

Examining Sourcing Strategies in Information Systems Development in the Financial Sector

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Abstract. Having a close inspection on sourcing motives in the financial sector it is found 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. From an investigation of four case organizations in the financial sector we analysed IS-sourcing projects and the motive for sourcing as well as if appropriate sourcing strategies were applied using the resource based view of the firm (RBV). Our study addresses the research question: How can motives for sourcing of IS-development in the financial sector be explained? The empirical findings revealed that the IS-sourcing model is implicitly applied in practice, and it can be concluded that the motives for IS-sourcing are driven by the analysis of internal resources and its potential being a source of competitive advantage.

Keywords: IS-sourcing, IS-development, Resource based view (RBV), VRIO framework, Sustained competitive advantage, Strategic value, Sourcing modes.

1 Introduction

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 [1]. Although the strategic importance of IS in the financial sector may seem trivial, it is in fact crucial in the 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 [2]. Indeed our own argument is that IS are of strategic importance and therefore carefully sourced using tailored strategies.

Gottschalk and Solli-Sæther [3] discuss an important point about the drive for the decision on how to source IS-development. They concede that outsourcing is a strategic decision made by organizations in order to compensate for lost internal resources. From this our research question is as follows: How can motives for sourcing of IS-development in the financial sector be explained?

The aim of our research is to analyze financial institutions' motive for sourcing and what strategies that are applied. Consequently, the research targets the traditional financial sector rather than pure Internet based financial institution or private banking etc. We have consciously chosen to only include larger banks as these are more likely to do sourcing. Lacity et al. [5], shows evidence for this through the answer to the question of what type of firms that are more likely to outsource IT. The authors found that size matters, which supports our delimitation in the choice of large banks [5]. To summarize, the purpose of our research is to investigate if IS-sourcing can be seen as a strategic tool in the financial sector for gaining competitive advantage.

2 The Resource Based View and Sourcing Strategies

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 [6, 7]. Past sourcing decisions were often driven by cost where the company would outsource if gained benefit exceeds the transaction cost [3, 5].

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 [7]. 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" [8]. A valuable resource has to fulfil three further attributes in order to achieve sustained competitive advantage, namely rareness, imperfect imitability and non-substitutability [8]. Barney [8] 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 [9]. 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" [10].

2.1 Sourcing Strategies for IS-Development

IS-sourcing strategies is the delegation of all or any part of technical resources, human resources and management capabilities associated with providing IT-services to an external vendor [4]. 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 [4, 12]. For a further categorization IS-sourcing strategies can be classified in

strategies with complete internal production, control, and in strategies with some degree of external involvement. Depending on the definition of the term, the latter category can be denoted as outsourcing [13]. We follow the perception of De Looff [14] 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.

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. Accordingly, we define *insourcing* as the following: *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.

Table 1: Insourcing in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	Only internal resources except staff augmentation driven by the need to increase staff capacity
Duration	Short-term, long-term
Allocation of Control	Full governance by the organization, residual rights are owned by the organization

Standardization of Commodities

Taking the model of Roy and Aubert [15] as a starting point, this sourcing mode was denoted as recuperation. With this, Roy and Aubert [15] mean the strategy to collaborate with potential competitors in order to share the development cost for the IS. The *standardization of commodities* means, 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.

Table 2: Standardization of commodities in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	Internal resources are involved to some extent respectively through a jointed venture
Duration	Short-term, long-term
Allocation of Control	Internal, maybe shared (joint venture)

Strategic Partnerships

In line with Roy and Aubert [15], the main goal of the sourcing mode is to access complementary resources and capabilities to inhouse competences while retaining ownership and control over IS-activities. The potential dependency on the supplier knowledge is addressed through mixed teams where internal personnel gradually gains knowledge and takes over responsibility [15]. This sourcing mode is in accordance with Roy and Aubert [15], nevertheless, we added the word *strategic* in order to stress the strategic intention underlying the partnership. We define it 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.

Table 3: Strategic partnership in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	Internal and external resources
Duration	Short-term, long-term
Allocation of Control	Full governance by the organization, residual rights are owned by the organization

Outsourcing as a service

In this mode the customer has least control among the sourcing modes. 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. *Outsourcing as a service* implies that the residual rights are owned by the supplier during the delivery process as it own 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.

Table 4: Outsourcing as a service in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	External resources
Duration	Long-term
Allocation of Control	Full governance by the supplier, residual rights are owned by the supplier during the delivery process

3 Our Theoretical Framework

Embraced as the foundation of our study, the categories from Roy and Aubert [15] are adjusted to the four alternatives of sourcing; *insourcing*, *strategic partnership*, *standardization of commodities*, and *outsourcing as a service*. In the upcoming section, we introduce the IS-sourcing model from Roy and Aubert [15] and link it to the four modes as our theoretical framework. Using the four sourcing modes derived, we state the implicit propositions from Roy and Aubert [15] explicitly.

Using the RBV, Roy and Aubert [15] derived two main factors that drive the sourcing decisions in relation to the firm's resources; the presence of appropriate resources and the strategic value of those resources. The strategic value of the firm's resources is represented by the relation between the value of the IS and the resources' contribution to its development. Thus, the resources the firm has in its possession can only be measured indirectly by the value of the IS [15].

3.1 Strategic Value

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” [10]. In comparison to Roy and Aubert [15] we want to specify the quantification of the strategic value in accordance to the VRIO framework developed by Barney [18]. 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. On the contrary a resource holds a low strategic value if it is potentially a source of competitive parity. Further, 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.

3.2 Presence of Appropriate Resources

The less the company's resources own appropriate expertise, the more it 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 [15].

According to the discussion above, the two main questions that drive the sourcing decisions for IS-development in relation to the organization's resources are the following [15]:

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

Depending on the constellation, it is believed that one of the sourcing mode defined earlier – *insourcing*, *strategic partnership*, *standardization of commodities*,

and *outsourcing as a service* – is appropriate. From this perspective the following propositions can be derived which are stated in the article of Roy and Aubert [15] implicitly and outlined here in our own words explicitly:

Proposition 1: Insourcing

If the resources used in IS-development activities hold a high strategic value and appropriate resources are available internally, then the IS-development is done in-house

Proposition 2: Strategic Partnership

If the resources used in IS-development activities hold a high strategic value and appropriate resources are not available internally, then the IS-development is done in a partnership

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 conducts the standardization of commodities

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, then the IS-development is acquired as a service

4 Case organizations and Research Method

The study is based on the analysis of four cases in the financial sector, and is built on semi-structured interviews with persons in the upper management in charge of certain outsourcing projects or responsible for strategic sourcing decisions. We have chosen to investigate sourcing projects in the banking sectors since they are appropriate for our research. From our perspective the insightful source for investigating sourcing strategies in IS-development is the person in charge of the organization’s IT respectively sourcing strategy. According to this, we have chosen interviewees who are in charge of the sourcing strategies within the organization. The investigation of each case gives evidence about the applicability of the model developed in our theoretical framework and its predictive power.

Table 5: Case organization and role of interviewee

Financial organization	Interviewee	Interviewees role
NEBank	Mr. Norman	Manager of strategic partnerships in NEBank’s IT-solutions department.
GDQ	Mr. Berger	Head of the development infrastructure. Responsible for the strategic decisions regarding IS-development sourcing.
SHBank	Mr. Svensson	Head of sourcing IT-development. Responsible for outsourcing services regarding development and maintenance.
TreKronor Bank	Mr. Krona	Head of sourcing and vendor management. Responsible for strategy and contracts of IS-sourcing projects.

The NEBank is one of the largest financial organizations in Europe. GDQ provides a core-banking solution that covers all processes in the field of traditional banking business for cooperative banks in Germany. Stockholm Bank (SHBank) is a leading financial institution in Scandinavia with an international presence offering full banking service. TreKronor Bank (TKBank) is a full service bank that is active in Sweden, Lithuania, Estonia and Latvia with many offices around the world, providing service to both private customers as well as corporations.

4.1 NEBank

IS-development in the Financial Sector

Mr. Norman denoted that IS-development competences in terms of vendor management and IT strategy is a core competence that a bank need to retain internally.

Characteristics of the IS-Sourcing Project

The investigated sourcing project is an outsourcing of the maintenance, operation and further development of the SAP financial and reporting systems with a total number of 300 applications. For the purpose of this outsourcing, the internal employees were transferred over night from the NEBank to the outsourcing supplier. The number of former bank employees gradually decreased from the beginning of the sourcing project in 2006 so that nowadays the majority is located in India. However, there are still 50 internal employees.

Table 6: Case NEBank in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	<ul style="list-style-type: none"> • Internal: Analysis, Management • External: Analysis to Rollout, maintenance, operation
Duration	Continuing, long-term
Allocation of Control	<ul style="list-style-type: none"> • Joint management forum embedded in detailed service descriptions and SLAs • Residual rights are owned by the organization

The Motives for Sourcing

Mr. Norman summarized the motives underlying the sourcing project as: access to talent, cost reduction, increasing flexibility, improving efficiency and focusing core competencies.

The Question of Value

In line with the motives given by Mr. Norman, the sourcing-project is addressing the threat in the financial market arising from new regulatory standards on bank capital and liquidity, Basel 3. As a consequence of the financial crisis in 2007, financial institutions operating in the European market will be bounded to the new capital standards from 2013 on that require banks to hold more and higher quality of capital than before (Basel Committee on Banking Supervision, 2010). The role this sourcing project plays in addressing the current threats is valued relatively high by Mr. Norman.

As he reports, this engagement is one of the first outsourcing projects and enables the organization to ramp up further projects.

The Question of Rarity

The sourcing project exploits the environmental threats through cost efficiency. According to Mr. Norman, a crucial capability to obtain the strategic goal is the vendor management. As Mr. Norman elaborates, vendor management capabilities are particular rare in Europe whereas in the US the larger banks started to gain experiences in outsourcing in the beginning of this decade.

The Question of Imitability

Further, Mr. Norman sees the capability of vendor management as something you cannot acquire but learn by doing, becoming experienced, he said, takes at least five to ten years of engaging in such activities.

The Question of Organization

Mr. Norman is convinced that the organization is aware of the need and presence of this capability so that it facilitates the exploitation through setting up structured systems to transfer knowledge from one division to another one on all levels.

Summary

Considering the RBV and our theoretical framework it can be concluded that before the engagement started, appropriate resources used for the IS-development were present. Furthermore, Mr. Norman reveals that the capabilities needed for the execution of the IS-development does not hold a strategic value as it is seen as commodity: “the translation of the IT-needs to the project and into IT-deliveries is something that IS-vendors can do”. Instead the strategic value of the IS is seen as a source of cost reduction. Outsourcing to a low-cost country, however, does not imply a capability of strategic value per se. Concluding from this, the model for IS-sourcing would suggest *standardization of commodities* as the sourcing mode.

The IS-sourcing is an on-going project where all development and maintenance tasks are on the supplier’s side as it owns the required resources for the IS-development. The residual rights of the IS, however, are still under control of NEBank. Clearly, the mode of sourcing that can be excluded is *insourcing*. Likewise *strategic partnership* is not appropriate due to the fact that there is no intended knowledge transfer between both parties. Following from this, the applied sourcing mode corresponds partly to *outsourcing as a service*. Differences arise from the facts that residual rights are not owned by the supplier during the delivery process and also the governance is carried out to some extent jointly. Having this said, the project shares characteristics of the sourcing mode *standardization of commodities*. The supplier benefits from a continuous income stream whereas the NEBank can focus on core competencies so that the cooperation leads to cost advantages for both. Accordingly, there is no clear allocation of a sourcing mode for this case. Regarding cost reduction as the strategic goal underlying this project, NEBank distinguishes between the governance and the execution of the IS-development. Arising from the applied sourcing mode a new capability – vendor management – is needed that is valued as a source of sustained competitive advantage.

4.2 GDQ

IS-Development in the Financial Sector

Outsourcing engagements are currently only entered for certain modular projects in a certain time frame or in form of staff augmentation in order to increase the flexibility in software development for focusing strategic projects. According to the given examples from Mr. Berger, the access to external expertise mainly concerns technical skills rather than knowledge of the core banking business.

Characteristics of the IS-Sourcing Project

The IS concerns risk management for the creditworthiness of wealthy clients. It is demanded by the ABCBank that became recently a new client of the GDQ and therefore switched to the core-banking system of the GDQ, the sourcing provider of the cooperative union. The ABCBank's requirements towards risk management cannot be fully satisfied with the current core-banking system so that it was identified as a gap and formalized in a needed IS-delivery. In this sense, this is already a form of outsourcing as the ABCBank hand over the full IT-responsibility to the GDQ. This though is not part of the analysis. Regarding the underlying purpose of GDQ, it is treated as if it is an internal IT-department. The sourcing project is denoted as outtasking meaning outsourcing the development of a modular software component that is developed under the supplier's governance. As a consequence from the purchase contract the cost for the IS-development can be amortized in the profit and loss statement. Overall the sourcing project is scheduled over 9 month with a workload of 2000 person days whereby ca. 6 internal employees (45 per cent) and ca. 7 external (55 per cent) are involved.

The Motives for Sourcing

According to Mr. Berger, (head of the development infrastructure) the necessary expertise for the IS-development is internally present but fully occupied. The shortage of staff member is temporary and is balanced by external support rather than hiring new employees. In order to overcome the bottleneck of staff and avoid governance overhead the project is outsourced to an external supplier. The characteristics of the purchase contract leads to financial advantages as the IS becomes an amortizable property.

Table 7: Case GDQ in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	<ul style="list-style-type: none">• The delivery responsibility is on the suppliers side• workload is shared 7 to 6
Duration	short-term, 9 month
Allocation of Control	The residual rights is taken over by the GDQ after the purchase is completed

The Question of Value

The IS connect all necessary information, evaluate and combine these so that it supports the decision on the creditworthiness of the bank's credit applicants. As Mr. Berger describes, the IS is a distinctive feature for the calculation of the client's creditworthiness which allows the ABCBank to work better than its competitors.

However, likewise it does not hold a high strategic value, it is one of many IS, and otherwise the ABCbank had not agreed to outsource this project. According to Mr Berger, it is about the cost efficient provision of an IS that fulfils the requirements.

The Question of Rarity

In this case risk management is knowledge that is present in the GDQ but the resources holding that capability are fully occupied. Following from what Mr. Berger stated, this capability is not a core competence of the GDQ and also not a rare competence meaning that it can be acquired cost efficient.

The Question of Imitability and of Organization

As the resources involved in the IS-development are not rare the question of imitability and of exploitation of the organization's resources are not applicable.

Summary

It can be concluded that appropriate resources used for the IS-development are present at a sufficient level but fully occupied. As said before, the shortage of staff member is temporary and is balanced by external support rather than hiring new employees. Considering the employees as a resource the conclusion is that appropriate resources are not available temporary. The question of the strategic value of those resources is not being clearly answered. On the one hand the IS provides a distinctive feature which allows the ABCbank to work better than its competitors. On other hand, resources used for the IS-development are not seen as being rare, since it is handed over to an external supplier. The IS is assessed as a source of competitive parity meaning it hold a low strategic value. Conclusively, the model for IS-sourcing would suggest *outsourcing as a service* as the IS-sourcing mode.

Looking at the applied sourcing mode it can be assessed that the governance and residual rights are hold by the external supplier during the delivery process which goes hand in hand with responsibility for delivery. The client is involved in the requirement specification and buys the IS-development as a finalized product. These attributes suit abundantly to the *outsourcing as a service* mode. However, there are some specialities regarding the project settings. First, the client is likewise sub-supplier and in that way involved to an extent of 45 percent. Furthermore, the maintenance and further development is taken over by the client. As a consequence, the project moves in the direction towards *standardization of commodities*.

4.3 SHBank

IS-Development in the Financial Sector

The only competence that a bank absolutely needs to possess by its own employees is the governance, steering and prioritization of the IT-investments, as Mr. Svensson denoted. In line with this, Mr. Svensson pictured the overall IT-strategy of SHBank including a roadmap that plans to outsource functionality step by step in order to find the cost efficient solution for providing IS without increasing risk or decreasing its quality.

Characteristics of the IS-Sourcing Project

Investigated sourcing project concerns maintenance and further development respectively customization of the human resource (HR)-system for SHBank. After a ramp up time of 18 month, the full responsibility for the handling of the standard

software from PeopleSoft was taken over by IBM in 2010. The outsourcing is a long-term engagement whereas the contract between both parties is set for three years. The maintenance is carried out remotely from India from 5 employees and double that size in case of customizations, supported by one contact person in the premises of SHBank. The supplier is fully responsible to maintain the system and install all necessary upgrades and releases. The employees of SHBank are responsible for the requirements specification and governance, the so called vendor management. The vendor management is supported by internal legal and procurement specialists for the initial negotiation with the supplier.

Table 8: Case SHBank in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	The resourced needed for the IS-development are owned by the supplier
Duration	long-term
Allocation of Control	The residual rights for the customizations are owned by SHBank

The Motives for Sourcing

Mr. Svensson first introduced five sourcing drivers that are identified by the SHBank; need for good skills, cost, flexibility regarding both buying resources and cost, risk, and focus in terms of focus own employees on strategic matters. In this specific case, Mr. Svensson identified cost as the main driver. Overall, the project is valued as success as it reached the cost efficiency goal, eliminated the dependence on external consultants and is governed well.

The Question of Value

Mr. Svensson puts the value of this IS-sourcing project in more general context. This project has its value in showing that the IT is capable to reduce cost but keeping high quality. It is the pilot project within a roadmap that targets the cost efficient provision of the IT in SHBank. By entering the engagement, the SHBank was able to mitigate dependency on few internal employees and gain access to complementary competences.

The Question of Rarity

Competences needed for carrying out outsourcing of the HR-system are vendor management as well as legal and procurement expertise. The functional competence concerning the HR-system is valued as not relevant to keep in-house.

The Question of Imitability and of Organization

As the resources involved in the IS-development are not rare the questions of imitability and of the organization's exploration of these resources is not applicable.

Summary

Outsourcing to a low-cost country does not imply a capability of strategic value per se, with this said being cheaper labour is not a capability. Further, the governance for the execution of the IS-development is on the supplier's side as it owns the necessary resources. The residual rights for the customizations are owned by the SHBank. Following from this, applied sourcing mode corresponds most likely to the *outsourcing as a service* mode. Differences arise from the facts that residual rights are not owned by the supplier during the delivery process. Concerning cost reduction as

the underlying motives of the sourcing project, the SHBank need to have new capabilities namely vendor management and legal and procurement expertise. In the context of this case, these capabilities are valued as a source of competitive parity implying a normal economic performance.

4.4 TKBank

IS-Development in the Financial Sector

Mr. Krona argues that Banks are much more risk averse than other industries when it comes to sourcing. The architectural description is seen as something that should be kept in the bank as well as deployment, which comes in the latter part of the value chain. Everything that is in the middle of the value chain can according to Mr. Krona be outsourced.

Characteristics of the IS-Sourcing Project

The project is part of the TreKronor Bank framework towards the Internet Bank, especially the retail side of the bank. The amount of external employees involved in the project is between 30-50 and varies over time. This is a long term contract with the vendor which is a frame agreement. The project is now finalized and has been delivered.

Table 9: Case TreKronor Bank in accordance to the dimensions of sourcing

Dimension	Description
Degree of Integration	The resourced needed for the IS-development are owned by the supplier.
Duration	Short-term with a long-term frame agreement
Allocation of Control	Analysis and architectural part is internal responsibility as well as the top level management of the project. External responsibilities include design phase (not overall design), development and test up to unit test. Project management is partly.

The Motives for Sourcing

When it comes to the underlying motives for the outsourcing of the IS-project Mr. Krona identifies three drivers. The first driver is the cost benefit from lower salaries in India than a Swedish employee would have. Secondly, it is about the availability which implies that TreKronor did not have the required competence at that time internally. They did have the capability but not the specific competence or resources. The third driver is the time, the time to market factor and to be able to scale up on a very short period of time. TreKronor Bank managed to live up to the harsh time constraints as well as saving costs.

The Question of Value

Valuing the project it can be said that the valuable factor is the customer usability, the accessibility of functionalities within the retail bank. The underlying threat is that customers abandon TreKronor Bank for another bank. Therefore improving the customer usability is of high importance. The project is essential in addressing threats and opportunities. Taking into account the resources that are needed to carry out this

project Mr.Krona acknowledges the experience from setups in the project management and to have people that can run agile methods as key capabilities. The key capabilities that are in house are project management and stake holder management. Business knowledge is required from the vendor in order to meet the time limits.

The Question of Rarity

Mr.Krona argues that none of the resources or capabilities from the uniqueness point of view are rare, since they all can be acquired from the market – a lot of people can do it. But in contrast he says that the demand for these resources is very high which contributes to a shortage of these resources and capabilities and therefore they become rare.

The Question of Imitability

Here Mr.Krona puts forward that it is hard to imitate the resources and capabilities if the values (implementation of processes) are not put in place internally. The values are hard to copy, and therefore it does not matter what is put on paper as long as the knowledge, experience, culture etc. is not there. In other words, a paper is easy to copy, but if you do not have the values then it will never work.

The Question of Organization

Regarding the question of organization it is from Mr.Krona's answers obvious that the experience from IS-sourcing projects gives a better understanding of its value. That is why the upper management are the ones that are aware of these values, and try to spread the knowledge to the operational part of the organization as well.

Summary

According to our model the fitting IS-sourcing mode is here *strategic partnership*. In line with the RBV strategic capabilities with a high strategic value should be kept or developed internally. Therefore the theory suggests that the bank should gain those complementary resources through a partnership in exchanging and keeping knowledge.

In comparison we investigate what sourcing mode that TreKronor Bank actually applies for this particular project. It is a short term project within a long-term frame agreement. The resources are owned by the supplier whereas the residual rights belong to TreKronor Bank. Further, the project management is split between the parties whereas the top level management is exclusively kept internally. Looking at the similarities with the IS-sourcing mode *outsourcing as a service* it is clear that this project partly meets the characteristics of this mode. What makes this project not *outsourcing as a service* is the split of control in the project management. In addition, the residual rights are not owned by the vendor during the delivery process. Analysing the mode of sourcing further, it can be stated that there is no intended knowledge transfer between TreKronor Bank and the vendor. This contradicts the base of *strategic partnership* in exchange of knowledge.

5 Discussion

In answering our research question we will apply a step by step approach were we answer the aims of the research question in step 1 and step 2. Combining these two

steps we will come to the answer of the main research question which is: *How can the motives for sourcing and associated strategies (for IS-development in the financial sector) be explained?*

1) Financial Institutions Motive for Sourcing and what Strategies that are Applied.

Looking at the motives for sourcing we have identified that these overlap across the cases. The investigation conducted reveals the following common key motives for all four cases; flexibility, access to talent and cost benefit. When analyzing our empirical data we have found many key drivers similar and therefore decided to categorize them into the main resembling clusters:

- **Flexibility:** Scale up the resources bound to the project in a very short period of time, flexibility in terms of cost meaning transform fixed cost for internal employers to variable cost of external one, balance temporary shortage of staff, time to market.
- **Cost benefit:** Cost reduction, avoid governance overhead.
- **Access to talent:** Lack of competence internally, availability, improving efficiency, skills, focusing core competencies, focus in terms of focus own employees on strategic matters, 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.

Taking a closer look at each of the four cases the following motives for sourcing can be found:

- **NEBank:** cost benefit (increased need of cost efficiency, pilot project)
- **GDQ:** flexibility
- **SHBank:** access to talent, cost benefit (pilot project)
- **TreKronor Bank:** access to talent (retaining customers through improved usability)

From this we can conclude that major motives for selecting IS-sourcing modes are access to talent and cost benefit. After that comes flexibility as a motive. Access to talent would according to the RBV be knowledge and experiences that are not easy 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 mode is cost benefit, which is not directly seen as a resource of strategic value from RBV. It is rather indirectly a resource of strategic value, since a cost benefit implies that the organization has some kind of financial benefit, giving it more money left to invest in something else such as access to talent for instance. The least occurring motive is flexibility. Flexibility is here seen as the ability of the organization to live up to the time constraints that have been put on the project, and to balance the shortage of staff, in other words it is the organization's ability to mitigate threats and find new opportunities under pressure.

2) Comparison of the Applied Sourcing Mode to the Derived Mode from the Theoretical Framework

Based on the empirical findings, applied sourcing mode and mode suggested by the theoretical framework were independently conducted for each case. The results from the investigation are presented in table 10.

Table 10: Comparison of the applied and derived mode from the theoretical framework

Case	Theoretically derived sourcing mode	applied sourcing mode	Success
NEBank	standardization of commodities	outsourcing as a service mode/ standardization of commodities	Yes
GDQ	outsourcing as a service	outsourcing as a service (GDQ involved as sub-supplier)	Yes
SHBank	outsourcing as a service	outsourcing as a service (residual rights are owned by SHBank)	Yes
TKBank	strategic partnership	outsourcing as a service/ strategic partnership	Yes

Divided in four modes, the definition of the applicable sourcing mode was derived from the presence of appropriate resources and its strategic value. 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 selecting sourcing mode. Further, the empirical findings reveal that the modified model from Roy and Aubert [15] does explain the applied outsourcing mode to a certain extent. Even though the applied sourcing modes vary in its characteristics from the defined sourcing modes, the applied and theoretically derived modes are for all cases comparable. Considering the variety of possible modes of sourcing in practice and the limitation of a model that by its nature tries to simplify the observed real world, this outcome can be interpreted as support for RBV and the modified model of IS-sourcing.

6 Conclusions

The question asked in this research was: How can motives for sourcing for IS-development in the financial sector be explained?

It can be concluded that 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. Analysing 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.

Looking at motives for sourcing we have identified flexibility, access to talent and cost benefit across our different empirical studies. 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 labour 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. Nevertheless, 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 could be 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 IS-sourcing are driven by the analysis of internal resources and its potential being a source of competitive advantage.

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