Business strategy and IT strategy alignment in SMEs

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Abstract

This study explores the following research question: How do CEO’s of SME’s seek to achieve and sustain alignment between business strategy and IT strategy in their companies? By conducting in-depth interviews of seven CEOs of SMEs in the Netherlands the experience of these CEOs are explored and most, if not all, of them describe how they do make use of sophisticated strategic planning that combines both business and IT strategy in a manner that appears to be analogous to that previous researchers have documented in large organisations. A number of recommendations are made as to how the methodology used could be improved to gain better understanding of the interplay of the factors involved in achieving and sustaining alignment in SMEs (and, perhaps, even large organisations).

Keywords: SMEs, business strategy, IT strategy, alignment, grounded theory, qualitative research

1. Introduction

According to Gronum, Verreynne & Kastelle (2012) “[i]nnovation is vital to advancing living standards and wealth creation” (p. 257). This can be both for the company involved in generating the innovation and for society as a whole, for example, in the case of a major pharmaceutical drug, such as statins, the total societal benefit from 1987-2008 has been estimate at between €335 - 704 million, per million of population, with the producer of the drugs earning €44 million in the same period (Lindgren & Jönsson, 2012).

When considering the source of innovation, one of the drivers is the “emerging trend of ‘digitalisation,’ which represents the integration of multiple technologies into all aspects of daily life that can be digitised” (Gray & Rumpe, 2015, p. 1319). Digitalisation may be considered from the perspective of how it affects the social lives of individuals to the way that business models are transformed to provide new opportunities for revenue and value production for businesses (Gray & Rumpe, 2015).

Evidence from anecdotes and case studies have, at least a far back as the 1980s, indicated the importance of information technology (IT) to the survival and growth of firms (Bharadwaj, 2000). Although other studies showed that many firms, despite high investments in IT, gained no benefits from this investment (Bharadwaj, 2000). The successful implementation of IT in firms can be linked to their ability to synergistically combine IT resources with the other resources and capabilities of a firm, rather than merely based on the size of the IT investment that they make (Bharadwaj, 2000).

Business strategy can be support or even shaped by strategic information systems (Croteaua & Bergeron, 2001). Ever since the start of the 1990s a top 10 priority of senior information systems (IS) executives has been the improvement of the information systems planning process (Croteaua & Bergeron, 2001). To achieve this goal the focus has been on the
alignment of the IS plan and the business plan of the organisation (Croteaua & Bergeron, 2001).

Most critical decisions in small business tend to be taken by the CEO and this is especially true for adoption of IS, thus, a lack of IS knowledge amongst CEOs in small firms would tend to limit their adoption of IS (Thong, 1999).

Although companies such as Pfizer Inc (the patent holder of Lipitor, a very profitable type of statin) are clearly large companies (Pfizer Inc had almost 100,000 employees in 2016), it is the case that in small and medium enterprises (SMEs) innovation is strongly correlated with SME performance (Gronum, et al., 2012). According to the 2016 SBA Fact Sheet for the Netherlands (European Commission Directorate-General for Internal Market, 2017) SMEs in the Netherlands employ over three and a half million people (66%) and contribute €207 billion (63%) of the value of the “non-financial business economy” (p. 2).

In this study we conducted in-depth interviews of seven CEOs of SMEs based in the Netherlands. The characteristics of the SMEs varied as regards to their size and sector and the CEOs as regards to their length of time in the post.

1.1 Research question
How do CEOs of SMEs seek to achieve and sustain alignment between business strategy and IT strategy in their companies?

2. Related research

2.1 Business strategy and IT strategy alignment
Research into information systems (IS) traces its roots back to seminal research in the end of the 1980’s and that into the topic of strategic alignment of business and information technology (IT) to the beginning of the 1990s (Coltman, Tallon, Sharma & Queiroz, 2015). The key argument is that firms and organisations will perform more effectively if their IT strategy is aligned with their business strategy and where measures are in place to ensure that the deployment and management of these resources are suitably supervised (Coltman et al., 2015). In the end of the 1990s the focus of research shifted from that of a tactical to a strategic resource for businesses (Coltman et al., 2015) and the value that IT alignment offered businesses was further confirmed by Chan, Huff, Barclay & Copeland (1997). A key focus of research in the early 2000s turned from what businesses planned to do to their realised strategy, that is what they actually do (Coltman et al., 2015). In their review of the past 25 years of research into alignment, Coltman et al. (2015) describe numerous quantitative studies into the topic and the wide range of tools and measures that have been employed to determine the degree, direction and causation of the impact of alignment on the success of businesses.

Alignment is not a one-way but a two-way process where business strategy and IT strategy act as mutual drivers and it is not a singular event but is a process that is sustained over time and involves continuous adaption and change (Peppard & Campbell, 2014).
Gerow, Grover, Thatcher & Roth (2014) conducted a meta-analysis of 53 journal articles, 11 dissertations and 7 conference papers concerning strategic alignment (of business and IT strategy), at the firm level, that concerned correlation of alignment and at least one other variable and that used a unique dataset not used in the other studies. Gerow et al. (2014) found that there was a positive relationship between alignment and firm performance and, concluded, therefore, that time spent researching this topic is well-spent.

According to Gerow, Thatcher & Grover (2015) the topic of “IT-business strategic alignment has been studied extensively over the last three decades” (p.465). Research into this topic has, primarily, concentrated on determining whether, and how, the alignment of business strategy and IT strategy increases profitability and generates value for the firms that are studied (Gerow, et al., 2015). Furthermore, a failure to achieve an alignment might cause resources to be wasted, as well as IT initiatives to fail causing both financial and organisational problems for the firm. The focus of academic research into this topic includes: increased sales revenue, improvements to operational efficiency, cost reductions and enhancing customer value (Gerow, et al., 2015). Successful alignment seeks to generate a “sustainable competitive advantage” (Gerow, et al., 2015, p.466) for the firm.

The actual definition of alignment is not consistent across empirical studies and practitioner literature and the differences in these definitions indicate that several different types of alignment may exist (Gerow, et al., 2015). Indeed, considering 175 studies into alignment published in journals only 25% use established scales (even though 115 make use of various forms of questionnaires), meaning that it is difficult to compare the results from these studies (Gerow, et al., 2015) from a quantitative perspective.

Ross (2009) describes how increasingly business strategy depends on particular IT capabilities and that successful alignment can only occur when there is a synergy between the business strategy and these underlying IT capabilities. According to Ross (2009) there exist four stages from low to high architectural maturity, these stages are summarised in figure 1. The first stage is characterised by the application of IS in silos (Ross, 2009) consisting of individual applications that are designed to meet a particular business need (and that may be limited to a particular business unit within an organisation). The second stage is characterised by a standardisation around a particular technology architecture (Ross, 2009), in order to increase the efficiency of the use of IS (as compared with a multiplicity of competing IS that are often developed or purchased by individual business units without reference to the business strategy of the organisation as a whole). The third stage further develops the standardisation to include the standardisation of not just the hardware and software but all the data and processes that are used on this hardware and software, that is to say rationalising the data architecture (Ross, 2009). The fourth and final stage involves the development of a modular architecture (Ross, 2009) where the strategic choices of the business become in synergy with the IT strategy choices and where innovations in either are able to contribute to not only efficiencies in the organisation and its processes, but entirely new business opportunities. Thus, both the business and the IT strategy are in full alignment and each offers synergic opportunities to the other, without any formal need to force one to be in step with the other.
2.2 Alignment in SME’s

Despite the number of studies into larger businesses and organisations, outlined in section 2.1, as of 2002 few studies had been made into alignment in small firms (Hussin, King & Cragg, 2002). This is despite that as early as 1994 business strategy was identified as one of three of the main components contributing to small firm growth (Hussin et al., 2002). One of the explanations for this lack of research has been the assumption, in the 1980s, that small firms are unable to conduct adequate planning for the use and operation of information technology (Hussin et al., 2002). However, there is evidence that use of computers (hardware and software) has increased in the period since the 1980s and has resulted in more sophistication in how IT is managed in small firms (Hussin et al., 2002).

Adoption of IT innovations can be divided into three stages: initiation, adoption and implementation (Thong, 1999). With respect to computer-based information systems (IS) a majority of the research into small firms is concentrated on the implementation stage (Thong, 1999). Given the differences in the organisational structure of small firms it is necessary to conduct research to determine if the IS adoption practices in these firms matches that in larger organisations, where much, if not all, of the research in this topic has occurred (Thong, 1999). Thong (1999) used a questionnaire survey of 166 small businesses in Singapore and the results showed: (1) the importance of IS knowledge in the CEO, (2) importance of a positive attitude to the adoption of IS that offers advantages to existing practices (3) the size of the small business increased IS adoption.
Although few studies have investigated the influence of alignment in small firms, many studies have investigated the influences on successful use of IT by such firms (Hussin et al., 2002). Two factors appear to be important: (1) the owner’s/manager’s role in computerising the small firm, (2) the use of external expertise and, therefore, the use by these owner/managers of both formal and informal sources of advice from consultants.

In their study of 256 small UK manufacturing firms Hussin et al. (2002) used a questionnaire to test three hypotheses: (1) IT sophistication, (2) CEO commitment to IT, (3) use of external IT expertise to test which, if any, of these were positively related to the firm’s IT alignment (that is the extent to which the content of their business strategy and their IT strategy matched each other). The three hypotheses where select due to prior studies (on large firms) indicating: (1) the importance of IT sophistication on alignment, (2) a significant influence on alignment by senior managers (Hussin et al., 2002). Furthermore, in previous studies of small firms it has been shown that external actors influence the decisions that small firms take, the role of IT consultants influences the success of IT projects and computer use in small firms, especially as a team together with senior management (Hussin et al., 2002). As described in section 2.1 the focus of alignment research has changed from intended strategy to realised strategy (Coltman et al., 2015) and the study by Hussin et al. (2002) also had this focus in their research, looking at the support that IT provided in practice to achieve the business strategy of the firm (that is, the extent to which the current IT systems supported a particular business strategy that the firm identified).

The results of the study by Hussin et al. (2002) provided some support for hypothesis 1 and 2, but little support for 3. Thus, alignment is linked to greater IT maturity, as shown in studies of larger organisations, and indicates that this is linked to organisational learning through the use of IT (Hussin et al., 2002). Also, it was not the engagement of the CEO that was greater in aligned firms, but, instead, the knowledge these CEOs had of software, though it could be argued that this knowledge and interest in which software was selected constituted engagement, effective engagement time, rather than just by number of hours spent (Hussin et al., 2002). The lack of support for hypothesis 3 was speculated as being due to the relatively high IT maturity shown by the participants in the study, as they may already have the internal knowledge required to know which IT would best meet their needs (Hussin et al., 2002). Thus, IT maturity was found to be an import factor in alignment and that alignment could be studied even when, as was the case for the firms studied on 26% had a formal IT strategy plan and only 68% a formal business strategy plan (Hussin et al., 2002).

Apparently working from the same dataset, and with the same 3 authors but a different lead author, Cragg, King & Hussin (2002) published an article in another journal in the same year and, in that article, they found that a significant positive correlation between alignment and organisational performance and is consistent with studies conducted in larger businesses and organisations (such as by Chan et al., 1997). As in Hussin et al. (2002), Cragg et al. (2002) note the low level of formal strategy planning and that, although their study was unable to explain the process by which small firms achieve alignment, it did show that alignment occurs in small firms and leads to improved organisational performance.
Limitations on managerial time to develop strategic IS/IT initiatives or business plans, inexperience of the owner and lack of IS knowledge as well as a lack of trust in external IS sources are all reasons that SMEs fail to use IS strategically (Levy, Powell & Yetton, 2001).

2.3 Methodology of alignment research
A limited number of studies have taken place into small firms and their adoption of IS/IT, especially with respect to less well-developed countries (Caldeira & Ward, 2002). The study undertaken by Caldeira & Ward (2002) was into SMEs in Portugal, where, as of 1991, 98% of Portuguese businesses were SMEs (Caldeira & Ward, 2002) that, until recently, acted in a market protected from imports. Thus, these businesses have been under pressure from Portugal’s entry into the EU and subject to external pressures to innovate.

Caldeira & Ward (2002) reviewed 36 empirical studies concerning IS/IT and SMEs and found that the finding of almost all were based on quantitative analysis and only seven included in-depth case studies. Such quantitatively based empirical research, conducted through surveys, is unable to provide “a deep understanding of a complex situation involving a combination of different factors” (Caldeira & Ward, 2002, p.123).

In a review of 1000 articles on information systems strategy (ISS), Karpovsky & Galliers (2015) analysed 142 articles on alignment, of these 37 discussed the alignment activities in at least some detail. Karpovsky & Galliers (2015) consider, based on their review of the literature, that future research is required that focuses on how alignment takes place in practice, rather than a static image (at the organisation level) to determine what the state of alignment that an organisation has achieved.

Most alignment studies seek to simplify the inherent complexity of alignment in order to only consider specific causal relationships (Peppard & Campbell, 2014). In particular, this means that research concentrates on developing a picture of a snapshot in time, rather than how alignment is sustained over time, which is necessary in order to establish how alignment can be achieved in practice (Peppard & Campbell, 2014). This also means that research currently only provides partial models of certain aspects of alignment and it would seem that further similar research will not improve this picture (Peppard & Campbell, 2014).

Peppard & Campbell (2014) conducted empirical research “to explore the achievement of alignment between business and IS strategies and to capture descriptively what occurs in practice in organizations as they seek to attain this objective” (p. 4). In their study they were interested in looking at more than a snapshot of alignment activity, but, instead, sought to map the experiences of the participants in the study of how they had achieved alignment (Peppard & Campbell, 2014). They used a grounded theory methodology, in order to minimise the intervention that they, as researchers, made on the participants to allow these participants to voice their own stories and share their own experiences (Peppard & Campbell, 2014).

2.4 Research gap
In reviewing the research into the adoption of IT and the alignment of business strategy and IT strategy the majority of research in this field has occurred in larger businesses and organisation. A number of reasons for this lack of research have been identified in section
2.2 and Hussin et al. (2002), for example, has identified that it was previously thought that SMEs were incapable of conducting the planning and organisation that is required for the use and operation of information technology. Given the lack of research the topic of alignment in SMEs it may be the case that there are special conditions related to the achievement and sustaining of alignment that apply to SMEs that have not been investigated in previous studies, that are based on large businesses and organisations (such as the importance of the knowledge and IT experience of the CEO as Hussin et al. (2002) has identified).

Furthermore, most research into alignment has been quantitative and has focused on finding the correlation between a limited number of factors, rather than investigating the complex relationship of both internal and external forces that are required to achieve alignment in practice (Peppard & Campbell, 2014). These studies have concentrated on a study of a snapshot of alignment activity, rather than the practice of sustaining this alignment over time (Peppard & Campbell, 2014).

3. Methodology

In subsections 3.1, 3.2 and 3.3 we review the related research that formed the basis of our selection of data capture and data analysis methods, as well as our ethical considerations. In each respective subsection, we then go on to describe the application of these selected methods to investigating the research question of the current thesis.

3.1 Data capture

According to Lewis & McNaughton Nicholls (2014) there are several different methods of data collection such as “interviews, focus groups, observations, deliberative and other engagement methods” (p. 53) that can be used for qualitative research that would allow us to capture the type of data described. When selecting our method(s), we considered both covert and overt observations (McNaughton Nicholls, Mills & Kotecha, 2014). However, due to the limited time available to on this study, our data collection methods needed to allow us to collect the maximum amount of qualitative data in the most effective manner. Therefore, we decided to use interviews.

When considering the use of interviews, we reviewed the use of in-depth interviews (Yeo, Legard, Keegan, Ward, McNaughton Nicholls & Lewis, 2014) as a suitable data collection method as they are “an effective way of exploring the ways in which participants experience and construct their lives” (p. 182). Although we reviewed the use of telephone or video conferencing as a method of conducting the interviews, we considered that face-to-face interviews would provide us with a “stronger basis for the establishment of a good rapport between the researcher and the participant[s]” (Yeo, et al., 2014, p. 182).

According to Yeo, et al. (2014) in-depth interviews have a number of key features, namely: they combine structure and flexibility, are interactive, get below the surface, are generative and allow the language that participants use to be explored (and to facilitate this the interview should be recorded using an audio recorder). In addition, the role of the interviewer demands that they: are active listeners, develop a good rapport with the
interviewees, demonstrate a sense of humour, show humility (rather than demonstrate their own knowledge) and are thoroughly prepared beforehand (Yeo, et al., 2014). During the interview, the interviewer needs to provide: introduce to the research, give a context for the interview, maintain breadth and depth during the interview, end the interview on time, explain how the data will be used and thank the participants for taking part (Yeo, et al., 2014). Appropriate questions and types of questions need to be selected, namely: open questions, non-leading question, clear questions, mapping and probing questions and questions prompting for participants’ experiences (Yeo, et al., 2014). It is also important to consider the location that the interview will take place, which will usually be the decision of the participants, although a neutral setting may also be chosen, and that the location be private and undisturbed without the risk of third parties overhearing what is said during the interview (Yeo, et al., 2014).

Ritchie, Lewis & Elam (2014) describes purposive sampling that is used in qualitative research in order to select certain features or characteristics that allow for the detailed exploration and/or understanding of the subject or themes that the researcher is interested in studying.

The interviewees were all CEOs of SMEs based in the Netherlands. In order for the CEOs of the SMEs to have the potential to achieve and sustain alignment the principle selection criteria was that they needed to have been in their current role for at least 4 years. In other respects, we did not select for other particular criteria so allow for as heterogeneous sample as possible, as regards to factors such as the size of the SMEs or the sectors in which they operated (Ritchie, Lewis & Elam, 2014).

The interviews were held in the offices of the CEOs. Before starting the interview we ask for their consent to record the interview, explained the purpose of the research, the use of multiple recording devices.

The interviews were conducted over a period of one and a half month between September and October 2018. All interviews took place in the building of the SMEs, for example, in the cafeteria, meeting rooms or their offices.

A summary of the interviewees, the length of the interviews, industries and example questions are shown as table 1.
<table>
<thead>
<tr>
<th>Interviewees</th>
<th>Function of the interviewees</th>
<th>Duration in minutes</th>
<th>Type of questions</th>
<th>Industries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seven</td>
<td>CEO</td>
<td>Between 38 – 63</td>
<td>Semi-structure questions, open questions, free- from</td>
<td>Financial consulting, production, agricultural, multimedia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Topic</th>
<th>Sample questions</th>
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<tbody>
<tr>
<td>SME background</td>
<td>Tell me about your SME and what you do. How many employees does your SME have?</td>
</tr>
<tr>
<td>Alignment</td>
<td>Does your SME align its business and IT strategies? Can you please describe how this occurs? What are your past experiences of alignment and how has this affected the current alignment process?</td>
</tr>
<tr>
<td>External IT expertise</td>
<td>How much influence does the opinion of the external expertise have on the decisions that are made in your SME as regards to the use and planning for the use of IT? Have you been able to achieve alignment of business and IT strategy in your SME using only internal resources, or have you made use of external expertise to achieve or sustain this alignment?</td>
</tr>
<tr>
<td>CEO IT commitment</td>
<td>To what extent would you say that you, as the CEO of the SME, are aware of and understand whether you consider that alignment of your company's business and IT strategy is important? Could you describe to what extent you consider that you are interested in and have knowledge of current issues and potentials of IT as they relate to your company and sector?</td>
</tr>
<tr>
<td>IT sophistication</td>
<td>What is the role of IT systems in the decision-making process of your business? What is the impact or influence of IT on the business? Who are involved in the decision-making process regards IT strategy? What is your perception on the use of IT as the CEO of your company?</td>
</tr>
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</table>

Table 1. Interview guide.
3.2 Data analysis

Spencer, Ritchie, Ormston, O’Connor & Barnard (2014) point out that, unlike quantitative analysis, clearly defined and agreed rules do not exist when conducting the analysis of qualitative data. Spencer, et al. (2014) provide a summary of all of the main methods used to analyse qualitative data and these include: “life histories, narrative analysis, content analysis, conversation analysis, discourse analysis, analytic induction, grounded theory policy and evaluation analysis” (p. 270-271). Grounded Theory seeks to generate categories and how these relate to one another with the generation of these categories taking place until no more categories can be created based on the input data (Spencer, et al., 2014), which in our case would be the transcripts from the interviews.

As Charmaz (2006) notes, grounded theory provides both a systematic and a flexible analytical method that enables researchers to construct theories based on data that are ‘grounded’ in this data. In the case of data derived from an interview, as in the case of the current study, the transcripts generated are elicited text, rather than extant texts (Charmaz, 2006) and these transcripts do not exist in a vacuum, but are situated within the context of the original interview, which offers enhanced richness of the data (beyond that of the raw data provided in the written transcript). By utilising the original researchers present during the interview for both the transcription and analysis process, it is possible to try to ensure the maximum preservation of this rich contextual data during the grounded theory analysis.

As already described previously, in section 3.1, the use of multiple recording devices seeks to ensure that the written transcript is a faithful record of what was said during the interview and focus group.

Charmaz (2006) describes several approaches to the initial coding stage and a variation of line-by-line coding is called “incident to incident” (p. 53) where the coder is guided by the data to “compare incidents to your conceptualizations of incidents coded earlier” (p. 53) allowing “subtle patterns and significant processes” (p. 53) to emerge from the data. The next stage of coding, according to Charmaz (2006), involves generating focussed codes, building on the initial, open coding stage, where “the most significant and/or frequent” (p. 57) codes recorded are determined that can most succinctly and completely provide an analysis of the original data. Finally, according to Charmaz (2006), grounded theory involves determining the categories that are common to the focussed codes generated and that can provide a theoretical understanding of the original data.

When analysing the transcripts from the interviews we applied incident-by-incident grounded theory analysis (Charmaz, 2006). From this perspective, we identified incidents and coded these creating first open codes, then focus codes and eventually categories. The researcher codes as widely as possible and then narrows the codes down by finding patterns and similarities between incidents, describing what happened in the focus code, what the interviewee meant with the incident and determines the underlying meaning (Charmaz, 2006). See Appendix 1 for the categories and theoretical codes that were generated from the interviews.
3.3 Ethical considerations

According to Webster, Lewis & Brown (2014) the key ethical considerations when conducting research is that it “should not make unreasonable demands on participants” (p. 108), that participants’ participation “should be based on informed consent” (p. 108) and that this “should be voluntary and free from coercion” (p. 108), “adverse consequences should be avoided” (p. 108) and “confidentiality and anonymity should be preserved” (p. 108). However, as Webster, et al. (2014) point out, these general guidelines are easier stated than followed to the letter in qualitative research, it is the “strong ‘ethical conscience’” (p. 108) of the researcher that needs to guide the researcher in putting these principles into practice. By considering why research into a particular field is needed and which data collection methods are appropriate, a researcher can demonstrate from the outset such an ‘ethical conscience’ (Webster, et al., 2014). Furthermore, it is important to realise that the giving of informed consent is not one-off action by a participant and they both need to be given the opportunity to give different levels of such consent in stages during the research process and not be felt to consider that such consent, once given, requires their continued participation in the research (Webster, et al., 2014). In studies involving the audio recording of an interview it is especially important that consent for such recording is gained from all the participants and that this material is stored and processed, in such a way to prevent “accidental breaches of confidentiality” (Webster, et al., 2014, p. 109) and to maintain, as far as possible, the anonymity of the participants. Additionally, Webster, et al. (2014), point out the importance of the right of participants to actively participate in the research project that they are part of.

At all stages, all participants in the study were kept informed of the purpose of each stage of the study, what data was being collected and how it was to be used, so as to ensure that they were able to give their informed consent to their participation in the study and no coercion was applied to require their continued participation. The audio recordings from the interviews were immediately transferred to encrypted storage and the transcription was made by the researchers and the names of the participants were replaced by numbers (as in P1, P2, etc. for practitioner 1, 2, etc.).

Appendix 1 contains only the categories and theoretical codes from the transcripts to further anonymise the original data provided, however, selective verbatim quotes are included in the results section and in Appendix 1, as we consider that the potential privacy concerns of the use of these quotes from the transcripts is outweighed by the benefits for other researchers in comparing the actual words spoken by the participants to the conclusions drawn in this study to those comments.
4. Results

4.1 Categories from the Ground Theory analysis with quotes

First category: External IT expertise plays a bigger role as the IT maturity of the SME grows.

The CEOs of the SMEs that were the youngest of the seven did not make much, if any, use of external IT expertise. In comparison, the CEOs of the SMEs that were at the older end of the individuals that were interviewed showed a greater degree of IT maturity and a greater use of external IT expertise. By external IT expertise is meant IT consultants, IT suppliers or colleagues in the same field and that provide various type of advice as regards to IT related matters. The reasons they gave for using this external IT expertise included that they had identified that the required knowledge did not exist in their SME internally. This requirement arose, for example, due to the introduction of new business or IT systems or, for example, the need to better keep pace with the demands of the SME or to cooperate with other business partners. The larger SMEs made use of external IT consultants despite the fact that they had their own small IT (management) department. The reasons they gave for the use of IT expertise was the need to be able to strategically plan for future developments related to business process and changes in their markets and to be able to understand and plan for how these changes could be supported by upcoming IT solutions that will soon be available.

“Eventually, we did not dive deeper into looking for external IT support because, the way we have it right now is aligned with the work processes of our business... If we would outsource this to an external party, then that would be an extra step. We have everything now in control and can keep it compact and have it on one place.” - CEO laser material cutter.

“We have open discussions about IT. It is daily on the agenda in our meetings as where we are and where would we head towards? Have we got some new practical adjustments we can use? Those are points we discuss.” - CEO financial advisory.

Second category: SMEs primarily focus on one aspect to achieve/sustain alignment between IT and business strategy and is dependent on the maturity of the organization.

This category describes how SMEs may be required to consider multiple aspects or factors simultaneously when developing their business and IT strategies. In the face of this requirement CEOs of the SMEs describe how that chose to concentrate on one particular aspect or factor to concentrate on when attempting to achieve or sustain alignment. As in previous category, CEOs from the younger end of the individuals that were interviewed primarily focused on the internal requirements of their SME and chose to keep the development of IT strategy in-house. The interviews with the more mature CEOs noted that they were more focused on external factors and partnerships outside of their SMEs, on trends and developments of their clients, in their supply chains or in the sector overall.
“We all look around, but mostly company partner is the one who focus on this and translates this to our IT suppliers. He is the responsible within our... as one of his main responsibilities.” - CEO financial advisory.

“We have grown from that card box system to a total digital world. Actually, all our processes we tried to make it more efficient. That is our profit. We try to keep ahead on these developments.” - CEO financial advisory.

“In the beginning we looked for external programs or websites. Sounds tempting, but this would have meant that we must deal with monthly cost and in the beginning period of our company we would to avoid that as much as possible. This because we were on the point of starting something new and did not want recurrent cost in the month, besides the rent of course. And then we started easily and developed the program with features in time.” - CEO laser material cutter.

Third category: Prefer smaller (more understandable) systems with only key functions and that grow step-by-step with the company, rather than all-in-one solution with functionalities they do not need and that are not understandable.

CEOS that had first-hand or second-hand experiences (from others in their network) of the introduction of IT systems preferred the use of multiple systems where each system was smaller, more understandable, easier to learn and more controllable than all-in-one solution systems. CEOS with first-hand experience of all-in-one solutions described problems that they had encountered where these systems were unable to meet the business needs of the SME and worsened, rather than improved, alignment between business and IT strategy. This was due to the inability of these all-in-one systems to create the overview of business processes and analytics and required workarounds by management in order to be able to use the systems, rather than supporting the business processes. Thus, these IT systems were not supportive to business operation, processes or strategy, but became a bottleneck in the business processes and required allocation of critical resources to work around the problems with the IT systems.

“We found out that in some particular processes that we should find the solution in IT to support the growth but fall back to more basic methods such as post-it's on the wall.” – CEO Logistical solutions producer.

“The way we work is doing step-by-step and you do not want to make big leaps. Often these big leaps disappeared, the small ones are good to follow and is understandable for everyone. There were management systems in the greenhouses and there were greenhouses who quitted using these systems because it was too big and not able to understand to create the right overviews you want. Often, with smaller systems you get more the output because it is more understandable.” – CEO Plant nursery.
“For the past four years, we have grown yearly fifty percent for four years. Nearly six times as big as we have started. That is very difficult and notice that the core employees start losing the overview because the amount of work and more employees. And that the software is not able to support this growth pace. It contains everything we need, but it does not give the overview you need.” – CEO Logistical solutions producer.

Fourth category: SMEs that are dependent on other firms in the sector sought IT alignment in their environment (all firms in the sector need to cooperate and align with each other).

Firms that were more dependent on information or services from other companies in the sector or ‘product-process chain’ were more aware of their business environment as regards to changes and trends that would affect their business strategy and their IT strategy. They sought alignment of business and IT strategy in their sector through the mechanism of sector communities. These communities worked towards alignment and together decided what was best as regards to business and IT alignment throughout the supply chain they operate within. Other reasons given, for working in these sector communities, were: more rapid retrieval of business information that would allow companies in the supply chain to more quickly react to changes, improve processes, remove inefficiencies and maximise profits. Efficient supply chain integration is especially important for SMEs, according to the CEOs interviewed, and this has been facilitated by the move from hard copy records to digitised recording throughout the entire supply chain (which required cooperation of all in the supply chain and common standards as regards to IT systems and procedures).

“...the community of greenhouses and workforces that they have power to bring in influence towards system which is workable for us.” - CEO Plant nursery.

“This is where IT supported us and clients nowadays have much more insight, in their pension, in their bank accounts and all this information we require to come with a proper advice that are in the systems of the banks and pension funds.” - CEO financial advisory.

“The bottleneck we experience is more located in the market that limits the possibilities. ...but dependently of the whole branch. We have our system and are dependent on the systems of the insurance companies. We pair with those systems and those connections need to be able to do this. This needs to be aligned between the two and there is always another system in between which could make it difficult.” - CEO financial advisory.

Fifth category: SMEs see IT as a supportive entity for the business and that must add value to contribute to the business.

All the CEOs interviewed had the same perception about the role of IT in their SMEs. They did not see IT as a magic bullet that would solve all their problems. Their experience and the experience of others they had talked to was that IT used poorly could cause problems with their business strategy, this applied both to solutions developed internally and those proposed by external IT contractors or IT management consultants. On the other hand,
when used appropriately all the CEOs, irrespective of their age, maturity in their position, or depth or length of experience of the use of IT and IT systems, considered that IT could be of strategic importance in their SMEs.

“We see IT as a supportive way for the business. The growth of the product and the quality of the product we find more important than the IT.” – CEO plant nursery.

“In the end our product-delivery is the most important result. Everything is focused on our dodging or mow activities. So ICT is only a method to keep everything running smooth.” – CEO agricultural SME.

“The work processes are now more efficiency then the day we bought it and by that we maximized our profit. Otherwise we would have double the employees and not be able to keep this company in business. So you can say, in that we the IT has helped us to improve the processes. These days everything is digital.” - CEO financial advisory.

Sixth category: CEOs with interest or knowledge of IT are more likely to embrace IT as part of their business strategy.

As a modification of the previous category, the size of the SME and the knowledge and experience of IT management of the CEO (including their own personal experience of the field of IT) did influence the degree of importance that the CEO placed on achieving and sustaining alignment of business and IT strategy in their SMEs. These CEOs considered that such an alignment would offer their SME’s the potential of increased flexibility, reduce their dependence on third parties and future proof their companies against changes in the market.

The CEO of an SME in the digital printing marketing described how they had changed their business due to the alignment of business and IT strategy. Previously, they employed more sales workers than backend IT workers, but now that they have integrated their IT strategy and business strategy, they have switch to a model using a customer portal where their customers can upload their photos directly when creating their campaigns and take ownership of their own brand profile. This SME used their alignment of their business and IT strategy as a method to differentiate their SME from their competitors and focus on services of direct interest to their customers, allowing them to customise their products digitally before placing the order.

“The strategy is based upon a competition analysis. A strategy is created in order to differentiate from your competitors. We cannot differentiate based on our quality or price, therefore we do it with our service. And with this service... .....to us IT is an important factor in the industry, also because the price is under pressure with minimal margin. You cannot automate the personal touch...We try to sell the order portal to our client, so they have their own environment, with their own layout and processes, and you can order here. In the back office we try to optimize our production process in order to make revenue.” - Digital printing marketing CEO.
“I programmed the back-end myself. I know excel pretty much and that is the advantage since I can adjust everything myself and program new features when I need those as my company grows...” - CEO laser material cutter.

“We use a lot of programs, I would not say bad, but cannot say it I use it on daily base intensively but the technological is beyond me. I make frequently use of the systems we have. ...and the technology behind it I do not know. I am no IT guy, pure end user.” - CEO financial advisory.

Seventh category: The higher the IT maturity of the SME, the more commitment/interest the CEO has in IT.

The CEOs that showed the greatest interest and knowledge of the field of IT management were able to better understand in which specific, practical and strategic way how IT could be used in their SME. CEOs with a low interest or little basic knowledge in the field of IT management were less capable of envisaging, making practical use of or strategically applying IT systems to their company’s business. However, even SMEs with a previously limited experience or success in the use of IT systems have, through successful pilot studies, been able to learn from these experiences in order to begin to work strategically to align their business and IT strategies. For example, an SME in the agriculture sector purchased two iPad Pro’s as a pilot, in order to speed up the distribution of the work in the field, allowing employees to be able to edit in the field and sync their administrational work with the server back at the main office. This was the first success for this SME using IT for business processes and demonstrating for them the added value of business-IT alignment. Shortly after, they expanded this pilot to include all of their employees.

“...change in compare to the way of working is that we sent out our workers with a google maps illustration with highlighted what needs to be done and where and some extra information. In the past we could not send out our workers on the project like this and had to go with the workers our self because only we had that information from the project provider.” – CEO agricultural SME.

“IT will be playing a bigger role, as for example in the chain integration part. A learn moment is that everyone has their own system and that is unfortunate because, that is not always aligned between each other. That is typical Dutch of course. Anyways, eventually some parts will disappear and other will replace this. We will make more use of IT and use it to move the administration to the cloud. Internal we lose our servers, this will benefit us in costs and stability in terms of technical faults. Also, we need to further explore the possibilities towards digitalization towards the client.” - CEO financial advisory.

“Well, IT role gets bigger and bigger. Our profits lays within the efficiency of our processes. The faster we can go walk through our processes, the bigger the profit will be.” – CEO financial advisory.
5. Discussion

The research question of this thesis is stated as: How do CEOs of SMEs seek to achieve and sustain alignment between business strategy and IT strategy in their companies?

Based on the results presented in section 4.1, which are themselves based on the interviews of seven CEOs of SMEs in the Netherlands and the analysis using Grounded Theory of these interviews, we consider that the assumption made in the 1980s (and described by Hussin et al., 2002) that small firms are unable to conduct adequate planning for the use and operation of information technology is not the case. That is, the results, showing the extent and sophistication of the strategic use of information technology by the SMEs in this study, demonstrate that, at least for the seven SMEs in this study, support the argument that it is worthwhile and meaningful to study the adoption of IT innovations (Thong, 1999) by SMEs and the extent of IS knowledge of the CEOs of these SMEs (Thong, 1999).

We do consider that the results also do justify the selection of CEOs as the focus of the study, as was the case for the quantitative study of alignment by Hussin et al. (2002) and Cragg et al. (2002), since it would seem that the CEOs at least possess useful insights into how and why particular IS solutions were used in their companies, the extent to which these met their company’s strategic business goals and were able to provide a coherent explanation of how these experiences were then integrated into a strategy to use IS to better meet these business goals.

As described by Croteaua & Bergeron (2001), business strategy may be supported or even shaped by strategic information systems. The results demonstrate that at least some of the CEOs of the SMEs in this study do make use of strategic information systems and both adapt their business strategy to these systems and actively select systems that can support and develop their business strategy. In the first category: in order to be able to strategically plan for future developments related to business processes and changes in their markets and to be able to understand and plan for how these changes could be supported by upcoming IT solutions that will soon be available. In the third category: the choice of multiple IS that were individually smaller, more understandable, easier to learn and more controllable, rather than a single all-in-one solution that failed to meet the needs of the SME and was not able to provide the overview of business processes and analytics. In the fourth category: the desire for systems that enabled the SME, and the supply chain that the SME was embedded in, to move from a hard copy to a digitised recording system and the strategic process they employed to ensure that this process (and the use of appropriated IS) was adopted by all the companies in the supply chain. In the sixth category: the strategic use of IS that allowed their business to focus on services of direct interest to their customers (through the use of a portal where their customers could directly upload their own images and enhance their own brands) and differentiate their SME from that of their competitors. In the seventh category: even SMEs with low IT maturity and little or no experience of the successful use of IT in their businesses did describe how, following a successful small scale pilot use of iPads in business processes, they were then able to successfully build on this pilot in order to improve or,
perhaps even transform, their business processes and business strategy though the planned introduction and use IT throughout their business.

The examples given above, in the discussion, demonstrate how the CEOs and their SMEs have at least begun to demonstrate how their businesses are able to perform more effectively when their IT strategy is aligned with their business strategy and the use of these IT resources is monitored and supervised (Coltman et al., 2015) to ensure a continued match between these two strategies and how these CEOs have sought, and to some degree achieved, alignment and sought, and to some degree achieved, sustained alignment in their companies. Note that it would seem clear from the examples given above, in the discussion, that the CEOs and their SMEs have not merely demonstrated an aspiration to achieve this alignment but have demonstrated a realised strategy (Coltman et al., 2015) and an analysis of the reasons for the success or failure of previous attempts at alignment and subsequently taken steps to improve this alignment and improve the effectiveness of their businesses through sustained alignment. Thus, it would seem that for the SMEs in this study, that are highlighted above in the discussion, such alignment is not a singular event but is a process that is sustained over time and involves continuous adaption and change (Peppard & Campbell, 2014) and that these CEOs are able to coherently describe the steps that they have taken and, at least some of, the reasoning behind these steps.

Although the differences between the CEOs and their SMEs shown in the results section, as regards to the extent and practices for the achievement and sustainment of alignment, is not sufficiently defined to clearly contribute to the quantitative study of Hussin et al. (2002) and Cragg et al. (2002), we consider that a number of comments relating to the three hypotheses proposed by Hussin et al. (2002) can be made based on the results of this study. The CEOs with IT sophistication at the lower end of the seven interviewees, according to the second category, chose to concentrate on the internal requirements of their SMEs and to keep the development of IT strategy in-house, where-as CEOs with a greater degree of IT sophistication (as described above in the examples from the discussion section), chose to take a role in using alignment to develop business partnerships, including those related to the entire supply chain of their sector. However, it may be the case, as described in the fourth category, that it is the fact that SMEs that are more dependent on other firms in their sector are forced to be more proactive in their achievement of alignment and that, perhaps, those SMEs in such sectors that failed to achieve such alignment were not available to be interviewed as they did not succeed and failed as businesses, so it is a chicken and egg question that cannot be fully determined from the interviews in this study.

As regards to the second hypothesis of Hussin et al. (2002), that of the CEOs commitment to IT, the results of the current study can only tangentially relate to this hypothesis and the results presented in the sixth category may act as commentary to Hussin et al. (2002), only of limited use to future researchers considering this topic, but cannot be used to add any further clarification on the matter covered in the hypothesis.

As regards to the third hypothesis of Hussin et al. (2002), that of the CEOs/SMEs use of external IT expertise. As noted previously, the CEOs that were the youngest, with the fewest number of years of experience in their role, tended, according to our results, to make less use of external IT consultants than those CEOs that were older, with more years of experience in
their roles. Also, the CEOs of the larger SMEs, of those interviewed in this study, also described how they made more use of external IT consultants, particularly in order to be able to understand and plan for how changes in business processes and markets could be supported by upcoming IT solutions that would soon be available. Thus, it could be said, that these CEOs demonstrated more strategic use of alignment in order to develop their businesses and be proactive rather than react to external market forces or competition created by new IT solutions.

As noted by Caldeira & Ward (2002) and Karpovsky & Galliers (2015) almost all existing research into SMEs and alignment (as well as their adoption of IS/IT) has made use of quantitative based empirical research that would tend to concentrate on a static snapshot of alignment activity rather than the practices that CEOs and other senior management engage in when working towards alignment. Furthermore, the inherent complexities of the interrelationships of the factors involved in achieving alignment is also limited by the use of such quantitative methods (Peppard & Campbell, 2014). However, as can be seen from the current study, although in-depth interviews have the potential to provide an understanding of the interplay of these factors, it is much easier to provide a narrative of the experiences of the CEOs in these SMEs rather than to actually determine the individual factors that led to alignment and to determine which of these factors are of greater importance than others and the best order for these factors to be invoked or experienced, in order to create a long-term environment that will foster the development towards the fourth stage described by Ross (2009).

5.1 Limitations of this thesis and its methodology

Peppard & Campbell (2014) in their research made use of focus groups in order to allow a discussion to take place between a number of the interviewees in their study, these focus groups consisted of three to six individuals and allowed for a greater understanding of the interplay of factors involved in achieving and sustaining alignment in the companies that they investigated.

In our study we could also have made use of such focus groups, in order have increased the depth of analysis of the factors and the relationship and sequencing of these factors that enabled the achievement of alignment and the sustaining of this alignment across business cycles. For example, we could have held a focus group with the CEOs of the SMEs that demonstrated the greatest IT maturity and most longsighted alignment and gained insight into how and why these CEOs considered that it was important for their businesses to invest the time required to achieve and maintain this alignment and, in particular, to what extent these factors were the same or different between the various CEOs and SMEs.

Peppard & Campbell (2014), in their research, created an evolutionary theory model that functioned as a tool in order to create a visual representation of the theory that they developed as to the interrelationship of the factors involved in alignment. Similarly, we could have used the theoretical codes (and perhaps even extended the number of these) given in Appendix 1 and created a similar model in order to investigate the interrelationships between the factors involved, and the sequencing of these factor, in achieving and maintaining alignment in the SMEs that we investigated. We could have even used one or
more focus groups to explore with the interviewees the extent to which this theoretical model matched their understanding of the factors they considered when achieving and sustaining alignment.

Peppard & Campbell (2014) used software to generate the coding of the transcripts of the interviews in their study. Had our study involved a larger number of interviewees the time taken to create the table shown in Appendix 1 would have been unsustainable and even with the number of interviews in this study it is possible that the use of similar software would have allowed for a more detailed analysis of the interviews and the interplay of the factors described by the interviewees. It is possible that our manual approach has led to a simplification of the rich data that the interviewees provided.

6. Conclusion

To, again, state the research question of this thesis: How do CEOs of SMEs seek to achieve and sustain alignment between business strategy and IT strategy in their companies?

To what extent can it be said that this study has addressed this stated research question? As outlined in the discussion and based on a selection of the statements by the CEOs described and analysed in the results, we believe that this study does demonstrate that SMEs are capable of long-term business planning that both makes strategic use of and is shaped by the IS that the SMEs use or could use. Furthermore, at least some of the CEOs in this study exhibit a degree of advanced synergy between their business and IT strategy that appears to be analogous to that described by Ross (2009) in large organisations. However, despite the interesting details provided by the interviewees as regards to alignment, this study has been unable to develop a detailed description of how alignment occurs in practice that could be applied to other SMEs or organisations. Perhaps, as described in 5.1, the use of focus groups, visual theoretical models and data software might have made this goal of answering the research question fully realisable.

6.1 Recommendations for future research

As described above, it does seem that it is possible, meaningful and of value to investigate how alignment is achieved and sustained in SMEs for the reasons given in the related research and that the use of qualitative methods to at least complement (and to some extent even replace) the existing quantitative based methods would also be of value. However, future research, if it is to meaningfully contribute to the research field should, perhaps, make use of the full spectrum of tool applied by Peppard & Campbell (2014) and described in section 5.1.
References


### Appendix 1: Grounded Theory Analysis

<table>
<thead>
<tr>
<th>Category</th>
<th>Theoretical code</th>
<th>Quote</th>
</tr>
</thead>
<tbody>
<tr>
<td>External IT expertise plays a bigger role as the IT maturity of the SME</td>
<td>IT expertise within the SME for IT alignment</td>
<td>“Eventually, we did not dive deeper into looking for external IT support because, the way we have it right now is aligned with the work processes of our business... If we would outsource this to an external party, then that would be an extra step. We have everything now in control and can keep it compact and have it on one place.” - CEO laser material cutter</td>
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<td></td>
<td>External IT expertise advice and implement changes regards IT alignment</td>
<td>“we have open discussions about IT. It is daily on the agenda in our meetings as where we are and where would we head towards? Have we got some new practical adjustments we can use? Those are points we discuss..” - CEO financial advisory</td>
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<tr>
<td>Firms in the sector need to cooperate and align with each other.</td>
<td>and sustain sector alignment</td>
<td>“This is where IT supported us and clients nowadays have much more insight, in their pension, in their bank accounts and all this information we require to come with a proper advice that are in the systems of the banks and pension funds” - CEO financial advisory</td>
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<tr>
<td>The maturity of IT system available and industry wide integrated and aligned.</td>
<td>“The bottleneck we experience is more located in the market that limits the possibilities. ...but dependently of the whole branch. We have our system and are dependent on the systems of the insurance companies. We pair with those systems and those connections need to be able to do this. This needs to be aligned between the two and there is always another system in between which could make it difficult.” - CEO financial advisory</td>
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<tr>
<td>The oriented business strategy to reach SME’s goal</td>
<td>SME’s primarily focus on one aspect to achieve/sustain alignment between IT and business dependent on the maturity of the organization.</td>
<td>Moment of the CEO decides to apply new opportunities to align IT with the business.</td>
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<td></td>
<td></td>
<td>Uncontrollable influence on the business orientation in the sector the SME operates.</td>
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<td></td>
<td></td>
<td>Influence in the client network that has impact on IT-business alignment.</td>
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<tr>
<td></td>
<td></td>
<td>Opportunities rises internally or externally which impacts the business-IT strategy</td>
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<tr>
<td>SME’s primarily focus on one aspect to achieve/sustain alignment between IT and business dependent on the maturity of the organization.</td>
<td>IT (changes) that adds value to the Business-IT alignment.</td>
<td>“We all look around, but mostly company partner is the one who focus on this and translates this to our IT suppliers. He is the responsible within our... as one of his main responsibilities.” - CEO financial advisory</td>
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<td></td>
<td></td>
<td>“We have grown from that card box system to a total digital world. Actually, all our processes we tried to make it more efficient. That is our profit. We try to keep ahead on these developments.” - CEO financial advisory</td>
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<td></td>
<td></td>
<td>“In the beginning we looked for external programs or websites. Sounds tempting, but this would have meant that we must deal with monthly cost and in the beginning period of our company we would to avoid that as much as possible. This because we were on the point of starting something new and did not want recurrent cost in the month, besides the rent of course. And then we started easily and developed the program with features in time.” - CEO laser material cutter</td>
</tr>
<tr>
<td>SMEs see IT as a supportive entity for the business and that must add value to contribute to the business.</td>
<td>The way the CEO perceives IT in common</td>
<td>“we see IT as a supportive way for the business. The growth of the product and the quality of the product we find more important than the IT” – CEO plant nursery</td>
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<tr>
<td>and how it adopts IT with the business strategy</td>
<td>“In the end our product-delivery is the most important result. Everything is focused on our dodging or mow activities. So ICT is only a method to keep everything running smooth.” – CEO agricultural SME</td>
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<td>CEO with interest or knowledge of IT are more likely to embrace IT as part of their business strategy.</td>
<td>“The work processes are now more efficiency then the day we bought it and by that we maximized our profit. Otherwise we would have double the employees and not be able to keep this company in business. So you can say, in that we the IT has helped us to improve the processes. These days everything is digital…” - CEO financial advisory</td>
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<td>The level of academical background related to the field of IT management or IS</td>
<td>“The strategy is based upon a competition analysis. A strategy is created in order to differentiate from your competitors. We cannot differentiate based on our quality or price, therefore we do it with our service. And with this service... .....to us IT is an important factor in the industry, also because the price is under pressure with minimal margin. You cannot automate the personal touch...We try to sell the order portal to our client, so they have their own environment, with their own layout and processes, and you can order here.. In the back office we try to optimize our production process in order to make revenue. “ - digital printing marketing CEO</td>
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<td>The level of knowledge and interest the CEO has to the field of IT management or IS</td>
<td>I programmed the back-end myself. I know excel pretty much and that is the advantage since I can adjust everything myself and program new features when I need those as my company grows... - CEO laser material cutter</td>
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<td>The higher the IT maturity of the SME, the more commitment / interest the CEO has in IT.</td>
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| Level of maturity of IT integrated in the SME | “…change in compare to the way of working is that we sent out our workers with a google maps illustration with highlighted what needs to be done and where and some extra information. In the past we could not
Defined and valued as useful for the business strategy.

send out our workers on the project like this and had to go with the workers our self because only we had that information from the project provider.” – CEO agricultural SME

“IT will be playing a bigger role, as for example in the chain integration part. A learn moment is that everyone has their own system and that is unfortunate because, that is not always aligned between eachother. That is typical Dutch of course. Anyways, eventually some parts will disappear and other will replace this. We will make more use of IT and use it to move the administration to the cloud. Internal we lose our servers, this will benefit us in costs and stability in terms of technical faults. Also, we need to further explore the possibilities towards digitalization towards the client” - CEO financial advisory

Well, IT role gets bigger and bigger. Our profits lays within the efficiency of our processes. The faster we can go walk through our processes, the bigger the profit will be.. – CEO financial advisory