

# *Management of internal consumer innovation readiness*

Timokhina G.S.

Ural State University of Economics  
Yekaterinburg, Russia  
Galinatimokhina@yandex.ru

Drevalev A.A.

Ural State University of Economics  
Yekaterinburg, Russia  
adrevalev@gmail.com

Lubina E.V.,

Plekhanov Russian University of Economics  
Moscow, Russia  
umk.lubina@gmail.com

**Abstract** — The article defines the concept of innovation readiness of an internal consumer, identifies the reasons and factors that influence, support or block innovation adoption among internal consumers of innovation. In the scope of innovation management, the system of innovation readiness levels (IRLs) is usually applied to technology and market demand. The authors propose the concept of internal consumer IRLs (ICIRL) applying the system of IRLs to the internal environment of a company. The article proves that the concept of marketing management of the internal consumer behavior can be effectively applied in order to increase the innovation readiness. The authors propose consumer innovation readiness management algorithm.

**Keywords** — *innovation readiness, internal customer, internal consumer of innovation, marketing management*

## I. INTRODUCTION

Most businesses acting in the modern Russian economy recognize the need to introduce innovations. The issues associated with promotion of innovations are widely discussed in the scientific community and are addressed by businessmen in various aspects. In fact, it is the issue of a company's personnel readiness to adopt innovations that is one of the most urgent. The readiness of personnel to adopt innovations and not to resist the changes is crucial for the economic and social efficiency as well as timing of innovation introduction.

Unlike novelties, changes, and technical inventions, innovation is characterized, first of all, by the practical use of original solutions. Innovation provides specific benefits and values for a wide variety of interest groups. The interest groups in relation to innovations will include external and internal consumers of product, technological and managerial innovations. External consumers, and the buyers of an innovative product, can be represented by the state authorities, commercial and non-profit organizations, households – i.e.

end-users. The authors refer to this group as external consumers as they use the results of the innovations introduced by the company (producer or seller). The product can be influenced not only by the product innovations themselves, but also by changes in the production technologies, sales management, organizational structures, personnel management methods, etc.

An important role in the process of innovations introduction belongs to personnel readiness to adopt product, technological, managerial and other types of innovations.

The article aims to study the possibility of applying the marketing approach to managing the innovation readiness of the personnel, which is considered an internal customer in the theory of marketing and thus is referred to as internal consumer of innovation.

## II. LITERATURE REVIEW

Scientists and experts from Russia and other countries study the issues of managing the innovation readiness of personnel in various aspects. Some researchers including Rogers E.M., Shakhovskaya A.A., Kukushkin S.B., Nikitina N.S., Gorshkova L.A., Poplavskaya V.A. and others focus on the methods of managing the innovation readiness of staff. At the same time Vanin E.V., Filimyanova M.G. and others mainly study the methods of assessing the key factors affecting the success of innovation. Dent D., Pettit B., Brutyan M.M., Poleyeva M.V., Zhurakhovsky A.S., Sholotonova E.S., Gorbov N.M., Shakhovskaya A.N., Dubova A.A., and some other scientists pay special attention to methodological issues of innovation readiness of personnel, evaluation and analysis of the staff innovation readiness level (IRL) as well as its improvement. At the same time, it should be noted that the theoretical, methodological and applied problems of differentiated marketing management of the innovation readiness of personnel haven't received sufficient

attention from the researchers. Thus, the role of innovation readiness of an internal consumer based on the satisfaction of the needs, benefits, and values in the process of introducing innovations requires further exploration.

### III. RESEARCH METHODS

The theoretical and methodological approach of the research is based on the studies in the field of innovative management, marketing, and consumer behavior by scientists from Russia and other countries. In order to achieve the goal of the research, the authors apply general scientific, disciplinary and interdisciplinary methods, as well as theoretical and empirical methods of marketing research.

Recommendations to the companies developed by the authors are based on the following methodologies. The concept of internal marketing proposed by Christian Grönroos forms the basis of the study. The Rogers's diffusion of innovations theory is used to study and profile internal consumers based on the understanding decreasing marginal utility and the risk-based decision-making. Innovation readiness of internal consumers is estimated on a six-point scale ranging from 1 (active adoption) to 6 based on the experts' estimation against the criteria proposed by the authors. The profile is based on the following variables: risk appetite, social status, the degree of innovation adoption to be estimated for the employees of a company involved in the innovation process. In order to identify the segments using the methodology of cluster analysis, the variables are defined to be relevant to the goals of the company. Additional in-depth studies can be carried out by the companies with the use of qualitative methods including focus groups, interviews, protocol analysis, surveys, projective techniques. The concept of marketing mix is used to identify the objectives of the internal marketing policy.

### IV. MARKETING APPROACH TO MANAGEMENT OF INTERNAL CONSUMER INNOVATION READINESS

As it is perceived by the authors, marketing approach can be applied to managing the innovation readiness of the staff because a company's marketing management system needs to study, understand and satisfy the personal needs of employees, to provide benefits and values with innovation, which is the basis of marketing [1, 2].

The concept of internal marketing, proposed by Christian Grönroos, assumes that in order to successfully sell the product to the external customer, the company firstly needs to sell it to the internal customer which is represented by the personnel working with external customers [3]. Internal customers are employees of an organization. A company should study the needs of its internal customers, identify and satisfy them to form the staff's loyalty and retention.

The original definition of the "external customer" concept implies a third party in exchange relations that has intention, buys and uses goods and services to satisfy the needs, thus obtaining benefits and values. This concept can be applied to define the concept of "internal customer".

The concept of internal marketing suggests that goods and services to a wide extent refer to a package of employer's proposals including the position, duties, benefits, as well as organizational processes, corporate culture advantages, etc. The needs, benefits and values of internal customers have a broad range of estimations and subjective perceptions by individuals. They are described by the well-known management and motivation theories by Maslow, McClelland, as well as the Herzberg two-factor model of needs, the Hackman and Oldham job characteristics model [4].

The more satisfied the needs of internal customers, the more they are motivated to effectively meet the needs of external customers [5]. Thus, employees are considered as a resource of an organization. It ensures the efficiency of the company's functions, including, the process of introducing innovations. The personnel of an enterprise, ready to introduce innovations and adopt them, will be more competent and flexible in relations with external customers. The staff can become the conductor of innovative ideas of the organization transferring them to external customers [6].

Therefore, both internal and external customers become consumers of innovations. The authors define the internal consumer innovation readiness as the ability of the personnel to perceive the innovations introduced in a company, adopt and promote their successful practical application without rejecting them. The innovation readiness of the internal can also be treated as a complex state, including the personnel's understanding of the need to improve the professional level on the basis of innovation, the initiative and motivation for creative and experimental work, the ability to apply innovation and bear responsibility for the results of its use [7].

Studies of the internal consumer innovation readiness level (ICIRL) through formal interviews with the staff of a model non-profit organization show that 15.8% of employees consider their readiness to be very high, 28.4% as high, 38.9% of respondents assess readiness as satisfactory and 16.8% are not ready to accept innovations [8]. The data can vary from organization to organization, but in general the results show that marketing management needs to understand the objective and subjective reasons, the factors that influence the ICIRL.

Introducing and implementing innovations is considered the most difficult stage of the innovation process, which is explained by difficulties of organizational, economic, social and psychological nature [9]. Regardless of the type of innovation, the process of its introduction will have factors supporting or otherwise blocking the innovation and influencing innovation readiness of internal consumers in a direct or indirect way (Table 1).

**TABLE I. FACTORS INFLUENCING THE INNOVATION READINESS OF INTERNAL CONSUMERS**

<b>Supporting factors</b>	<b>Blocking factors</b>
1. Opportunity for exchange of information, ideas and proposals between external and internal consumers of innovation. 2. Introduction of a system of financial incentives and moral encouragement for employees who successfully implement innovations. 3. Highly professional competence of the personnel due to new opportunities for self-development and skills improvement. 4. Strong corporate culture in the company. 5. Efficient communication system between employees of different divisions, management and other participants of the innovation implementation process.	1. Contradictions between the goals and reasoning of different interest groups, for example, company's management and its personnel as the internal consumer. 2. Limited information exchange, weak communication between the management and the internal consumer on the questions of innovations introduction. 3. Behind-the-scene decision-making on innovation issues. 4. Lack of motivation to adopt innovation among the internal consumers. 5. Strong consumer protection reasoning, caused by personal fears of losing the job income, benefits. 6. Struggle of internal consumers for resources in the process of innovations introduction.

Introduction of innovations aims at improving the efficiency of the organization. It is an irreversible process gaining its momentum as it evolves. The more intensive the process of innovations introduction, the stronger the psychological protection mechanisms of internal consumers will be [10]. These mechanisms trigger the process of internal consumer resistance, which is opposed to the process of innovation. Innovation readiness of internal consumers can be estimated on a six-point scale ranging from 1 (active adoption) to 6 (sabotage, disregard).

According to Everett Rogers, the author of the diffusion of innovations theory, only 16% of internal consumers adopt innovations easily and initiatively from the moment of their introduction, 70.5% are passive in adopting or rejecting the innovation and take the wait-and-see approach, 13.5% ignore the novelty or actively resist to it, which leads to a conflict in the process of innovations introduction [11]. It should be noted that passive rejection of innovation is more dangerous in comparison to the active form. It can block the process of innovations introduction due to its hidden nature of counteraction.

Regardless of the nature of the reasons why the internal consumer turns out to be unprepared to adopt innovations, the management of a company needs to manage the personnel's innovation readiness.

The authors perceive the internal consumer innovation readiness management as the implementation of the marketing- management concept of the behavior management aimed at the successful implementation of innovations (Fig. 2).

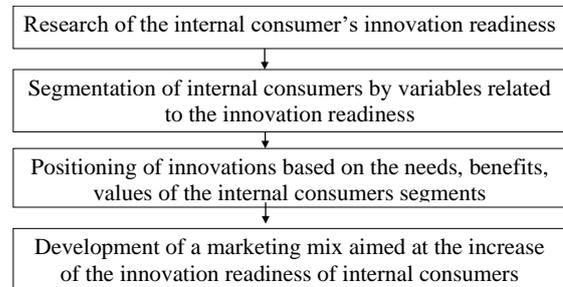


Fig. 2 Internal consumer innovation readiness management algorithm

The starting point of the internal consumer innovation readiness management is the research that can help to determine the IRL, the consumers' psychographic and behavioral characteristics, the factors that support or block the adoption of innovations [12].

Quantitative research methods including formalized and non-formalized interviews, can be used to assess the ICIRLs. The authors propose to draw an analogy between the ICIRL and the levels of technology readiness and demand readiness developed in the scope of innovative management.

As perceived by the authors, the systems can be complementary to each other. As stated above, it is the internal consumer of innovation that can "give life" to innovation or block its implementation. The authors propose identifying the following ICIRLs:

ICIRL-1 – internal consumers have unconscious need for changes, innovations;

ICIRL-2 – internal consumers recognize the need, a feeling of dissatisfaction with the current state has emerged;

ICIRL-3 – internal consumers can describe the main characteristics and parameters of the innovations desired;

ICIRL-4 – internal consumers have identified and understood the benefits from the introduction of innovations and their value;

ICIRL-5 – internal consumers formulate the request for innovation addressing the company's management

ICIRL-6 – passive or active waiting for the innovation implementation.

The authors believe that the study of the ICIRLs will allow the management of the company to identify and assess the maturity of the needs for innovation.

Research of the internal consumer innovation readiness can be carried out with the use of qualitative methods including focus groups, in-depth interviews, protocol analysis, surveys, projective techniques.

Qualitative methods of innovation readiness assessment allow researchers to segment internal consumers, identify and describe the segments on the basis of the following variables: risk appetite, IRL, professional competencies related to innovation, the expected needs, benefits, and values that will be obtained as a result of the innovations implementation [13]. Profiling of internal consumers can be based on the Everett Rogers's diffusion of innovations theory: the theory of decreasing marginal utility and the risk-based decision-making [14]. The profile thus will

be based of the following variables: risk appetite, social status, the degree of innovation adoption (Table 2).

TABLE II. TRAITS OF INTERNAL CONSUMERS, SEGMENTED BY VARIABLES RELATED TO INNOVATION READINESS

Segment	Traits of internal consumers belonging to the segment
Innovators	Innovators have high social status, high level of professional competences; they are passionate about innovations, open to everything new, they are able to take risks; they prefer result of a risky strategy to a guaranteed result; they are venturesome.
Early Adopters	Being reasonable, early adopters tend to reduce risk when adopting innovations; they have high social status; they are opinion shapers for other segments of internal consumers; practical value of innovation is the most important aspect for them.
Early majority	They listen to the advice of early adopters, accept innovations when the risks have significantly decreased; they need proof of the practical benefits and its viability to adopt a particular innovation; they are neutral to risk – i.e. they are indifferent to the choice between a guaranteed and a risky result.
Late majority	The segment with low social status not having noticeable effect on the opinions of other consumers; it takes long time for them to make decisions; they adopt innovations under the pressure of the social environment; they are usually reluctant to take risk.
Laggards	Laggards are the last ones to adopt innovations; they do not know how to take risk and do not want to do it; they prefer a guaranteed result to an uncertain, risky one; they find it difficult to make decision to adopt innovations and do it under pressure from the others usually; deliberately hinder the spread of innovations.

In order to identify the segments using the methodology of cluster analysis, the variables are defined to be relevant to the goals of the company's management. It is important not only to give qualitative description of the segments, but also quantify the ratio of segments of internal consumers in relation to innovation. The "innovators", "early adopters" and "early majority" segments are the driving force of innovation. The internal consumers belonging to these segments can be combined into innovative teams. The "later majority" segment can be treated as groups that are uncertain in their positions in relation to innovations introduction. The segment of "laggards" is clearly a force of resistance.

The innovation reaches critical mass when the number of consumers adopting innovation is sufficient for its self-sufficiency. In this case, managers can save resources for further work with the internal consumer to increase the innovation readiness. Otherwise, it will be necessary to develop strategies and tactics for working with segments of consumers that are uncertain in their positions and with resisting forces.

By its nature, innovation has a creative, dynamic character and it psychologically correlates with individual freedom and motivation for personal self-realization in professional activities. In this regard, the strategy of positioning innovations for selected segments of internal consumers should aim to demonstrate the personal benefits, needs, and values arising from innovation implementation.

The benefits and values should correlate with the needs of consumers identified in the process of research.

Based on the definition of marketing as a complex activity aimed at ensuring a mutually beneficial exchange of values, when developing strategies for increasing the innovation readiness, managers should rely on personal interest of an individual in obtaining benefits and values while solving professional tasks related to the introduction of innovations. As perceived by the authors, the use of the internal marketing complex concept will allow the managers to develop differentiated strategies aimed to increase the innovation readiness in the selected segments of internal consumers – targeting their personal needs, benefits and values derived from innovation (Table 3).

TABLE III. MARKETING POLICY AIMING TO IMPROVE THE INTERNAL CONSUMER INNOVATION READINESS

Marketing mix category	The essence of marketing policy for the internal consumer	Marketing policy implementation aimed to increase the internal consumer innovation readiness
Product: Product policy	Providing a competitive employment package	Providing opportunities to meet the scientific curiosity of internal consumers, conducting personal research on the introduction of innovations at the expense of the assets and funds of the organization.
Price: Pricing policy	Developing a remuneration scheme for professional tasks	Introducing financial incentives for consumers, actively involved in the innovations introduction in solving professional tasks.
Place: Sales policy	Creating a comfortable technological work condition	Developing a working environment aimed at the results (ROWE – Results Only Work Environment): cancellation of the normalized working day, the requirements to do the job at the organization's workspace.
Promotion: Communication policy	Introduction of opportunities for professional growth and development, as well as communications.	Applying a set of methods to develop a communication system for the internal consumer in order to effectively implement innovations

From the authors' point of view, the elements of the communication policy are the most differentiated and crucial for the selected segments of internal consumers. The main methods for establishing a system of differentiated communications for internal consumers will include the following points:

- a) informing consumers about all the aspects of the innovation introduction process before it begins;
- b) involving consumers belonging to the "innovators" segment in the decision-making process related to innovations by introducing the innovative teams;
- c) negotiating and reaching agreements on the basis of the management goals with due regard to the forces

resisting innovations – the conservative "laggards" segment of internal consumers;

d) delegating authority to consumers forming innovative teams: the "innovators", "early adopters" and "early majority" segments;

e) applying methods of enforcement to consumers in the "laggards" segment, especially to those who have low level of professional competence;

f) providing psychological assistance and support to consumers in the "late majority" and the "laggards" segments, who are afraid of losing their jobs after the introduction of innovations;

g) applying psychological methods to correct and shape stereotypes and dominant ideas that have emerged among consumers in the "laggards" and the "later majority" segments with respect to innovations;

Depending on the position of internal consumers at the scale of the ICIRL system proposed by the authors, the company's management can emphasize certain aspects of marketing policy, e.g. product and price, while reducing the costs of implementing activities in other categories of the marketing mix.

## V. CONCLUSION

Efficiency of innovation management at the stage on introduction can be ensured by applying the marketing concept of managing the innovation readiness of internal consumers. The internal consumers have different positions in the system IRLs, different psychographic and behavioral characteristics that affect the ability to adopt innovations. In this regard the managers will need to segment internal consumers using timely variables and develop differentiated strategies for managing their innovation readiness. By relying on the personal interest of internal consumers in obtaining benefits and additional values in the process of innovations introduction, the managers can implement the concept of marketing as a mutually beneficial exchange of benefits and values. Such benefits and values for internal consumers can include the ability to indulge scientific curiosity, professional growth and development, as well as taking active part in designing one's workplace. At the same time the organization will benefit from the successful implementation of innovations and getting the expected economic, social, and communicative effects.

## VI. RESULTS

The theoretical research has focused the opportunities of managing the innovation readiness of the staff. The analysis of the outcomes allows us to formulate the following scientific conclusions and recommendations for practical application by companies.

1. A company's management may be advised to apply the marketing concept of managing the innovation readiness of personnel, which is based on the personal interest of internal consumers in meeting needs, gaining benefits and values from innovation.

2. In order to make decisions and successfully introduce innovations to the internal consumer, the management of the company needs to carry out research and assess the level of maturity of the personnel's need for innovation. Companies The concept of the ICIRL proposed by the authors can be used as the basis for the research and assessment.

3. The concept of marketing management of consumer innovation readiness should be implemented through developing and introducing a differentiated marketing policy focused on the internal consumers' segments, that differ in the degree of risk, social status, and innovation adoption level.

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