

# Knowledge Exchange Between KIBS Firms and Their Clients: Case Study Analysis

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**Abstract:** Purpose: This paper aims to analyse knowledge exchange between KIBS firms and their clients, and their potential determinants (e.g. client's education, type of the service offered, channel of the knowledge exchange, and willingness of the customer to accept the knowledge). The paper is based on a literature analysis and a case study research, examining 5 KIBS firms located in the Pomeranian region in Poland. Methodology: On the basis of a literature analysis on KM and KIBS companies, the following research question was formulated: What are the determinants of a knowledge exchange between a KIBS firm and its client? To answer this question, five case studies from KIBS companies of various sizes and offering various services have been examined. Findings: The results of the study show that there are different determinants of knowledge exchange between a KIBS firm and its customer. First of all, the type of service delivered is one of these factors. For example, if a KIBS firm delivers a standard solution, not tailored to the needs of the customer, there is no need for an intensive knowledge exchange. Conversely, if the KIBS service is adjusted for fitting the needs of a customer and is customized, then an intensive knowledge exchange takes place. Second, the openness of the customer is the next determinant. If the customer wants to learn and absorb knowledge, the knowledge exchange process is easier. Third, the channel of knowledge exchange is also determinant. If there are good conditions for free flows of ideas and discussions, knowledge exchange is more abundant. Another determinant appeared to be the education background of the customer. Research limitations: Research results are limited to five companies only, all located in Poland. As such, they cannot illustrate the whole picture of existing small companies, nor they cover the companies of other countries. Practical implications: The findings of both literature review and case study analysis indicate that there are several factors that KIBS firms should focus on, if they want to improve knowledge exchanges with their customers. Originality/value: The paper contributes to a better understanding of knowledge exchange processes occurring in a trade relationship between KIBS firms and their customers. It shows why and when this kind of exchange is crucial and what factors can influence it.

**Keywords:** knowledge management (KM), KIBS firms, knowledge exchange

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## 1. Introduction

It is a widely shared opinion among scholars that recurring interactions between clients and providers are the most distinctive feature of the service delivery activity. This is particularly true in the case of knowledge-intensive business services (KIBS) firms, where suppliers and clients are very often engaged in a long process of cooperation and mutual learning (Leiponen, 2006; Sweeney et al., 2011). Hence, it is not surprising that the relevant literature considers knowledge coming from clients or about clients, value co-creation through repeated interactions, and knowledge exchanges between client and providers the hallmark of such companies (Stucky et al, 2011; Santos-Vijande et al, 2013). In spite of this, studies that empirically investigate the knowledge exchange process that takes place between the KIBS company and its client during the service provision are still scarce (Landry et al., 2012). Furthermore, while a substantial body of research on KIBS is now available, the number of studies that focus on their clients is very limited (Scarso, 2015).

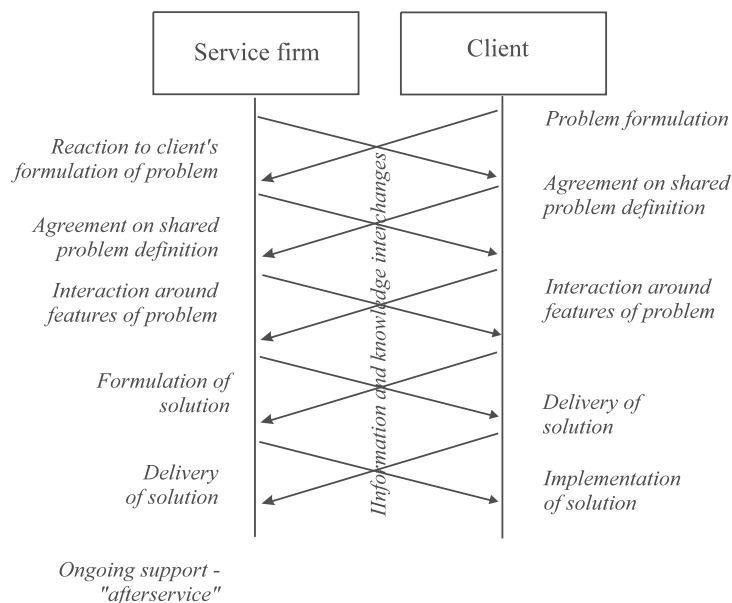
In order to contribute to fill this gap, the paper aims to analyse the knowledge exchange that takes place between KIBS firms and their clients during the service provision process, and in particular their potential determinants seen from the client's point of view (e.g. client's education, type of the service offered/requested, physical or virtual place where the knowledge exchange occurs, willingness of the customer to accept the knowledge). The novelty of the paper originates from the fact that the factors influencing the exchange of knowledge between the customer and the KIBS provider have been investigated from the perspective of the customer, even if in the perception of the provider. In other words, although the analysis was done by interviewing KIBS providers, the investigated factors concern some characteristics of the client (which is quite rare in the literature, Aarikka-Stenroos and Jaakkola, 2012). This approach is justified in case of KIBS firms, as they closely cooperate with their customers and get constant feedback about their services (Bettiol, et al., 2011).

Actually, as well underlined by the literature (Bettencourt *et al.*, 2002; Gallouj, 2002), these companies often co-produce their services together with their clients, so they well know the factors influencing knowledge exchange from the client's side.

The paper is articulated as follows. In the second section the distinctive characteristics of knowledge exchanging process between KIBS firms and their clients is presented. In the third section, the research question is formulated, and the research methodology is described. The fourth section illustrates the results of the empirical investigation concerning the potential determinants of knowledge exchange between a KIBS firm and its customer and their rationale. The last section summarizes the key points and discusses limitations and further research avenues.

## 2. Characteristics of knowledge exchange between KIBS firms and their clients

Since the early days of KM research, the scholars have been underlining that the delivery of knowledge-intensive services generally requires in-depth and prolonged interactions between a supplier and its user client, which are involved in mutual learning processes and become co-producers of the supplied services (Bettencourt *et al.*, 2002). According to den Hertog (2000), the quality of final result of the service provision process (particularly of a KIBS one) relies to a large extent on the nature of interaction and the level of communication between the two parties. During the co-production process of a knowledge-intensive business service, both actors (KIBS firm and its client) exchange information while looking for solutions for the identified challenges and increasing their respective knowledge bases (Zieba and Konczynski, 2017). Such bilateral knowledge exchange involves the entire supplying process – from problem formulation to delivery of solutions and ongoing after-sales support (Miles, 2003). During this process, not only do KIBS companies provide clients with precious elements of knowledge (for instance, about how to implement a specific solution, how to re-engineer a process), but also client firms supply pieces of knowledge to KIBS companies, because this knowledge is necessary for designing, developing, and delivering the successful service solution. Figure 1 clearly illustrates the complexity and articulation of this knowledge-exchange process.



**Figure 1:** Knowledge exchanges between KIBS and clients (from: Martinez-Fernandez and Miles, 2006)

The above explains the reason why scholars recall the need to investigate the issue of how knowledge is exchanged between KIBS and their clients (Huggins and Weir, 2012). In this regard, the few scholars that examined this problem did it by assuming the service provider's point of view. For instance, Landry *et al.* (2012) have considered the factors relating the KIBS company (as e.g. R&D expenses, external knowledge sources used, size, sector, location) and not the client. The only interesting exception, at the best of our knowledge, is represented by the paper written by Aarikka-Stenroos and Jaakkola (2012), where the authors analyse the process of value co-creation between KIBS companies and their client from a dyadic perspective (although not with a specific focus on knowledge exchanges). The authors conclude that, despite the fact the importance of client participation in knowledge intensive business research is recognized in principle, this stream of study has

remained substantially oriented towards a supplier's perspective, which limits our understanding of the phenomenon.

Hence, in order to have a more complete picture of the topic, there is the need to enlarge our perspective by investigating the factors affecting inter-company knowledge exchanges not only from a supplier's viewpoint but also as is seen from a client's side. The extant literature on KIBS and their clients offer some indications about the main factors that influence the mutual knowledge exchange between them, as follows.

A first factor is the nature of the trading relationship between service provider and client. Indeed, the kind of knowledge that is exchanged during the delivery process depends on the peculiar feature of this relationship, which is primarily affected by the degree of customisation of the required service. As indicated by Miles (2003), three main categories of relationship typically occur, namely:

- Sparring relationships: in this case, the service content is typically negotiated between provider and client. The communication is roughly balanced in terms of status, knowledge, and competence, even though the client usually lacks some expertise in the specific problem (which is the reason why the help of the provider is requested);
- Jobbing relationships: these involve less interaction, and primarily require that the provider performs a specialist and technical task, clearly defined by the client, who may be expert on the topic or at least on the content of the service to be provided. The client may even govern the process of service provision;
- Sales relationships which imply (more) standardised services, or services produced in relatively standardised ways that can be developed before the transaction.

It is clear that the opportunity of and the need for knowledge exchanges vary in accordance with the different types of relationship at stake or, in other words, the kind of required service. The last situation offers little scope of cognitive interactions, while the former two show potential for co-production and dissemination of new knowledge and require reciprocal commitment and trust. In short, the above proposed analysis suggests to consider the type of service required by the client (and hence offered by the provider) as a first factor that can influence the knowledge exchange process, and particularly its intensity and length, that will be very wide in the case of sparring relationships and very limited in the case of sales relationships.

A second factor that can be considered is the cognitive proximity between a company and its clients, in relation to the product/service under negotiation. As shown in previous studies (Bolisani and Scarso, 2015), a valuable business interaction between customer and supplier requires the capability to effectively exchange knowledge that is functional for the exploitation of the service/product being provided. Such capability is strongly affected by the presence of cognitive proximity, that is the existence of common languages, educational backgrounds, and interpretative models that are needed by the provider to properly understand the client's problem and to offer an suitable solution, and by the client to understand how the provided service functions, how it should be effectively used, etc. The "closer" (in cognitive terms) to one another a supplier and a client are, the more likely it is that the supplier can properly "teach" a client how to use a new technology, to exploit a service, to understand a situation, etc. A similar notion is introduced by Miles (2003) when he uses the term "knowledge deficit" to indicate the cognitive asymmetry that separates supplier and client and that don't allow the client to fully appreciate (and appropriate) the value of the offered service. This deficit can be filled in through a rich exchange of knowledge between the involved parties.

This recalls a third important factor, i.e. the kind of channel that is used for the interaction and, consequently, the role that this channel plays in the exchange of knowledge (Scarso and Bolisani, 2011). A classic distinction can be made between different cases, i.e.: supplier and customer interact directly (namely, with no mediation), or by means of another individual or company (for example, a sales agent), or by using an ICT system (e.g. a website). The used channel necessarily influences the mechanism of knowledge transfer that occurs, and can require steps of conversion (for instance, between tacit and explicit knowledge, etc.). It may be said that the more mediated is the interaction, the more likely it is that these processes of conversion introduce misunderstandings and interpretation problems. This can even induce the parties to avoid knowledge exchanges, which may be considered time-wasting, useless, or in the worst case risky.

Another important factor is the existence of barriers that may hinder the reception and the absorption of the cognitive content exchanged between supplier and customer (Disterer, 2001; Riege, 2005; Yih-Ton Sun and

Scott, 2005). Those barriers can act at an individual level (i.e. the personal attitudes of the single person who is involved in the knowledge exchange at the two parties) or at an organisational level (related to the processes that a company adopts for exchanging knowledge with external businesses). Regarding the latter, a big obstacle can be raised by the well-known “Not Invented Here” syndrome: this is a classic example of factor that prevents from receiving knowledge from external sources, even in the case of useful knowledge. Generally speaking, these barriers can influence the willingness of a customer to receive and accept the knowledge contents that are delivered by the supplier.

The above factors do not exhaust the set of factors (seen from the client’s side) that can influence the knowledge exchange between a KIBS provider and its clients, but they surely represent a useful starting point for a study that aims to address this issue, as the one here illustrated and discussed.

In the next section the research methodology will be presented and in the following one, the research results concerning potential determinants of knowledge exchange between a KIBS firm and its customer.

### **3. Research methodology**

Based on the previous discussion, this paper addresses the following research question:

*What are the determinants of knowledge exchange between KIBS firms and their clients?*

To respond to this inquiry, we conducted case study research. This decision was made because there is still little research available in the area of knowledge exchange between KIBS providers and their clients and thus the investigation should be of exploratory nature (Yin, 2003). Besides, past studies mostly concern the aspects of co-production and value co-creation (Aarikka-Stenroos and Jaakkola 2012; Bettencourt et al., 2002; Bagdonienė and Jakštaitė, 2008; Lehrer et al., 2012), but rarely discuss the issues of knowledge exchange between KIBS firms and their clients. Due to the above, an inductive philosophy a multiple-case study method appeared to be the best decision (Eisenhardt, 1989). In fact, even if the case study methodology is not appropriate for drawing generalized conclusions, it can provide new and stimulating insights about a poorly examined issue.

The cases were based on information provided by key informants from specific companies and on documents collected from other sources (i.e. company websites, field notes, and company materials). We interviewed managers or business owners of knowledge-intensive business services companies. They were selected because they are deemed to be the key informants in their companies, as was often argued in several KM studies (Palacios-Marqués et al., 2013; Wong and Aspinwall, 2005; Zieba et al., 2016).

All the firms were randomly selected from a database of 300 companies of this type located in the region of Pomerania (Poland). The companies from this region were chosen due to the better access to them and the possibility to conduct the interview personally. They were contacted by means of an invitation to participate in the study (by telephone or e-mail). A convenient term was offered for those who agreed to participate, usually at their premises. The interviews were conducted between September and December 2017. As regards the type of services they offered and the number of employees, the sample is variegated. The purpose of the study was clarified in advance, before each interview, and anonymity was guaranteed. All interviewees had to sign an agreement to participate and to be recorded (all respondents agreed to these terms). The interviews were semi-structured and based on a list of issues related to selected aspects of knowledge management in the examined companies. After, the interviews were transcribed with scrutiny and collated with field notes and information available on companies’ websites. All this supported the validation of the obtained data (Eisenhardt and Graebner, 2007; Suter, 2011; Gupta and Awasthy, 2015).

Due to space limitations, this paper presents a part of the research results that in general concerned a variety of issues related to knowledge and its management in KIBS firms and their clients. In particular, it concentrates on the aspect of knowledge exchange between these two types of entities. The companies’ representatives were among other things asked about the characteristics of knowledge exchange between them and their clients, its frequency, its importance and the factors influencing this exchange.

#### 4. Potential determinants of knowledge exchange between a KIBS firm and its customer – research results

This section summarizes the findings of the five case studies examined. In Table 1 one can find the characteristics of the companies, with their services description and declared number of employees.

**Table 1:** Characteristics of the examined companies

Firm	No. of employees	Offered services
A	20	Accounting and bookkeeping services
B	6	Geodetic services from the legal side
C	40	Technical design services
D	12	Software development and implementation services
E	20	Advertising services

As it can be seen in Table 1, all of the companies examined were of small size. It is not surprising, as the dominating type of companies in developed economies are small ones (Miles et al., 2018). The companies dealt with a variety of services, such as: accounting and bookkeeping services, geodetic services from the legal side, technical design services, software development and implementation services and advertising services. All these types of services fall into the category of KIBS services according to Miles et al. (1995) and Koch and Strotmann (2008).

To identify the factors determining knowledge exchange between a KIBS firm and its customer, the examined companies were asked what in their opinion determines this kind of exchange. Selected responses are gathered in the table below, where they are reported according to the factor to which they refer. Cognitive proximity is here seen in term of client’s education that is the level of knowledge possessed by the client in the field of the requested service.

As it can be seen in Table 2, respondents confirmed that the examined factors can influence knowledge exchange between a KIBS firm and its customer.

The first determinant is the type of delivered service that, as previously said, determines the kind of relation needed to its provision (sparring, jobbing, or sales). It can be expected that if a knowledge-intensive business service is tailor-made or non-routine, a sparring relationships is established which requires for an intense knowledge exchange between the provider and the client. If, on the other hand, the offered service is a routine one (i.e. a sales relationship is formed), there is no intensive knowledge exchange required to deliver the service. Potentially, the intensity of knowledge exchange may increase with the level of non-routine character of the service.

The second potential determinant is client’s background education that can be considered to be a proxy of the cognitive proximity between the two parties. In some cases, although the client should exchange the knowledge with a KIBS provider, he/she may be not educated sufficiently to understand this need or be able to participate in this knowledge exchange. What is more, the client might simply forget some crucial knowledge delivered by the KIBS provider. Clearly, what matters is not so much general education and competencies, as education and competencies in the specific field of the delivered services (as e.g. technical design in the case of company C).

**Table 2:** Determinants of knowledge exchange between a KIBS firm and its customer indicated by the respondents

Indicated determinant	Responses
The type of service delivered	<i>“Customer services are tailor made. (...) The service is provided in the form of consultations when we exchange knowledge.” (Firm A)</i>
Client’s education	<i>“We have a lot of customers, there are people for whom this topic is completely unknown and this topic needs to be explained in some way, but this cannot be done. These are people professionally unrelated, and it is hard to explain. If the clients are professionally prepared in any way, whether infrastructure companies or lawyers, then yes, we play together in one team, and together we work out solutions. We know one part of the problem, they know the other one. It depends on what we come together to achieve, that our behavior may be different. But this exchange depends on the client, because I cannot explain some people, or generally outline and give analogies in life, to let them understand what we are doing at all and why such problems exist.” (Firm B)</i>

Indicated determinant	Responses
	<p><i>“Not all clients are willing to exchange knowledge. We have very open relationships with clients and I would say that we are trying to educate customers and this is part of our work. An un-educated client will never be able to appreciate what we give and what added value we bring in addition to the fact that we do drawings, because we try to move away from the image of a design company that makes drawings, but rather share knowledge and show how to avoid some kind of problems later.” (Firm C)</i></p>
Channel of the knowledge exchange	<p><i>“Sometimes we organize such meetings, organize trainings, if there are such needs on the part of clients. We also provide on-line documentation on an ongoing basis, in other words, we have such a tool in the form of (...) a page accessible only to logged-in, authorized users. There is this knowledge at various levels: from the usual end-user documentation, that is, the usual instruction manual, through configuration instructions, to advanced descriptions, strictly for programmers, because there are different levels of access, and we share this knowledge with customers in this way.” (Firm D)</i></p>
Willingness of the customer to accept the knowledge	<p><i>“You can feel you are dealing with such a person [resistant to knowledge], so I do not even try to argue because I know that it will not help me at all, that I will most likely lose my client and the client will still be the way it is, I will not change or bring up. (...) You cannot do everything at all costs. It happened to me two or three times that I refused to do some service, because I saw that it would be difficult, that everything would be wrong, the client would know better at every step.” (Firm E)</i></p>

Channel of the knowledge exchange is the third potential determinant influencing knowledge exchange between a client and a KIBS provider. If this channel is suitable, knowledge exchange can be more efficient. In some cases, meetings will be necessary, while in some other, electronic means will be the most efficient ones. In particular rich face-to-face communication channels may be the only way to transfer complex knowledge effectively.

The last identified determinant is the willingness of the customer to accept the knowledge. It may happen that the client does not want to exchange knowledge (both with regard to its provision and the acceptance of the knowledge delivered by the KIBS provider). In such a case, the only solution for a KIBS provider could be just to finish the cooperation with the client to avoid conflicts and time loss.

All in all, the findings of our investigation allowed to identify 4 various potential determinants of the knowledge exchange between a client and a KIBS provider. Although in the paper they have been analysed separately, it is obvious to think that they influence each other. For instance, it is probable that the client education plays a more important role in the case of a tailor-made service than in the case of a standard one, or also that the client education influences its ability to resort to mediated communication channel.

## 5. Conclusions

The results of the study show that there are different determinants of knowledge exchange between a KIBS firm and its customer. First of all, the type of service delivered is one of such determinant. For example, if a KIBS firm deliver a standard solution, not modified to the needs of the customer, there is no need for an intensive knowledge exchange. However, if the KIBS service is adjusted to the needs of the customer and tailor-made, then an intensive knowledge exchange takes place. Second, the openness of the customer is the next determinant. If the customer wants to learn and absorb knowledge, the knowledge exchange process is easier. Third, the channel of knowledge exchange is also determinant. If there are good conditions for the free flow of ideas and discussion, the knowledge exchange is more abundant. The last determinant was the education of the customer, helping him in a better understanding of the knowledge exchange and its necessity.

As regard the academic contribution of the study, the most important point to be underlined is that the followed approach is a novel one and has not been discussed extensively in the literature. As such, the study contributes to the better understanding of the relation between the KIBS firms and their customers both in theory and in practice. As far as the theory is concerned, the study offers new insights into the knowledge-intensive business services and the way they are managed, especially for what concerns the cognitive flows the take place during the service providing process.

From the practice point of view, the paper might help managers in better understanding of how they should cooperate with their clients to achieve the best possible results. In some cases it might appear that without a

close cooperation and intensive knowledge exchange the creation of a knowledge-intensive business service will not be possible.

The study presented in the paper is, like any study, not free from limitations. First of all, the study concerns 5 selected companies and as such, cannot be taken as a representative picture of all the companies of this type (KIBS firms). Second, the examined companies were located in one of the regions in Poland and therefore, the results might be characteristic for this particular area. Finally, the study, given its exploratory nature, is of preliminary character and further research (e.g. quantitative study) is required to examine the phenomenon in depth.

There are several potential research avenues. Firstly, as mentioned above, a quantitative study on the examined phenomena can be provided. Secondly, the level to which each determinant is influential could be established. Third, the possible interrelations among the different variables deserve to be deeply investigated. Fourth, other factors should be investigated. Last but not least, a classification of various levels of knowledge exchange intensity could be useful both for practitioners and academics.

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