Feedback in the ERP Value-Chain: What Influence Has Thoughts about Competitive Advantage

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Abstract. Different opinions about whether an organization gains a competitive advantage (CA) from an enterprise resource planning (ERP) system exist. However, this paper describes another angle of the much reported competitive advantage discussion. The basic question in the paper concerns how thoughts about receiving competitive advantage from customizing ERPs influences feedback in ERP development. ERP development is described as having three stakeholders: an ERP vendor, an ERP partner or re-seller, and the ERP end-user or client. The question asked is: What influence has thoughts about receiving competitive advantage on the feedback related to requirements in ERP development? From a set of theoretical propositions eight scenarios are proposed. These scenarios are then illustrated from interviews with stakeholders in ERP development. From an initial research, evidence for six of these eight scenarios was uncovered. The main conclusion is that thoughts about competitive advantage seem to influence the feedback, but not really in the way that was initial assumed. Instead of, as was assumed, having a restrict view of providing feedback stakeholders seems to be more interested in having a working feedback loop in the ERP value-chain making the parties in a specific value-chain more interested in competing with other parties in other ERP value-chains.

Keywords: Competitive Advantage, Enterprise Resource Planning (ERP), ERP Development, Resource-Based View, Value-Chain.

1   Introduction

Competitive Advantage (CA) and how organizations gain CA from Information and Communication Technologies (ICTs) are subjects that have been discussed extensively. Different opinions on the answer to the question as to whether ICTs enable organizations to gain CA exist. Some proponents, such as Carr [1], claim that the technology is irrelevant since it can be treated as a commodity. Others, such as Tapscott [2], argue for its importance while still other writers say it depends on how the technology is used and that it is how business processes are managed that are primary for gaining CA [3]. However, in reviewing the academic literature there seems to be a common understanding that it is not the technology as such that

eventually provides organizations with CA but how the technology is managed and used [4].

However, in this paper another perspective of CA in relation to Enterprise Resource Planning systems (ERPs) is discussed, and that is how the ERP value-chain stakeholders' interests in maintaining or improving their CA may influence feedback related to requirements of ERPs. When distinguishing between the stakeholders in the ERP value-chain and their relative positions, the subject becomes more complex. The research builds on a set of propositions suggesting what gives stakeholders in the ERP value-chain their CA. The propositions are then presented as win-lose scenarios that are discussed using preliminary findings from an empirical study.

The principle question addressed in this paper is: What influence has thoughts about receiving competitive advantage on the feedback related to requirements in ERP development?

The rest of the paper is organized as follows: The next section defines ERPs and describes the ERP value-chain and its stakeholders. Section 3 then define CA and describe ERPs and CA from the resource-based view of the firm perspective. This is followed by a presentation of the propositions and a table suggesting CA scenarios in relation to the different stakeholders in the ERP value-chain. The penultimate section presents eight scenarios together with some preliminary findings from own as well as extant studies. Finally some concluding remarks in addition with directions for future research are presented.

2   ERPs, the ERP Value-Chain and Its Stakeholders

ERPs are often defined as standardized packaged software designed with the aim of integrating the internal value chain with an organization's external value chain through business process integration [5, 6], as well as providing the entire organization with common master data [7]. Wier et al. [8] argue that ERPs aim at integrating business processes and ICT into a synchronized suite of procedures, applications and metrics which transcend organizational boundaries. Kumar and van Hillegersberg [9] claim that ERPs that originated in the manufacturing industry were the first generation of ERPs. Development of these first generation ERPs was an inside-out process proceeding from standard inventory control (IC) packages, to material requirements planning (MRP), material resource planning (MRP II) and then eventually expanding it to a software package to support the entire organization (second generation ERPs). This evolved software package is sometimes described as the next generation ERP and labeled as ERP II which, according to Møller [10], could be described as the next generation enterprise systems (ESs).

This evolution has increased the complexity not only of usage, but also in the development of ERPs. The complexity comes from the fact that ERPs are systems that are supposed to integrate the organization (both inter-organizationally as well as intra-organizationally) and its business processes into one package [11]. It can be assumed that ERPs as well as how organizations use ERPs have evolved significantly from a focus on manufacturing to include service organizations [12]. These changes

have created a renewed interest in developing and selling ERPs. Thus, the ERP market is a market that is in flux. This impacts not only the level of stakeholder involvement in an ERP value-chain [13, 14], but also how these different stakeholders gain CA from developing, selling, or using ERPs. It is clear that a user organization no longer achieves CA just by implementing an ERP [15, 16]. Fosser et al., [17] present evidence that supports this and at the same time show that for some organizations there is a need to implement an ERP system for at least achieving competitive parity. They also claim that the way the configuration and implementation is accomplished can enhance the possibility to gain CA from an ERP system, but an inability to exploit the ERP system can bring a competitive disadvantage. This is in line with the assumption from the resource-based view that it is utilization of resources that makes organizations competitive and just implementing ERPs provides little, if any, CA [4]. One reason for this could be that the number of organizations that have implemented ERPs has exploded. Shehab et al. [18] claim that the price of entry for running a business is to implement an ERP, and they even suggest that it can be a competitive disadvantage if you do not have an ERP system. Beard and Sumner [19] argue that through reduction of costs or by increasing organizations revenue, ERPs may not directly provide organizations with CA. Instead, they suggest that advantages could be largely described as value-adding through an increase of information, faster processing, more timely and accurate transactions, and better decision-making.

In contrast to the above analysis, development of ERPs is described as a value-chain consisting of different stakeholders, as shown in Figure 1. The value-chain differs between different business models, however, it can be claimed that the presented value-chain is commonly used in the ERP market. The presented value-chain can be seen as an ERP business model that has at least three different stakeholders: ERP software vendors, ERP resellers/distributors, and ERP end-user organizations (or ERP customers). It can be said that all stakeholders in the value-chain, to some extent, develop the ERP further. However, what it is clear is that the feedbacks, related to requirements, from users are of importance for future development. The software vendors develop the core of the system that they then "sell" to their partners that act as resellers or distributors of the specific ERP. These partners quite often make changes to the system or develop what could be labeled as add-ons to the ERP core. These changes or add-ons are then implemented in order to customize the ERP for a specific customer. In some cases the customer develops the ERP system further either by configuration or customization. At this stage of the value-chain it can be argued that the "original" ERP system could have changed dramatically from its basic design. This ERP development value-chain may result in the ERP software vendors not having as close connection to the end-user that they would choose and they do not always understand what functionalities are added to the end-users' specific ERP systems. Therefore is feedback in the ERP value-chain essential for future development.
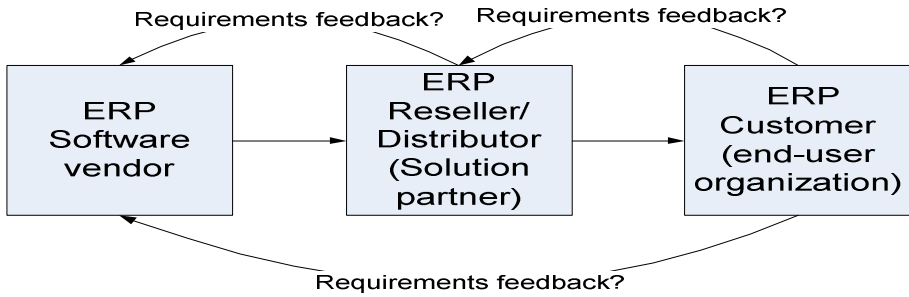
Fig. 1. Stakeholders in the ERP value-chain

The stakeholders in the ERP value-chain have different roles; accordingly, they have different views of CA gained from ERPs. One way of describing this is to use a concept from the resource-based view: core competence [20]. Developing ERPs are normally the ERP software vendor's core competence. The ERP reseller/distributors' core competence should also be closely related to ERPs, but it is unclear if development should be their core competency. Their core competences could or should be marketing and implementing ERPs. However, this probably varies between ERP resellers/distributors; for some it could be development of add-ons that constitute one of their core competences. When it comes to end-user organizations, it can be said that ERP development definitely is not their core competence. However, they are involved in the ERP development value-chain, since it is crucial for an organization to have alignment between its business processes and supporting technology. To further discuss this ERPs and CA are discussed from the resource-based view of the firm in the next section.

3   ERP and Competitive Advantage Seen from the Resource-Based View

Whether an organization (the customer in figure 1) gains CA from software applications depends, according to Mata et al. [4], as well as Kalling [21], on how these resources are managed. The conclusion Mata et al. [4] draw is that among attributes related to software applications – capital requirements, proprietary technology, technical skills, and managerial software applications skills – it is only the managerial software application skills that can provide sustainability of CA. Barney [22] concludes that sources of sustained CA are and must be focused on heterogeneity and immobility of resources. This conclusion builds on the assumption that if a resource is evenly distributed across competing organizations and if the resource is highly mobile, the resource cannot produce a sustained competitive advantage as described in the VRIO framework (Table 1).

The VRIO framework aims at identifying resources with potential for having sustained competitive advantage by answering the questions, is a resource or capability…If all answers are answered affirmative, the specific resource has the

potential to deliver sustained competitive advantage to the organization. However, to do that, it has to be efficient and effectively organized. Barney [23] describes this as exploiting the resource. If the organization is a first-mower in the sense that it is the first organization that uses this type of resource in that specific way, it can quite easily receive competitive advantage, but, it can be temporary. How long time the competitive advantage lasts is a question of how hard it is for others to imitate the usage of that resource. This means that the question of how resources are exploited by the organization is the main factor when it comes to if the competitive advantage becomes sustainable or not.

Table 1. The VRIO framework [23]

Is a resource or capability…					
Valuable?	Rare?	Costly to Imitate?	Exploited by Organisation?	Competitive Implications	Economic Performance
No	---	---	No	Competitive Disadvantage	Below Normal
Yes	No	---		Competitive Parity	Normal
Yes	Yes	No		Temporary Competitive Advantage	Above Normal
Yes	Yes	Yes	Yes	Sustained Competitive Advantage	Above Normal

The framework, Table 1, which employs Barney 's [22] notions about CA and ICT in general, has been used extensively [5, 19, 21, 24]. What the conducted research implies is that CA can be difficult but not impossible to achieve if the resource is difficult to reproduce (e.g. the role of history, causal ambiguity and social complexity). Fosser et al., [24] conclude that the real value of the resource is not the ICT in itself, but the way the managers exploit it, which is in line with the resource-based view of the firm and the value, rareness, imitability and organization (VRIO) framework.

Quinn and Hilmer [25] argue that organizations can increase the CA by concentrating on resources which provide unique value for their customers. There are many different definitions of CA; however, a basic definition is that the organization achieves above normal economic performance. If this situation is maintained, the CA is deemed to be sustained. Based on the discussion above and the statement made by Quinn and Hilmer [25], Table 2 suggests what outcome of CA could be and how it potentially could be gained by different stakeholders in the ERP development value-chain including the end-user. There are some conflicts between attributes for gaining

CA, such as developing competitively priced software with high flexibility and developing software that is easy to customize and, at the same time, achieve CA by developing exclusive add-ons.

If the organization is a first mover in the sense that it is the first organization that uses this type of resource in a specific way, it can quite easily gain CA, but it will probably only be temporary. The length of time that the CA lasts depends on how hard or expensive it is for others to imitate the usage of that resource. This means that the question of how resources are exploited by the organization is the main factor when it comes to whether the CA becomes sustainable or not.

Levina and Ross [26] describe the value proposition in outsourcing from a vendor's perspective. They claim that the value derived from vendors is based on their ability to develop complementary core competencies. From an ERP perspective, it can be suggested that vendors, as well as distributors (Figure 1) provide value by delivering complementary core competencies to their customers. The evolution of ERPs has made these resources easier to imitate. However, a major barrier to imitation is the cost of implementation [27, 28].

Table 2. ERP value-chain stakeholders and competitive advantage

Stakeholder	Outcome of Competitive Advantage	Gained through
ERP Software Vendor	High level of market share in the ERP market (e.g. the number software licenses sold)	Competitively priced software Highly flexible software Ease of implementing the software Ease of customizing the software
ERP Resellers/distributor	High level of market share in the ERP consultancy market (e.g. consultancy hours delivered)	Knowledge about the customer's business High level of competence in development of add-ons that are seen as attractive by the ERP end-user organization High level of competence at customization
ERP end-user organization	High level of market share in the customer-specific market (e.g. products or services sold; rising market share; lower costs)	Being competitive in its own market Implementing an ERP system that supports its business processes Implementing an ERP system that is difficult for competitors to reproduce

The resource-based view claims that a resource has to be rare or, be heterogeneously distributed, to provide CA. In the case of ERPs, this kind of resource is not rare. There are a lot of possibilities for organizations to implement different ERPs, and the evolution of ICT has made it feasible for more organizations to implement ERPs by decreasing the costs of using ERPs. However, as described by

Barney [23] and Shehab et al. [18], failure to implement an ERP can also lead to an organization suffering competitive disadvantages.

The CA from ERPs would probably be negated by duplication as well as by substitution. If, for instance, the ERP resellers sold their add-ons to the ERP software vendor, the duplication of that add-on would be quicker and the CA that the ERP reseller previously had would be gradually eroded. However, if they kept the add-on as "their" unique solution, other ERP resellers or ERP software vendors would probably find a substitute to the add-on or develop their own.

This implies a conflict between vendors and resellers when it comes to CA and the development of "better" ERPs. This can be explained by realizing that ERP resellers/distributors often develop add-ons which have a specific functionality for solving a particular problem for their customer. This can be seen as one way of customization, where resellers/distributors use their domain knowledge about the customers' industry in addition to their knowledge about the specific customer. This, in effect, allows resellers to increase their CA and earn abnormal returns. Another way is for resellers to sell the add-on to other resellers resulting in the resellers decreasing their CA in the long run. It is probable that resellers who sell their add-on solutions to other resellers would see it as not influencing their CA since they sell the add-on to customers already using the same ERP system and this would not make ERP end-user organizations change resellers. However, the question remains whether the same would apply if the resellers sold the add-on to the software vendor. The answer would depend on the incentives that the resellers had for doing that. If the add-ons were to be implemented in the basic software, the possibility of selling the add-on to client organizations, as well as to other resellers, would disappear.

Beard and Sumner [19] investigate whether a common systems approach for implementing ERPs can provide a CA. The focus of their research was to investigate what happens when a variety of firms within the same industry adopt the same system and employ almost identical business processes. Their conclusion is that it seems that ERPs are increasingly a requirement for staying competitive (i.e. competitive parity), and that ERPs can yield at most a temporary CA. From this it can be suggested that ERP end-user organizations want a "cheap" system that they can use to improve their business processes, thereby making a difference compared with other organizations in the same industry. But, since ERPs encourage organizations to implement standardized business processes (so-called "best practice" Wagner and Newell, [29]), organizations get locked in by the usage of the system and then, depending on whether they are a first mover or not, they receive only a temporary CA. This implies that the ERP end-user organization often implement an ERP with the objective of having a "unique" ERP system. But does the ERP customer want a unique ERP system? If the customer believes they have a unique business model, it is likely they would want a unique ERP system. However, they also want a system with high interoperability internally, as well as one compatible with external organizations systems. It is likely that end-user organizations have a need for a system that is not the same as their competitors. This is congruent with the ERP resellers/distributors. They receive their CA by offering their customers the knowledge of how to customize an ERP using industries' best practices and, at the same time, how to implement

functionality that makes ERP system uniquely different from their competitor's system. Based on this discussion the next section presents some propositions on how thoughts about achieving CA from uniqueness of ERP system influence feedback of requirements in the ERP value-chain.

4   Propositions on How Competitive Advantages Thoughts Influence Requirements Feedback

Proposition 1: Both resellers and end-users (encouraged by resellers) in the ERP value-chain see customization as a way of achieving Competitive Advantage (CA). This could result in resistance to providing software vendors with the information necessary for them to develop ERPs further in the direction of standardization and thereby decreasing the resellers' need to customize the system.

Kalling [21] suggested that the literature on resource protection focuses, to a large extent, on imitation, trade and substitution. He proposed that development of a resource can also be seen as a protection of the resource. Referring to Liebeskind [30], Kalling posited that the ability to protect and retain resources arises from the fact that resources are asymmetrically distributed among competitors. The problem, according to Kalling, is how to protect more intangible resources such as knowledge. Relating this to ERPs, it follows that knowledge about a specific usage situation of an ERP would be hard to protect by legal means, such as contracts. Another way of protecting resources is, as described by Kalling, to "protect by development." This means that an organization protects existing resources by developing resources in a way that flexibility is increased by adjusting and managing present resources. In the ERP case this could be described as customizing existing ERPs, thereby sustaining CA gained from using the ERP system. Kalling describes this as a way of increasing a time advantage. From the different ERP stakeholders' perspectives, it could be argued that both protection by development, as well as trying to increase the time advantage, influences the direction in which ERPs are developed.

Proposition 2: The conflict between different parties in the ERP value-chain and how they believe they will gain CA influences the feedback in the ERP value-chain. This tends to increases the cost for both development as well as maintenance of ERP systems.

The discussion and propositions so far suggest that decision-makers in organizations and their beliefs regarding how to gain and sustain CA by customization of ERPs, are a major hindrance to the development of future ERPs. This emanates from the assumption that organizations (end users and resellers) protect what customization they have made. The reason why they do so is based on their belief that they will sustain a CA gained by developing, selling or using customized ERPs. However, returning to Table 2 and the suggestion as to what it is that constitute CA for the different stakeholders, it can be concluded that there are some generic influencing factors. The conflicting goals of the three parties in the ERP value-chain increases complexity in the market place. From a resource-based perspective, first mover advantage could be seen as something that influences all stakeholders and their possibility to gain and to some extent sustain CA.

The same could also be said about speed of implementation. The main suggestion is that even if the role of history, causal ambiguity and social complexity influences the organizations' possibility to gain CA, the management skills that the organizations have is crucial.

When looking at what improves their market share of the three different stakeholders in the ERP value-chain, it can be proposed that there are no direct conflicts amongst stakeholders. The reason is that they all have different markets and different customers; therefore they do not compete directly with one other. In reality, they have each other as customers and/or providers, as described in Figure 1. It is suggested that further development of ERPs carried out by vendors could result in a higher degree of selling directly to end-customers or other ways of delivering ERPs to end-customers so that the partners will be driven to insolvency and replaced by, for instance, application service provision (ASP) [31, 32], or software as a service - SaaS [33] or open source [34, 35]. The first step in this direction would probably be signaled if the add-ons that partners currently deliver to end-customers are implemented in the core product. From this it can be concluded that there is a potential conflict between the different parties in the value-chain when it comes to how different stakeholders gain CA and how that influences future ERP development.

ERP software vendors become competitive if they utilize their resources to develop ERPs that are attractive to the market. ERP resellers/distributors thus need to utilize their resources to become attractive partners when implementing ERPs. Furthermore, ERP end-users need to use the ERP system so that it supports their businesses. In other words, it is how end-user organizations employ the ERP that is of importance, and it could be that having a unique ERP system (Table 1) is not as important as has previously been believed. In other words, while customization is in the interests of the resellers this may not be the case for the end users.

Millman [36] posits that ERPs are the most expensive but least value-derived implementation of ICT support. The reason for this, according to Millman, is that a lot of ERPs functionality is either not used or is implemented in the wrong way. That it is wrongly implemented results from ERPs being customized to fit the business processes, instead of changing the process so that it fits the ERP [36]. However, according to Light [37], there are more reasons for customization than just the need for achieving a functionality fit between the ERP and the organization's business processes. He believes that from the vendor's perspective, customizations might be seen as fuelling the development process. From an end-user' perspective, Light describes customization as a value-added process that increases the system's acceptability and efficiency [37]. He further reasons that customization might occur as a form of resistance or protection against implementation of a business process that could be described as "best practices." One reason why end-user organizations get involved in ERP development is that they want to adjust their ERPs so that they support their core competences.

Proposition 3: End-users of ERPs and their basic assumption about how they receive CA are encouraged by resellers of ERPs. Resellers want to sustain their CA by suggesting and delivering high levels of ERP customization.

The main conclusion so far can be formulated as follows: Highly customized ERPs deliver better opportunities for CA for the resellers in the ERP value-chain while it decreases the opportunity for both ERP software vendors as well as ERP end-user organizations to attain CA.

To discuss this further, in the next section we propose various scenarios supported by some early empirical data.

5   Scenarios Describing ERP Related Competitive Advantage

In this section eight possible scenarios on how thoughts about receiving competitive advantage from a customized ERP system could be described from a CA perspective is presented. The description is based on semi-structured interviews done with an ERP vendor, ERP reseller consultants and ERP customers and recently published studies in two Norwegian companies presented by Fosser et al,.[17, 24]. The interviews with the ERP vendor and the ERP reseller consultants were part of an on-going research project investigating requirements management. The project aimed at gaining knowledge on what factors that influence future development of ERPs. In total there were 11 interviews conducted with different executives at a major ERP vendor organization and three interviews conducted with ERP consultants at a reseller organization. The reseller organization implements and supports different ERP systems, and one of their "products" is the ERP system that is developed by the ERP vendor. The interviews with ERP customers comes from the study done by Fosser et al., [17, 24] (in total 19 interviews) which were part of a research project that aimed at understanding competitive advantage in an ERP context. Citations from interviews done in these different studies are used to illustrate findings and flesh out the content of table 3.

Table 3. Scenarios describing win or lose relationship

Scenario	Vendor	Re-Seller	Client (end user)
A	Win	Win	Win
B	Win	Win	Lose
C	Win	Lose	Win
D	Win	Lose	Lose
E	Lose	Win	Win
F	Lose	Win	Lose
G	Lose	Lose	Win
H	Lose	Lose	Lose

Scenario A: It can be said that this is probably the situation that all stakeholders in a business relationship ideally want. However, to have a win-win-win situation in an ERP development value-chain is not straightforward. From the vendors' perspective it means that they should develop an ERP system that is both so generic that the re-seller could sell it to a lot of different clients to generate revenue from licenses and at the same time be so specific that the end users could gain a CA from the usage of the

standardized system. However, if the vendor manages to develop such a generic form of ERP it is likely that end user would demand an extensive customization effort. The result could then be that the re-seller could sell a lot of consultancy hours for adjusting the software to the business processes in the client's organization. A quotation from an ERP consultant at an ERP reseller organization describes a situation when the feedback loop worked as a win-win-win situation. The ERP consultant said: *"Before the ERP vendor merged with a bigger ERP vendor we had a close relationship that actually made it possible to have requests from a specific customer implemented in the system. Now we don't know who to talk with and even if we get a contact with them (the vendor) they are not really interested"*. He (the ERP consultant) continues with stating that: *"We developed a very interesting add-on for a customer, that we then tried to get implemented in the base system but it was impossible. So, we started to sell this add-on to other ERP resellers (of the same system). We did so because we think it will benefit us in the long run if customers feel that the system is interesting – In that way we will probably increase our market"*.

If this continues for some time it probably ends with a situation as in Scenario E. Scenario E is then the situation when vendor loses and the re-seller and clients win. We see this as a possibility if the re-sellers spend so much time with clients developing ERP systems offering CA while generating large consultancy hours but at the cost of not marketing the base ERP system to new clients. Our early data gathering suggests this scenario is common among the stakeholders. One example of support of this situation is the following statement from an executive at the ERP vendor (the same ERP vendor that was mentioned above by the developer at the ERP reseller).

The executive at the ERP vendor said that: *"We don't have enough knowledge about how the system is used and what the user of the system actually wants to have. This makes that future development of the system is extremely hard and it is a fact that there are problems with requirements management in ERP development"* Director of Program Management.

Comparing the citations from consultant with the one from the vendor there seems to be a contradiction. The consultant feels it hard to provide feedback while the vendor feels a lack of feedback. From the CA perspective this is hard to explain, however, what can be said is that this specific consultant see an opportunity in increasing its CA by providing feedback to the vendor. The reason for why it does not happen probably is related to lack of resources at the vendor place or a lack of a clear relationship between the parties. One way for the vendor of dealing with this is to get a closer relationship to some ERP resellers – by a relationship program giving some benefits to reseller that have a close relationship with the vendor. However, it demands that they for instance follow a specific process for implementation of the ERP.

This could then result in the situation described in scenario B, in which both the vendor and the re-seller have a win-win situation while the client has a disadvantaged position especially if they do not customize the software to the extent whereby they gain CA. The following quotations from ERP customers describe this situation.

"An ERP system is something you just need to do business today. But the way we have implemented it and configured it has given us a competitive advantage." Assistant Director of Logistics.

"I believe that it is mostly a system you need to have. But an ERP system can be utilized to achieve a competitive advantage, if you are skillful." Senior Consultant.

"It keeps us on the same level as our competitors. We are focusing on quality products. That is our competitive advantage. An ERP system cannot help us with that". The Quality Manager.

"I don't think we have got any competitive advantage. All our competitors are running such a system, so it is just something we need to have. It is actually a competitive disadvantage because we have not managed to get as far as the others, with the system." Managing Director.

All these citations describe the situation when the customers see ERP implementation as a necessity to avoid competitive disadvantage. To some extent it can be said that they understand customization as something you do to gain CA, which implies that they all are interested in what other customers do and that could be seen as something that hindrance feedback resulting in the scenario B situation. Another reason why the situation could result in scenario B is that it is shown that if clients customize to a high extent, the long-term maintenance costs of the ERP system becomes so great that the benefits are lost. The following statement from a developer at the ERP vendor supports scenario B.

"It is clearly seen that when a customer implement the ERP system for the first time they customize a lot. When they then upgrade with a new version the extensive customization is much less and when they upgrade with version 3 and/or 4 they hardly don't do any customization. The reason is must likely that they have discovered that customization cost a lot at the same time as they have discovered that they are not that unique that they thought when implementing the first version" Program Manager A.

In the long run this could also result in scenario F. Scenario F describes the situation where the vendor starts to lose market share because clients have problems achieving CA resulting in a bad reputation for the ERP product. The situation of less customization and less demand on add-ons could also result in scenario C. In scenario C, we see a vendor by-passing the reseller and working directly with the client enabling them both to gain a CA. This is somewhat supported by an executive at the ERP vendor, who says: *"However, there will probably be a day when the partners not are needed - at least for doing adjustments of ERPs. This is not a problem since the rules of the game always change. And there will still be a need for partners. The partners see themselves as … they understand the customer's problem."* Program Manager B.

Scenario D is an interesting scenario since it is only the vendor that shows a winning position. It could be explained by the fact that if the vendor manages to develop a generic ERP system and thereby gain a more or less monopoly status they will have the possibility to sell many licenses. It also shows the situation when the vendor not seems to be dependent on feedback from customers in the development of the ERP. A quotation from an ERP customer describes this clearly: *"I try to exploit the available tools in SAP without investing money in new functionality. There are a lot of possibilities in the ERP systems, e.g. HR, which we are working with to utilize our resources more efficiently."* Director of Finance.

It could also be that the client needs to buy and implement the ERP since it more or less a necessity to implement an ERP to obtain competitive parity. This means that ERP end-users use the ERP as standardized software and they do not feel that providing feedback to the vendor is of importance.

With scenario G it is probably a situation that the vendor would not allow to continue. However, from the perspective of an ERP customer one motive for restricting the feedback could be justified from this citation: *"We have a unique configuration of the system that fits our organization and this gives us a competitive advantage. The IS department is very important in this context."* Assistant Director of Logistics. While another citation suggests that providing feedback could be a way of gaining competitive advantage: *"I actually hold lectures about how we do things in our organization. I tell others about the big things, but I think it is the small things that make us good. All the small things are not possible to copy. I think it is a strength that we have a rumor for being good at ERP and data warehouse. It gives [us] a good image. Though, we are exposed to head hunters from other organizations."* Director of IS.

The empirical data so far did not provide any evidence for scenario G or scenario H. Regarding scenario H it can be stated that from a "prisoner dilemma game" [38] it could happen that all lose, however, from research on the prisoners dilemma game it is clear that if the "game" are repeated the involved parties would start to cooperate [38]. This means that it more or less can be assumed that in the ERP value-chain case in the long-run while the stakeholders work in the direction of scenario A. This also to some extent means that neither of the scenarios (B, D, F and H) giving a lose for clients will be sustainable in the long-run.

6   Concluding Remark and Future Research

Using an innovative value chain analysis considering the ERP vendor, reseller and client we developed eight scenarios to examine our research question: "What influence has thoughts about receiving competitive advantage on the feedback related to requirements in ERP development?" From the preliminary empirical research evidence to support six of the eight scenarios were found. As the other two were the least likely to occur, the findings encourages to conduct further systematic research in the future to flesh out the findings and to look particularly at ERP acquisitions in a variety of settings. As ERP systems are ubiquitous in modern corporations it is vital that managers consider the value such systems offer in the long term. Furthermore, the analysis offers a more in-depth understanding of the dynamics of the ERP development value chain, its complexity and its impact on competitive advantage for the different stakeholders.

However, returning to the question about how CA thoughts influence feedback in ERP development, it can be stated that it seems to influence the feedback, but not really in the way that were initial assumed. Instead of, as was assumed, having a restrict view of providing feedback stakeholders seems to be more interested in having a working feedback loop in the ERP value-chain making the parties in a specific value-chain more interested in competing with other parties in other ERP value-chains.

For the future, it will be interesting also to try to reveal the patterns that emerge in the value chain and investigate which scenarios are more sustainable in the long-term and how clients can position themselves more effectively to improve their competitive advantage.

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