# IT Enabled Agility in Organizational **Ambidexterity**

Completed Research Paper

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#### Abstract

The aim of ambidextrous organizations is to balance exploratory and exploitative learning concepts. They innovate through experiments and research, and capture the value of innovations through refinement and continuous improvement. In this paper, we study the relationship of organizational ambidexterity and IT enabled agility. Based on a case study with a German car manufacturer we find that (1) entrepreneurial agility impedes exploitative concepts, (2) adaptive agility impedes exploratory concepts and (3) ambidextrous organizations exhibit structures that allow them to transfer results from exploratory to exploitative activities through IT enabled agility. Our findings suggest that exploitative concepts require IT enabled agility mechanisms that are incompatible with those for exploratory concepts, and oppositely. We found that knowledge transfer between business units often occurs, but is yet not fully integrated from an organizational perspective. We highlight the need for ambidextrous organizations to facilitate permeable boundaries with IT enabled agility by offering a transfer.

#### **Keywords**

Organizational ambidexterity, exploratory and exploitative concepts, IT enabled agility

#### Introduction

Literature argues that being successfully innovative is largely a function of exploring new competences and exploiting existing competences (Gibson and Birkinshaw 2004). This implies an ability to achieve a trade-off in allocating resources to two kinds of competing activities (March 1991): exploratory activities refer to experiments and research that will define long-term success; exploitative activities refer to refinement and establishing routines that determine short-term success (Levinthal and March 1993). We understand these organizational concepts as the idea that both exploratory and exploitative concepts are associated with knowledge, learning and innovation, albeit of different types (Gupta et al. 2006). Introducing organizational ambidexterity (Duncan 1976) as a structure that helps to simultaneously deal with contradictory elements, the concept of exploratory and exploitative concepts disclose an enduring research area. Following Benner and Tushman (2003) ambidextrous organizations are composed of units that focus on either exploratory or exploitative concepts with an integrated, transparent, and coherent process that links the various units. Contradictory findings on how to organize this balancing process have been introduced with different approaches, e.g. punctuated equilibrium (Gupta et al. 2006), or structural and contextual ambidexterity (Corso and Pellegrini 2007).

Innovative organizations strive to maintain competitive advantage through agility in prevailing business environments (Sambamurthy et al. 2003). Therefore organizations are challenged to implement information technology (IT) as enabler of creating and maintaining a flexible business network (Venkatraman 1994). In a constant state of flux, IT is reshaping the business process of an organization (Swanson 1994). To absorb this potential, IT enabled agility has become a promising factor to produce better outcomes (Sambamurthy et al. 2007) and builds on aspects of being able to respond to environmental dynamics, change and uncertainty (Sambamurthy et al. 2003; Zain et al. 2005). Thus, IT

enabled agility offers structures that help organizations to be ambidextrous (Andriopoulos and Lewis 2009). Comparing the dichotomy aspect of organizational ambidexterity with the polymorphous aspect of IT enabled agility, we ask the research question:

How can ambidexterity be organized through IT enabled agility?

We explore this phenomenon based on an in-depth case study with the car manufacturer AUTO. Basically, AUTO is organized in an ambidextrous manner, i.e., there is a coherent process that integrates and balances exploratory and exploitative concepts. We study the car manufacturer's efforts in developing an IT solution to prevail sustainable and innovative structures. We found that different combinations of organizational ambidexterity and IT enabled agility are leading to endless cycles of traps. We explain this behavior with incompatible organizational process configurations for exploratory and exploitative concepts. Our findings suggest that organizing for ambidexterity through IT enabled agility links the specific exploratory and exploitative units but at the same time suffers from incompatible structures. Thus, this paper offers first insights into side effects of ambidexterity and links the previously separate streams of literature on ambidexterity and organizational agility.

This paper proceeds as follows. First, we review the theoretical and empirical literature on ambidextrous organizations and IT enabled agility. We establish a research model that links organizational ambidexterity to IT enabled agility and investigate the concepts with an in-depth case study with the car manufacturer AUTO. Finally we discuss our findings and conclude with an ambidextrous agility model.

#### Theoretical Foundation

The theoretical framework of this study is built on how organizations are able to pursue ambidexterity through IT enabled agility. The following section discusses the theoretical foundations used in this research.

#### Concept of Exploration and Exploitation

When referring to exploratory concepts, this activity can be seen as the "search, variation, risk taking, experimentation, play, flexibility, discovery and innovation" (March 1991) of new possibilities. Exploitative concepts concentrate on "refinement, choice, production, efficiency, selection, implementation and execution" (March 1991). Building on these definitions, persistent success of a firm is based on the organizational adaptation consisting of both, exploitative and exploratory concepts (March 1991). During this research we understand exploitative and exploratory concepts as relevant activities when new products need to be introduced. The attempt to balance both concepts at the same time often leads to an exploration exploitation paradoxon. This paradoxon results from three assumptions proposed by Gupta et al. (2006). (1) Both concepts compete for scarce organizational resources. The more resources an organization spends on exploitation implies fewer resources left over for exploration, and vice versa. (2) Both concepts are iteratively self-reinforcing. Success in exploration results in more exploration and success in exploitation results in more exploitation. (3) The mindsets and organizational routines needed for exploration are radically different from those needed for exploitation, making the simultaneous pursuit of both all but impossible. Seen from an organizational control perspective, explorative learning concepts require distinctly different organizational control mechanisms compared to exploitative concepts (Gupta et al. 2006). Units engaging in exploratory learning tend to be small and decentralized, with loose cultures and processes, whereas exploitation units are larger and more centralized, with tight cultures and processes (Benner and Tushman 2003). Summing up, an organization that engages exclusively in exploration will ordinarily suffer from the fact that it never gains the returns of its knowledge. An organization that engages exclusively in exploitation will ordinarily suffer from obsolescence (Levinthal and March 1993)

#### Ambidextrous Model of Innovation

To achieve a balance in exploratory and exploitative concepts, organizations need to work on a dual mode to be innovative (Duncan 1976). Ambidextrous organizations are composed of multiple, tightly coupled subunits that are loosely linked with each other (Benner and Tushman 2003). With this structure firms can facilitate balancing exploratory concepts and exploitative concepts within one organization and are

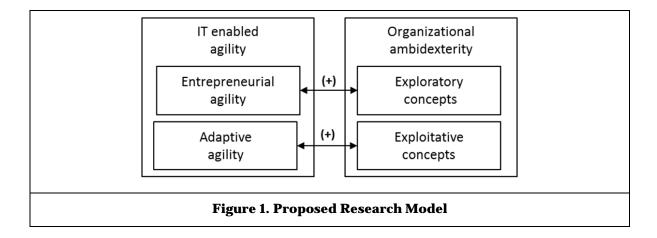
less prone to failure than firms with a one-sided orientation (Probst and Raisch 2005). To be able to create such a dual structure, techniques need to be developed that permit business units to be consistently inconsistent as they steer a balance between the need to be small and large, as well as centralized and decentralized (Benner and Tushman 2003). This leads to the assumption that a balance leads not only to steady organizational renewal but also results in a firm's ability to become more innovative (Tushman and O'Reilly 1997). Thus, an agile structure enables ambidextrous organizations to balance resources for exploratory and exploitative activities (Probst and Raisch 2005). Various approaches and case studies illustrate mechanisms for achieving ambidexterity in the innovation process. While the importance of pursuing both types of innovation has often been highlighted (Corso and Pellegrini 2007; Gupta et al. 2006), much more remains to be understood on how ambidextrous organizations coordinate the development of exploratory and exploitative innovation in organizational units (Jansen et al. 2006). The main challenge is to understand and implement the processes by which exploratory and exploitative concepts are integrated in a value enhancing way (O'Reilly and Tushman 2007). In many cases literature regarding ambidextrous organizations discusses the impact of structural or contextual ambidexterity (Jansen et al. 2009). Another approach, the punctuated equilibrium, consists of long convergent periods, punctuated by relatively short and infrequent operations (Tushman and Romanelli 1985). All concepts provide time-related aspects and organizational structures but lack a concrete guideline on how to avoid an exploration exploitation paradoxon when organizing for ambidexterity.

# IT Enabled Organizational Agility

Facing the challenge of rapid and often unanticipated change, organizations need to detect and respond to opportunities and threats with ease, speed, and dexterity. We refer to this as agility, which is seen as a key competitive imperative in research (Tallon and Pinsonneault 2011). In research the aspect of IT as enabler for undertaking strategic changes resulting in organizational agility has been discussed frequently. Sambamurthy (2003) shows that continual innovation is achieved by enhancing business performance through IT. Especially in today's turbulent business environment with unexpected changes in market demand and consumer preferences, IT enabled agility is needed to deal with arising unpredictability (El Sawy and Pavlou 2008). Literature understands the effective use of IT as an enabling method for organizations to sustain the virtuous cycle of adaption (Overby et al. 2006). Based on this finding, we focus on IT enabled agility and differentiate two distinctive types that postulate different ways of responding to market dynamics (Sambamurthy et al. 2007). We refer to them as entrepreneurial agility (Ireland et al. 2003) and adaptive agility (Sheffi and Rice Jr. 2005) each enhanced with IT structures, tools, or concepts. Focusing on entrepreneurial agility organizations anticipate environmental changes and conduct strategic experiments with new business approaches and models (Sambamurthy et al. 2007). This concept represents a firm's stance of seeking to create new resources, ideas, and their applications beyond the boundaries of the firm. In contrast, the other way is to be resilient and adaptive to environmental change in order to maintain competitive parity and competitive leadership. This can be achieved by keeping with the industry's best practices in facing emerging business opportunities and threats. The capability for such a type of market response is adaptive agility. It is also referred to as the capability to cope with uncertainty and rapid recovering from disruption, without fundamentally changing products or processes. With this conceptualization of the two types of agility, this study aims to reveal the mechanisms by which organizational structures can lead to these two types of agility. Along with Venkatraman (1994) we understand the potential benefit of IT directly related to the degree of change in organizational routines.

### Research Model

Still, the link of pursuing both, exploratory and exploitative concepts and IT enabled agility is missing. Fig. 1 presents the general research model which emerged from previous discussed literature. We propose that entrepreneurial agility positively interacts with exploratory concepts and adaptive agility positively interacts with exploitative concepts.



# **Research Methodology**

#### Sampling and Data Collection

This study examines interviews, conducted with 21 employees from a German-based internationally operating car manufacturer. During our research we were able to gain insights in different business units and had the chance to actively participate in different project meetings as practical researchers. For reasons of anonymity, the organization is named AUTO. We selected the organization due to its increasing effort in developing IT solutions to prevail sustainable and innovative structures at the same time. The units in which we collected our data all report to the same chief information officer, but due to their quantity they are organized in separate areas of operation within IT tasks and departments. Therefore, those units follow different IT enabled structures, each aligned with the overall mission of sustainability and innovativeness. The research methodology was implemented as an in-depth case study with employees that had already participated in exploratory and exploitative concepts. We selected the single case study due to their unusual revelatory, extreme examples and opportunities for unusual research access (Eisenhardt and Graebner 2007). By using a case study protocol, reliability was increased (Yin 2009). To structure our interviews we used an agenda where we asked the participants questions about their current concepts within exploratory and exploitative concepts and how organizational structures enable them.

An overview of the face to face interviews conducted within a more than three year lasting time sequence is showed in table 1. It contains information regarding the role or department of the interviewee, the duration of the interview and the participant's individual work experience within the company. As can be seen, we selected this case study due to AUTOs wide range of different units, participating and engaging in innovation management from different perspectives. We chose those participants as they come from differing units with apparently diverse involvement in rather exploratory or exploitative concepts supported by IT enabled agility. To get access to the employees we used dynamic moments where unique social knowledge helped us to sample possible respondents (Noy 2008).

| ID     | Role/Department                      | Duration | Experience at AUTO    | Date       |
|--------|--------------------------------------|----------|-----------------------|------------|
| P1     | Innovation Management                | 49 min   | 6 years               | 18.03.2010 |
| P2, P3 | Sales Department/Online<br>Marketing | 38 min   | 10 years and 12 years | 18.03.2010 |
| P4     | Product Marketing                    | 56 min   | 2 years               | 30.03.2010 |
| P5     | Automotive Online Services           | 66 min   | 3 years               | 30.03.2010 |
| P6     | Automotive Features                  | 10 min   | 5 years               | 21.05.2010 |
| P7     | Product Strategy                     | 51 min   | 8 years               | 25.05.2010 |
| P8     | Brand and Customer Strategy          | 46 min   | 2 years               | 07.10.2010 |
| P9     | Automotive Online Services           | 31 min   | 5 years               | 02.12.2010 |
| P10    | Research and Development             | 26 min   | 4,5 years             | 11.01.2011 |
| P11    | Research and Development             | 26 min   | 3 years               | 03.02.2011 |
| P12    | Research and Development             | 28 min   | 7 years               | 18.01.2011 |
| P13    | IT Electronics                       | 69 min   | 4 years               | 13.09.2012 |
| P14    | Product Development                  | 50 min   | 2 years               | 18.11.2012 |
| P15    | Quality Manager                      | 100 min  | 7 years               | 12.11.2012 |
| P16    | Senior Engineer                      | 58 min   | 10,5 years            | 27.11.2012 |
| P17    | Logistic Department                  | 36 min   | 5 years               | 07.01.2013 |
| P18    | Innovation Management                | 40 min   | 10 years              | 18.01.2013 |
| P19    | Innovation Management                | 43 min   | 13 years              | 01.03.2013 |
| P20    | Idea Management                      | 67 min   | 7 years               | 25.06.2013 |
| P21    | Social Collaboration                 | 37 min   | 8 years               | 03.09.2013 |

**Table 1: Interviews Conducted at AUTO** 

# Data Analysis Procedure

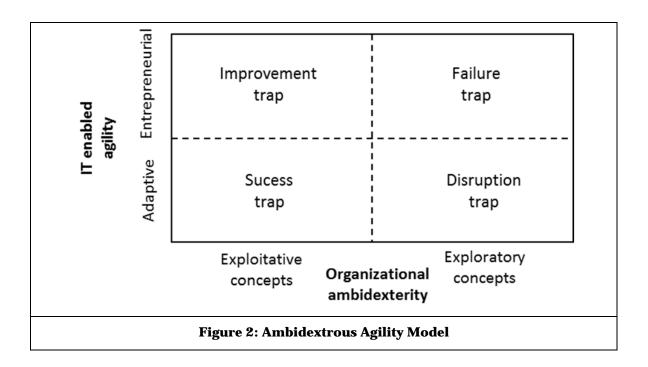
All interviews were tape-recorded and anonymized during their transcription. The resulting transcripts from the 21 interviews comprised 275 pages and were integrated into a hermeneutic unit using the software ATLAS.ti (Muhr 2008). The coding procedure was done as follows: We derived a coding scheme for categorizing organizational agility and organizational ambidexterity based on experience from already published literature (see table 2). The coding procedure resulted in a list of 37 codes. In a next step the first-author conducted an iterative open coding (Strauss and Corbin 1998). The coding process was repeated until no additional tag was allocated and no statements could be assigned to the already existing codes. To increase validity, a student researcher likewise coded the transcripts in a closed and open manner. After discussing and comparing both codings, overall the results were summarized in a list of 69 codes with 389 phrases.

| <b>Research Construct</b>    | Coding Scheme and References   |  |  |  |
|------------------------------|--|--|--|--|
| IT Enabled Agility           |  |  |  |  |
| Entrepreneurial              | <ul> <li>Proactiveness (Green et al. 2008)</li> <li>Opportunity-seeking (Sebora and Theerapatvong 2010)</li> <li>Autonomy, innovativeness, risk taking, and competitive aggressiveness (Lumpkin and Dess 1996)</li> <li>IT Competence (Sambamurthy et al. 2003)</li> </ul> |  |  |  |
| Adaptive                     | <ul> <li>Reactiveness (Green et al. 2008)</li> <li>problem-focused coping strategies, uncertain and unpredictable (Sherehiy et al. 2007)</li> <li>IT Competence (Sambamurthy et al. 2003)</li> </ul>   |  |  |  |
| Organizational Ambidexterity |  |  |  |  |
| Exploration                  | <ul> <li>Breakthroughs emphasis, Loose coupling, Passion (Andriopoulos and Lewis 2009)</li> <li>Competence, Governance, Networks, Strength of ties, Transitional process (Gilsing and Nooteboom 2006)</li> <li>Exploratory innovation (Jansen et al. 2006)</li> </ul>      |  |  |  |
| Exploitation                 | <ul> <li>Profit emphasis, Tight coupling, Discipline (Andriopoulos and Lewis 2009)</li> <li>Competence, Governance, Networks, Strength of ties, Transitional process (Gilsing and Nooteboom 2006)</li> <li>Exploitative innovation (Jansen et al. 2006)</li> </ul>         |  |  |  |

**Table 2: Coding Scheme** 

#### **Results**

We found evidence for the interaction between entrepreneurial agility and exploratory concepts and between adaptive agility and exploitative concepts. Despite the proposition that these exhibit a positive interaction, we identified different factors leading to traps in several dynamics of organizational paradoxes. Focusing on ambidexterity and agility, we discovered conflicting structures that result in endless cycles of disimprovement. Our analysis resulted in four effects dominating the organizational ambidexterity and IT enabled agility concept (figure 2). An exploitative focus can trigger a 'success trap' in which exploitation drives out exploration, while focusing solely on exploration results in a 'failure trap' (Belderbos et al. 2010; Gupta et al. 2006; Un 2007). This paradoxon can also be found in following the dichotomy approach of an entrepreneurial or adaptive agility structure. We found evidence for incompatible structures when organizations with entrepreneurial agility seek to execute exploitative concepts and organizations with adaptive agility try to operate exploratory concepts. We refer to these antagonistic structures as 'improvement trap' and 'disruption trap'. We try to understand the effect those concepts have on IT enabled agility structures and found to what we refer as transfer phase. Consistent with Argote and Ingram (2000) we found that knowledge transfer between business units often occurs, but is yet not fully integrated from an organizational perspective. The following sections discuss our findings, underlined by representative quotes.



#### Success Trap

Adaptive agility and exploitative concepts: Early success is one of the outcomes when focusing exclusively on exploitative concepts. This success naturally reinforces more exploitation along the same trajectory and results in a 'success trap' (Gupta et al. 2006; Un 2007). At a first glance, an organization being confronted with a 'success trap' should be satisfied with delivering exploitative concepts and adapting to them. But organizations tend to overestimate success (Assink 2006). However, the same mechanisms of learning that lead to improvements also lead to limits to those improvements (Levinthal and March 1993). The following quotes represent the quintessence of our findings confronting adaptive agility and exploitative concepts.

"[...] until they have just got to the point that we said we need more structure, there must be a process how to push things, about prioritizing things and simply how to set common goals." (P12)

"So the question is if the colleagues in the R&D department are actually ready and willing to accept 'not invented here' things." (P2/P3)

In their research Levinthal and March (1993) refer to the tendency to ignore the long run and prefer the short run in organizational learning as myopia. As organizations develop greater and greater competence at a particular activity, they engage more in that activity, increasing this competence but leading to a potentially self-destructive product of learning (Levinthal and March 1993). Focusing on exploitative activities can hinder the firm's long term viability as exploratory activities of new competencies and the development of radical innovations allay (Levinthal and March 1993).

#### Failure Trap

Entrepreneurial agility and exploratory concepts: Representative quotes provide insights into the 'failure trap'. The broad range of possible outcomes within exploratory concepts provides a level of failure, which in turn promotes the search for even newer ideas and thus more exploration, thereby creating a "failure trap" (Gupta et al. 2006; Un 2007). To be able to operate solely in exploratory concepts is only possible when entrepreneurial agility prevails. The following quotes represent both constructs found in our case study.

"Innovations, such things occur if you get along well with people or just meet with people crossdepartmental and often just sit together and [...] everyone contributes." (P4)

"[...] on Mondays, we have a two-hour appointment, you can call it synchronization, it is basically an exchange of ideas and information what happened in this division [...] interdisciplinary." (P11)

In practice, organizations often underestimate failures (Assink 2006) and the risks of failure (Levinthal and March 1993). Following Levinthal and March (1993), three features can trap an organization in an endless cycle of failure. First, organizations tend to see new ideas as bad ones, so most innovations are unrewarding. Second, the return from any innovation is poor until experience has been accumulated in using them. Third, aspirations adjust downward more slowly than they adjust upward and exhibit a consistent optimistic bias (Lant, 1992).

# Improvement Trap

<u>Entrepreneurial agility and exploitative concepts:</u> Organizations often face the challenge of defensive routines coming along with learning, thus resulting in resistance to change and in self-repeating patterns (Brady and Davies 2004). Actions that result in improving performance are repeated until they become standardized or routine operating procedures (Cyert and March 1963) and finally result in unreflectively behavior and automation. This prevents organizations from adapting to a changing environment (Brady and Davies 2004) and leads to stagnation.

"You'll always get reminded automatically by the program to report an innovative idea. So the enforcement that you report, works pretty well". (P15)

"Usually we have small adjustment steps, more energy, and then something new. Therefore, the developer has little room for innovation." (P15)

"There is no fixed structure, as one might know from other areas which already exist a long time. But that is a good thing. Nobody is trying to impose violently any structure before you know that it makes sense. This flexibility and agility has brought [AUTO] quite far forward." (P1)

The improvement trap shows the incompatible structures reflecting entrepreneurial agility. Automation and unreflective behavior do not accord to entrepreneurial structures resulting in antagonistic consequences. Therefore organizations or business units with prevailing entrepreneurial characteristics suffer when performing in exploitative concepts.

# **Disruption Trap**

Adaptive agility and exploratory concepts: Most often, disruptive growth opportunities lie outside a company's current technology base and markets (Assink 2006). Therefore a multiplicity of existing routines that are embedded in the organization's values and culture need to adapt. This implies that the challenge for a company lies in recovering from this disruption as a threat to the status quo. We found several quotes which represent the combination of exploratory concepts and adaptive agility.

"Actually, we do not discuss innovations which we really want to do. If we need a signature we will get it, if not we take a dummy signature. You just need to find somebody who is quickly signing it." (P18)

"There will never be an idea that passes through all these teams." (P19)

"If we then hawk [with an idea] somewhere, and this is not an official task - and that is really a problem in the business - it is not described as a process. That is more a nice to have and actually is regarded as a hobby but actually it is an important issue. This should be a focus of the company." (P7)

The 'disruption trap' destroys existing competencies and breaks down existing rules of competition (Lyytinen and Rose 2003). Thus companies with a high degree of adaptive agility suffer from continuous efforts to react to profound change. The adaptive characteristics are incompatible with exploratory concepts.

#### Transfer

Based on the categorization of the different traps, we found challenges when ambidextrous organizations misapply IT enabled agility. What came down with this finding was the collective call for more dynamic organizational structures. We identified the need for a transfer between explorative and exploitative concepts within IT enabled agility. The following citations represent the findings.

"[...] so far, it is a challenge for such a company because the boundaries and ditches between organizational units cannot be kept in the long run. And this can be seen at different points within our organization." (P2/P3)

The employees reflect the blur of organizational boundaries at AUTO. This statement supports the existence of a transfer from one unit to another in the context of explorative and exploitative concepts. We identified a trend towards fluid structures enabled with IT.

"My feeling would be that from advance development side they should think about parameters they want or what the benefit is they want to show to the customer and the developers. I've experienced it, there was no focus, but they have done something which is very colorful, and the interface has not been defined." (P2/P3)

The important message in the citation is that during the transfer between business units, concrete descriptions regarding parameters or other information are not specified.

"The advanced development does somehow float in space, they decide on their own what they want to do, they can decide for themselves, but ultimately they need it, too. This is actually quite a shame, because ultimately we need support from them as well and that's why no one comes to us and asks, "What would you like to have?" This connection between us, it is in the dark, there is no innovation management in the sense that someone really manages it and once makes it transparent, in the way of: what do they really have and what do we need and how everything gets coordinated." (P18)

Again this employee points out the problem of absent connections between the subunits. No requirements have to be fulfilled before delivering new products, nor exist responsible employees for managing innovation. With the previous citations, we strengthened the suspicion of a transfer from exploratory to exploitative concepts.

"[...] important is an organizational bridge from our department to the Technical Development" (P6)

"What is always missing is actually a person at the front, a power promoter and a clear instruction from above "do it now, and like this". We achieve a certain level with this bottom-up approach, but typically if somehow payment gets active, you will fail and that's why I think that AUTO should basically promote the whole topic of innovation through organizational forms differently." (P4)

These representative quotes indicate the potential demand for altering current organizational forms and adopt an organizational bridge to facilitate the innovation process. IT enabled agility mechanisms fit either exploratory or exploitative concepts when organizing for ambidexterity. Thus, ambidextrous organizations need to facilitate internal knowledge transfer (Argote and Ingram 2000) to achieve competitive advantage through IT enabled agility.

#### **Discussion**

Competitive advantage requires the ability to transfer knowledge from one business unit to another (Argote and Ingram 2000). We found evidence in literature and in our data set showing this ability as one of the main challenges in organizational ambidexterity and IT enabled agility. It is indispensable for an organization aiming at competitive advantage to introduce a multilevel approach, complementary tactics, and learning synergies. (Andriopoulos and Lewis 2009). In practice, ambidextrous organizations struggle with the interplay of exploratory and exploitative concepts and how to organize IT enabled agility. However, in order to maximize the success of being innovative, the transfer from one to another phase has high practical relevance. With this research we show that ambidextrous organizations establish

incompatible IT enabled agility structures when organizing for innovations. The challenge is to continually adapt the organizational and technological capabilities (Venkatraman 1994) in an adequate manner avoiding antagonistic consequences. By allowing knowledge to transfer between phases, quality will improve and organizations are able to achieve business excellence (Sher and Lee 2004). Therefore, organizations need to foster managerial and technical IT capabilities in order to achieve improved agility (Tallon 2008).

There are several limitations to take into account within this research. External validity suffers due to the fact that a single case study was conducted. In future research we will address multiple sources of evidence (Yin 2009) by adding archive data from AUTO. Research limitation arises because of the obvious fact that the case study was conducted in a specific industry, namely the automotive section. Therefore, caution must be applied given the limitations in industry and location. Resuming the previous limitations, a number of consequences for future research emerge. A multiple case study would provide further insights into structures and concepts of organizational ambidexterity and IT enabled agility. If these findings are consistent with ours, patterns for avoiding the traps could be investigated. This would result in approaches to perform the transfer phase adequately. However, the proposed ambidextrous agility model provides further room for investigation.

#### Conclusion

Although there has been a surge of interest in ambidextrous organizations, research knows relatively little about the correlation with IT enabled agility. The focus of this research was on the difficulty of capturing value from IT enabled agility despite being ambidextrous. This paper supplements research by demonstrating an uninvestigated research theme when delivering ambidextrous concepts in an entrepreneurial and adaptive agility organization. Summarizing, we found that (1) entrepreneurial agility impedes exploitative concepts, (2) adaptive agility impedes exploratory concepts and (3) ambidextrous organizations exhibit structures that allow them to transfer results from exploratory to exploitative activities through IT enabled agility. Our ambidextrous agility model shows the necessity to organize for a permeable organizational structure. In general, the topic of transferring exploratory to exploitative concepts with IT enabled agility is rarely considered in literature. Showing the existence of a transfer, this paper extends past literature that concentrates on either one of the concepts (Assink 2006; Atuahene-Gima 2005). This research contributes to theory by showing that IT enabled agility mechanisms need to be reconsidered when organizing for ambidexterity. Our research supports literature which treats IT enabled agility as an indispensable ingredient in organizational ambidexterity to achieve competitive advantage (Sambamurthy et al. 2007).

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