



## Sourcing motives behind sourcing decisions exposed through the Sourcing Decision Framework

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### **Abstract:**

There is no doubt that information systems (IS) are the backbone of today's organizations. Having an initial inspection on sourcing motives in the financial sector it can be stated that resources used in development of information systems (IS) are seen as an important factor for sustained competitive advantage. However, it can be claimed that it depends to a high extent on the application of different sourcing modes. This leads us to a closer inspection on sourcing motives through selected case studies and the following research question: How can motives for sourcing options of IS-development be explained? The empirical investigation on sourcing decisions and the motives behind, in addition to a literature review on sourcing decisions and sourcing options ends in four propositions. These propositions are then used in tandem with the findings from the empirical data for initial development of the Sourcing Decision Framework (SDF). Ultimately, what is at stake here is our framework (SDF) that from the initial development and the first test has shown to be purposive and could be further developed to a useful framework for analyzing sourcing decisions and as a guiding tool for decision-makers when deciding on sourcing options for IS-development.

### **Keywords:**

IS-sourcing; IS-development; Resource Based View; RBV; sustained competitive advantage; strategic value; sourcing motives.

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## 1. Introduction

When it comes to the topic of information systems most of us will readily agree that it is an important component of a firm. Yet some readers may challenge the view of information systems being used by organizations in the financial sector (such as banks) as a strategic tool for gaining competitive advantage. Indeed our own argument is that information systems have a strategic importance in the financial sector and should be therefore carefully sourced using tailored strategies.

Nevertheless new research show that computerization and information system (IS) reflect the new powerful uses of computers, for the purpose of information management supporting the achievement of an organization's goals [1]. Yet a sober analysis of the matter reveals that the IS and the delivery of strategic systems play a meaningful role in the context of IS-strategy, which should be closely aligned with the overall organizational strategy [2].

The rapid and structural changes in the business environment of the financial sector due to the globalization of financial markets, technological innovations, and the growing importance of the Internet, increase the demand for a higher degree of flexibility in IS-development [3]. Although the strategic importance of IS in the financial sector may seem trivial, it is in fact crucial in terms of today's concern over a rapidly changing market. The strategic importance of IS-development applies abundantly to the financial industry which is characterized by a high degree of IT-supported business processes [4]. Indeed our argument is that IS have strategic importance in the financial sector and especially in banks, and therefore it can be assumed that the sourcing option for their IS-development should be carefully considered. Consequently, if assuming that IS are of high importance for banks, the question is then if this also could be said about resources for IS-development.

Gottschalk and Solli-Sæther [1] concede that outsourcing is a strategic decision made by organizations in order to compensate for lost internal resources. Hence the strategic management within the organization adapts, reconfigures internal and external skills, reconfigures resources and functions, in order to get in pace with the changing surrounding environment and the competitive market.

Albeit, even if the sourcing strategy has been carefully selected dependent on the strategic goals underlying an IS-development project, the denouement is about the strategic value of the resources and capabilities possessed by the organization. To take a case in point, organizations have to consider strategic value of its resources and capabilities, and determine at what stage respectively what part of the software development process it wants to hand over ownership to a third party. This is in line with Balaji and Brown's [5] statement: "As practice has evolved from simple make-or-buy decision to complex contracts and partnerships, sourcing research has endeavored to maintain relevance".

From this our research question is as follows: How can motives for sourcing options of IS-development be explained? In order to develop knowledge related to this question we decided to use the resource-based view (RBV) of the firm as a starting point when analyzing sourcing decisions. In addition we also used existing research especially on outsourcing. Earlier research on sourcing has focused on outsourcing, which as a mode of sourcing has been around for decades as a strategic business tool in various forms and industries. Likewise the academic literature has generated a general understanding why, what, and how firms outsource [6]. What this research aims at is to give a deeper insight in sourcing motives of IS-development sourcing in the financial sector. As stated above, in order to do so we decided to use RBV as a theoretical lens. The reasons for selecting RBV is supported by the fact that RBV is a theory about how firms actually operate [7] and it focusses on organization of resources and capabilities in organizations [8]. Sourcing decisions can be approached from different theoretical perspectives. The resource based view (RBV) and transaction cost theory (TCT) are considered as extremely influential in the field of outsourcing [9, 10]. Past sourcing decisions were often driven by cost where the company would outsource if gained benefit exceeds the transaction cost [1, 6].

In contrast to the TCT perspective, RBV includes the relational view arguing that combining the organization's resources in a unique way holds a source of competitive advantage [10]. We are interested in approaching sourcing from the analysis of the internal resources and how sourcing strategies can be seen as an opportunity to access complementary capabilities to strengthen internal competitiveness.

According to RBV, a resource is considered to be a resource if it holds the potential to "exploit opportunities and/or neutralize threats in a firm's environment" [11]. A valuable resource has to fulfil three further attributes in order to achieve sustained competitive advantage, namely rareness, imperfect imitability and non-substitutability [11]. Barney [11] states that an organization gains a competitive advantage only if the value-creating strategy is not copied by a considerable number of competitors. As the organization's resources are the source of competitive advantage, it can be concluded that those should be kept or gained internally. The central issue of the RBV is accordingly the identification of such resources [12]. The resource based view can be applied to the analysis of the relationship between IT and sustained competitive advantage. "The concept of a firm's resources and abilities are defined broadly, and could certainly include the ability of an organization to conceive, implement, and exploit valuable IT applications" [13].

To summarize, the aim of this research is to develop a framework that has the potential to explain sourcing decisions in organizations that are heavily dependent on IS, such as banks, focusing especially on sourcing of resources for IS-development in the bank sector.

The rest of this paper is organized as follows. Next section discusses and defines four different sourcing options that later are used for development of the Sourcing Decision Framework. Section 3 presents the collection and the empirical data shortly. Section 4 then presents the Sourcing Decision Framework that is a result from the theoretical discussion supported by findings from the empirical data. The final section presents some conclusions and discussions around the suggested Sourcing Decision Framework.

## 2. Sourcing options for IS development

In the context of IS-development the literature reveals a multitude of IS-sourcing options from different foci. We give an overview and structure the different characteristics of sourcing options in order to finally apply the dimensions of sourcing by Lee et al. [14], deriving four options that build the foundation for the suggested Sourcing Decision Framework.

In general it can be said that IS-sourcing is often seen as the delegation of all or any part of technical resources, human resources and management capabilities associated with providing IT-services to an external vendor [5]. The provision and use of IT-based products and services underlies general economic principles. First of all, organizations – facing the need for a product or service – have two distinct options, to make it on their own or to buy it. However, the practice in IS-development goes beyond simple make-or-buy decision [5, 15]. IS-sourcing options can be classified into strategies with complete internal control, and in strategies with some degree of external involvement. Depending on the definition of the term, the latter category is denoted as outsourcing [16]. Outsourcing can be conceived as the reallocation of already present IS-assets and the associated resources to an external supplier. Here, the transfer of activities that are related to new IS-assets are not implied by the term outsourcing [6]. We follow the perception of De Looft [17] and Quélin and Duhamel [18] and define IS-outsourcing as follows: *Outsourcing in the context of IS-development is defined as the act of shifting some or all of the IS-activities to be performed externally by contractual agreement.*

### 2.1 IS-Sourcing Options

Based on the analysis above it reveals that IS-sourcing can be considered from different dimensions that give specific characteristics to a sourcing option. Considering all forms of sourcing options – including in-house development – it can be said that confusion exists about terms that may lead to difficulties for the comparability of research results [6, 12]. Johansson [12] concludes that there are at least four general sourcing options involving external providers: traditional outsourcing; insourcing; buy-in; and net sourcing. Lacity et al. [15] developed for practitioners five sourcing

modes namely *buy-in*, *contract out*, *preferred supplier*, *preferred contractor*, and *in-house*. Roy and Aubert [2] likewise derive four categories with different labels namely partnership, conservation, outsourcing and recuperation. Here, even though there is confusion about both terms in the literature [15], Roy and Aubert [2] do not further specify in-house development, which they denote as conservation and outsourcing.

With regards to the critique mentioned above, the categories suggested by Roy and Aubert [2] are adjusted to the four alternatives of sourcing strategies: *insourcing*; *standardization of commodities*; *strategic partnership*; and *outsourcing as a service*. The driving dimension of sourcing is the degree of control and the integration the organization possess in the IS-development. Duration is suggested as a further attribute within the categories. The following four sections describe the sourcing options in depth from these dimensions.

## 2.2 *Insourcing*

Basically insourcing is the opposite of outsourcing. However, there is some confusion in the literature. First, the term could simply mean that the organization performs an activity internally, thereby using internal resources and governance. Alternatively, insourcing could mean that external resources are involved but the governance is kept internally. As a third option, insourcing is also conceived as a strategy that retrieves outsourced activities to the organization [15]. Accordingly, we define insourcing: *Insourcing is the opposite of outsourcing, i.e. the activity is governed and performed by internal resources. Here, staff augmentation through external resources is only implied in insourcing as long as it is driven by the need to increase staff capacity, rather than to replace lack of knowledge.*

## 2.3 *Standardization of commodities*

Taking the model of Roy and Aubert [2] as a starting point, this sourcing option was denoted as recuperation. With this, Roy and Aubert [2] mean a strategy in which the organization collaborate with potential competitors in order to share the development cost for the IS. As Roy and Aubert [2] elaborate, cost sharing can be carried out in the form of a joint venture or the internal development and later selling of the IS-module to the competitors, to minimize costs.

The idea behind the option is the low strategic value of the specific IS and the internal presence of appropriate resources for the development. Thus, the IS is not seen as a source that provides sustainable competitive advantage. As a consequence, the IS can be freely shared with competitors without facing a competitive disadvantage or losing a competitive advantage. Mainly, the possibility to standardize the requirements for an IS leads to commoditization [19] and purchase from specialized supplier rather than proprietary development [20]. In standardization of commodities, we include the development process of an IS with focus on the resources that are present internally at an appropriate level. The standardization of commodities is defined as follows: *IS-functionality regarded as commodities are standardized to maximize the effect of the economies of scale respectively minimize the organization's transferred cost for the IS-development. Here, the IS-development is carried out with internal resources whereas the governance may be shared.*

## 2.4 *Strategic partnerships*

Is the IS-development activity strategic but not a competence of the resources the company has in its possession, then a partnership with an external supplier is an appropriate sourcing option [2]. In line with Roy and Aubert [2], the main goal of the sourcing option is to access complementary resources and capabilities to in-house competences while retaining the ownership and control over IS-activities. The potential dependency on the supplier knowledge is addressed through mixed teams where the internal personnel gradually gains knowledge and takes over responsibility [2]. This sourcing option is in accordance to Roy and Aubert [2], nevertheless, we added the word strategic in order to stress the strategic intention underlying the partnership. Similarly with Roy and Aubert [2] we define this sourcing option as follows: *A strategic partnership aims to gain access to complementary resources and capabilities that are not present internally. Herewith, the organization retains the ownership and control over the IS-project that is linked to the organization's strategic needs.*

### 2.5 Outsourcing as a service

With regards to IS-development, service implies the development process of an IS independently by an external supplier. Whereas, the delivery of the service finally results in a product, it does not necessarily mean that service provision inhibits the outcome of the development process which can be denoted a product. Furthermore, as the supplier owns the required resources for the IS-development the residual rights are also controlled on the supplier side till the service delivery [14]. It has to be noted that maintenance of the IS is likely carried out by the external supplier as the organization minimize control and involved resources.

However, in this option the customer has least control among the sourcing options. In return, the client uses a minimum of its own resources and pays only a fee for the service that was actually used. Conclusively, the client neither owns appropriate resources nor wants to develop competences related to development of IS. In the long run, the organization does not assign a strategic value to the IS. From this we define the sourcing option, outsourcing as a service as follows: *Outsourcing as a service implies that the residual rights are owned by the supplier during the delivery process as it owns the required resources for the IS-development. The responsibility for delivery is exclusively on the part of the external supplier, i.e. no governance on the client side during the delivery process but at the acceptance test.*

In Table 1 the four sourcing options are summarized from the dimensions: degree of integration; duration time; and allocation of control.

Table 1. Four sourcing options and description of respectively dimensions of these

Dimension/Sourcing option	Degree of Integration	Duration	Allocation of Control
<b>Insourcing</b>	Only internal resources except staff augmentation driven by the need to increase staff capacity	Short-term, long-term	Full governance by the organization, residual rights are owned by the organization
<b>Standardization of commodities</b>	Internal resources are involved to some extent respectively through a jointed venture	Short-term, long-term	Internal, maybe shared (joint venture)
<b>Strategic partnership</b>	Internal and external resources	Short-term, long-term	Full governance by the organization, residual rights are owned by the organization
<b>Outsourcing as a service</b>	External resources	Long-term	Full governance by the supplier, residual rights are owned by the supplier during the delivery process

### 3. Collection and Presentation of Empirical Data

In this study we use an investigation of sourcing projects to further develop our thoughts about the dimensions of the four sourcing options presented in Table 1. The empirical data was collected by semi-structured interviews conducted with persons in the upper management in charge of certain outsourcing projects or responsible for the strategic sourcing decisions in investigated organizations in 2011. In addition, publicly available sources such as annual reports, interviews with the organization's CEOs in journals, and project documentation are used to provide a rich description of the cases. Interviewees were selected based on their organizational remit charge of sourcing strategies. In total four banks, three from Sweden and one from Germany were part of our study.

Interview guide questions were structured in four parts: general perception of IS-sourcing in the financial sector; characteristics of the IS-sourcing projects; underlying motives for sourcing; and questions concerning the presence of appropriate resources used for the development and its strategic value. Introducing questions seek to investigate the perception of the interviewee in order to test the assumptions underlying implicitly this study. The second part disposition follows the dimensions of sourcing: degree of integration; duration; and allocation of control that characterize the sourcing project. The sequent part gave the interviewee the opportunity to argue the motives underlying

the sourcing project. For the last part we used the four leading questions from the VRIO framework [21] in order to investigate the value, rareness, non-imitability and the organization's exploration of specific resources.

For preparation pre-interviews with two banks were conducted to survey their IT-strategy and to find investigate-able sourcing projects. Actual data collection was then done with four interviewees, all in leading positions concerning IS-sourcing decisions. The interviewees have the following roles: Manager of strategic partnership (Bank A); Head of the development infrastructure (Bank B); Head of sourcing and vendor management (Bank C); and Head of sourcing IT-development (Bank D).

The interviews lasted between 45 min and 2 hours, and were recorded, transcribed and coded. The applied coding system followed the construction of the interview guide. Starting with investigating characteristics of the IS-sourcing project the guide uses the dimensions of sourcing to structure the description of the case. Subsequently, the interview guide exploits the organization's resources guided by the VRIO framework. Derived from this, we used the pattern developed by Barney [21] to conclude the competitive and economic implications following from how the banks use its resources in IS-development. Consequently, the applied coding was concept driven and breaks down the interview text to key statements that then were categorized and condensed.

It has to be noted that the quantification of the strategic value is based on the interviewees' evaluation of the resources. It was not our goal to investigate objectively the organization's resources. Instead, we aimed at designing a theoretical model that have the potential to explain sourcing motives when deciding on a specific sourcing option. Moreover, the interview provides insight in the internal resources or capabilities before entering the IS-development project with regards to its value, rareness, inimitability and the organization's exploitation. The perceived value of the resources were measured indirectly by the value of the IS itself.

#### *Sourcing motives and applied options in the banks*

Considering motives for sourcing we have identified an overlap across cases, and our investigation reveals the following main key motives for IS-sourcing in all four cases: flexibility; access to talent; and cost benefit. Based on the analysis of the empirical data, applied sourcing option and expressed main motives for the selection of respectively sourcing option are presented in table 2.

Table 2. Presentation of applied sourcing option and main motives for the selection of options

Case	Applied sourcing option/options	Expressed main motive(s) for applied sourcing option
Bank A	Outsourcing as a service mode/ standardization of commodities	Cost benefit (increased need of cost efficiency, pilot project)
Bank B	Outsourcing as a service	Flexibility
Bank C	Outsourcing as a service	Access to talent, cost benefit (pilot project)
Bank D	Outsourcing as a service/ strategic partnership	Access to talent (retaining customers through improved usability)

Major motives and key drivers were as stated above findings from the interviews. The following quotes illustrate the findings. The Manager of strategic partnership in Bank A, said: *"There were several reasons. One was to reduce cost. Another one was access to talent. Flexibility and I would say improving efficiency. I think that are the four main ones"*. The Head of the development infrastructure in Bank B, stated: *"Bottleneck of staff, gain flexibility, avoid governance overhead"*. However, he also said: *"I think that it is misleading that we do not have the competence and that is why we do Out-tasking. We do have the competence, but we could not do it all alone loosely, if the contract book is too full, we need an outlet where we can make something else we could do just as good alone. This is actually the story behind it"*.

Sourcing strategy and sourcing drivers were described by the Head of sourcing and vendor management in Bank C, as follows: *"We have in our sourcing strategy identified sourcing driver, we call it. They are skills, the need for good skills for us, its cost, and the vendor reducing cost, its flexibility and that's regarding both; flexibility regarding buying resources and also regarding cost. And we have the risk sourcing driver that we are not allowed to increase the risk"*

when we outsourcing some maintenance or development. And finally we have the fifth one that we called focus, where we say that's rather important that we can focus our own employees on strategic matters that are the important for the bank. And in this specific case the main drivers was cost - we had, we use a couple of expensive consultants for maintaining the system earlier, so we have significant reduce of cost when we were entering the agreement by the end." Finally, the Head of sourcing IT-development in Bank D presented his view of drivers: "Three different drivers, first was cost we would like to see if we could achieve a cost benefit of the simple reason that they (Indian employees) have a lower salary than a Swedish employee would have. Technically it was a question of availability; we simply did not have that competence free internally. Of course we have the capability as such of the very simple reason that we have been doing this for a couple of years. But for that particular timing we did not have the availability on the resources. It is also a question of timing I would say, time to market. The third driver would be the scalability; they have the possibility to scale up on a very short period of time". Table 3 summarizes main motives and key drivers with identification to respectively bank.

Hence we conclude that major motives for selecting IS-sourcing options in the four banks is access to talent and cost benefit, and thereafter flexibility.

Access to talent would according to RBV be knowledge and experiences that are difficult to copy. Here talent itself is seen as a resource and can be alluded to vendor management (since access to talent depends on the talent that a specific vendor holds). This resource is valuable for our case organizations since it has high strategic value in terms of gaining sustained competitive advantage due to its connection to organizational values and core competencies.

The second motive for sourcing option is cost benefit, which is not directly seen as a resource of strategic value from RBV. Yet indirectly it is a resource of strategic value, since a cost benefit implies that the organization has some kind of financial advantage, a fiscal surplus to invest in access to talent for instance.

The third occurring motive is flexibility. Flexibility is here seen as organization's ability to mitigate threats and find new opportunities under pressure.

Table 3. Summarizing major motives and respectively key drivers as described by the interviewees

Major motives for selecting IS-sourcing option	Main key drivers, taken literally from the interviews (in respectively bank)
Access to talent:	Lack of competence internally (Bank D), availability (Bank D), improving efficiency (Bank A), skills (Bank C), focus on core competencies (Bank A), focus in terms of focus own employees on strategic matters (Bank C), the value of an IS is assessed if the IS mitigates threats and exploits opportunities in the competitive environment that financial institutions face to today.
Cost benefit:	Cost reduction (Bank A, C, and D), avoid governance overhead (Bank B).
Flexibility:	Scale up the resources bound to the project in a very short period of time (Bank D), flexibility in terms of cost giving the possibility to transform fixed cost for internal employers to variable cost of external one, balance temporary shortage of staff (Bank C), time to market (Bank B and D).

Divided in four options, the definition of the applicable sourcing option was derived from the presence of appropriate resources and its strategic value. In the next section we use the findings from the investigation of sourcing projects to further develop a framework for explaining sourcing motives.

#### 4. Extending the Sourcing Decision Framework

Embraced as the foundation of our study, the categories from Roy and Aubert [2] are adjusted to the four alternatives of sourcing: insourcing; strategic partnership; standardization of commodities; and outsourcing as a service. In the upcoming section, we expand the IS-sourcing model from Roy and Aubert [2] by adding the four sourcing options derived, and from that we state the implicit propositions from Roy and Aubert [2] explicitly. Using the RBV, Roy and Aubert [2] derived two main factors influencing sourcing decisions in relation to firm's resources: the presence of appropriate resources and the strategic value of those resources. Referring to these thoughts we have developed our model with some variations in emphasis and formulations which is discussed in the following section. Initially, the terms strategic value and appropriate resources are defined in the context of IS-development since these concepts are basically the foundation of the framework.

##### 4.1 Strategic value

With regards to IS-development projects, the decision whether the development activities respectively the needed resources hold a strategic value, depends on the strategic value of the resulting IS. Thus, the organization's resources can only be measured indirectly. As Roy and Aubert [2] argue, the contribution of an employee can only be measured in relation to the value of the IS, i.e., the activity that is performed becomes tangible when the outcome of it is measured. The lower the strategic value of the certain activity and the related expertise of the IS-development, the more organizations are willing to outsource. Conversely, the higher the strategic value of the certain activity, the more organizations are interested in preserving the expertise internally [2]. However, a resource may contribute to a strategic goal and organizational success – such as cost reduction – without being a source of sustained competitive advantage: “IT adding value to a firm – by reducing cost and/or increasing revenue – is not the same as IT being a source of sustained competitive advantage for a firm” [13]. In comparison to Roy and Aubert [2] we want to specify the quantification of the strategic value in accordance to the VRIO framework developed by Barney [21]. Following from our perception of this, a resource holds a high strategic value only if it is potentially a source of temporary or sustained competitive advantage. In contrast a resource holds a low strategic value if it is potentially a source of competitive parity. Indeed, it is expected that the IS-development project is only carried out, if it is to some extent valuable, i.e. sources of competitive disadvantage are not considered.

##### 4.2 Presence of appropriate resources

Subsequent to the evaluation of the strategic value of the IS, the question of whether appropriate resources are available internally is examined. According to the RBV, organizations are seen as the sum of its resources [12]. Barney [11] defines organizational resources categorized in human capital, organizational capital and physical capital controlled by the firm and that allows the firm to strategically use them to boost efficiency and effectiveness. Applied to the attributes of IT and its ability to generate sustained competitive advantage, resources can be narrowed down to financial capital, proprietary technology, and managerial IT-skills together with technical IT-skills of the human capital [13]. In the context of IS-development, the term appropriate resources, refers to availability of financial capital, technology and especially the competence of the employees. Assuredly the competence of the employees is knowledge, which is a significant driving factor in IS-development. The less the company's resources own appropriate expertise, the more the company will seek to overcome the knowledge gap by accessing external, complementary resources and capabilities. Conversely, the more the company's resources possess appropriate expertise, the more the company will seek to max out this competence [2].

From this discussion the following four propositions can be suggested:

**Proposition 1:** Insourcing - If resources used in IS-development activities hold a high strategic value and appropriate resources are available internally, then IS-development should be kept in-house. The proposition strictly state that if IS-development is of high strategic value and if the needed competencies are available these are then motives for keeping

IS-development in-house. The overall focus of the sourcing strategy is to gain a sustained competitive advantage by internal resources.

**Proposition 2:** Strategic Partnership - If resources used in IS-development activities hold a high strategic value and appropriate resources are not available internally, then IS-development done in a strategic partnership is suitable. If IS-development is of a high strategic value but needed competencies are not available internally then a partnership with an external supplier is an appropriate sourcing option. The main goal of the sourcing strategy is to gain knowledge through the partnership and keep tight control due to the potential dependency on the supplier. The overall focus of the sourcing strategy is to gain a sustained competitive advantage by complementary, external resources.

**Proposition 3:** Standardization of Commodities - If the resources used in IS-development activities hold a low strategic value and appropriate resources are available internally, then the IS-development is conducted as standardization of commodities. If IS-development is of low strategic value but a competence of the resources the company has in its possession, then standardization and sharing the cost for the IS with competitors or other interested parties is the appropriate sourcing option [2]. The internal resources could be utilized in a jointed venture or the activity is produced internally and sold to interested parties. The main goal of the sourcing strategy is to recuperate some of the investments that are made for the activity [2]. The overall focus of the sourcing strategy is cost reduction through standardization and the utilization of the economies of scale.

**Proposition 4:** Outsourcing as a Service - If the resources used in IS-development activities hold a low strategic value and appropriate resources are not available internally, and then IS-development is acquired as a service. Is the IS-development of low strategic value and not a competence of the resources the company has in its possession, then an appropriate sourcing option is based on the provision of IS-development as a service by an external provider. The overall focus of the sourcing strategy is cost reduction and cutting management overhead.

By extension hereinafter two questions in relation to sourcing decisions could be asked:

- Do IS-development activities hold a strategic value for the organization?
- Are resources needed for the IS-development activities present at a sufficient level internally?

In line with Roy and Aubert [2] and inspired by McFarlan's [22] "Strategic Grid" and the more recent work by Nolan and McFarlan [23] on "The Strategic Impact Grid", we suggest "The Sourcing Decision Framework". The framework suggests combining the factors: *presence of appropriate resources* and *the strategic value of those resources*. Depending on the constellation, it is believed that one of the sourcing option defined earlier – *insourcing*, *strategic partnership*, *standardization of commodities*, and *outsourcing as a service* – could be positioned in the Sourcing Decision Framework, as shown in Fig. 1.

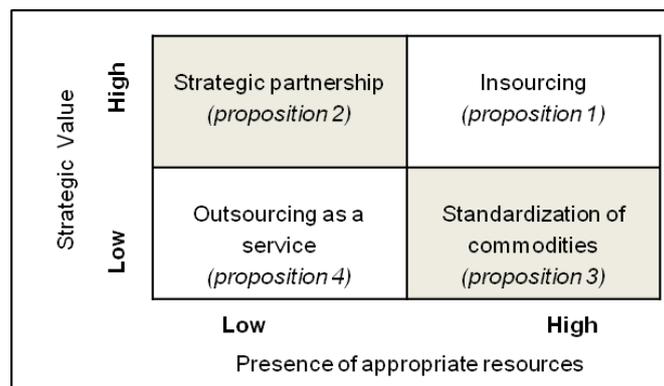


Fig. 1: The Sourcing Decision Framework

## 5. Conclusions and further development of the framework

The findings from this study add weight to the argument that it is important to look at the relationship between strategic motivation, sourcing options and organizational performance [23-25]. The expected benefits from the right sourcing option decision based on the right motive may contribute to performance improvements such as reduced cost, higher flexibility and access to skilled talent [26, 27]. Some companies apply a sourcing strategy to reduce costs for instance, to later found out that it is not what they expected [28, 29]. Others have not been able to pursue their overall market strategy as they hoped. Consequently, this makes the motive and decision of sourcing option crucial. Companies that seek to expand to new markets may be more likely to get involved in outsourcing and in specific offshoring or near shoring. While companies seeking operational advantages may source to lower cost locations such as the BRIC countries (Brazil, Russia, India and China) or South Eastern Europe. [23]. This is a question though for future research. Nevertheless our discussion of sourcing motives and sourcing decision for a certain sourcing option address the larger matter of the fact that these decisions depend highly on the internal resources and with that said implicitly also organizational characteristics and management strategies.

The research presented in this paper had the aim of developing a framework that would provide answers on the question: How can motives for sourcing options of IS-development in banks be explained?

It can be concluded that the RBV gave the explanation behind the motives for sourcing as well the identification of resources or capabilities that are of strategic value for sustained competitive advantage. Analyzing this, the selection of sourcing mode becomes more comprehensible in terms of understanding and comparing applied mode of sourcing with RBV suggested mode of sourcing.

The RBV approaches IS-sourcing from the internal analysis of its resources and the questions whether those resources mitigate threats and address opportunities. In order to achieve strategic goals, resources are needed that enables the organization to carry out its strategy. For the investigation of the four cases, the RBV helped to identify these resources and its strategic value. Regarding access to talent it was identified that needed competences was not present internally in the organizations. The organization's need for flexibility was caused by labor regulations; however, the underlying basic thought is the competence of internal resources that is maybe present but not at a sufficient level. When it comes to cost benefits the analysis of the organization's internal resources has to be seen in two steps. The first step is the relocation of IS-development to a low-cost country, maybe even though this capability is present internally. As argued before, the relocation of the IS-development to a low-cost country cannot in itself imply a capability of strategic value. Further, it has to be noted that the salary more or less can be seen as a measure of the resources productivity and efficiency. Following from this, this thought contradict RBV that always involves internal resources if they are appropriate and present at a sufficient level.

From the theoretical perspective of the VRIO framework and by suggesting propositions on four sourcing options we developed "*The Sourcing Decision Framework*". This framework has the ambition to elucidate organizations' motives for selecting a specific sourcing option by posing questions on strategic value and presence of appropriate resources.

Starting from a broader scope and narrowing down, it can be concluded that the empirical findings do support the general assumption that internal resources and their strategic importance for gaining a competitive advantage are considered when making sourcing decisions. Further, the empirical findings reveal that our suggested *Sourcing Decision Framework* does explain the applied sourcing option in the banks. Considering the variety of possible sourcing options in practice and the limitation of a framework that by its nature tries to simplify the observed real world, this outcome can be interpreted as support for the question regarding how to explain motives for selection of sourcing options.

Looking at motives for sourcing we have identified flexibility, access to talent and cost benefits as reasons for deciding on a specific option. However, subsequently to the attempt – save cost through outsourcing – new capabilities are needed that enable the organization to manage this engagement. This capability – vendor management – is crucial to be kept internally and is assessed as a potential source of sustained competitive advantage. With this said gaining cost

benefits is linked inevitably to the analysis of the organizations' internal resources and associated capabilities. In a nutshell, the motives for selecting a specific IS-sourcing option are driven by the analysis of internal resources and its potential being a source of competitive advantage.

It follows then that RBV to some extent gave the explanation behind the motives for sourcing and the importance of resources in doing so. Although, analyzing this in more detail it can be claimed that there is a need to deepen the theoretical base for a more normative usage of the framework. We would suggest that adding some thoughts from transaction cost theory and the resource dependency theory, in the application of the framework for explaining how and why organizations move around in the framework would most likely do the framework even more useful.

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