be future oriented. In situation like this a service producer that has developed an offer based on certain needs can help the customer to define his needs and problems. A service producer should therefore possess profound knowledge of the customer (Gustafsson et al., 1999). Patricio et al. (2011) even state that customers future needs can be modeling by the service company and they proved that proposition in their article. Sometimes failure of existing innovation and problems, which connect with it, can show a way for better decisions, also improved innovations and can offer new ideas again (Suwannaporn and Speece, 2000).

According Jaakkola and Halinen (2006) foundation of innovations is the belief in the provider’s benevolent intent, and in the notion that the service provider can be counted upon to advance the client’s interests, rather than self-seeking interests such as profits or status, so a degree of altruism is associated with innovations. It means, that problems screening is not only difficult, but so important part of set processes in the road of arise of a new ideas. Agricultural firms are mainly process-innovation oriented and use new technologies developed by upstream industries. Innovation thus mainly occurs through equipment and capital goods investments (Capitanio et al., 2009).

So, these can be one of the instrumentalities for determined problems solving.

Japanese agriculture widely put in practices the “bottom-up approach. This approach apparently allows farmers to provide direct input to the development of the agriculture field. In addition, through this the extensions are able to gather firsthand information from farmers which are subsequently shared within the community and authorities for further actions (Zakaria and Nagata, 2010). It can be stated that this approach is always topical not only in Japan, but for agriculture of other countries also.

It must be remembered that even every problem and every of needs of the customers have be considered significant and analyzed on this stage.

2.4. Outcomes Analysis of Problem Solving

According to the definition, the agricultural service innovations problems should also indicate for the critical the central outcomes of the service. Central outcomes can be defined as technical economic and process outcomes. Through technical outcome the experts evaluate technical possibility to solve that problem by the employees of the
It is useful establishing rules for further processes of creating service innovations and staffing also during this stage according results of previous analysis. Appropriate procedures of this stage not only enabled each firm to innovate repeatedly, but also highlight a reason to believe each organization’s routines were particularly suitable for that firm (Wood, 2007). Creating database for different problems integration, simulation and optimization integrations, and certainty in integrated systems are the methods for analysis of this stage (Whittaker and Thieme, 1989). Using of them can help to identify significant trends, impacts, and opportunities in their areas of expertise.

2.5. Methods Used for Ideas Generation and Determination Ideas Resources

There are a number of approaches for organizing, assessing, manipulating new ideas. Some of these approaches are described in Pahl and Beitz (1988) classical papers (systematic combination, combining with the help of mathematical methods) and Hyman (1998) works (morphological boxes and charts). The use of checklists is another one technique for creative thinking and manipulating appropriative ideas. Except mentioned below is presented some the most popular methods for new agricultural innovations ideas generation:

- Periodically screening existing agricultural service innovations of organization and comparing them with the firms’ products on purpose to improve attributes and combine the features/benefits of several separate products into a single new service. The most of cases these methods apply for organizational changing of existing services in order to improve their performance.
- Examining users’ un-met needs that are not being satisfied by competitive agricultural innovations. Only conversations with customers can suggest ideas for agricultural service innovations in commercial and public organizations on this case.
- Using idea-generation, such as brainstorming, to create a list of possibilities, and then evaluate each idea’s feasibility and relevance to the organization’s mission. This method is appropriate for generating ideas for agricultural innovations in commercial and public organizations also.
- Improving product of other organizations’ upon introduction could be the least expensive, fastest, and less risky way to introduce innovation to market. The group of such methods can be used in scientific organizations and commercial, public firms also.

Not all ideas of agricultural innovations can be directly adopted to form part of the design solution. Often only elements of ideas are used and these must be organized and combined to develop new, feasible ideas. Sometimes, ideas that at first do not appear to be workable, may in fact become practical solutions when modified or combined with other ideas.

agricultural service company. A single designer or even a team of them can’t have knowledge on all aspects of attempts. It would not be feasible to acquire expertise in all required areas; therefore it is necessary to turn to other sources for knowledge and ideas. Results analysis can call new challenges and directions for deeper research also. On the process of innovation development Wood (2007) this stage named as a creation future goals of innovations. He stated that goals need to convey management’s willingness to commit resources, which can be need for future development.

The process outcome tells how smooth and pleasant the problem has been from customers’ point of view. The economic outcome and through it the economic quality reveals to the customer quality reveals whether he had received the economic benefits that he had expected. Appropriate economical outcome is topical for the service company also. Determining of economical outcome is important on the case, when company determine future problems and needs of the customers. According that analysis is possible to determine the market fit of future service innovations. The description of process outcomes is very difficult because it would mean assessments of changing processes, actions and situations. So, it has to be made by qualified experts of the company. According Patrıcio et al. (2011) customers experience influence of outcomes and appropriate results of a such analysis influence of further service success. Industry growth represents an important push for organizations into increased renewal activities, while the perception of growth markets potentially offering entrepreneurial opportunities can pull organizations into increased entrepreneurial activities (for example, high market growth may be related to corporate start-up success). Environmental hostility can also stimulate problems in the market, which can be solved by innovation activities. Environmental hostility tends to create threats for the organization stimulating the pursuit of innovativeness and the adoption of innovations (Karimi et al., 2011).

Several studies have examined the role that universities and research institutions play in terms of facilitating firms’ innovation. They contend that cooperation with research institutions is the most effective means to achieve innovation intended to open new markets and segments (Najib and Kiminami, 2011; Nieuwenhuis, 2002). Problem-solving techniques such as modeling, simulation, optimization, and network analysis have been used extensively to help agricultural scientists and practitioners understand and control requirements of service innovation developing. Researchers will need such technologies to solve problems never before solvable and find new ideas for this purpose. As a result of outcomes analysis may be decision for application to some scientific institution, government or other organization for cooperation in some approach.
New product development literature has gone to some length to emphasize the significance of new product idea generation and overall fuzzy front-end stages of NPD (new product development) process (Brown and Eisenhardt, 1995 and other authors). One of the focuses of this literature stresses the importance of various sources of new product ideas. A resource means anything that can be thought of as being strength or a weakness of an enterprise (Kajanus, 2000). A review of the extant literature reveals a multitude of sources that can be categorized as being either internal or external to the firm. For example, research and development departments, venture teams, new product committees, and marketing department reports are considered useful internal sources of new product ideas, while consumers and lead users, distributors, suppliers, competitors, and government departments are considered useful external sources. The approach adopted by firms usually reflects their basic orientation toward NPD. Suwannaporn and Speece (2000) emphasize, that worldwide suppliers are increasingly becoming the source of technology and information about technology particularly in the food-processing industry. Supplier expertise in basic technology is one consideration when agricultural companies select vendors. Suppliers play a major role in developing new packaging or raw materials, as well as processing equipment. Taylor (2006), Stanton and Burkink (2008) maintain also, that suppliers provide an essential external source of ideas and technology transfer in agriculture.

In addition to agricultural service innovations idea sources, the importance of interaction with relevant stakeholders across various stages of NPD process is reflected in the growing body of interdisciplinary research on this topic. So, there is likely to be heterogeneous bundling of resources of innovations ideas. Ideas generation methods can’t be differ as appropriative only for business or only for public agricultural organizations, because sources of ideas are almost similar. The question for determining best methods of idea generation is widely described in Drejeris and Tuncikiene (2010) paper. The quantitative methodology for determining which method is the best on existing business circumstances and according different business situations is suggested in it.

Conclusions

1. Agricultural service companies and agricultural public organizations do not have any comprehensive model for service innovations idea generation, which would be developed on scientific foundations. A deep logical comparative and systematic analysis of the idea generation process makes it possible to highlight the requirements for the model of idea generation and to discover the main directions in which focus on composing models for idea generation of services innovations in agriculture is needed.

2. Suggested model provides clarifications of necessary procedures based on the researchers’ opinions, which are assessment in terms of logic and adaptability for agricultural field. Proposed model consist of 5 functional components. The first component suggests determination of demands for agricultural service innovations, second destinies identification problems and the needs of agricultural service users and organizations’ employees, third dictate to screen determined problems, fourth component orders to analyze outcomes of problem solving and fifth component of proposed model directs to choose method for ideas generating and determining new ideas resources.

3. All the components of suggested model are proved and discussed with description of interaction effects among components in the article. The model will help maintain a systematic approach, thus reducing the risk of failure and providing early information on service user acceptance. It can help reduce the uncertainties of the fuzzy front-end, prevents wasteful spending or effort on areas that are not relevant to the particular agricultural service being developed and is both user as well as service staff-oriented. Developed model for idea generation of agricultural service innovations will allow superiorly predict this performance and to implement it in more appropriative way, regularly and to get better results with less expenditure. Suggested model is appropriative in various conditions: for business and public agricultural organizations.

References
