

ORGANIZATION AND BUSINESS ENVIRONMENT COLLABORATIVE MODEL TO INCREASE THE INNOVATION CAPACITY

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Abstract: *The research aims to identify a modern Business Process Management solution to simulate integrated coordination mechanisms with impact on organization's innovation. From a scientific and socio-economic perspective, the article is aligned with the European innovation trend that supports organizations' preoccupation to introduce innovation and upgrading processes, technologies and business models. The issues that the author has identified and sought to find answers are to identify that mild method of Business Process Management that can be correlated with the dimensions of organizational innovation in areas such as: the organization's infrastructure, partnership between business members, innovation "inside". The second issue is to limit current approaches by analyzing the current state of knowledge. The research has been included within the boundaries of modeling and simulation of business process flows with impact on organizational innovation vectors. Thus, the paper proposes and presents a set of integrated processes of collaboration between the organization and the business environment using Business Process Management as an integrated coordination mechanism of the organization's innovation.*

Keywords: collaborative process, business process modeling, innovation

1. Introduction

Today's business organizations struggle to increase their competitiveness, and for that, one of three possible approaches is referring to improving the business model and its operationalization [1]. Changing the business model can reach three distinct areas: the business model components, the final form for implementation/operationalization, and the way of changing. As result, the analysis of organization to identify where the change is needed and how it is executed is becoming absolutely necessary. In this paper, the author proposed two hypotheses through the increase in the competitiveness of the organization can be based. The first is a business model that uses a high degree of collaboration inside and outside the

organization. A second hypothesis is how to approach the execution of collaborative activities, proposing a business model based on cross-organizational collaboration processes. Demonstration of hypotheses starts with the presentation, definition and description of the cross-organizational collaboration processes identified in the literature to provide a clear picture of the elements and concepts used in the developed analysis [2]. It is also highlighted the quality of the results described in the literature based on the results obtained by the organizations using this approach. Demonstration of the reliability of the assumptions consists in presenting a proposal of a collaborative process model that includes the elements necessary to achieve the objectives to a high degree of quality.

2. Research approach

The degree of collaboration between organizations is nowadays considered one of the problems identified as the source of results missed goals for companies. Since improving business competitiveness has led to the need to increase the capacity for information and collaboration, there has been a need for the strong development of interactions with customers and, implicitly, with suppliers [3]. In terms of collaboration, it can be described as the result of interaction between the members of the same organization or between members of different organizations and can be of the instant, long-term type, and/or contract-based or basic knowledge. In fact, almost all the processes within an organization are the result of collaboration in order to achieve the required goals [3]. Thus, increasing the complexity of activities has clearly led to teamwork and implicitly to the need to develop joint processes, expanding the organization's collaborative areas.

An example provided in [4] may be the Supply Change Management (SCM). Analysing processes in the supply chain highlights that employees, partners, and customers are all involved, not only doing clear tasks but also solving complex problems together. In this situation, problem-based collaboration should use the structured processes [3], these being partially outsourced and those that improve activities such as: management, inventory and audit for the SCM case. To demonstrate the second hypothesis, a structured approach to process-based cross-organisation collaboration is proposed, which provides superior added value and also provides an increase in the efficiency of management processes.

The level of current competitiveness forces requires organizations to look around with more attention, to establish and develop structural-collaborative links with business partners. A good example of collaboration development is represented by innovative

CRM and ERP systems [5]. These systems offer innovative solutions to customers (products or services), but their use requires changing the processes that take place on the value-added chain. In this sense, the organization needs to be equipped and adapted to identify the most suitable resources, who will be involved and what will be communicated. Consequently, the way of collaboration must allow and help interact with business partners in an efficient way so that the client can be satisfied in the end. Approaching the collaborative business model on processes allows and helps the organization develop the best solutions for collaborating through innovation [6, 7]. Using a collaborative process involves more participants being involved through discussions, solving solutions whenever necessary, all in order to reach the optimum [6]. Moreover, collaborative processes increase the motivation of the workforce, the quality of the process operationalization and its results with a direct impact on the degree of satisfaction of the clients' needs [8].

Using this approach to competitiveness, the author proposes a cross-organization collaboration process model that can be developed between organizations. Its development is focused on presenting modules within the activities of organizations and highlights the level of collaboration between partners. In order to highlight the importance of the model in terms of the quality level of the obtained results, a differentiation is made between a generally used solution, evidenced by the schematic of figure 1, and a collaborative business model proposal identified by figure 2. The improved results identified in the proposed model are obtained by:

the multitude of links of the proposed model (the high number of communication interactions resolves many of the possible problems) highlighting components that support high-quality goals.

Supporting the idea of improving the proposed model is based on the

identification of demarcation factors that support the previous statements and are

highlighted and used in the collaborative process.

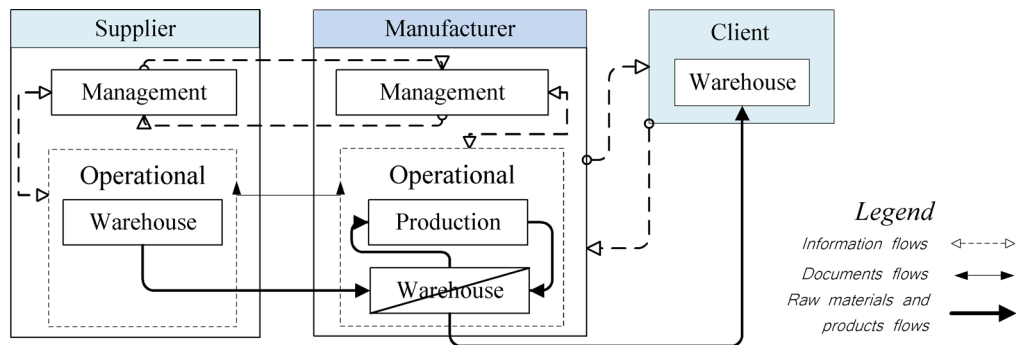


Figure 1: Classic representation flow of collaboration

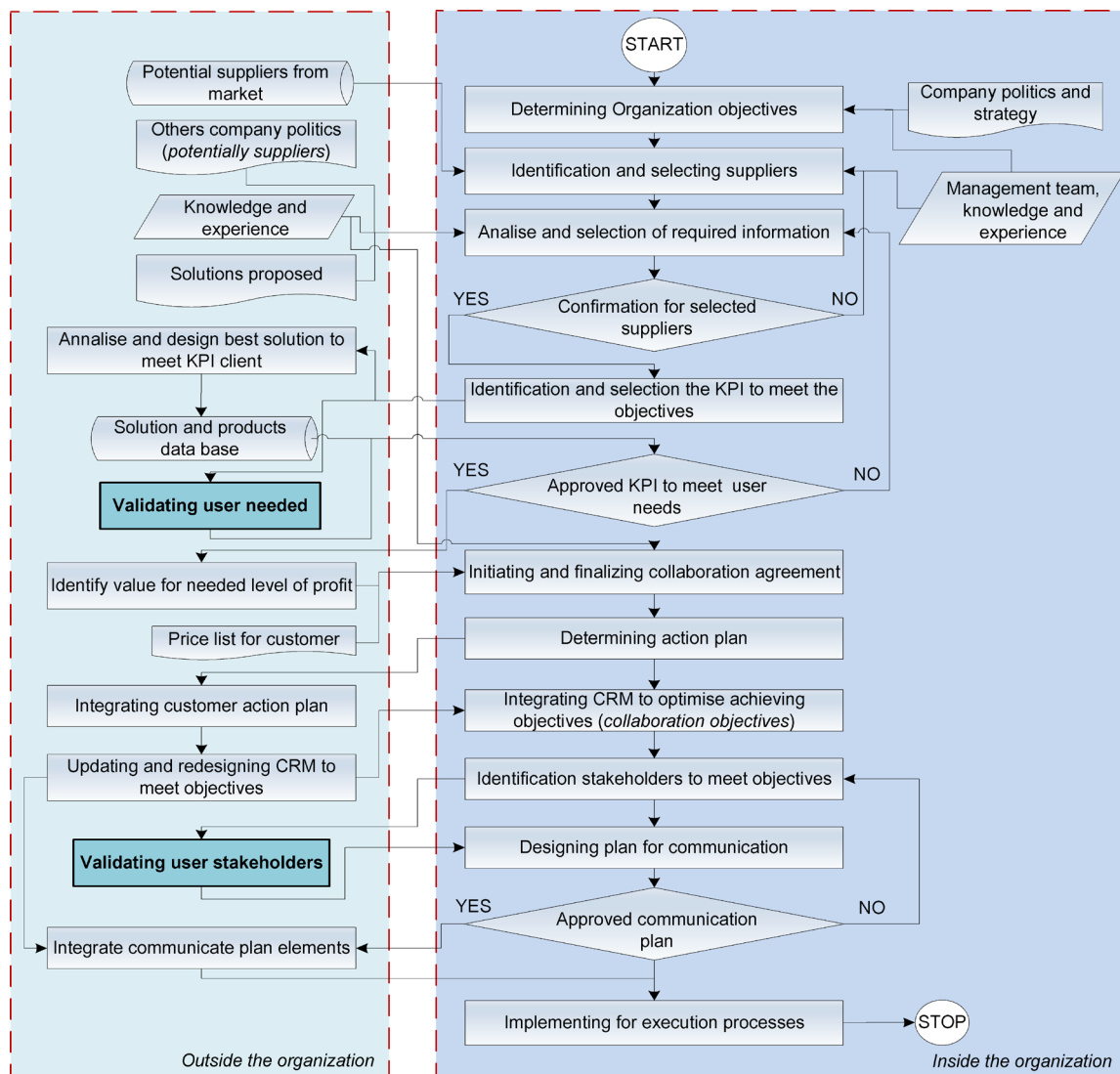


Figure 2: Designing a sequence of the collaborative process model for organizing production

In Table 1, only those *demarcation factors* identified to be relevant to meeting organization's objectives at a particular time of business development [9] were highlighted. These were described and explained in relation to each of the two models using table 1, highlighting the contribution of each and how they can support increased competitiveness.

Also, in support of the second hypothesis, we identified and structured the *impact factors* considered to be vectors for innovation and increase the organization's

competitiveness [1].

These factors presented and developed in table 2 are also compared based on two described situations. Again, for each of these factors was presented their important uses as well as the way to participate in innovation and to support competitive results for the organization. The comparison and the analysis carried out for them lead the author to validate the hypotheses presented in the opening and to support the superiority of the proposed model.

Table 1: Highlighting the difference between models

Demarcation Factors	Process collaboration	Traditional collaboration
Clearer picture	highlighting strategic processes	poor general image
Complete picture	all processes in the added value chain	only main participant structure
Processes	show each strategic step of flows	black box for the responsible, show start and finish
Ensuring the quality of information	throughout the entire process	only where it is highlighted

Table 2: The factors that are affected by traditional cross organisational collaboration

Impact Factors	Need improvements	What suppose it should be
Results quality	only those specified in the contract first	those who contribute to meeting the needs of the final customer
Contract	the only source of information on how to collaborate	source of information on the legal basis for collaboration
Information can be affected	the mode of transmission of the information may be changed whenever requested or received due to the inexistence of a regulation or rules	using a structure based on collaborative processes that permanently highlight the type and quality of information
The new solution from the supplier	the collaboration is performed only under the terms of the contract and does not provide for any improvement if necessary, the bottleneck in communication	collaborative processes are managed and encompass all stakeholders that can improve the quality level of results and ease communication to the system created
Information request	only is time to fill out the order or to identify problems	the flow of information is triggered every time any stakeholder identifies a problem
Structure of information	the information can always receive in another form only recurrent information that is clearly specified in the contract	the flow of information is part of the cross-organizational collaboration process, so it should respect and integrate high rules of the work already imposed on the outcomes

Impact Factors	Need improvements	What suppose it should be
People involved	information sharing or problem-solving involves only those who are nominated without looking for the best solutions in the whole system, the model does not allow	encompass all stakeholders that can improve the quality level of results
The content flow of information	just what was indicated in a contract	whatever it takes to meet the needs of the final customer

3. Research results

Carrying out the collaborative process model in figure 2 provides a sufficient picture to demonstrate the validity of the assumptions [10]. Based on this model, the author presents in a structured way, on sub-processes, the development of the activity of a productive organization, highlighting the used elements.

The first step of the development of the model is driven by the *identification of objectives* as a result of identifying the needs of the final customers [9]. These will be described based on data gathered from both internal environment of the organization and external environment through discussions and exchanges of ideas. Such collaboration sessions ensure that the resulting goals are the best that a company can get. Table 2 identifies the elements that provide the differences between the two models. The second step highlights the need to *identify suppliers* based on the concept of collaboration and consultation on the features and abilities that future vendors must meet.

The third step is to identify the most *representative indicators* (KPIs) that will underpin the achievement of the objectives proposed in the first step [5]. These are the result of analysing and proposing members of the organization and those outside. Consultation and collaboration for their designation imply intense exchanges of opinions and information among all collaborators.

The fourth step is identified by *initiating and finalizing a collaboration agreement* with a focus on communication. Its structure takes into account the objectives [5], the types of information used, the way they are transmitted (CRM-software), the nature of the teams involved in the communication process on each level. Its purpose is to ensure continuous, fast and uniform collaboration and to solve as soon as possible the possible problems.

The fifth step is the extension of the previous one, namely the implementation of the collaboration agreement. The significance of this step lies in the importance of operationalization. Only by implementing the planned process, the organization can gain competitiveness advantages with a direct impact on the degree of achievement of its objectives.

4. Conclusions

This paper presents the comparison of the components of two business models, highlighting those related to collaboration inside and outside the organization, given the continuing need to improve competitiveness.

The proposed model was based on the key elements of managerial planning by identifying those groups or departments that can collaborate to provide relevant information and solutions that meet the organization's goals. The proposed comparison investigates each of the two types of factors considered relevant, namely

demarcation factors and impact factors. The first set of factors explains the differences between the approaches for the two solutions while the second describes the extent to which the two models are affected and suggests the advantages of the proposed one, indicating where the results can be improved in the course of the actions.

The second hypothesis was validated by a model that improves collaboration and creates a comprehensive picture of the structure of the organization's processes. The model is considered innovative because it proposes a collaborative approach using process structures that represent the driver for increasing the organization's competitiveness.

Finally, given the framework presented, the premises are created to increase the competitiveness of the organization by developing the capacity for internal and external collaboration.

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