
Empirical Verification of Relationship Between Organizational Boundaries, Business Model Change and Outsourcing Scope and Maturity

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Abstract:

Purpose: The goal of the paper is to present the research results on empirical verification of a model of relationships between, the premises of organizational boundaries change, outsourcing's scope and maturity, outsourcing's effectiveness and the level of business model modification.

Design/methodology/approach: The research sample was purposive and included 281 Polish companies. The main research tool was a survey questionnaire, supported by the CATI technique. To verify the model, the Structural Equations Modelling (SEM) method was used. The research was based on the Business Model Canvas framework, as well as author's concept of outsourcing maturity characteristics.

Findings: The results confirmed the existence of relationships between all the phenomena included within the research model, the only exception being the impact of outsourcing scope on its effectiveness. Specifically, the research proved the impact of outsourcing effectiveness on the level of business model changes in surveyed enterprises, as well as a strong relationship between outsourcing maturity and its effectiveness. The research enabled to identify outsourcing not only as a tool of organizational boundaries change, but also as one of the key methods of business model adaptation and alteration.

Practical implications: The research indicates the need for extending the field of analysing outsourcing's impact on the shape of the business model to adjust the scope and the outsourcing process to changes taking place in the enterprise, as well as its environment.

Originality/value: The research can be used to develop future research directions, such as a more detailed explanation of the way outsourcing impacts the process of business model innovation.

Keywords: Organizational boundaries, outsourcing, business model innovation.

JEL codes: L14, L22, L24.

Paper Type: Research article.

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1. Introduction

The paper's main premise is the growing popularity of business models - both in business practice and in management literature (DaSilva and Trkman, 2014; Haaker *et al.*, 2018). In the face of increasingly frequent and more rapid changes, not only on the client's side (e.g., everchanging clients' needs, shortening of product life cycles, growing share of the value of virtual products in the economy, etc.), but also regarding the structure and boundaries of companies, as well as business sectors (Amit and Zott, 2015; Teece, 2010), there is a need to introduce new ideas that would enable both effective and efficient organization management. This requires expanding the set of strategic management tools with additional methods and techniques enabling verification of the effects of managerial decisions, as well as analysis of mechanisms occurring at the borderline between organization and its environment (Eisenhardt and Santos, 2005; Jacobides and Billinger, 2006). One of such tools is business model, which, by including also the elements located traditionally within the environment of the organization (mainly business partners and clients), emphasizes the importance of these entities for modern companies (Brehmer *et al.*, 2018). And, in a broader meaning, the business model increases the possibility of matching individual elements of the organization to the structure of the network in which value is being created more and more frequently (Amit and Zott, 2001; de Oliveira and Cortimiglia, 2017; Sinkovics *et al.*, 2018).

Another main premise of the article stems from the popularity (Grant, 2018; Vitasek *et al.*, 2013) and evolution (Corbett, 2004; Willcocks *et al.*, 2011) of outsourcing, specifically perceived as a method of organizational transformation. Increasing networking of enterprises, expressed in, *inter alia*, the growing importance of activities carried out by business partners, as well as the customers' participation in the product design process, or the multitude of different forms of relationships with competitors (e.g., co-opetition) prove, that customer value is being created more and more frequently within a network of connections between independent (at least in formal and legal terms) entities (Alves *et al.*, 2016; Redlich *et al.*, 2014; Stańczyk-Hugiet and Maciejczyk, 2019).

This results in the need to consciously adapt organizational boundaries to changes in the environment, which in turn has an impact on organization's processes and activities. Also, the increase in the possibility of generating value through business partners' participation, causes significant changes in the shape of the value chains. For large, vertically integrated enterprises, this phenomenon creates the possibility of achieving efficiency gains, not only by outsourcing the processes and activities that contribute less to value creation, but also by identifying potential synergy effects resulting, among others, from skillful matching and using the partner's competences in this process. On the other hand, for small, non-diversified entities, additional opportunities to profit on the cooperation with a partner, in turn, result in

a higher likelihood of obtaining key resources, which often translates into long-term growth and development (Kakabadse and Kakabadse, 2003; Linder *et al.*, 2002; Mazzawi, 2002).

Outsourcing can be viewed as one form of such cooperation, which nowadays goes beyond activities aimed solely at reducing costs, contributing - and sometimes being a *sine qua non* condition - to the implementation of processes: creating, delivering and capturing value (Fjeldstad and Snow, 2018). Some of outsourcing's characteristics as a management method, such as, flexibility, variety of forms, the possibilities of using it as a tool to achieve many organizational goals, including strategic ones (Dominguez, 2005; Gay and Essinger, 2000; Power *et al.*, 2010), incline to ask questions about the current importance and potential of outsourcing. Moreover, a significant percentage of failed outsourcing projects (Lacity and Willcocks, 2012) justifies the need to look closely at outsourcing implemented at the beginning of the third decade of the 21st century, pointing to the need of augmenting this area of management science, specifically – the importance of outsourcing for the processes of value creation, delivery and capture.

Lastly, in the research model presented in the paper, as an explanation of the mechanism for shaping changes in the business model, the concept of premises of changing organizational boundaries was adopted. This assumption was confirmed empirically by the high importance of the concept of organizational boundaries for business management, including business model phenomena (Cyfert, 2012; Cyfert and Krzakiewicz, 2009). Proper management of organizational boundaries is a key condition for adapting the organization to its environment, the occurrence of specific premises of boundaries' change being of key importance for implementing this process. In the context of earlier considerations, changes in the organization's boundaries will result, among other things, in the need to modify its business model.

Viewing this problem from the perspective of the Resource-Based View (RBV) approach, it should be noted, that the occurrence of certain premises for changing organizational boundaries may result in the need to modify both the nature of the resources and their configuration. This relationship also indicates the importance of outsourcing for the process of business model change. According to RBV, decisions regarding: the type, number (quantity) and quality of resources available at a given time, as well as the way they are combined and used, are going to determine organization's competitiveness, thus indicating the possibility of achieving its basic goals (Barney, 1991). Creating and delivering value in the business model will therefore require appropriate use and proper configuration of key resources. Thus, in the context of RBV, the business model can be perceived as a specific (for a given organization or, in a slightly narrower sense, an enterprise) bundle of resources and competences, primarily those that contribute to the implementation of a specific value proposition. And, from the business model perspective, outsourcing's key function will be to enable access to business

partners' resources, especially those that are relevant to the implementation of a given value proposition.

Therefore, it seems that not only the decision regarding outsourcing scope is significant for the feasibility of implementing a given business model in practice; also, the way outsourcing will be carried out would affect the process of the business model innovation. Based on the aforementioned premises, the main goal of the paper is to present the research results on empirical verification of a model of relationship between:

- the premises of organizational boundaries change,
- outsourcing's scope and maturity,
- outsourcing's effectiveness and
- the level of business model modification (in the context of both quantitative and qualitative changes).

To verify the model, presented in the next part of the paper, the Structural Equations Modelling (SEM) method has been used. The research sample included 281 Polish companies. The business model framework used in the research is the Business Model Canvas (BMC) proposed by Osterwalder and Pigneur (2013; 2010).

2. Presentation of the Research Model

Figure 1 presents the identified research model. Both the number of research hypotheses, as well as their causal nature, resulted from the shape of the research model. Considering the number of phenomena included in the model and the nature of the relationship between them, it should be emphasized that the research hypotheses concerned three main causal relationships:

- the impact of the premises for changing organizational boundaries on two keys outsourcing characteristics (outsourcing scope and maturity),
- the impact of these two characteristics on the of outsourcing's effectiveness and
- the impact of outsourcing effectiveness on the level of changes introduced in the business model.

Hypotheses 1 (H1) and 2 (H2) concerned the first relationship:

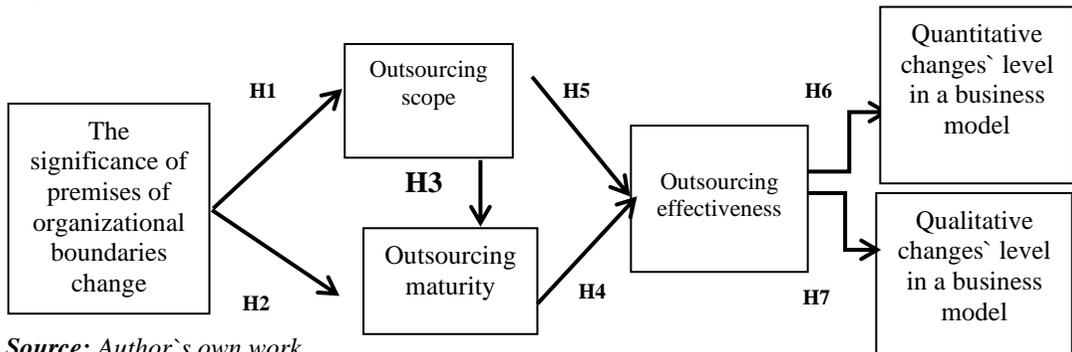
Hypothesis 1: Increase in importance of organizational boundaries change results in increase in outsourcing's scope.

Hypothesis 2: Increase in significance of organizational boundaries change results in increased outsourcing maturity level.

To empirically verify the potential influence of outsourcing's scope on its maturity level, hypothesis 3 (H3) has been formulated:

Hypothesis 3: Increased outsourcing's scope results in increased outsourcing maturity level.

Figure 1. The identified research model, including hypotheses' codes



Source: Author's own work.

Regarding the second of the aforementioned relationships, hypotheses 4 (H4) and 5 (H5) have been formulated:

Hypothesis 4: Increase in outsourcing maturity results in increased effectiveness of outsourcing.

Hypothesis 5: Increase in outsourcing scope results in increased effectiveness of outsourcing.

Lastly, hypotheses 6 (H6) and 7 (H7) referred to the relationship between the effectiveness of outsourcing and level of business model change:

Hypothesis 6: Increase in outsourcing's effectiveness results in increased level of quantitative changes made within a business model.

Hypothesis 7: Increase in outsourcing's effectiveness results in increased level of qualitative changes made within a business model.

Positive verification of the proposed hypotheses would allow confirming the occurrence of relationships between the importance of premises for changing organizational boundaries, key outsourcing characteristics, outsourcing's effectiveness and the level of changes within the business model. The model's verification would also answer the question about the indirect impact of the significance of the premises for changing organizational boundaries on the shape of the business model, as well as enable the identification of the significance of two key outsourcing characteristics: scope and maturity, for its effectiveness as a business model transformation tool.

3. Substantiation of the Research Model

The research model's main assumption is, that the existence of premise(s) of the organizational boundaries' change results in the need of modifying the company's business model. For example, the need to focus on core business may result in changing target customer(s) (i.e., reducing number of segments in which the company operates). Modification in one business model compound may result in changes of other elements, i.e., distribution channels, partner network and cost structure. In this approach, outsourcing is the method of both changing the organizational boundaries and adapting the business model. Hence, during outsourcing decision-making process, both the changes introduced in the business model, as well as the current premises of organizational boundaries change, ought to be taken into consideration. In the aforementioned example, the company may increase both the level of outsourcing, as well as change its form to more mature.

However, in this case, the managers should ask themselves the question: how implementing outsourcing is going to change our business model? Is it going to be helpful in this particular situation? Therefore, the described model requires to make more thorough analysis of outsourcing decisions, which should be vital for the decision-makers. Hence, according to the presented model, both the fact and the way of using outsourcing influences the possibility of introducing organizational boundaries changes and the business model shape. It means that the company which does not have the ability to implement outsourcing effectively is going to encounter serious problems when attempting business model adaptation. In this case, either the changes in the business model and organizational boundaries should be reviewed, or outsourcing should not be used. This conclusion leads to the fact that using outsourcing should be looked at as one of the organization's competences, for it requires certain skills, knowledge, experience and resources (Drzewiecki, 2013).

3.1 Premises of Organizational Boundaries Change as Antecedents of Business Model Modification

The concept of premises of organizational boundaries change is based on the research carried out by Cyfert (2012), who identified eleven following types of such premises:

- ensuring competitiveness,
- increasing the created value added,
- risk diversification,
- the use of economies of scale,
- focus on core business,
- reducing the cost of the organization,

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- mitigating the limited possibilities of internal development,
 - enabling the use of redundant resources,
 - using the environment opportunities,
 - reducing the negative impact of threats,
 - increasing organization`s flexibility level.

In the context of a business model, ensuring enterprise competitiveness and increasing value added requires finding a balance between left (key partners, resources, and activities) and right (channels, relations, and client segments) part of the BMC (Osterwalder and Pigneur, 2013, 2010). Both aspects should not only be balanced, but also aligned with the BMC`s central element – the value proposition (VP). On one hand, the pursue of increasing the added value will result in the revision of key activities carried out so far and the key resources owned or available to the organization. This analysis should also include key partners, who are responsible for both performing some of these activities, as well as providing resources. An enterprise should therefore have knowledge about the nature of the value added expected by customer segments included in the business model, to avoid implementing obsolete activities and incurring the costs of acquiring resources that do not contribute to the creation of a specific VP.

On the other hand, the need to adapt VP to new customer segments (or changes in customers` needs within current segments) may introduce new activities and resources that will be used during the value creation process. From the perspective of Porter`s competitive strategies (Porter, 2003), outsourcing in this context can viewed at in two ways: firstly, as a method of accessing resources enabling a product / service to be distinguished on the market (differentiation strategy), secondly - as a method of optimizing the configuration method resources (crucial for a low cost strategy implementation).

Diversifying risk is inextricably linked to the organization's ability to survive. The BMC framework takes this aspect into account mainly by including the structure of revenues and costs. Business model innovation may also require looking for additional sources of income or shifting part of the costs to other entities (e.g., intermediaries). Finally, the issue of risk is closely related to cooperation with outsourcing partners. The outsourcing client's attempt to share risk will result in modifications within BMC (especially its left side). This aspect is vital also in case of another two premises of organizational boundaries change: utilizing economies of scale and cost reduction. It can be achieved by increasing production volume, which will entail changes in the cost structure, at the same time potentially enabling it to reach new customer segments (e.g., through additional strategic options for product positioning).

Specifically, for small and medium entities, the cooperation with outsourcing partners gives the opportunity to use their economies of scale. Because economies of scale are strongly associated with the focus on core business, the business model

can also be viewed as a framework for decisions regarding the desired level of enterprise specialization. The organization's efforts to reduce cost will primarily result in modifications to its vertical boundaries.

The search for economic rationality, reflected in the BMC by the cost structure and revenues, requires decisions not only regarding the shape of the value creation process in the enterprise, but also its place within the sector's value chain. On one hand, such factors as environment's uncertainty high level, limited rationality and low level of trust in the partner, will result in-sourcing the activities that so far have been carried out outside the organization (Eisenhardt and Santos, 2005). In such case, not only its external borders will expand; these changes will necessitate the transformation of the business model, mainly BMC's left side. In turn, if the enterprise strives to maintain control over costs, managers may be willing to use the market (or hybrid solutions between the market and the hierarchy (Williamson, 1998), which would replace the activities carried out so far inside with those carried out by outsourcing partner, and the change in the structure of key resources would follow.

Another driving force for business model innovation is the mitigating the limited internal development opportunities. In this context, two basic mechanisms for adapting the business model to the organizational boundaries ought to be pointed out. The first one is exploitation, which relies on utilizing the organization's potential and involves the reconstruction of the internal boundaries while strengthening the existing external ones. The second mechanism is exploration, which involves reformulating the business model, developing new key competences, acquiring new resources, and rebuilding both internal and external boundaries (Cyfert, 2012; Gibson and Birkinshaw, 2004). Outsourcing emerges in this context as a method supporting both mechanisms. For example, in case of an operation, an enterprise may decide to outsource some of its activities, which would change its internal boundaries.

At the same time, outsourcing can also be used in the exploration process as a mechanism for altering business model - in this case, outsourcing may also apply to the areas that have not been implemented in each entity so far, and which are necessary to create new competences. Also, the organization's attempt to utilize redundant resources will also cause significant changes to the business model, as it will induce the enterprise to outsource some of its activities (Cyfert, 2012), which is going to reconstruct both the internal and external organizational boundaries. Similarly, attempts to ensure resource redundancy will lead to the extension of organizational boundaries. Regardless of the variant used in each case, each of them will result in the need to modify the business model in the first place.

The last three of the identified premises of organizational boundaries' change are closely related. Flexibility is seen primarily as a quick response and ability to adapt

an organization to its environment (Yuan *et al.*, 2011), which increases, among others, the possibility of utilizing changes occurring in the company's environment, both positive and negative. The perception of opportunities and threats will also affect the company's behavior, including decisions about organizational boundaries and the business model shape. As indicated by Cyfert, attempts to ensure flexibility in conditions of a high uncertainty level will prompt the organization to dispose of excess resources and extend its boundaries. In turn, the stability of the environment, resulting in increased possibility of acquiring any amount of resources, will be an incentive to shorten the boundaries of the organization and focus on its key competences (Cyfert, 2012).

In relation to all three premises of organizational boundaries` change, outsourcing`s high potential should be emphasized. For example, increasing organization`s flexibility level can be augmented by certain characteristics of the relationships with outsourcing partners; if these relationships are based on trust, outsourcing implementation should enable the possibility of shortening the process involving the adjustment of both parties to the outsourcing contract. This indicates the potential importance of outsourcing maturity for its effectiveness. Outsourcing can also be viewed at as a method of mitigating threats and making best use of organizational opportunities, which requires linking the objectives resulting from the analysis of opportunities and threats (e.g., SWOT) with the objectives of outsourcing.

The identified relationships between premises of organizational boundaries change and business model modification allow drawing two main conclusions relevant in the context of the presented research model. The first one concerns the relationship between the occurrence of premises organizational boundaries` change and the use of outsourcing. Because this method is one of many ways to adapt organizational boundaries to the environment, managers should be aware of the possibility of choosing other methods as alternatives to outsourcing, as well as supplementing it with other tools. The importance of outsourcing decision-making process, including analytical activities, should be emphasized here.

The second conclusion concerns the indirect relationship between the occurrence of premises for changing organizational boundaries and business model innovation. Since business model boundaries cannot be identified with company boundaries, not every change in the boundaries of an enterprise will result in the need to modify the business model. The occurrence of such situations does not mean, however, that the problem of the relationship can be ignored. On the contrary, one can indicate many additional, specific conclusions resulting from the identified research model and management relevant in practice. For example, the lack of awareness of the high importance of the premises of changing organizational boundaries for the shape of a business model may result in several errors regarding the process of changing it. In turn, the analysis of the objectives resulting from the premises for

changing the boundaries of the organization should facilitate the outsourcing decision-making, including its scope and maturity.

3.2 Effective Outsourcing as a Method of Business Model Modification

As it has already been pointed out, the issue of organizational boundaries is crucial to the business model shape. Moreover, its systemic nature results in the fact that decisions regarding organizational boundaries affect not only the set of key activities and partners' choice, but also have significance for the configuration of other business models components. Specifically, vertical boundaries should be tailored to the VP, consider the available resources, as well as key competences necessary to: create, capture, and deliver value. Hence, most business model concepts refer to issues related to the way in which value is created in relation to both the enterprise and the sector. Thorough analysis of management literature containing overview of business model definitions and frameworks (Amit and Zott, 2015; Gorevaya and Khayrullina, 2015; Wirtz *et al.*, 2016; Zott *et al.*, 2011), which is expressed, *inter alia*, by business model components' choice, allows the identification of three dominant approaches in this context.

The first approach is based on including the value chain in the construction of the business model (Chesbrough, 2010; de Wit and Meyer, 2010; Magretta, 2002; Rappa, 2004), with the majority of authors referring this element of business model architecture to the issue of value chain, both at macro- (sector) and micro-level (the organization itself). Therefore, choosing the optimal mode of operation means matching both the subject's place in the value chain created in the sector, as well as the configuration of resources, skills, and processes, to other elements of the model. This indicates the importance of outsourcing decisions, especially in relation to the characteristics of areas outsourced, outsourcing scope and the relationship between competences and resources owned by the enterprise and its partners. From this perspective, the business model can be viewed as an attempt to find a balance between the market and the hierarchy.

The second approach is to include (key) business partners as components of the business model (Hamel, 2000; Hedman and Kalling, 2003; Osterwalder *et al.*, 2005; Osterwalder and Pigneur, 2013; Schweizer, 2005; Weill and Vitalle, 2001). It emphasizes the importance of decisions regarding the selection of partners (including outsourcing partners) in the business model innovation process. It is necessary here to get to know the partner's capabilities, the way they operate, and, in a broader context - also the shape of their business model, to be able to adapt to the form of the outsourcing contract and the characteristics of the relationship with the outsourcing partner. Finally, the third approach combines both of the aforementioned approaches by introducing the concept of value creation structure or value creation network (Kindstrom, 2010; Shafer *et al.*, 2005; Voelpel *et al.*,

2005). Here, the synthesis of the previous two approaches is augmented with an analysis of the processes of value creation, capture and delivery.

Both the outsourcing evolution (Linder, 2004), as well as the characteristics of transformational outsourcing (Kakabadse and Kakabadse, 2003; Mazzawi, 2002; Omprakash *et al.*, 2008) indicate, that value nowadays is created less and less frequently within the structure of an integrated enterprise (Nenonen and Storbacka, 2010; Storbacka *et al.*, 2012; Zhang *et al.*, 2015; Zott and Amit, 2008). At the same time, decisions about the business model shape should consider two main aspects regarding how to configure value, as well as the company's position relative to other entities creating value. Thus, perceived outsourcing should take into account aspects of VP and accompanying processes of: creating, delivering and capturing value that determine the possibility of implementing a model in a given shape, i.e. affect its profitability (Teece, 2018).

In the context of the value creation process, outsourcing should consider three key decisions regarding the type of resources acquired from the partner, the time when the resources should be available, as well as their quantity and / or number. At the same time, the combination of outsourcing with the central element of BMC, which is the VP, makes it possible to identify those resources that meet two basic conditions: are necessary to implement the value proposition in the adopted shape and, at the same time, are possible to obtain in each case. The possibilities of outsourcing in each variant may therefore determine the shape of the VP. The main approach, which explains many relationships between the use of outsourcing and the process of creating value, is the RBV and the resulting models (e.g., VRIS) (Barney, 1991).

Originally, RBV focused on resources located within the enterprise, because it assumed the ownership or (at least) control over the resources used as a necessary condition for creating rents (Lavie, 2006). Access to resources through outsourcing creates in this context the possibility of using new value creation mechanisms. Firstly, implementing outsourcing can supplement internal resources with those that would be less effective for the company to build in-house. In the case of lack or too low level of adequate resources, outsourcing may prove to be the most effective way of acquiring them (Verwaal *et al.*, 2008). Secondly, using a combination of internal and external resources may lead to the synergy effect, which will increase the created value (Dyer and Singh, 1998; Zhang *et al.*, 2015).

Finally, internal resources can be supplemented with external resources, an example being the outsourcing partner's knowledge, which will positively impact organizational learning processes (Norman, 2004), resulting in increased production efficiency and, in the long term, an improvement in competitiveness. Outsourcing can also provide access to specialized and advanced technology, the creation of which would take too long, would be too expensive, or impossible to re-create (Teece, 2007).

Thorough analysis of the value creation process also requires considering another aspect – the compatibility of client`s and partner`s business models (Nenonen and Storbacka, 2010). A desirable feature of the business model in this context, which is internal alignment (between its components), is complemented by the requirement of external adaptation. It can be viewed at from many perspectives, for example, as an alignment between the client`s and partner`s resources or the possibility of integrating processes implemented by both entities (Contractor *et al.*, 2010; Larsen *et al.*, 2013; Mukherjee *et al.*, 2013; Sirmon *et al.*, 2011; Storbacka *et al.*, 2016). Enterprises can therefore dramatically improve value creation by designing business models with a high degree of internal and external fit. Internal fit can be achieved by analyzing identified elements of the business model and modifying potentially incompatible elements. On the other hand, the external fit means the business model`s compatibility with the needs of customers, the arrangement of suppliers, as well as the requirements of other business partners. Therefore, a higher level of external fit can be achieved both by modifying business model, as well as by changing the portfolio of customers and business partners.

The second process crucial to successful implementation of a business model and extremely important in the context of outsourcing decisions, is the process of capturing value. In this context, two main aspects should be mentioned. The first one includes sharing benefits resulting from cooperation, as well as and risks associated with this method of management. In a situation where value is co-created (e.g., in the case of network value creation logic), these issues should be taken into consideration when deciding on the business model shape. From the outsourcing client`s perspective, however, there is also a second important aspect regarding the effectiveness and efficiency of the outsourcing process itself. From the point of view of sharing profit and risk, the key aspect is the contract form. Certain clauses of the outsourcing agreement will determine both the distribution of benefits and the ways of mitigating risks resulting from cooperation.

Decisions about, among others, provisions regarding the characteristics and levels of SLAs, clauses regarding contractual penalties, the way the quality and scope of services provided are linked to outsourcer`s benefits, as well as provisions regarding intellectual property rights generated in the course of cooperation or conflict-solving procedures, will determine real possibilities of capturing value by both parties (Dominguez, 2005; Power *et al.*, 2010; Vitasek *et al.*, 2013). The second key aspect of capturing value from the outsourcing client's perspective is the way the outsourcing process is managed. The specificity of this process means that the enterprise, when making decisions about the implementation of this method, should consider the level of outsourcing costs. In the context of business model, implementing outsourcing will not only result in the changes within the left side of BMC, but will also affect the level of costs.

Summing up, it should be emphasized, that both the structure and content of outsourcing contract will affect the process of capturing value co-created by client and partner. In turn, both the shape of outsourcing process and the way it is managed will affect the costs of implementing this method, which will also translate into the possibility of capturing the value created with the participation of an outsourcing partner in each case. The aforementioned relationship between the processes of value creation and capture, confirmed by numerous research results (Amit and Zott, 2001; Foss and Foss, 2005; Lin *et al.*, 2016; Mayer and Salomon, 2006; Verwaal *et al.*, 2008; 2002) indicates, that outsourcing decision-making requires simultaneous consideration of issues related to value creation and transaction costs, since both of these aspects are closely related.

In addition, some research results (Verwaal *et al.*, 2002) suggest that the factors responsible for value creation may be dominant in relation to the factors responsible for the level of transaction costs when outsourcing decisions are made. This indicates the importance of the value creation process as the foundation for outsourcing decisions. At the same time, if transaction costs are high, the possibility of obtaining valuable and unique resources becomes a less important factor in making these decisions. This confirms that the value created in outsourcing is not only limited by the possibility of complementarity of resources, but also largely depends on the level of transaction costs. Failure to address transaction costs can therefore exclude efficient resource deployment, even if there is potential for value creation.

Hence, the processes of creating and capturing value should consider the achievements of both the new institutional economics (NIE) and the RBV. These concepts indicate the need of matching: the features of the resources used in these processes, the characteristics of the transaction, as well as an appropriate structure of supervision (Verwaal *et al.*, 2008). An enterprise that highly appreciates the likelihood of opportunistic behavior will be less willing to cooperate with a partner, thus processes and mechanisms such as information exchange or knowledge transfer between entities will not be activated. The fear of the partner seizing the value will affect the process of its creation, which may have a negative impact on the potential of the created value.

Moreover, the lack of matching between these three elements (for example, failure to consider the type and characteristics of specific resources being exchanged) will result in a reduction in the effectiveness of outsourcing cooperation resulting in an increase in transaction costs, specifically *ex post*. Hence, the RBV and the theory of transaction costs should therefore be treated as alternative approaches, not necessarily complementary. It may turn out that the company will choose outsourcing as the preferred course of action despite the high level of transaction costs. In other words, the benefits of the value creation process expressed by the level of jointly created value will outweigh the transaction costs level.

Alongside the processes of value creation and capture that have been identified and discussed so far in the context of outsourcing, value delivery is also crucial for the successful implementation and innovation of a business model. In relation to BMC, the most important in this context are the components located in its right side. Specifically, the decisions made in the areas of channels and customer relationships, will translate into the effectiveness and efficiency of the value delivery process. Therefore, business model should consider the possibility of reaching a specific customer segment(s) with a given value proposition. At the same time, it should be emphasized that activities aimed at acquiring customers may go beyond the classic marketing in this context. First, the configuration of values in the network creates an additional opportunity for the outsourcing client to use partner's communication channels. Such a solution should positively affect the efficiency of the entire process, i.e., by reducing the cost of reaching the client. Therefore, outsourcing can also be perceived as a tool enabling more efficient and effective establishing relationships with clients.

The above changes not only result in new opportunities when building profitable business models, but also indicate combining various ways of establishing and maintaining customer relationships with the value delivery channel. Virtualization of products and services blurs the boundaries between these two components of BMC, which makes outsourcing even more useful. For example, using the experience of an outsourcing partner in such areas as marketing, IT, sales, customer service or (in the classic sense of the distribution channel) logistics, enables the company increasing the effectiveness and efficiency of the value delivery process.

As in the case of value creation and capture processes, the value delivery process does not function in isolation from the other two. While the postulate of matching the processes of creating and providing value seems obvious, it should also be noted that the issue of capturing value should be considered in this context. Here, the issues discussed earlier regarding the contract structure, partner's remuneration model, as well as outsourcing process management, become crucial. As in the case of the value creation process, any mistakes made in the outsourcing implementation process may result in many problems regarding the transfer of value created in the business model to the client.

4. Research Sample and Methodology

The research tool used during the research described in the paper was a survey questionnaire. Four channels of communication were used to initiate contact with the respondents: traditional mail, electronic mail, direct contact and via telephone².

² *The telephone contact was carried out using CATI (Computer-Assisted Telephone Interview) technique. The questionnaire was recorded in the electronic form, using a software that simplifies conducting interviews, while both arrangement and content of*

The research sample included 281 cases. The data regarding the model of contact with the respondents (including the size of the investigated enterprises determined³) is presented in Table 1. The research sample was purposive. Alongside the criterion of using outsourcing two additional criteria were used (arising from the specifics of the project, by which the research was financed):

- the source of capital: the research included Polish enterprises⁴,
- number of employees: only enterprises employing at least ten people (Drzewiecki, 2018).

The characterization of the research sample in the cross-section of selected quality features (organizational and legal frame, scope of diversification, and business area) is displayed in Table 2.

Table 1. *The model of contact with the respondents divided by the enterprise size*

Communication channel with respondents	Size of an enterprise			Sum (%)
	Small	Medium	Big	
Electronic mail	3	2	2	7 (2,5%)
Traditional model	7	2	1	10 (3,6%)
Direct contact	18	4	5	27 (9,6%)
Telephone	75	101	61	237 (84,3%)
Sum (%)	103 (36,6%)	109 (38,8%)	69 (24,6%)	281 (100%)

Source: Author's own work.

Table 2. *The characterization of the research sample in the cross-section of selected quality features*

Organizational and legal frame of business activity	Size of an enterprise			Sum (%)
	Small	Medium	Big	
State owned enterprise	1	2	7	10 (3.6%)
Joint stock company	3	5	19	27 (9.6%)
Civil law partnership	21	50	13	84 (29.9%)
General partnership	12	9	4	25 (8.9%)
Limited partnership	0	0	1	1 (0.3%)
Limited liability company	22	20	24	66 (23.5%)
Business run by a natural person	44	23	1	68 (24.2%)
Sum	103	109	69	281
Area of business				

questions have not been changed in relation to the questionnaire distributed via other channels.

³Based on two criteria defined in EU regulations: employment size and annual turnover.

⁴The definition of „Polish enterprise” encompasses the business entities whose majority owners are, in case of natural persons, citizens of Poland, and in case of legal entities – enterprises with the dominant Polish capital, the Treasury, or local government.

Activity only on domestic market	66	72	30	168 (59.8%)
Activity mostly on foreign markets	2	3	5	10 (3.6%)
Activity mostly on domestic market	35	34	34	103 (36.6%)
Degree of diversification				
Enterprise operating in one sector (branch)	53	52	21	126 (44.8%)
Enterprise operating in several related sectors (branches)	45	53	31	129 (45.9%)
Enterprise operating in several unrelated sectors (branches)	4	3	7	14 (5%)
Enterprise operating in a dozen or so sectors (branches)	1	1	10	12 (4.3%)

Source: Author's own work, based on Drzewiecki, 2018, pp. 199-200.

To verify the research model, the Structural Equations Modeling (SEM) method was used. Structural modeling is a multidimensional technique allowing for a cause-and-effect analysis of relationships between variables, as well as elements of factor analysis, enabling the identification of unobservable variables using multiple indicators (Światowiec-Szczepańska, 2016). To perform the analysis, the SEPATH module in the *Statistica* software was used. This algorithm, also called the *path analysis method*, contains linear regression equations corresponding to structural relationships, i.e., interpreted causally between synthetic variables. Thanks to the path analysis being based on regression, it is possible to verify the impact of one variable on another (Drzewiecki, 2019).

The main advantages of structural modeling include the possibility of a direct confrontation of theory with empiricism and testing of complex hypotheses regarding the relationship between unobservable variables. In this approach, a simultaneous assessment of the fit of the entire model to the data can be carried out. In other models, such as regression analysis, it is possible to evaluate only single relationships described by the model, carried out in subsequent and independent analyzes. This prevents the researcher to assess the whole theory being tested. Causal modeling facilitates testing of hypotheses in rapidly changing environmental conditions and allows comparative testing of specific concepts in various situations (e.g., related to specific sectors or geographic markets). Importantly, structural modeling also allows the identification of mediation and moderation results in the structure of unobservable variables (Światowiec-Szczepańska, 2016). Based on the procedure of operationalization of variables and identification of synthetic variables, the following six synthetic variables were included in the model:

- PRE, measuring the importance of premises of organizational boundaries change,
- OSC, indicating outsourcing scope,

- OMA, indicating outsourcing maturity,
- OEF, measuring the effectiveness of outsourcing,
- BQN, measuring the level of quantitative changes implemented within business model,
- BQL, measuring the level of quantitative changes implemented within business model.

Except for the OSC variable, to measure each of the specific variables, a 6-point Liker scale was used. For the PRE variable, the scale ranged from 0 (“the premise does not influence strategic decisions made in the enterprise”) to 5 (“the premise is key for strategic decisions made in the enterprise”). Outsourcing effectiveness was also measured on a 6-point Liker scale, with answers ranging from “outsourcing does not contribute to goal accomplishment” to “outsourcing is crucial for achieving a goal”. In case of OMA aggregate, respondents were to assess the frequency of each of 18 solutions used during outsourcing project carried out in their company and described in table 3; the scale ranged from 0 (“never”) to 5 (“very frequently”).

Outsourcing scope [OCS] was measured on an 11-point Liker scale. Respondents were asked to establish the percentage of activities being outsourced within each of the fifteen functional areas included in the survey (0 for 0%, 1 for 10% and so on, up to 10 in case of full outsourcing of a functional area). Then, the average percentage of activities outsourced was calculated in each case. Each of the six variables listed above was based on several specific variables, presented in Table 3.

Table 3. Factors (variables) constituting the aggregated variables included in the research model

Factors (variables) constituting the aggregated variables included in the research model				
The significance of premises of organizational boundaries change [PRE]	Outsourcing maturity [OMA]	Outsourcing effectiveness [OEF]	Quantitative changes` level in a business model [BQN]	Qualitative changes` level in a business model [BQL]
Ensuring competitiveness	Benefit sharing	Ensuring competitiveness	Amount of client segments/groups serviced	Changes aiming to reach larger groups of clients within currently serviced segment(s)
Increasing the created value added	Risk sharing	Increasing the created value added	Number of products/services offered	Changes in the method of identifying the key client
Risk diversification	HR sharing	Risk diversification	Number of after-sale services offered	Actions aiming to reduce the least profitable clients

Focus on core business	Physical resources sharing	Focus on core business	Activity fields (markets, branches)	Perfecting existing products/services
The use of economies of scale	Joint investments	The use of economies of scale	Products/services prices	Perfecting the after-sale services
Mitigating the limited possibilities of internal development	Informal meetings with the vendor	Mitigating the limited possibilities of internal development	Amount of sales/distribution channels	Perfecting client problem solving methods
Cost reduction	Exchanging strategic information	Cost reduction	Number of after-sale services channels	Perfecting the method of product/service supply (distribution channels)
Enabling the use of redundant resources	Long term contract	Enabling the use of redundant resources	Client communication channels	Perfecting the means and channels of after-sale services
Using the opportunities	Outsourcing risk analysis	Using the opportunities	Number of key activities performed as part of value creation process	Perfecting customer service
Mitigating negative impact of threats	Opportunity cost analysis	Mitigating negative impact of threats	Processes/functions performed by the company	Optimisation – perfecting marketing tools
Increasing the flexibility level	Quality of products / services analysis	Increasing the flexibility level	Number of human resources	Changes in building and maintaining client relations
	Vendor experience analysis	Obtaining access to new markets (sectors)	Number of physical resources	Implementing new actions vital for value creations processes
	Gathering additional information about vendor	Acquiring new customer segments	Number of financial resources	Perfecting the methods of implementing processes/functions
	Vendor consultations about the requirements	Reducing product/service prices	Number of key partners	Obtaining new employees with new skills
	Vendor consultations about agreement draft	Improving product/service quality	Amount of income sources	Obtaining new employees with rare skills
	Creating a team to negotiate with a vendor	Establishing closer customer relationships	Amount of payment methods (forms) for products/services	Obtaining new technology

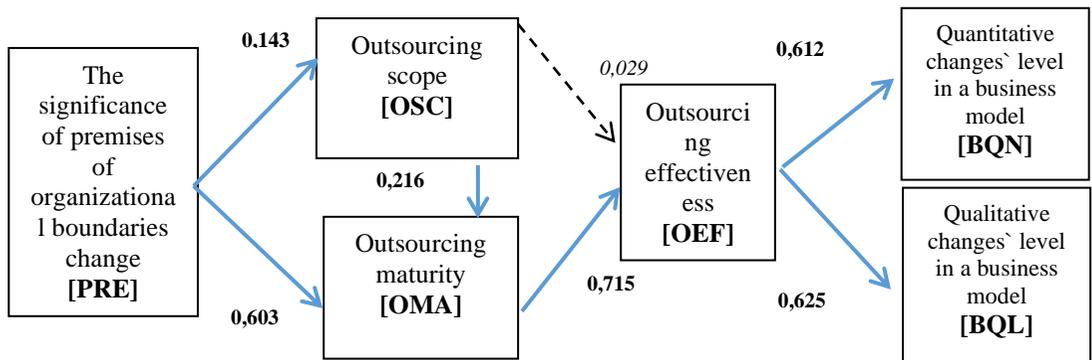
	Creating a team with a vendor	Releasing the enterprise's resources and using them in other activities	Amount of cost items	Changes in the evaluation criteria of the key partner
	Hiring consultant(s)			Changes in the type of resources obtained from the key partner
				Actions aiming at cost optimisation

Source: Author's own work, based on Cyfert, 2012; Drzewiecki, 2018, 2017, 2013; Drzewiecki and Krzos, 2020.

5. Empirical Verification of the Presented Research Model – Research Results

Figure 2 presents the statistically verified research model that includes all the six aggregated variables presented above. In Table 4, the parameters of the verified path model are presented⁵:

Figure 2. The empirically verified research model



Source: Author's own work, based on: (Drzewiecki, 2019)

Table 4. The parameters of the verified research (path) model

Relationships	Estimated parameter	P-value
[Significance of premises of organizational boundaries change]->[Outsourcing scope] [PRE] – [OSC]	0,143	0,015
[Significance of premises of organizational boundaries change]->[Outsourcing maturity] [PRE] – [OMA]	0,603	0,000
[Outsourcing scope]->[Outsourcing maturity] [OSC] – [OMA]	0,216	0,000

⁵Joreskog's GFI for the verified model equalled 0,88, RMS=0,1.

[Outsourcing scope]->[Outsourcing effectiveness] [OSC] – [OEF]	0,029	0,507
[Outsourcing maturity]->[Outsourcing effectiveness] [OMA] – [OEF]	0,715	0,000
[Outsourcing effectiveness]-> [Level of quantitative changes within a business model] [OEF] - BQN	0,612	0,000
[Outsourcing effectiveness]-> [Level of qualitative changes within a business model] [OEF] – [BQL]	0,625	0,000

Source: Author`s own work, based on Drzewiecki, 2019.

The results of the SEM confirmed the existence of all the relationships between variables postulated in the original version of the model, the only exception being the relationship between the OSC and OEF variables. Therefore, the hypothesis 5 regarding the direct impact of the scope of the use of outsourcing on its effectiveness was not confirmed. At the same time, attention should be paid to the relationship between the OSC and OMA variables. Although this relationship should be considered weak (as indicated by the value of the model parameter equal to 0.216), it is statistically significant (at $p = 0.000$). Thus, the results of the analysis allow to consider the OSC variable as an intermediary for the DO variable (the scope of outsourcing affects the level of outsourcing maturity). Hence, the impact of the outsourcing scope on its effectiveness should be considered indirect. Table 5 presents the results of hypotheses` verification, based on the results of the SEM analysis:

Table 5. The results of the hypotheses` verification

Number and contents of hypothesis	Variables covered by the hypothesis	Results of confirmation
H1: Increase in importance of organizational boundaries change results in increase in outsourcing`s scope.	[PRE]->[OSC]	Confirmed, low impact level
H2: Increase in significance of organizational boundaries change results in increased outsourcing maturity level.	[PRE]->[OMA]	Confirmed, high impact level
H3: Increased outsourcing`s scope results in increased outsourcing maturity level.	[OSC]->[OMA]	Confirmed, low impact level
H4: Increase in outsourcing maturity results in increased effectiveness of outsourcing.	[OMA]->[OEF]	Confirmed, very high impact level
H5: Increase in outsourcing scope results in increased effectiveness of outsourcing.	[OSC]->[OEF]	Not confirmed
H6: Increase in outsourcing`s effectiveness results in increased level of quantitative changes made within a business model.	[OEF]->[BQN]	Confirmed, high impact level
H7: Increase in outsourcing`s effectiveness results in increased level of qualitative changes made within a business model.	[OEF]->[BQL]	Confirmed, high impact level

Source: Author`s own work, based on Drzewiecki, 2019.

6. Conclusions

The research results presented in the paper allow drawing the following main conclusions resulting from verified the research model:

- the increase in the importance of the premises for changing organizational boundaries has a positive impact on both the scope of outsourcing use and its maturity,
- the impact of the significance of the premises for changing organizational boundaries is significantly higher for the level of outsourcing maturity than for its scope,
- outsourcing scope is a mediating variable between the variables responsible for the level of significance of the premises for changing organizational boundaries and the maturity of outsourcing, while the strength of this relationship is low,
- outsourcing scope does not directly affect its effectiveness (and only indirectly, see previous point)
- outsourcing maturity positively affects its effectiveness,
- outsourcing maturity is a variable that mediates between the meaning of the premises for changing organizational boundaries and the effectiveness of outsourcing,
- the effectiveness of outsourcing positively affects the level of changes in the business model, both quantitative and qualitative,
- the effectiveness of outsourcing is an intermediate variable between outsourcing maturity and variables responsible for measuring the level of changes in the business model.

The research allowed to confirm the relationship between the outsourcing maturity and changes made within the business model of the surveyed enterprises. Indeed, there was a regularity consisting in increasing the level of outsourcing maturity together with an increase in the level of business model change. This allowed to draw a conclusion, that the identified features of mature outsourcing (Table 3) can also be treated as the characteristics of the transformational outsourcing, whose main purpose is to support the process of modifying the business model.

Verification of the research model allowed also to indicate a logical causal sequence leading from the occurrence of changes in organizational boundaries, through decisions on changing the business model and the use of outsourcing in this context, ending with the business model alteration. Hence, the emergence of a sufficiently strong signal of the occurrence of premises of organizational boundaries change leads to formulating specific organizational objectives. The implementation of some of these goals may require a change in the business model. In the next step, the selection of tools enabling the implementation of the mentioned goals takes place; one of such tools is outsourcing. If this method is chosen, then decisions regarding its scope and maturity would be made, which in turn would affect the effectiveness of outsourcing in two aspects: adjusting the

organization (including its business model) to its boundaries, as well as supporting the process of the business model modification.

As it results from the verified research model, companies changing their business models should pay particular attention to the form of outsourcing undertakings included in its two key characteristics. Depending on the chosen variant of outsourcing implementation, it will have a greater or lesser impact on the possibility of effective and efficient modification of the business model. Therefore, the research indicates the need for extending the field of analysing outsourcing's impact on the shape of the business model to properly adjust the scope and the method of outsourcing to changes taking place both in the enterprise, as well as its environment. The concept of assessing the maturity of outsourcing proposed at work may prove to be helpful here. Thus, the perception of the outsourcing effectiveness as a function of its maturity should facilitate the management of the outsourcing project.

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