Drivers of Strategy Implementation Success:
The effects of Middle Management Behavior, Administrative Mechanisms and Environmental Uncertainty

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ANOVA	Analysis of Variance
CEO	Chief Executive Officer
CFROA	Cash flow return on assets
df	Degrees of freedom
Ed.	Editor
Eds.	Editors
e.g.	for instance (exempli gratia)
EM	Expectation Maximization
et al.	and others (et alteri)
i.e.	that is to say (id est)
MNC	Multi National Corporation
N	Number
n.s.	not significant
p.	Page
R&D	Research & Development
ROA	Return on assets
ROI	Return on investment
ROS	Return on sales
SBU	Strategic Business Unit
SE	Standard error
STDEV, SD	Standard deviation
U.S.	United States (of America)
VIF	Variance Inflation Factor
Vol.	Volume
vs.	versus

1. Introduction

According to Glueck (1980) the “strategic management process” incorporates analysis, choice, implementation, and evaluation. Strategic management literature refers to the former two elements as strategy formulation and to the latter elements as strategy implementation. Whereas strategy formulation and its determinants are a well established research area, implementation, although in any case equally important (Dobni & Luffmann, 2003), seems to lack comparable research attention (Hrebiniak & Joyce, 2001). A closer analysis of theoretical as well as empirical literature on strategy implementation reveals a fairly mixed picture of eclectic approaches to the phenomenon (Hrebiniak & Joyce, 1984; 2001; Noble, 1999). Hrebiniak & Joyce (2001) identified at least four organization and management disciplines engaging in implementation research: Strategic management, organization theory, organization behavior, and organization development. Apparently, the theoretical perspectives used to explain success in strategy implementation are pretty different and so are the basic conceptions used to describe the basic phenomenon.

Unfortunately, besides the significant variance in theories and basic conceptions (Noble, 1999), which will be shown during the course of this dissertation, the results from empirical studies based on these various theoretical frameworks are not always applicable in practical business terms as they are rather focused on theory testing than on developing practically relevant conceptions of strategy implementation. Thus, there exists a certain need to develop a theoretically sound but practically usable depiction of the basic phenomenon of strategy implementation. In addition, it is necessary to make sure, that the influence factors affecting successful strategy implementation under a practically relevant perspective of the phenomenon are as well integrated parts of the real business world meaning that they can be controlled and steered by executives in respective companies. In this respect, I will first develop a common understanding of the basic phenomenon by using expert interviews as a first anchor. Thereby, I will be able to derive a realistic, business driven perspective, and will have the opportunity to get to know practical problems and issues in strategy implementation at first hand. Consequently, a first hint on relevant success drivers should evolve.

Practical applicability is also an important issue with regards to proper measurement and subsequent analysis of strategy implementation success. Too many empirical studies have used a measurement approach for success in strategy implementation that is inappropriate: They measured strategy implementation success by performance measures on the company or business unit level, thereby ignoring the fact that they are not able to separate the effects of strategy implementation from the effects the pursued strategy itself has on company performance. In addition, in almost every of these cases the measurement of strategy implementation by company performance lacks any connection or integration, respectively, with the used description of the implementation phenomenon, thus creating a considerable gap between theory and empirical testing. These are severe issues, which only a very small number of researchers have been aware of. Consequently, the approach to measurement of strategy implementation success I am going present will not only tackle the issue of proper measurement but will in addition prove to be an integrative part of the phenomenon of strategy implementation as I understand it. In addition, the whole research design will be developed with the aim of being as practically relevant as possible, which means to perform wide ranging pre-testing of the used questionnaires as well as making results as valid as possible by applying a two-sided informant measurement approach for strategy implementation success thereby preventing a common method bias which is usually caused by single informant approaches.

Since I have the aim to develop a practically relevant description of the strategy implementation process, it will as well be necessary to derive a realistic picture of controllable success drivers and a suitable theory explaining the behavior of the key players in strategy implementation: the middle management. To reach this goal, I will draw on one of the most prominent theories of human economic behavior, the Agency theory, and will derive relevant administrative mechanisms indicated by this theory to control middle management behavior. But, as this theory in my view answers only a part of the questions regarding success drivers in strategy implementation, I will as well test administrative mechanisms based on a theory that usually is interpreted as being the counterpart to Agency theory: the Stewardship theory. By this joint testing of administrative instruments within the same sample, I will be able to answer the question: are both theories substitutes or are they rather complements to each other?

In the light of economic applicability of a conception of strategy implementation process and its success drivers, some hints point out that a realistic picture of success drivers cannot be developed without taking the environment into account a company is facing. That means, without a doubt are the administrative mechanisms used inside a company, and their respective effects, dependent on contextual factors outside the company. The most influential of these factors, environmental uncertainty, will be included in my empirical analysis, since one of the basic characteristics of business context is that it cannot, as opposed to economic modelling, work properly on the basis of any ceteris paribus assumptions, thus simply excluding environmental influences.

To sum it up: In the course of this dissertation I will fulfil three different objectives: First, I will derive a comprehensive understanding of the basic phenomenon of strategy implementation, built from practical issues, will combine these issues with a suitable theoretical framework, and will combine diverging theoretical cornerstones to an integral whole. Second, I will show the vast diversity pertaining in the field of strategy implementation research with regards to the basic understanding of the phenomenon, the theoretical perspectives used and the influence factors identified and will differentiate them from my own conception of the strategy implementation success. I will reach this goal by answering the question: What do we know about strategy implementation? Third, I will set up a research design and empirical testing, which should yield valid results and will derive implications for practical business as well as for future research and theorizing on the subject of strategy implementation success.

2. The strategy implementation process

2.1. Explorative pilot study

A major challenge a researcher in strategic management has to cope with is to deliver empirical results which are applicable in practice. In order to make sure that my understanding of the strategy implementation process is reasonable "in the real world of organizations" (Skivington & Daft, 1991: 53), I have started my work on the subject by conducting interviews with relevant practitioners in order to derive a feasible picture of the strategy implementation process and its obstacles in real business life. I have conducted semi-structured interviews with different executives on various levels in two different companies: Slovak Telecom, which is an international subsidiary of the Deutsche Telekom Group, and SAP AG, a German Key-player in the software industry. The open questions I have asked addressed the nature of strategy implementation success, relevant obstacles, solutions and some additional questions on the strategy pursued[1]. Interviews have been conducted in English or in German, according to the respective language preferred by the respondent.

Since all interviews except one have been conducted with Slovak Telecom, I plan to provide some information on Slovak Telecom in the following paragraphs[2]. I will then isolate the strategy implementation process, implementation problems as well as potential solutions in order to arrive at a brief categorization of the major practical issues in strategy implementation.

2.1.1. Background on Slovak Telecom and the market environment

Slovak Telecom is one of the leading Slovak providers of telecommunications services, including national and international carrier services, mobile communications, and broadband internet services. In July of 2000 a majority share of 51% in the company was bought by Deutsche Telekom AG, while 49% of shares remain directly

[1] The whole interview guideline is included in the appendix of this work.
[2] As SAP AG compared to Slovak Telecom is a very large company with a lot of different activities and as only one interview has been conducted there I have omitted the company presentation since it would exceed the framework of this dissertation by far.

and indirectly in control of the Slovak Republic. Thus the company was effectively privatized. Since the end of December 2004 Slovak Telecom is the sole owner of T-Mobile Slovensko (formerly EuroTel) after purchasing the remaining 49% from an US consortium.

Prior to the privatization of the former Slovenske Telekomunikacie the Slovak telecommunications industry has been liberalized since 1998, with the fixed line market completely open by the end of 2002. Due to rising competition, the following years were characterized by heavy investments in infrastructure-modernization accompanied by wide-ranging internal transmissions designed to increase efficiency and productivity to western European standards. Slovak Telecom reduced its personnel by nearly 75%, going from about 13,500 in 2000 to 6,700 in 2003 and to 3,500 in 2009. By this extensive downsizing-approach, Slovak Telecom wants to increase its competitiveness vis-à-vis market liberalization. By the end of 2009 the company had net revenues of € 974.2 million (decreased by 5.3 % from € 1029.0 million in 2008), a net income of € 145.5 million (increased by 24.3 % from € 117.1 in 2008), and an operating free cash flow of € 274.3 million (increased by 5.4 % from € 260.3 million in 2008). As indicated by this short overview, by the time I have conducted the interviews (i.e. in June 2004) Slovak Telecom was in the middle of a transformation period from a state-owned company to a market driven company partly owned by one of the largest Telecommunications Groups in the world. Accordingly, the implementation of newly developed strategies has been essential back then and the interviews provided considerable insights as far as the basic process and related obstacles are concerned.

2.1.2. Expert assessment of practical implementation process and related obstacles

The key acknowledgment regarding the task of implementing strategic plans that can be derived from expert interviews is that the process is neither routine nor convenient. A large variety of obstacles can be expected to prevent implementation from reaching its goal of strategy congruent plan adoption. The nature of the underlying implementation process, obstacles as well as potential solutions has been illustrated by several respondents in semi-structured interviews and will be summarized in the following paragraphs. Interview partners within Slovak Telecom include the managing directors of strategy, marketing, and finance, as well as two lower-level managers responsible for monitoring of strategy implementation projects and strategic planning. As indicated above, additional insights were provided by a senior manager working with the corporate consulting team of SAP AG, one of the world's leading software companies. All respondents indicated the high importance of the subject, especially due to its direct effects on overall company performance. As a matter of fact, this high importance was the reason why they agreed to participate in the interviews.

Within Slovak Telecom strategy implementation is mainly understood as executing a defined strategic plan by setting up respective implementation projects. This execution, in fact, is characterized by allocating resources to the utilization as it is planned in the strategic blueprint. As a result, respondents reported that major problems of this approach are timing and resource issues. These problems result from resource scarcity as well as the combination of line and project organization, and thus pose major resource allocation conflicts. In most cases resource sharing between different organizational entities is prevented by policy divergence due to pressure of functional mid-level managers to reach specific performance goals as they are demanded by top management. A frequently noticeable example for resource conflicts is the short-term sales responsibility of a marketing-director in contrast to the long-term market innovation responsibility of a strategy-director. The former is responsible for exploiting existing product markets whereas the latter wants the marketing department to use resources for exploring new market opportunities. Thus, in essence, the strategy specific allocation of resources represents the real implementations issue since it puts the actual plans of strategy implementation projects to use.

Besides resource allocation issues, some behavioral problems have been described. A major problem and concern has been that organization members at every level had to get a profound understanding of the strategic course as it is being pursued by a company. Respondents indicated that if employees are not able to understand how a given strategy will influence their own as well as the company's future performance, they perceive this strategy as questionable and thus are not inclined to follow its course. In addition, some organization members have been said to simply lack the willingness for implementing new strategic plans since they are rooted in former routines of doing business. This lack of commitment mostly results in avoidance.

With respect to general strategic understanding at any organizational level, numerous solutions have been suggested, some of which are already put to use and seem to work successfully. Respondents agreed that the communication of strategic goals to every single employee is extremely important. This communication should, according to a respondent, work in two ways: First, strategic goals should be cascaded down to every hierarchical level, providing the information necessary for the specific operational context. Additionally top management should develop surveys investigating whether employee's view of corporate or functional strategy is consistent with top management intentions.

Besides the basic communication issues and processes to be followed, one respondent indicated that participation in the strategy process proved to be considerably helpful in reducing avoidance and opposition. Consequently, it has been suggested to integrate at least functional managers in early stages of strategy formulation in order to support resource allocation planning and coordination prior to strategic decisions. Overall, a participative leadership style followed by managers, thus involving employees as well as mid-level managers was said to be especially effective in industries where creativity and innovation are key success factors.

In order to solve implementation problems due to unwillingness to cooperate, the design of an appropriate reward structure has been proposed by a respondent. According to respondents, the unwillingness to cooperate has its roots, besides in following routines, in the fear that a given strategic program might endanger the own position as far as compensation and power are concerned. A reward system formerly in use with Slovak Telecom, rewarding for successful project-closure, had to be renounced because of abuse. But a new design has been developed which, in fact, shows the importance as well as the challenge of designing appropriate incentive structures. According to respondents, a reward system needs transparency and accountability. It should measure outcomes on an objective basis and subsequently tie them to rewards, thus yielding considerable incentive effects. In addition, one respondent indicated that a proper reward system has to be contingent upon the addressed group of employees. He noted that "software developers are not driven by monetary rewards; they rather need peer-recognition, while sales force is 'coin-operated'". Thus an incentive system has to address different types of motivation.

Overall, two interconnected issues of strategy implementation can be derived from expert interviews: On the one hand, the implementation process is characterized by the use of resources of any kind (financial resources, human capital resources, etc.) in order to realize strategic plans. Eventually, any implementation effort needs proper resource endowment to work. On the other hand there are a lot of behavioral implications connected to strategy implementation: Strategic plans have to be communicated, even involvement in the planning phase of a strategy seems to be necessary in order to secure employee commitment to the strategic course. Besides, appropriate incentive structures seem to be helpful in order to convince employees who are still unwilling to cooperate on the implementation steps even after proper communication. Obviously, a theoretical framework which will be used to explain these first indications will have to cover two types of behavioral guidance: Participation and communication on one side, as well as control by incentives on the other side.

2.2. What is strategy implementation?

2.2.1. The basic framework

As indicated by respondents in my explorative pilot study, strategy implementation is a multidimensional – and thus fairly complex – process. Consequently, the study of the antecedents driving strategy implementation success needs to start out from a strong theoretical as well as practical basis. Therefore I now plan to illustrate my basic understanding of the strategy implementation process.

Since strategy implementation is concerned with the execution of strategies, be they deliberate or emergent, the concept of strategy should be considered first. Hofer and Schendel define strategy as "the fundamental pattern of present and planned resource deployments and environmental interactions that indicate how the organization will achieve its goals" (1978: 49). The authors categorize strategy into three distinct types: corporate, business, and functional strategy. Corporate strategy contains decisions about what business to be in. Business strategy determines how to compete in the domains outlined by corporate strategy. Functional strategy deals with the efficiency of resource usage in organizational core functions (Jemison, 1981). Overall, this definition clearly indicates that the strategy implementation process is connected to issues of resource deployment and strategic market actions. In addition, it matches the insights given by respondents in expert interviews in the previous section.

Subsequent to defining strategy, the question arises how the actual strategy of a given firm can be identified. Christensen & Donovan answer this question in contending that “a company’s actual strategy is manifest only through the stream of new products, processes, services and acquisitions to which resources are allocated” (2000: 3). They perceive this resource allocation process to act as a filter by determining which intended or emergent strategies pass through by receiving resources from decision makers, and which proposals are denied funds. In addition, strategy formulation in this framework can be characterized as a dynamic process altering intended strategies according to strategic outcome analysis, as well as formulating emergent strategies based on unanticipated opportunities, problems and successes. Since the central resource allocation process determines strategic actions, leading to a company’s actual strategy, this process can be assumed to be the implementation of this actual strategy. Figure 1 shows this basic process framework as it is indicated by Christensen & Donovan.

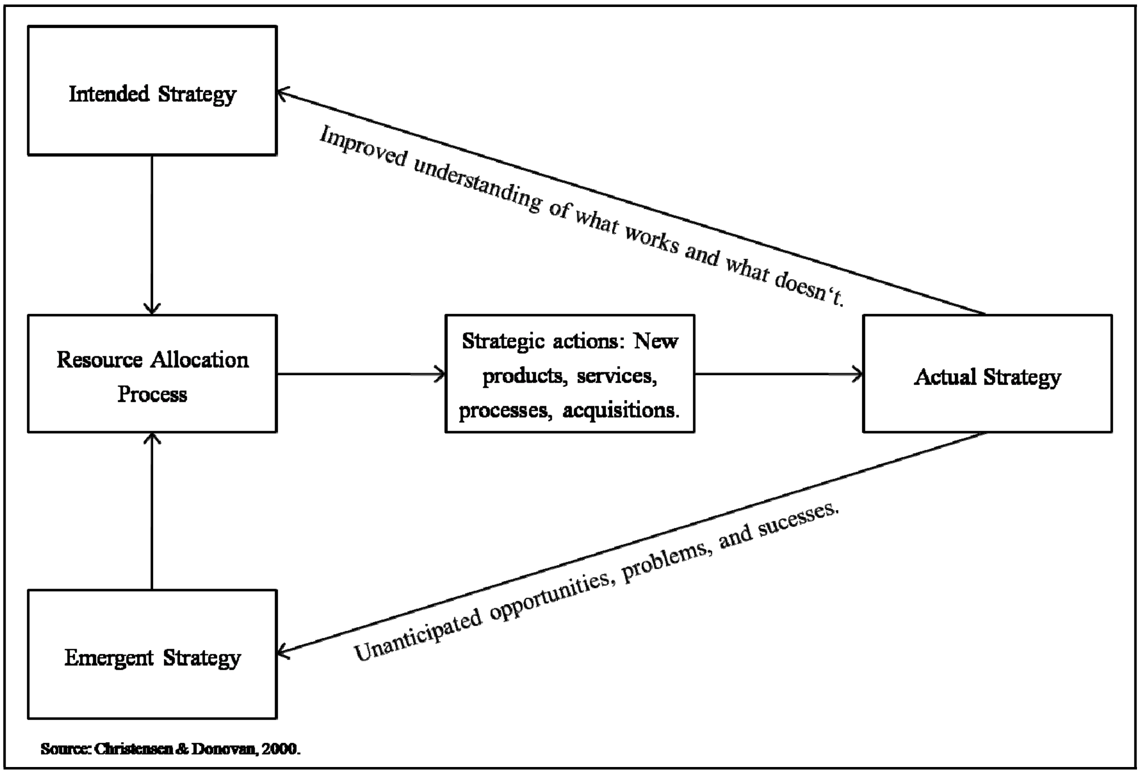

Figure 1: The basic strategy implementation process

2.2.2. Defining the strategy implementation process

Still, the strategy implementation process, understood as resource allocation or re-allocation respectively, has to be elaborated more clearly. In the first place, it is important to notice that resource allocation decisions are not limited to capital investments (i.e. financial resources) only (Galbraith & Kazanjian, 1986). They rather encompass decisions regarding all resources of a company like physical, intangible and organizational resources (Richter & Schmidt, 2005). The resource allocation process means to decide upon the distribution of resources to facilitate the development of those specific abilities a certain strategy calls for. Thus, this process generally represents the tasks a manager has to carry out: deciding on the distribution and usage of budgets, productive capacities and personnel in order to reach strategic goals.

As this process is apparently a task characterized by rational steps based on a strategic plan the question arises why organizations still fail in implementing these plans/strategies. Why have strategy scholars and researchers not come up with wide-ranging solution approaches? There exist various answers to these questions, some of which are based on theoretical debates, others on practical issues. But they all deal with the matter of how the process of strategy implementation is basically defined. By some researchers the implementation process is characterized as a simple, management-guided, rational-normative process of transforming strategy into smaller sub-strategies and operational sub-goals. They assume, that these sub-goals will be executed by subordinates without discussion or deviation, thus making the implementation process a mere control issue (e.g. Schendel & Hofer, 1979; Wind & Robertson, 1983). The problem of these formal approaches is that they “ignore, or only mention in passing, the problem of securing the organization’s commitment to a particular strategy” (Guth & MacMillan, 1986: 313). Consequently, low or even non-existing commitment of those employees affected by the changes, working in all hierarchical groups, could lead to passive rejection or even active sabotage of strategic plans. Especially executives on the middle management level are seen to have a primary role in strategy implementation, which means that their self-interests make their behavior an important influence factor on implementation success (Floyd & Wooldridge, 1992; Guth & MacMillan, 1986).

At this point, the general paradox inherent in formal models of strategy implementation should become obvious. As Guth and MacMillan point out, there exists a logical consistency between the motivation of individuals in an organisation by their self-interests and the broadly accepted theory of capitalistic economy. That means every employee will analyze the perceived consequences of given strategies and strategic changes, respectively, on his or her individual goals and act accordingly by promoting strategies which are favourable for their goals or impeding implementation in case strategies are disadvantageous for their individual goals. From this viewpoint it seems almost absurd that formal models of strategy implementation stress the importance of top managers defining performance objectives (like e.g. in balanced scorecard approaches) on the basis of at least bounded rationality. Yet the very same models seem to neglect the fact that mid-level managers and non-management employees as well act in a (bounded) rational way. This means that performance objectives defined by management will not be executed blindly but will rather be evaluated and decided upon by lower management as well as non-management employees according to their favourability. Thus employees who do not belong to top management will as well concentrate on their very self-interests and strategy implementation will not take place routinely. As a result, even in formal approaches an analysis of behavioral effects is necessary. Therefore researchers extended the rational-normative views by taking 'behavioral integration' into account (Nutt, 1989). Consequently, according to Dobni and Luffman (2003) "the key to successful implementation resides in the ability to guide and manage employee behaviors on a collective basis." (577).

But is has to be noted, that behavioral effects only represent the reason why strategy implementation might fail or how success is driven, respectively. The basic process is still to be seen in strategy-consistent resource allocation. Therefore, I have formulated the following definition, which represents the basis of theory and hypotheses development as well as empirical testing, since any empirical study on the topic needs a clear-cut understanding of the strategy implementation process:

Strategy implementation is the process of
resource allocation according to strategic goals[3].

[3]At this point, it is important to declare that based on this definition of strategy implementation, success in strategy implementation is accordingly defined as strategy-consistent resource allocation.

3. What do we know about strategy implementation?

The primary aim of this section is to present a review of existing empirical as well as theoretical work in the broad field of strategy implementation research and put it into context with my previous reasoning on strategy implementation. In following Geroski's (1995) example, the next chapters will be organised as a series of stylized facts and stylized results deduced from the literature at hand. In doing so it will be possible to explore the existing research from various perspectives in order to answer the question: What do we know about strategy implementation? In addition, apparently unsolved key questions will be discussed since the counter question "What do we not know?" is at least equally important as it provides the basis for future research in this promising area.

Owing to the fact that there exists a large variety of practitioner's guides and the like on the subject of successful strategy implementation I have decided to concentrate my initial literature search on the top twenty management journals only. Therefore I have conducted a keyword search starting in July 2004 until November 2004, searching the top twenty journals as they have been indicated by the Journal Citation Report for Management Journals ("2003 JCR Social Science Edition") which sorted the journals by the Citation Impact Factor. As keywords I have chosen: "implement*", "strategy implementation", "adaptation", "organizational change", and "strategy process". The last three keywords have been included to make sure that alternative wordings which might have been used to frame strategy implementation could as well be incorporated in the analysis. This search included any articles that have been published before the year 2003 and yielded a total of 131 articles which, according to the abstracts seemed to be appropriate regarding the subject of strategy implementation at first sight. A detailed analysis of these papers has shown that 70 articles have eventually been inappropriate with regards to the subject of strategy implementation. Another 38 articles dealt with implementation matters in the fields of Technology, Human Resources, Innovation, or a combination of them but not with strategy implementation. Only 23 papers dealt with strategy implementation thus leaving a considerably low number of usable papers and indicating the need for additional research in this field. Most of these papers have been empirical studies and will all be described along the most important dimensions in the due course of this section. After this initial search I have updated the literature review on a continuous basis using either articles which I identified during my ongoing work or by scanning the journals which proved most important during my work on a regular basis: Academy of Management Journal, Academy of Management Review, Administrative Science Quarterly, Journal of Management, Management Science, Organization Science, and Strategic Management Journal. Thus the following chapters will display a selection of the most important and scientifically valuable works in the field of empirical strategy implementation research.

3.1. Some stylized facts about strategy implementation

Stylized fact 1. Conceptions of strategy implementation vary significantly between different studies.

When empirically analyzing success in strategy implementation, researchers need to derive propositions and draw conclusions from basic conceptions of the phenomenon. Taking a close look on strategy implementation research reveals that relevant studies are far from a joined definition or understanding of a basic conception of the strategy implementation process. Researchers and theorists describe the phenomenon from fairly different perspectives thus opening a new subfield of analysis almost every time an empirical analysis is conducted. Nevertheless, following the example of Bresser (1998) these studies can be assigned to three different basic theoretical categories: Concepts based on Contingency theory, behavior-focused concepts, and resource-focused concepts.

Studies in the first category examined success factors in strategy implementation by making use of a contingency approach. This approach is based on the notion that a "strategic fit" between various formal organizational factors and the strategy pursued almost inevitably leads to success in strategy implementation, as well as to positive performance. In the following paragraphs these studies will be presented grouped by the specific organizational factor they emphasized.

Alignment of management characteristics with intended strategy: As one of the first authors applying the contingency approach, Gupta & Govindarajan (1984) suggested that realizing an intended strategy effectively requires a match between strategy and organisation, which needs to concur with managerial characteristics. Acknowledging the necessity for an accord of managerial characteristics and (strategic) job requirements, Gupta & Govindarajan (1984) proposed a relationship between such characteristics as experience background and willingness to take risk on behalf of SBU general managers, and a consequent success in strategy implementation.

In the view of Beal & Yasai-Ardenaki (2000) a successful strategy implementation process is the development of a fit between CEO-characteristics and certain kinds of competitive strategy. These CEO-characteristics cover the complete range of functional experiences, such as experience in engineering, sales, or accounting. This match between chosen strategies and specific types of implementing managers as key proponent of implementation success has previously also been advocated by Govindarajan (1989). In addition to functional experiences, Govindarajan (1989) proposes effects of characteristics like industry familiarity, locus of control, and problem solving style.

Alignment of organizational processes and design with intended strategy: A further empirical study has been provided by Gupta (1987) in which he related the fact that strategic business units have to cope with uncertainty to the need of tailoring organisational factors in accordance with strategic mission and competitive strategy. Gupta analyses the proposed positive influence of a match between corporate-SBU relations and strategy on SBU-effectiveness in strategy implementation. Dimensions of corporate-SBU relations analysed were, for example, openness in relations and decentralization between corporate headquarters and SBUs. In the following year, Govindarajan (1988) identified the absorption of uncertainty as the fundamental problem in effective strategy implementation and named three key administrative mechanisms that a strategy has to be contingent upon, in order to make a firm capable of coping with uncertainty: Design of organizational structure, design of control systems, and selection of managers are the mechanisms that are proposed to have an influence on strategy implementation success.

In accordance with Galbraith & Kazanjian’s (1986) strategic fit approach, Slater & Olson (2000) stated, that “business strategy implementation is concerned with the fit between the organisation’s business- or competitive-strategy and its internal processes” (813). A specific internal process, in their view, is sales-force management. This process is thought to be influential on company performance, as long as the type of sales-force management meets the requirements of a particular business strategy.

Alignment of supporting strategies with intended strategy: In another study, Slater & Olson (2001) added the assumption that business strategies should also depend on functional strategies, like marketing strategies. In their opinion, business strategies, following the typology of Miles & Snow (1978) should be matched with specific marketing strategies.

Alignment of distinctive competencies and capabilities with intended strategy: Hitt & Ireland (1985) came up with a comprehensive theoretical approach that recognized successful strategy implementation as linked to developing and making use of corporate distinctive competencies. Examples of distinctive competencies are corporate R&D, centralized marketing and outstanding executives which all together cover a wide range of formal as well as behavioral influence on strategy implementation success. Whereas Hitt & Ireland termed their focal construct distinctive competencies, the next authors used the name operational capabilities thus addressing the same idea.

The basic idea of Roth, Schweiger & Morrison (1991) was that in order to accomplish fundamental advantages of a global strategy the proper integration of different national market positions within multinational corporations (MNC) is needed. Integration means to manage various resource flows throughout the MNC’s network. As per MNC, “developing operational capabilities to manage the interdependencies resulting from international resource flows is consequently, the primary task in implementing a global strategy” (1991: 372). A fit between operational capabilities like ‘[c]oordination of functional activities’, administrative mechanisms like centralization and a global strategy were expected to lead to enhanced implementation performance.

Vorhies, Morgan, & Autry (2009) developed a capabilities-focused framework in which specific marketing capabilities are said to mediate the effective realization of a product-market strategy. Thus realization or implementation success, respectively, is proposed to be dependent on the appropriate marketing capabilities matching a given strategy.

Studies in the second category of theoretical approaches applied behavior-based concepts, thus focusing on human resources and their management, respectively. They assumed that the major task of strategy implementation is securing organizational commitment to the intended strategy. This assumption makes such studies different from purely contingency theoretic approaches since the link between organizational factors and success in strategy implementation is established by including commitment as necessary success factor. These studies will also be presented grouped by the specific organizational factor they emphasized.

Assurance of strategy commitment by corresponding leadership style: A leadership and subsequently commitment-centred view is provided by Nutt (1987, 1989) who identified four different implementation styles, based on the idea that implementation tasks are mainly characterized by installing changes a strategic plan calls for. In Nutt's view, "successful installation of these changes often depends on obtaining the involvement, cooperation, endorsement, or consent of power centers that will operate the plan, be served by it, or be influenced by its operation" (145). Basis for attaining involvement and consent is managerial action-taking namely specific leadership styles which are represented by intervention tactic, participation tactic, persuasion tactic, and edict tactic.

In the view of Parsa (1999), strategy implementation, i.e. accomplishment of strategic objectives, is substantially influenced by the choice of implementation model employed by a CEO. The possible models are five different though comprehensive leadership approaches developed by Bourgeois & Brodwin (1984). Bourgeois & Brodwin conducted a theoretical analysis of implementation models designed for meeting the changing needs of a company along a live cycle. They examined five leadership process approaches in use and were able to detect the mentioned chronological trend from what they call the rational 'commander model', focusing on managerial directives, to models including collaborative, cultural and even participative elements of employee guidance in implementation processes. In combination with sources of power, Parsa analyses the impact of the choice of implementation models provided by Bourgeois & Brodwin on satisfaction level and performance.

Assurance of strategy commitment by corresponding leadership style combined with alignment of organizational processes and design with intended strategy: Skivington & Daft (1991) presented a dual, top management driven understanding of the phenomenon of strategy implementation. In their view, on one hand top managers implement strategic decisions by adjusting the structural framework of a given firm, defined as the “formal configuration of roles and procedures” (46). Thus in order to install strategic decisions managers might redefine duties, adjust the resource-allocation and the like with the goal of changing the formal structure so as to trigger new behaviors supporting the intended strategy (Chandler, 1962). On the other hand, they refer to the pattern of interaction processes as a second structural dimension. Concerning this dimension managers are meant to implement strategies by interacting with people involved and creating new meaning, given that without a common meaning and cooperative interaction, behavior within the organization will not be focused on proposed strategic objectives. The authors propose correlations between competitive strategies and several concepts like communications, rewards and specific expenditures.

The case-study approach used by Miller (1997) points towards a similar direction. The author identified support from influential persons, clarity about strategic objectives, as well as favourable climate within the organization as major antecedents or “realizers” of strategy implementation success. In addition, she recognized “enablers” which seem to support implementation success but are not completely able to realize it. These “enablers” consist of relevant experiences, priority for implementation, resource availability, structural facilitation, and implementation flexibility.

Assurance of strategy commitment by decision consensus: One such example is the study of Dooley, Fryxell & Judge (2000) which is based on the notion that timely and successful implementation of strategic decisions is based on a consensus in the top management group. The authors propose that strategic decision consensus is an antecedent of decision commitment which in turn affects the implementation success of the strategic decision at hand.

An additional illustration of the consensus driven approach is the work of Rapert, Velliquette & Garretson (2002). Unlike Dooley et al. (2000), they expanded the analysis of the effects and development of strategic consensus from the top management level to the entire organization. In their view**,** organization members who do not have an unambiguous, shared picture of the strategic direction an organization follows, present a major barrier to successful strategic implementation. Thus Rapert, Velliquette & Garretson (2002) have developed the concept of strategic consensus which "refers to the extent to which organizational perceptions converge on shared understandings of strategic priorities" (2002: 301). The authors focus on communication between the top management and certain functional areas especially the marketing functional area as basis for consensus building and subsequent functional as well as organizational performance.

According to Dobni & Luffman (2003) the basic problem an organization is facing lies in its interaction with the environment and, consequently, in its adjustments to changes in the environmental context. Thus the ability to align employee behaviors, which are visible in the market orientation, with the situational context by crating consensus determines strategy implementation and its success, respectively.

Mantere & Vaara (2008) addressed strategy implementation as integral part of the general strategy process. As a result, implementation success is understood as a consequence of a participative strategy process with proper participation of any organizational level. Proper participation, in turn, is seen to be determined by the discursive styles by which strategy is discussed and altered within the organization. Thus strategy commitment is secured by establishing consensus based on participation in the strategy process.

Studies in the first two categories used contingency-focused as well as behavior-focused concepts of the strategy implementation process. The single study found in the third theoretical category focuses on company resources and their allocation, respectively. Again, this study will be portrayed in indicating the specific organizational factor it emphasized.

Alignment of organizational processes and design with intended strategy combined with strategy specific resource allocation: As organizations transform long-term corporate strategic objectives into action, Richter & Schmidt (2005) focused on the origin of consistency between these goals and individual resource-allocation decisions of implementing managers. The basic rationale is that the implementation of a strategy is achieved by a sequence of resource-allocations that are consistent with strategic goals. Richter & Schmidt assume that factors influencing consistency can be split into organizational factors, e.g. the hierarchical level of an individual decision maker, and decision specific factors like, for instance, involvement of specific resources in the allocation decisions.

As indicated at the beginning of this section, conceptions of strategy implementation vary significantly between different studies. This fact is not an issue per se, but it becomes an issue when taking the business' focus on strategy implementation into account as it has been indicated in the expert interviews. In business terms the basic assumption is that the implementation of a given strategy has to be backed by a considerable amount of resources. Unfortunately, only one category which in addition is represented by only one previous research project, perceives resource allocation to be the basic task of strategy implementation. All other theoretical categories as well as the empirical studies within the categories represent and use an understanding of strategy implementation which can in some cases hardly be put to use in practice based on the fact that they do not correspond with the understanding of the process in practice. Therefore, as already indicated above I will try to contribute to strategy implementation research in making use of a practically relevant as well as empirically tangible conception: Strategy implementation understood as the process of resource allocation according to strategic goals.

It has to be noted that since the study conducted by Richter & Schmidt (2005) is the only resource focused study it is especially important and closely related to my work. The authors investigated the basics of the consistency between resource allocation decisions and corporate strategy in two previously independent Swiss pharmaceutical companies until these companies merged. The influence factors on strategic consistency tested by Richter & Schmidt (2005) encompassed the hierarchical level at which the decision has been taken, reward- and measurement related factors, decision timing, and type of allocated resources. For their analysis they used publicly available, secondary data and rated a large number of resource allocation decisions from press releases, news papers and agencies, and the like according to their consistency with the respective strategy derived from communications in annual reports, investor relations information and the like. The results as well as their measurement approach will be part of the following sections.

Stylized fact 2. There exists a large array of instruments used to measure success in strategy implementation.

As shown by the summarized studies in the preceding section, research in strategy implementation seeks numerous ways for successful strategy implementation and how to design the process thereof. In order to isolate decisive factors, practitioners and researchers need to be advised how to separate the success of implementation efforts from any other success measure like for instance strategy success. In other words, there exists an essential difference between successful strategy and strategy implementation success. Thus a proper definition of implementation success is imperative. In my view an appropriate measure has to focus on direct results of the strategy implementation process instead of proxy measures like company performance and the like. Unfortunately, previous work in strategy implementation research did not meet this premise. In the following, the different definitions that researchers applied will be examined grouped by the measurement of implementation success applied.

Strategy implementation success measured by financial performance of the organization: A grand fraction of researchers used a performance approach for evaluating implementation success. Thus a business unit or corporate level performance is interpreted as an indicator for strategy implementation success. As one of the most important examples for this approach Gupta & Govindarajan(1984), Gupta (1987), and Govindarajan (1988, 1989) employed a performance measure on the business unit level covering twelve different dimensions such as sales growth rate, market share, profit to sales ratio, ROI, or new product & personnel development. They developed a subjective multidimensional performance measurement in that responding SBU managers rated business unit success in a given dimension relative to superiors‘expectations. In addition, the authors weighted these results by dimensional importance thus obtaining a ‘Weighted-average effectiveness index‘, which indicates the business unit effectiveness in strategy implementation.

Although Hitt & Ireland (1985) focused on performance as indicator for successful strategy implementation as well, their approach was different to those mentioned above. Instead of using accounting determined indices like ROI, ROA and so forth they decided to use stock market returns. Obviously this kind of data meets the often mentioned requirement of objectivity in performance measurement. The rationale behind this decision was that the market is able to evaluate “a firm’s present and prospective earnings flow, the timing risks of this flow and the firm’s dividend policies” (1984: 280). Consequently the stock market price of a firm’s stocks is said to reveal a company’s long-term performance potential.

Roth, Schweiger, & Morrison (1991) tried to assess business unit performance in a self-reported way, including objective as well as subjective measurement. In order to get objective data without forcing executives to provide exact levels of objective performance, executives were asked to indicate after-tax return on total investment and increase in total sales on a pre-specified seven-point range. In addition**,** they were expected to give their subjective evaluation of the performance measures at hand by specifying their own business’s performance over the last three years relative to other companies in the industry.

Like the preceding authors, Parsa (1999) also used a twofold measurement approach combining an objective with a subjective measurement perspective. He provided this approach for evaluating effectiveness in strategy implementation in a study on franchise systems. Business performance has been quantified in an objective way using annual sales and gross margins. Alternatively, on the subjective side, goal satisfaction was assumed to be an indicator for implementation success. The reason why is that a firm can be considered to be a political entity with employees focusing their behavior on individual goals. As a consequence, effective implementation processes were assumed to result in considerable satisfaction experience of franchisees with specific franchising arrangements.

In a similar way Slater & Olson (2000, 2001) evaluated success in strategy implementation by employing an individual measurement style asking respondents to indicate how well the business unit had performed within the previous 24 months. They made use of a two-dimensional approach focusing exclusively on financial performance. The dimensions were represented by profitability and market performance, the latter covering sales and market share effectiveness (2001: 1062). Profitability was rated relative to industry average and business unit objectives; the same was applied to market performance.

Like the preceding authors, Beal & Yasai-Ardenaki (2000) also relied on perceptual measures of financial firm performance as a demonstration for strategy implementation success. But as opposed to Slater & Olson, they asked responding executives for the relative importance of a given success measure instead of the actual performance of their organization with regard to the success measure. Specifically, Beal & Yasai-Ardenaki asked respondents to indicate on five-point scales the perceived importance of profitability (ROA, ROS, and ROI), growth measures (growth of sales and of profits), and the total amount of profits. Additionally, data on respondents' satisfaction with company performance in these measures was collected. Combined by multiplication these data sets formed an averaged composite measure of organizational performance.

Vorhies, Morgan, & Autry (2009) as well applied a perceptual measure as they assessed market effectiveness of a product-market-strategy by asking respondents to indicate on seven point scales to which extent their companies reached their performance goals regarding the attainment of market share growth, sales growth, and desired market position of the company. In addition, they evaluated the financial overall performance of the given companies by calculating company cash flow return on assets (CFROA) based on secondary sources.

Rapert, Velliquette, and Garretson (2002) broadened the performance measurement approach by making a distinction between two kinds of performance: functional performance (especially marketing performance) and organizational performance. They collected perceptual data from CEOs in the hospital industry. To evaluate functional performance CEOs were expected to indicate on a five-point scale including the endpoints "poor" and "excellent" how well a given activity is completed by the marketing functional area. Items ranged from public relations to marketing research and internal communications. Organizational performance measurement consisted of the items net operating profit, gross patient revenues, and growth in net revenues. CEOs had to compare the hospital performance to their primary competitor over the past year. Endpoints were "bottom 10%" and "top 10 %".

Proposing the need for a fit between market orientation, strategy profile, and situational context, Dobni & Luffman (2003) clustered their samples according to situational contextual variables first. After identifying a competitive pressure context and a context of environmental uncertainty**,** the authors separated the clusters into high and low performing groups according to ROI. Thus they eventually also used a performance measurement to indicate how well an organization does in strategy implementation.

Strategy implementation success measured by organizational (plan) adoption: Another indicator for success in implementing a strategic plan was provided by Nutt (1987, 1989). In analyzing multiple case studies, he rated the adoption of a strategic plan as implementation success: Adoption meant that the plan was put to use within the company. By the same token, an organization that failed to adopt the plan by rejecting it or shelving it without a timeline to adopt it in the future proved unsuccessful in implementing a specific strategic plan. Dooley, Fryxell, & Judge (2000) applied the same approach in evaluating strategic decision implementation success. Also, Skivington & Daft (1991) followed this approach in that they coded taken strategic decisions, according to the strategic framework developed by Porter (1980), either as differentiation decision or a low cost decision and subsequently analysed the variables which correlated to these taken decisions.

Strategy implementation success measured by participation: Mantere & Vaara (2008) assumed strategy implementation success to be a logical consequence of appropriate participation of employees in the strategy process. Consequently, they did not measure implementation success directly, but measured participation understood as the willingness as well as the ability of an employee to participate in the strategy process.

Strategy implementation success measured by respective resource allocation: Using consistency of resource-allocations with corporate strategic goals as an indicator of successful strategy implementation, Richter & Schmidt (2005) chose a different approach as compared to most other researchers. They attained this measurement by having two independent raters decide upon consistency or inconsistency within the analysed resource-allocation decisions. The raters were asked to categorize the decisions into four different consistency levels: Two levels referred to inconsistent decisions which meant that the resource-allocation was either a modification of the intended corporate strategy or a contradiction to it. Conversely, decisions were ranked consistent if they conformed to the intent of the corporate strategy or were compliant, i.e. the individual decision executes the corporate strategy.

Combination of measures: According to Miller (1997), adoption of a strategic decision will not necessarily result in successful strategy implementation. In Miller's view, successfulness of implementation should be generated by the fusion of three indicators: completion, achievement, and acceptability. "Completion refers to how far the decision was implemented within an expected time period" (1997: 583). Achievement is defined as an unspecified kind of performance measure indicating how far the objectives set by the original decision-maker were met. Acceptability focuses on the employees involved in or affected by implementation methods and outcomes. Consequently, this variable is utilized to get a picture of employee satisfaction with the implementation process. This overall approach can be distinguished from most other approaches in that it includes timing, performance, and employee satisfaction as simultaneous success factors in strategy implementation.

As the formulated stylized fact number two indicated, there exists a large array of instruments used to measure success in strategy implementation. Unfortunately, the predominant number of previous empirical studies has used a measure for strategy implementation success which is not at all appropriate: company or business unit performance, respectively. In my view, these studies are not able to differentiate between success resulting from the implementation of a strategy and success stemming from the strategy itself. This means they always mix both success indicators up, thus leaving unclear implications for practice since a separate optimization of strategy implementation success as opposed to strategy success is not possible that way. Only a small fraction of researchers really addressed strategy implementation success by measuring it either as plan adoption (Dooley, Fryxell, & Judge, 2000; Miller, 1997; Nutt, 1987, 1989) or as strategy consistent resource allocation (Richter & Schmidt, 2005). As resource allocation represents my basic understanding of the strategy implementation process, I will follow the example of Richter & Schmidt (2005) in that I will develop their measurement idea further[4]. In addition, as implicated above I will as

[4] The respective measure will be described in the methods section of this dissertation.

well concentrate on the resource focused conception of strategy implementation. In order to clarify the addressed spot within previous empirical literature I have displayed it in figure 2. As I have indicated, I will address the spot Richter & Schmidt (2005) focused on and try to broaden and develop it further.

Type of basic strategy implementation conception employed

Measurement approach employed	*Contingency focused conception*	*Behavior focused conception*	*Resource focused conception*
Financial performance	Beal et al. (2000) Gupta (1987) Gupta et al. (1984) Govindarajan (1988, 1989) Hitt et al. (1985) Roth et al. (1991) Slater et al. (2000, 2001) Vorhies et al. (2009)	Dobni & Luffman (2003) Parsa (1999) Rapert et al. (2002)	
Plan adoption	Skivington & Daft (1991)	Dooley et al. (2000) Miller (1997) Nutt (1987, 1989)	
Participation		Mantere & Vaara (2008)	
Resource allocation			Richter & Schmidt (2005)

Source: Own depiction

Figure 2: Categorized previous empirical studies

3.2. *Some stylized results in empirical strategy implementation research*

Having presented an overview on theoretical approaches used as well as success measures applied, I will proceed with the presentation of actual empirical results. These results will show which success drivers for strategy implementation have been identified so far, no matter on which theoretical conceptions these studies have been based.

Stylized result 1. The role of managerial characteristics.

Since managerial characteristics are perceived to affect decision processes as well as decision outcomes, they are also proposed to have a significant influence on strategy implementation process and outcomes. This notion is founded on several empirical results, indicating that "congruence between individual personality and task characteristics is associated with greater effectiveness as well as greater job satisfaction" (Gupta & Govidarajan, 1984: 27). Thus many different managerial characteristics have been tested within empirical research for their influence on strategy implementation success under various situational backgrounds. Especially strategy types or strategic missions, respectively, have been a regularly used situational background factor.

Assuming that a "build" strategic mission, as opposed to a "harvest" type requires specific skills in competitive moves and the absorption of uncertainty, Gupta & Govindarajan (1984) developed corresponding hypotheses. An SBU pursuing a "build" strategic mission would have "to increase market share and competitive position even though short term earnings and cash flow generation may be low or negative" (1984 :26). On the opposite, an SBU following a "harvest" mission would have to maximize the short term earnings or cash flows, respectively, thereby accepting that market share and competitive position might erode. Results show that greater experience in the marketing/sales functional area, greater willingness to take risk, and greater tolerance for ambiguity lead to increased SBU-effectiveness in strategy implementation for units on a "build" strategic mission. In contrast, the same characteristics had a lower positive or even negative influence for SBUs operating under a "harvest" strategic mission.

In a similar subsequent study, Govindarajan (1988) discovered a positive influence of internal locus of control (i.e. perception that occurring events are under personal control) on the part of a SBU manager for units employing a differentiation competitive strategy. A negative influence of this characteristic was detected in low-cost units. Additional results from Govindarajan (1989) signify that functional experience in research & development and increased focus on internal control result in successful strategy implementation of a differentiation strategy as opposed to a low-cost leadership strategy. In contrast, functional experience in manufacturing combined with a feeling information evaluation style (i.e. focusing on human interaction and emotions and feelings of people involved) positively influenced the implementation of a low-cost strategy. Experience in general management had a positive influence on SBU effectiveness in implementation of both kinds of competitive strategy. Similarly, Miller (1997) reported a conclusive relationship between experience relevant to implementation and implementation success.

The abovementioned characteristics represent individual traits and skills. Nonetheless, there are other managerial characteristics that are based on behavior instead of traits. The most important characteristics of this type seem to be such leadership styles as implementation tactics (Nutt, 1987; 1989). The four implementation tactics described by Nutt encompass intervention tactic, participation tactic, persuasion tactic, and edict tactic. Using an intervention tactic means to make employees aware (e.g. by presenting benchmarks from other companies) that the own performance is not acceptable thereby trying to motivate people to change this shortcoming. Participation tactic means to delegate a significant amount of planning responsibility to a dedicated team by providing them with the priority strategic option and leaving the development of the option to the team. A persuasion tactic is an inverted tactic meaning that a manager delegates responsibility of developing strategic actions to an expert who in turn has to persuade the manager to follow the plan by clearing out managers' doubts. The edict tactic simply means the circulation of directives which call for plan adoption and are basically implemented by the use of power. As discussed in stylized fact 1, Nutt's analysis revealed that the intervention tactic has been the most successful, while the edict tactic yielded significantly lower rates of success.

In his empirical study on strategy implementation in franchise systems, Parsa (1999) applied another model of leadership-driven implementation styles which was provided by Bourgeois & Brodwin (1984). Bourgeois & Brodwin elaborated a theoretical model distinguishing five approaches to strategy implementation: commander model, change model, collaborative model, cultural model, and crescive model. These models differ in their growing degrees and varying types of employee participation in implementation planning and process. The commander model means that a CEO distributes directives and uses his or her power to implement them. Therefore it is closely related to Nutt's edict tactic, and shows the lowest degree of participation. In the change model, a CEO does not use his or her power to directly influence implementation he or she rather alters the structure of the organization by shifting relevant managers to positions in which they are most useful to implement the strategic plan. Within the collaborative model a CEO invites the management team to take part in strategic decision making based on discussions on the appropriate strategic course. Subsequently, implementation is expected to happen consistently based on the reached consensus on the strategic course. The cultural model expands the focus of the collaborative model to any employee in the organization in that the CEO guides the company by first communicating the strategic plan and then invite each employee to design their work flows accordingly. Thus the CEO becomes the provider of the general direction and the organization has to decide upon the operational execution. In the crescive model the CEO even no longer provides the strategic direction, he or she simply acts as judge upon the proposed strategies which are presented by the employees. Results provided by Parsa indicate that franchisees implementing a strategy with a collaborative model resulted in increased sales, whereas making use of a change model yielded significantly higher profits as compared to other approaches.

Analyzing different categories of a differentiation competitive strategy, Beal & Yasai-Ardenaki (2000) provided more differentiated thus improved results in the area of competitive strategy implementation. They showed that CEOs' experience in research & development is effective solely with companies implementing a differentiation strategy based on innovation. That means respective companies are well known for their success in providing innovative products like e.g. the Apple Inc. Engineering experience led to implementation success in quality differentiation and in service differentiation approaches. Differentiation from competitors by service usually means to provide any service that is demanded by the customer (like e.g. in private banking). Quality differentiation means to deliver high quality products along any quality dimension (like e.g. premium car manufacturers). Marketing differentiation means to create a specific image of superior products in customer's minds. According to the authors Coca-Cola is an example for this approach. With regard to low-cost strategies, engineering once more showed positive effects on strategy implementation. The authors also analyzed hybrid competitive strategies and how they were affected by combined CEO experience. Results illustrated that accounting, combined with R&D experience, resulted in increased implementation success of a hybrid strategy by combining low-cost and innovation differentiation. Low-cost and marketing differentiation implementation was further improved by a combination of accounting and marketing experience. Accounting and engineering experience combined were found to be responsible for implementation success of low-cost and quality differentiation. Moreover, accounting and sales experience, combined with the accounting and engineering experience of a CEO, affected the implementation of low-cost and service differentiation positively.

Stylized result 2. The influence of corporate distinctive competencies/capabilities.

Starting with the assumption that most firms competing in the global marketplace separate their operational business into strategic business units, Hitt & Ireland (1985) connoted that these SBUs have to show some degree of interrelation in order to effect overall firm performance. Thus the abovementioned distinctive corporate competencies or capabilities should be developed and used to deploy the competitive advantages residing in the portfolio structure. Since strategies are a blend of a firm’s resource profile (Coates & McDermott, 2002), corporate distinctive competencies can also be viewed helpful in achieving positive end results in strategy implementation matters.

Concentrating on diverse grand strategy types**,** Hitt & Ireland (1985) arrived at a number of findings. The performance of a stability grand strategy (i.e. the goal is to keep current market shares and sales volumes and to improve performance incrementally only), for instance, is positively influenced by a distinctive marketing competency. An internal growth grand strategy (i.e. organic sales growth driven by expanding the current business model) is best implemented if the firm possesses competencies in finance. External acquisitive growth (i.e. sales growth by acquiring competitors) is positively affected by competencies in public and governmental relations, whereas a retrenchment strategy (i.e. reducing product/market objectives in level or scope) is best backed by general administration activities. As a result, success in strategy implementation is driven by the strategies which are to be implemented and the respective competencies a company has to implement these specific strategy types. This fact has been shown by Roth, Schweiger, & Morrison (1991) as well. They were able to demonstrate that the implementation of a global strategy benefits from operational capabilities in the coordination of functional activities across national borders, and from a shared managerial philosophy.

The mediating role of specific marketing capabilities on market effectiveness and business performance has been tested by Vorhies, Morgan, & Autry (2009). They made use of a threefold typology for product-market-strategy and distinguished: differentiation, cost-focus and product-market scope. Their aim was to test how these strategies were mediated by two kinds of marketing capabilities: Specialized marketing capabilities, and architectural marketing capabilities. Specialized marketing capabilities in their view reflect the integration of the specialized marketing knowledge which is held by the employees of a given company. The specialized knowledge represents for example knowledge on "marketing communications, personal selling, pricing, product development, and, in goods-based industries, distribution" (Vorhies, Morgan, & Autry, 2009: 1313). The role of the second category, architectural marketing capabilities, according to the authors lies in the coordination of goal-specific resource deployments based on specialized marketing capabilities. In other words, architectural capabilities determine how to make best use of the given specialized marketing knowledge in the market place. The empirical results "demonstrate support for capabilities as appropriate mechanisms for implementing product-market strategy leading to the attainment of superior concurrent market performance…" (Vorhies, Morgan, & Autry, 2009: 1312).

Stylized result 3. The effect of corporate-SBU relationship management.

Since competition is most apparent on the business unit level within the SBU's own strategic context, Gupta (1987) examined the performance influence of corporate-SBU relations. In focusing on three different dimensions, he tried to provide a fairly precise picture of corporate-SBU relations. First, he was able to show that an open and informal exchange of information and ideas between SBU-managers and their corporate leaders had a significantly positive influence on implementation effectiveness. This proved also true in "build"- as well as differentiation-SBUs, as compared to "harvest" or low-cost SBUs. Dealing with the degree of influence a corporate manager is able to exercise on major SBU decisions, decentralization was also included as an influencing factor. Findings illustrate that differentiation-SBUs benefit from growing decentralization with regard to SBU-effectiveness in strategy implementation, whereas low-cost SBUs are affected negatively. Hypotheses for strategic mission yield no significant conclusions. The success rate of a subjective performance assessment is rather high in SBUs with a somewhat uncertain strategic context (build and differentiation), whereas the success all but diminished in a more certain context. This result is corroborated by Govindarajan (1988), who showed that deemphasizing profit budgetary controls has a significantly positive influence on strategy implementation effectiveness in differentiation units, but not in low-cost units. In addition, the researcher pointed out that a balanced combination of low budgetary controls, decentralization, and internal locus of control by an SBU-manager supports the implementation of a differentiation strategy, while having a lower positive or even negative effect on the low-cost strategic end.

Stylized result 4. The impact of administrative mechanisms.

Administrative mechanisms or administrative context, respectively, are determined by the selection of formal organizational factors: structure (e.g. centralization vs. decentralization), as well as control, planning, measurement and reward systems (Bower, 1986). These factors are said to have significant influence on strategy implementation success, a notion which is reflected by empirical results. For instance, Skivington & Daft (1991) were able to illustrate that the implementation of a low-cost strategic decision correlates positively with the use of monetary as well as expressive rewards. Considering differentiation implementation, results demonstrate a positive correlation with increased specialization, increases in training, and the use of monetary rewards. Manager replacement and the use of expressive rewards were also highly beneficial to implementing a differentiation strategy.

In structural facilitation and flexibility, Miller (1997) could identify two enablers of strategy implementation. Results of her multiple case study show that the degree in which a organizational structure is contributing to the process of implementing a strategic decision, and the extent to which implementation can be adapted to include changing conditions, positively influence strategy implementation.

Concentrating on the influence that sales-force management has on successful implementation of a Miles & Snow business strategy, Slater & Olson (2000) provided numerous findings regarding administrative mechanisms. The strategy types they address are a cvombination of the Miles & Snow (1978) typology with Porter’s (1980) typology. According to them Miles & Snow typology a Prospector tries to identify and exploit new product and market prospects, while a Defender tries to get a stable market share and cultivate a continuous set of products and services. An Analyzer aims at getting an intermediate position in that the company follows a Prospector to a promising new market while at the same time sealing-off his shares in established markets. In addition, Slater & Olson (2000) split the Defender strategy up in a low cost defender and a differentiation defender thus using a synthesized approach. Apparently, a balanced compensation system (i.e. a combination of fixed income (salary) and incentive-based income (commission)) affects the implementation of an analyzer strategy positively. A low- cost defender strategy is best supported by a commission-oriented compensation system, whereas a differentiated defender strategy calls for a salary-based pay policy. On the subject of internalization of selling activity, an internal sales-force proved to be positively related to implementation success with an analyzer and a differentiated defender. Externalization of the sales-force, however, supported a low-cost defender strategy. The extent of sales-force supervision should be moderate in case of a prospector strategy and high in case of a differentiated defender, so as to result in successful implementation. An outcome-based (i.e. focusing on economic results) salesperson-control appears to be supportive in implementing prospector and low-cost defender strategies. Implementing a differentiated defender strategy calls for a behavior-based control (i.e. monitoring actions of sales persons). Consequently strategy implementation success is affected by the administrative mechanisms a company uses which have to be contingent upon the strategy pursued.

Testing the consistency of individual resource-allocation decisions with corporate strategy Richter & Schmidt (2005) analyzed the organizational factors hierarchical level and reward- and measurement-related factors of administrative context. Contrary to expectations, a higher hierarchical level of individual decision making has a negative influence on strategic consistency. Reward- and measurement-related administrative mechanisms positively influence strategic consistency thus showing that support for a strategic direction is achieved best by creating an appropriate incentive structure.

Stylized result 5. The meaning of financial resource-allocations.

Backing of a strategic direction by actual financial resources indicates a certain commitment to the strategic course (Richter & Schmidt, 2005). Consequently, allocation of respective financial resources will determine implementation success. Therefore, financial resource-allocations are proposed to have a significant effect on implementation success.

This proposition has been supported by findings of the empirical study by Skivington & Daft (1991). Their results show a high positive correlation between the implementation of low-cost strategic decisions and increases in operations-related expenditures. Regarding the implementation of a differentiation strategy, they were able to detect a positive correlation between this strategy type and increases in market related expenditures.

With regard to a wider range of resources for implementation (e.g. human resources, time, financial resources etc.), Miller (1997) could show that resource availability supports the implementation success. Results of Richter & Schmidt (2005) further contribute to this subject by demonstrating that the involvement of financial capital resources as well as organizational and technological know-how resources positively affects strategic consistency. Accordingly, findings indicate that backing of strategic plans by financial resources significantly enhances strategy implementation success.

Stylized result 6. The role of communication.

A joint understanding of top management strategic goals among middle managers as well as operational level managers is of crucial importance to successful strategy implementation (MacMillan & Guth, 1985). Thus “a key task of top management is to consistently and accurately communicate the strategic priority of the organization to functional-level members for implementation" (Rapert, Velliquette, & Garretson, 2002: 301).

Along these lines Skivington & Daft (1991) provided results illustrating that the use of informal communications between management level and employees correlates positively to the implementation of a differentiation competitive strategy, but not to a low-cost competitive strategy.

In addition Rapert, Velliquette, & Garretson (2002) found out that communication between marketing functional area and top management affects strategic consensus as well as organizational performance positively. That points towards the fact that communications significantly support effective strategy implementation.

Stylized result 7. The influence of cultural characteristics.

As cultural norms and values within a company are said to influence decision making in an organization, it seems obvious that corporate culture influences implementation effectiveness as well. In this context, Miller (1997) obtained two different results. First, cultural receptivity defined as the extent to which organizational culture is beneficial to the implementation process demonstrated a significant positive effect on implementation success. Secondly, the degree to which implementation is prioritized in the organization positively influenced effective implementation.

Closely connected to the point of cultural receptivity are the findings of Skivington & Daft (1991): They showed that the emergence of the so-called "champions", i.e. employees encouraging and sponsoring the implementation of the strategic direction vis-à-vis colleagues, has a positive influence on the implementation success. In other words, they provide the implementation process with the necessary organizational receptivity.

Stylized result 8. The effect of consensus building.

According to Dooley, Fryxell, and Judge "consensus is defined as agreement of all parties to a group decision that the best possible decision has been made" (2000: 1238). In turn, this consensus has been said to lead to effective implementation of strategic decisions (Bourgeois & Brodwin, 1984; Wooldridge & Floyd, 1990).

In this context, Rapert et al. (2002) derived three results: They could demonstrate that communication between marketing functional area and top management increases strategic consensus significantly. In addition, their results illustrate that increasing strategic consensus leads to increasing functional as well as organizational performance.

Similarly, Dooley, Fryxell, and Judge (2000) introduced strategic decision commitment. Commitment can be defined as "a willingness by individuals to exert high levels of effort on behalf of the organization, and a sense of identification with the organization's objectives, so that individual and organizational goals are closely aligned" (Guth & MacMillan, 1986: 315). Empirical results of Dooley et al. showed a significant positive relationship between consensus and commitment as well as between commitment and strategic decision implementation success. They also demonstrated that strategic decision commitment is a mediator between consensus and implementation success.

Looking for intentional mechanisms to develop consensus, Miller (1997) identified backing, assessability, and specificity to be three major factors contributing to implementation success. Backing means the degree to which those managers deciding upon strategic direction and those who have to implement it show employees their own commitment to the course. With assessability the previously defined outcomes of implementation are described, based on the notion that managers have to know their goal in order to reach it. Precise steps on this way, i.e. implementation tasks and activities, are subsumed under specificity.

As a result of their empirical analysis on discursive styles impeding or supporting participation within the organizational strategy process, Mantere & Vaara (2008) identified several effective discourses. Three central discourses that seemed to be systematically connected to non-participation approaches to strategy were "mystification," "disciplining," and "technologization." "Mystification" is characterized as a strategy process which is predominantly driven by communicated missions or visions, which usually are not to be questioned and are developed on the top management level. Within the "disciplining" style, strategizing is also seen as exclusive top management activity, but it is realized by effective command structures instead of visions. The "technologization" style makes use of systems like business planning or scorecard systems in order to easily measure realizations as well as "eliminating "the need" for any interpretation" (Mantere & Vaara, 2008: 347). On the contrary, they also identified three strategy discourses that support participation: "self-actualization," "dialogization," and "concretization." In this respect "self-actualization" means that any organization member can in principle take part in developing the strategic course. Strategizing is understood as developing a meaning to the activities performed by the organization. "Dialogization" is characterized by the fact that top management members are legitimized as key strategists but any stakeholders are to be involved in the process of negotiating the strategic course. "Concretization", being the last discourse which has been shown to support participation in strategy process, encompasses the connection of strategy making to the rules and structures of normal organizational decision-making. That means, participation in strategizing is allowed for any organization member as long as it follows clear cut rules like the usual decision-making process does. In this discourse, again, top managers' role as key strategists is acknowledged.

Stylized result 9. The impact of the environment.

Stating that market orientation and strategy profile have to be designed according to environmental requirements, Dobni & Luffman (2003) assumed that market orientation works as facilitator of strategy implementation. In a combined cluster and regression analysis, they divided the entire sample into two environmental clusters: competitive pressure context and environmental uncertainty context. The authors' results showed that in the competitive pressure cluster company performance was related to response design and implementation, formal intelligence generation, and customer orientation. In the environmental-uncertainty cluster, response design and implementation, formal intelligence generation, and the PSI factor were related to performance dependent on a specific strategy. The PSI factor represents the degree to which technological progress, uncontrollable by the SBU, affects its business plans. The overall result is that strategy implementation as well as the ideal strategy profile, is contingent upon situational contextual variables, i.e. the environment.

Stylized result 10. The meaning of corresponding strategies.

As indicated above, Slater & Olson (2000; 2001) acknowledged an additional area affecting strategy implementation success. They propose that marketing strategy and marketing policy respectively do influence effective business strategy implementation. Their empirical work yielded significant results. First, the SBU's selling strategy should be relationship-selling. In three of four cases the implementation of a business strategy (prospector, analyzer, and differentiated defender), this selling strategy proved to have a positive influence on SBU performance. Secondly, the authors' results demonstrate that a fit between business strategy and marketing strategy is required for implementation success. The implementation of a prospector strategy seems to be supported best by an aggressive marketing approach. Analyzers should be backed by a mass-marketing strategy, low-cost defenders by a marketing minimizer strategy. The implementation of a differentiated defender strategy yields the most effective performance when assisted by value marketing.

Stylized result 11. The role of time.

When the executives of any company or SBU announce a new strategy, their intent is to set off a corporate change process leading to the implementation of the new strategy (Richter & Schmidt, 2005). Yet "early organizational dynamics often decline as managerial and public attention shifts to other events" (Richter & Schmidt, 2005) since the time span between the announcement of a new corporate strategy and the resource-allocation decision, representing implementation activities, appears to be of considerable importance. This is a central result in the empirical study of Richter & Schmidt (2005), indicating that the shorter the time span, the more consistent resource-allocation decisions are with the announced corporate strategy.

3.3. Implications from strategy implementation research

As indicated by the results above, there obviously exists a large variety of potential factors for implementation success. There are multiple organizational levels involved, various techniques and tools, e.g. communication, consensus building, contingent leadership styles and the like exist. Inherent in all the various factors is a multifaceted understanding of the phenomenon of strategy implementation. Although a lot of shortcomings concerning previous research could be identified, this thesis is not meant to close all discovered gaps. The question is which influence factor(s) can be expected to exert the most influence thus making them the primary objective of research. Drawing on my own expert interviews as well as on several scholars in the strategic management field, two intertwined factors are most relevant: Middle management behavior, and their respective resource allocation decisions (Richter & Schmidt, 2005). Therefore the following major section will deal with theory discussion and hypothesis development on middle management behavior. Thus, besides the already identified key issues of using a practically relevant definition of strategy implementation as well as developing an appropriate measure of strategy implementation success, one additional key question has been identified for which the following theoretical reasoning as well as empirical study will attempt to present suitable answers:

What are the essential key drivers that determine success in strategy implementation under the developed conception of strategy implementation?

4. Middle Management Behavior: The basic driver of success in strategy implementation

As the examination of the conducted interviews in chapter 2.1.2 indicated, employee self-interest clearly has a major impact on strategy implementation success. I thus plan to analyze the basis for the employees' self-interests in more detail by analyzing previous research since the findings derived from the interviews can only serve as a first empirical indication of the specific issues at hand. In addition, these findings will have to be put into the context of a theoretical framework, which as well calls for the use of existing literature. Furthermore, I will draw on previous empirical work which identified an association between middle management behavior and strategy implementation success in order to explain the sources as well as potential solutions to the problems described.

In general, researchers presuppose a division of labour in strategic management between top level management and middle managers (Wooldridge & Floyd, 1990). General Managers as well as functional managers at the apex of an organization are said to be responsible for development and formulation of strategic plans regarding corporate, SBU and/or functional strategies. Middle management is held responsible for putting strategic plans to actual use, i.e. responsible for resource allocations designed to develop intended strategic actions. In addition, mid-level managers can be expected to support strategy implementation by guiding employee behavior at lower-management and operational level (Shi, Markoczy, & Dess, 2009; Wooldridge, Schmid, & Floyd, 2008). As indicated above, there might exist incongruent goal structures between top- and middle management leading to behavioral divergence. Deviating behavior on either level is based on reduced commitment to a strategic course, which in turn will obstruct strategy implementation success.

Guth & MacMillan (1986) identified several sources of deviating behavior: First, mid-level managers might be concerned with a perceived performance risk due to a lack of own experience and skills in implementing a given strategy. Secondly, middle managers might develop doubts regarding the predicted outcomes of a given strategy. In other words, they perceive a performance risk in a proposed strategy. The third reason for behavioral deviation is based on perceived risks of individual goals being jeopardized by implementation outcomes. This is considered to be especially true in conditions where the proposed resource allocations shift resources – and, consequently, power – away from a middle-manager to other SBUs or divisions. Here, a process that might advance organizational competitive advantage might at the same time endanger individual career expectations as well as wealth perceptions. Thus, in general, strategy implementation is associated with various specific risks which implementing managers might not want to bear eagerly. In the following paragraphs the two major sources of middle management deviating behavior identified by Guth & MacMillan (1986) will be analysed and their corresponding theoretical approaches identified.

4.1. Sources of middle management deviating behavior

4.1.1. Source A: Perception that outcomes will not satisfy individual goals

The actual task a middle manager has to carry out in strategy implementation is the allocation of resources to the best use of the company and with regard to its strategic goals. Hence middle management's allocation decisions regarding organizational resources have to be consistent with planned strategic goals (Richter & Schmidt, 2005).

An organization is similar to a political system, in many ways. Organization members are at least partially guided by personal or sub-unit goals as opposed to corporate goals pursued by general managers (Guth & MacMillan, 1986). Self-interested middle management behavior might obstruct strategy implementation success. The nature of this obstruction lies in the potential low middle management valence on strategy outcomes. Guth & MacMillan (1986) empirically analysed middle management behavior, and their results clearly show that in case of low mid-level management appreciation for potential outcomes of a strategy they do hinder its implementation by active intervention. In practical terms this indicates that if the resource allocations a certain strategy calls for put future career prospects at risk or endanger the personal power base, these allocations will be denied or distorted. Hambrick and Canella (1989) labelled this behavior 'political resistance', arising from the fact that a mid-level manager perceives a loss if the given strategy is fully implemented.

Thus middle management, top managers, or company owners may have conflicting goals and risk-bearing attitudes. The appropriate theoretical view in dealing with this type of difficulty is Agency theory. This recognized approach mostly deals with relations between shareholders (principals) assigning business administration tasks to top managers (agents). Also, as indicated by several authors (e.g. Eisenhardt, 1988; Stroh et al., 1996), principal-agent relationships are not only defined in shareholder-manager dyads but also between various hierarchical levels and even non-hierarchical relations. Diverging goals and/or diverging risk preferences between principals and agents are the basic problems addressed within this theoretical framework.

As a result, if goals and risk attitudes are congruent, resource allocation will mirror the planned strategic direction. Consequently strategy implementation success can be measured by consistency of resource allocation. If not, the basic question is how top management can alter risk preferences and align goals of middle managers to allow consistency in resource allocation.

4.1.2. Source B: Low perceived probability that strategy will work and perceived inability to execute strategy

Besides conflicts of goals and risk-bearing attitudes, Guth & MacMillan (1986) have identified another implementation obstacle on behalf of managerial perceptions: High perceived risk of strategy failure. Implementation problems in this category are due to a disagreement between general management and middle managers with regard to strategy formulation. Specifically, middle managers do not believe that a given strategy will lead to a positive outcome for the organization. In other words, their belief differs from what they are expected to believe by top management. As a result there exist conflicting perceptions of the right strategy that should be pursued, leading middle managers to resist its implementation (Hambrick & Canella, 1989). This reaction hampers strategy implementation and thereby indicates considerable middle management concerns that the implementation of a wrong strategy will hurt company performance.

Additionally, whenever a mid-level manager has to reallocate resources according to a strategic course, he or she needs appropriate skills and experience. In case of a mismatch between personal skill perceptions and those skills necessary for a specific strategy a manager might perceive his or her self unable to meet task requirements. This will result in low commitment to a strategic course, due to a perceived performance risk regarding the successful implementation of a particular strategy (Guth & MacMillan, 1986).

Obviously, these problem depictions do not describe agency problems since the problems are not based on poor alignment of goals or risk preferences, respectively. Instead, they are rooted in pro-organizational attitudes. Middle managers, who perceive their skills to be insufficient or the strategic course to be wrong, therefore refusing its execution, clearly support the organisation. This behavior is characteristic for so-called Stewardship theory. Stewardship scholars suppose that middle managers behavior is "motivated by organizational rather than individual goals" (Deckop, Mangel, & Cirka, 1999: 421). Therefore, they behave like stewards, trying to maximize company performance. Within the strategy implementation context, we have to ask: How can stewards be supported in resource allocation tasks?

4.2. Theoretical lenses explaining middle management behavior

As the preceding sections point out, deviating middle management behavior regarding strategy implementation can have two different antecedents: One lies in goal and risk-bearing incongruence, the other in dissension as far as means or even the entire strategy is concerned. On the theoretical side, the former problem is usually dealt with by applying Agency theory as the appropriate theoretical viewpoint. The latter category of behavioral problems in middle management points towards a different perspective, known as Stewardship theory. The relation between both points of view will be closely analyzed in some of the following paragraphs. However I will begin with a description and evaluation of both theoretical perspectives.

4.2.1. Agency theory – Assessing basic premises

According to several authors (e.g. Eisenhardt, 1989; Shaw, Gupta, & Delery, 2000; Stroh et al., 1996), the roots of Agency theory reside in studies on risk sharing between individuals or groups during the 1960s and the early 1970s. The problem at hand was that, in cooperative arrangements, parties might have differing mindsets regarding risk-bearing. As cooperating parties might not only differ in their risk attitudes but also in goal structure, theorists extended risk-sharing literature to form Agency-theory: “Overall, the domain of Agency theory is relationships that mirror the basic Agency structure of a principal and an agent who are engaged in cooperative behavior, but have differing goals and differing attitudes towards risk” (Eisenhardt, 1989: 59). Under the general assumption of a division of labour between cooperating individuals, an Agency relationship is formed by a principal (e.g. an executive or a shareholder) delegating work to an agent (e.g. a subordinate or an executive) performing the assigned work. This relationship is commonly assumed to be represented or determined by a contractual agreement (Eisenhardt, 1988).

During the development of Agency research, the theoretical focus was twofold: A majority of theorists and researchers used Agency theory to focus on problems based on differing goals. Looking at this from today’s point of view, this approach seems reasonable since the economic model of man places individual goals in the centre of its framework. Another less prominent stream of research focused on the part of the theory which initially formed the Agency perspective: different attitudes towards risk in principal-agent dyads. The former stream is called “positivist Agency theory” and the latter stream is called “principal agent theory”. Both will be examined further in subsequent paragraphs.

A positivist Agency problem comes up with three elementary conditions. First condition: Goals of principal and agent are incongruent. In some cases, for example, principal and agent might have different opinions on investments to be made. As long as these investments in general yield the same profit, no problem arises. But if the outcomes are not the same, if the agent profits from an investment decision and the principal does not, a problem arises. For example, a mid-level manager might want to invest in a marketing campaign of which the top management completely disapproves. In this very case, the important question is whether the top manager is aware of the fact that his or her mid-level manager might decide in favour of his or her own well-being and against that of the principal. If he is aware, no problem arises since he can react and prevent the agent from taking that decision.

But if he is not aware, meaning that he has got no information on the potentially deviating and negative behavior, the second condition applies: Actions and behavior of the agent are difficult or even impossible to monitor and evaluate (Zajac, 1990). Due to this so-called information asymmetry, agents have the possibility of pursuing self-interested actions contrasting principal's needs (moral hazard), or they might be selected to do a job for which they do not have the proper qualification (adverse selection)(Zajac & Westphal, 1994). If agents use these possibilities in sabotaging in their relationship to a principal, they are said to behave opportunistically. Thus, opportunism represents the third condition needed to form an Agency problem based on incompatible goals.

Answers provided by positivist line of Agency theory primarily focus on curbing conflicting goals. Researchers within this line tried to describe how an agent's self-serving behavior can be limited, i.e. they identified mechanisms solving Agency problems. As information is said to be a purchasable commodity, principals might do so by imposing monitoring-systems controlling for agent's behavior thus actually decreasing information asymmetry. Eisenhardt (1988) makes a distinction between two forms of information systems: formal information systems (e.g. budgeting) and informal ones (e.g. managerial supervision). A decrease in information asymmetry is attributable to the fact that actions deviating from the principal's preference become detectable and consequently, opportunistic behavior is likely to be restrained. The agent can not trick the principal. Classified as a behavior-oriented contract, Eisenhardt proposed: "When the principal has information to verify agent behavior, the agent is more likely to behave in the interests of the principal"(1989: 60). Fixed salaries for defined actions as well as hierarchical governance tools like investing in an information system (e.g. reporting systems or additional layers of management) are characteristic in these contracts (Eisenhardt, 1989).

However, information systems can not solve agency problems in cases where agent actions and behavior are only observable with disproportionate expenses, which is the case in strategy implementation tasks. As a consequence, these contractual agreements need a different mechanism for curbing agent opportunism. This mechanism is represented by tying rewards to actions favoured by the principal. These contracts co-align the preferences of both partners by reducing conflicts of self-interest. They have an outcome-oriented design and offer incentives like commissions, stock options, or equity holdings in order to align agent behavior with principal expectations. A common example is the increase of company-ownership, e.g. by granting company shares to the manager so that opportunistic actions will spoil his or her personal wealth. In summary, Eisenhardt proposed in formal terms: "When the contract between the principal and agent is outcome based, the agent is more likely to behave in the interests of the principal" (1989: 60).

As indicated above, positivist Agency theory concentrates on identifying different contract options in order to solve goal divergence. A minor shortcoming of this line is the predominant focus on relationships between stockholders and managers of public corporations, thereby somehow ignoring the fact that principal-agent relations can be found at all levels of management; in firms as well as across organizational boundaries, e.g. between buyer and supplier (e.g. Jensen & Meckling, 1976).

A major shortcoming of positivist Agency theory is that it is not able to address the problem of diverging risk preferences. This gap is closed by a theoretical stream called principal-agent research: Its basic premise is that agents behave risk averse while principals want them to behave risk neutral in order to make economically sound decisions. Consequently, the actions taken by a risk-averse agent are different from those actions the risk-neutral principal would have taken. The proposed risk aversion of an agent stems from the fact that agents are not able to diversify their risk to personal wealth. That means agents "have great difficulty hedging the risks of central concern to them – compensation and employment risk" (Reuer & Miller, 1997: 429). Earnings and employment safety are usually tied to just one firm, resulting in risk-aversion. On the contrary, a principal has the ability to diversify investments and shareholdings at low transaction costs across multiple firms which leads to risk neutral preferences.

In addition, this stream also analyzes the efficiency of Agency contracts, either behavior or outcome based, with regard to situational (risk) factors. For example, as explicated above, in case of incomplete information principals can use an outcome-based contract with the effect of goal alignment between principal and agent. That means principals create compensation arrangements such as performance contingent pay to transfer risk to the agent, who consequently has to decide either to perform effectively or suffer compensation consequences (Shaw, Gupta, & Delery, 2000). Yet this contract design is only good economic sense if the agent has full and unlimited control over outcomes. Otherwise significant compensation risk will be transferred to the agent due to general business risk making outcomes less or not controllable by agents. Business risk represents a situational factor and evolves, for example, through government restrictions, competitive pressure, economic trend, and the like. These topics are usually summarized under environmental uncertainty. Technically speaking, environmental uncertainty leads to business risk at company level, which in turn leads to low outcome control. Bloom & Milkovich (1998) state that "higher business risk, with its concurrent potential for insufficient firm performance or outright organizational ruin, places an agent's entire employment relationship in jeopardy" (1998: 285).

As agents are assumed to be risk averse they will have to be paid a risk premium for accepting the risk transfer thus lowering the 'risk differential' (Beatty & Zajac, 1994) between agent and principal. In cases of high outcome uncertainty the risk premium will get unaffordable. In fact, this finding reveals a systematic inconsistency which has made its way to practice: Practitioners easily impose outcome-based contracts by tying different kinds of rewards to performance goals. Yet in most cases the potentially reversal effect of the implicit risk transfer due to outcome uncertainty is not addressed.

4.2.2. Stewardship theory – Assessing basic premises

Stewardship perspective deals with a dyadic relationship between for example top managers and middle management subordinates. Top managers are seen as principals delegating work to subordinate managers. This basic assumption is similar to the well known and researched field of Agency theory. Both approaches even make similar assumptions as far as middle management behavioral prerequisites are concerned: Mid-level managers may have differing goals as well as information advantages. But when it comes to decision tasks characterized by conflicting goals between both parties, the most important difference between Agency and Stewardship theory becomes apparent. Whereas Agency researchers assume agents to act opportunistically on their own behalf, Stewardship researchers assume pro-organizational, cooperative behavior (Davis, Schoorman, & Donaldson, 1997). This cooperative behavior even under goal incongruence makes a steward. But this behavior should not be considered irrational "because the steward perceives greater utility in cooperative behavior and behaves accordingly, his or her behavior can be considered rational" (Davis, Schoorman, & Donaldson, 1997: 24). Like opportunistic agents, they also try to maximize their income. But they try to attain these needs by pursuing organizational objectives, assuming that their own needs can be met at the same time. Economically speaking, a steward seeks to reach organizational objectives like profitability and sales expansion to maximize his or her own utility function. At the same time, higher-ranked managers and stakeholders can benefit accordingly. Again, the divergence between Agency and Stewardship theory is evident: Opportunistic agents believe their wellbeing can only be assured by individualistic and self-serving behavior, whereas Stewardship agents gain wellbeing by maximizing organizational goals.

Davis et al. (1997), being the first authors to describe Stewardship theory in sufficient detail, identified and discussed a number of dimensions on which Stewardship theory assumptions differ from the assumptions of Agency theory in this manner differentiating both theories. These dimensions have been subdivided into psychological as well as situational factors and will in parts be presented in the following sections.

Regarding psychological factors the authors clarify that distinctions between both theories are related to the basic model of man pertaining in both theories and that it can be traced back to early discussions in the 1960s and 1970s. *Motivation*, being the first dimension discussed, can amongst others be distinguished into extrinsic versus intrinsic motivation. Within Agency theory, the centre of attention is on extrinsic rewards which are characterized as "tangible, exchangeable commodities that have a measurable "market" value" (Davis et al., 1997: 27). As explicated in the Agency section, these extrinsic rewards characterize the control mechanisms of Agency theory and will be imposed by suitable contract design thus protecting a principal from a self-serving agent. Likewise, the authors designate health insurance, or retirement plans as an additional control mechanism used for the reduction of turnover. Overall, any extrinsic reward represents "a quantifiable value in terms of dollars that is recognized by both parties" (Davis et al., 1997: 28). On the contrary, Stewardship theory is focused on intrinsic rewards[5]. These rewards include opportunities for growth, achievement, affiliation, and self-actualization and are consequently not easily quantifiable. Thus, as opposed to agents, stewards are motivated to work on behalf of the organization by intrinsic rewards. As Davis et al. (1997) point out, this focus on intrinsic rewards is comparable to the higher order needs as they were addressed by Maslow in his hierarchy of needs[6].

As a second psychological factor by which Agency and Stewardship theory might be distinguished Davis et al. (1997) discussed *identification*. Identification is characterized by the fact that managers identify themselves by their membership in their company thus principally acknowledging mission, vision and goals of this very company (Mael & Ashforth, 1992). This relationship provides those managers with some sort of job-related satisfaction (O'Reilly, 1989; Sussman & Vecchio, 1982). This job-related satisfaction is in turn affected by organizational successes as well as failures since by identification "an organization becomes an extension of the steward's psychological structure" (Davis et al. 1997: 29). Thus, in case managers identify themselves with the organization they work with, they eventually perceive organizational success to be their own success or failure, respectively, and therefore are interpreted as stewards as opposed to self-serving agents (Salancik & Meindl 1984; Staw, McKechnie, & Puffer, 1983). An agent would in this respect try to deny membership in a company which fails in order to avoid responsibility (D'Aveni & MacMillan, 1990; Staw et a1. 1983). Managers who try to avoid responsibility behave in a self-serving way and can thus be characterized as agents. Consequently, Davis et al. (1997: 29) contend that "managers who identify with their organization are motivated to help it succeed and should be empowered to perform their jobs because this will enable them to use their initiative to promote the success of their organization and their principals".

While empowerment is related to the steward in a given principal-steward-relationship, the principal himself exerts *power* (over the steward) which makes this principal-related power another dimension of analysis conducted by Davis et al. (1997). As the authors point out, any type of manager can be motivated by the use of power in

[5] This multifaceted picture of motivations to be addressed has also been identified by respondents in expert interviews.
[6] For additional motivational theories discussed by the authors please refer to Davis et al. (1997)

order to influence other organizational members thereby reaching agreed organizational goals (McClelland, & Burnham, 1976). According to Davis et al. (1997) five basic types of power have previously been identified by French and Raven (1959) and can serve as a distinction for Stewardship and Agency attitudes to power on behalf of a principal. French and Raven (1959) differentiated between coercive, legitimate, reward, expert, and referent power. This differentiation has been broken down by Gibson, Ivancevich, & Donnelly (1991) into two basic types of power: Institutional power and personal power. In their view, institutional power is drawn from a principal's hierarchical position only thus rendering institutional power dependent on organizational membership. Consequently, a principal's power base would vanish in case he or she would leave the organization. Within the French and Raven typology of power coercive, legitimate, as well as reward power would belong to institutional power. As Davis et al. (1997) explain, institutional power is the basic power used in principal-agent-dyads as reward power as well as legitimate power is the basic means used to control agent behavior: "Appropriate incentive systems and recognition of authority of the principal are combined to create the required level of control in the relationship. Coercive power represents the more severe method of agent control and is often present in a more subtle form through the threat of termination of employment." (Davis et al., 1997: 31). As opposed to institutional power, personal power is not tied to a hierarchical position; it is rather formed by the individual manager and his or her personal relationships to subordinates. Within the French and Raven typology of power expert and referent power can be classified as personal power. Referent power is characterized by a subordinate who identifies her- or himself with the principal, whereas expert power is characterized by the exclusive expert knowledge a principal can usually claim. According to Davis et al. "Personal power is the basis of influence in a principal-steward relationship." (1997: 31).

As indicated above, besides psychological factors there also exist situational factors which provide usable dimensions of distinction between Agency and Stewardship theory. Within these situational factors, the *management philosophy* followed by an organization has been identified by Davis et al. (1997) as one of the most important factors. They summarized previous debates between two conflicting models of man: On one hand they identified a group of researchers and theorists (e.g.

Simon, 1973; Cyert & March, 1963) who argued that the economic model of man as it is displayed in Agency theory is the predominant model since it is able to describe the real life behavior of managers. On the other hand, there was a group of researchers (e.g. Argyris, 1973) pointing out that the widespread application of Agency assumptions led to a self-fulfilling prophecy due to the fact that organizations have been designed according to Agency assumptions without testing the correctness of these assumptions in a given company. Therefore the management philosophy used in most companies is assumed not to be consistent with Agency assumptions and organizational behavior develops accordingly without any proof of the correctness of the Agency assumptions.

As Davis and his co-authors (1997) point out, two contrasting management philosophies have been developed which closely resemble the management philosophies that are inherent in Stewardship and Agency theory, respectively. These two philosophies are based on the work of Lawler (1986, 1992) who made a distinction between control oriented and involvement oriented management philosophies. The basic assumption of Lawler is that the control-oriented approach represents a management philosophy in which the thinking and controlling elements of the work have to be detached from the doing elements. As opposed to this separation, the involvement-oriented management philosophy represents a unity of thinking, controlling, and doing. In addition, it stresses the importance of self-control and self-management. “The key assumption in involvement oriented approaches is that when employees are given challenges and responsibility they will develop self-control of their behavior” (Davis et al., 1997: 32).

Starting from this separation of management philosophies, the authors address a somewhat important difference between these philosophies: Their risk orientation. They summarize that high environmental uncertainty favours the involvement-oriented approach due to the fact that complex situations call for responsible, self-controlled managers. They conclude that higher risk caused by environmental uncertainty is best mitigated by more training, empowerment, and trust. As this approach bears significant risk transfer on behalf of a manager, which in turn might have detrimental effects, it will be discussed in more detail later on. As opposed to involvement-oriented systems, “Control-oriented systems are designed to avoid vulnerability and therefore to avoid the need to trust” (Davis et al, 1997: 33). This indicates that a control-oriented principal, who finds him- or herself in a situation of uncertainty, will manage this challenge by imposing more controls thus following the classic blueprint of Agency theory. Thus the focal point in discussing different management philosophies is the fact that the application of a philosophy, be it involvement- or control-oriented, will influence organizational behavior in the style of a self-fulfilling prophecy and has thus to be handled with utmost care.

Culture signifies another factor by which, according to Davis et al. (1997), the distinction between Stewardship- and Agency theory can be clarified. The corresponding cultural dimensions are collectivism and individualism. In collectivistic cultures members define themselves as being part of a group; they identify themselves with their group or organization, respectively. In economic terms, members of rather collectivistic cultures invest in long-term relationships than in short term deal-optimization. On the contrary "Individualists are more short-term oriented, conduct business independently of personal relationships, use a cost-benefit analysis (economic model) to evaluate the business exchange, and will reduce the risks of doing business by signing a contract" (Davis et al., 1997: 35). In summarizing previous work by several authors Davis and his co-authors contend that these cultural aspects can be used to illustrate cultural attitudes of regions and nations: "For example, individualism is a cultural pattern found in the United States, Canada, and Western Europe. Collectivism is common in Asia, South America, and southern Europe" (1997: 34). These observations have been supported by an empirical study conducted by Lee and O'Neill (2003). They examined the relationship between the ownership structures and R&D investments within U.S. American and Japanese companies. Their aim was to answer the question whether any governance contexts as well as relationships are better explained by Stewardship theory than by Agency theory. Consequently they tested the applicability of Stewardship and Agency theory in both cultural contexts: Collectivistic context in Japan and the individualistic context in the U.S. Their findings indicate that in the individualistic context of U.S. companies, Agency theory predictions proved correct, whereas Stewardship theory predictions, at least to some extent, where supported in the collectivistic context of Japanese companies. According to these clarifications on collectivism as opposed to individualism it seems obvious that

Stewardship behavior most closely resembles collectivistic behavior whereas Agency behavior can be associated with individualistic behavior.

Having outlaid the model of man related to Stewardship, the question arises how top managers can best make use of stewards. Contrary to Agency theory, where organizational design is characterized by establishing monitoring systems and incentive schemes, organization design from a Stewardship viewpoint obviously needs a different structure. Starting from the assumption of a trustworthy, cooperative agent trying to maximize organizational goals, the organization obviously needs to give stewards high discretion over their task-environment. A classic example might explain the difference of both approaches: An important question in corporate governance is, whether a CEO should chair the board of directors. Agency scholars, being aware of moral hazard problems arising from powerful CEOs, would vote for a separation of both positions. Stewardship scholars would prefer a combination of both functions since it provides CEOs (who are seen as trustworthy stewards) with the power necessary to successfully control a company. Thus, as Davis et al. put it: “Stewardship theorists focus on structures that facilitate and empower rather than those that monitor and control” (1997: 26). The theoretical foundation lies in the fact that stewards principally, except from minor conflicts, intend to act in the favour of principals or the company, respectively (Denis, Denis, & Sarin, 1999). Thus it is important to note that deviating behavior is not rooted in self-interest and opportunism; rather it is due to other factors such as the aforementioned strategic incompetence. This problem is solved by middle manager facilitation, e. g. with appropriate skills. In addition, perceived inappropriateness of a strategic course will inevitably lead a steward to reject that course when he or she perceives the company welfare at stake.

Whereas in Agency theory differing risk preferences between agents and principals are explicitly discussed, Stewardship theorists discussed this issue only on a very basic level. But since stewards, like agents, are seen as rational actors (Davis et al. 1997), there is no reason to believe that risk preferences should not play an important role in Stewardship theory. This follows in my view directly from the claim for empowerment. This instrument is used to shift responsibility away from top management to middle management. By this very transfer, middle managers bear significant performance risks as their actions are always directly connected to outcomes.

In Agency theory, agents are said to adjust risk perceptions according to situational factors like environmental uncertainty. This means that higher environmental uncertainty poses higher outcome uncertainty. This, in turn, will lower the willingness to bear the additional risk imposed e.g. by incentive pay. The same basic mechanism can be assumed to apply to stewards. Their acceptance and use of the provided empowerment will be contingent upon situational factors like environmental uncertainty. Environmental uncertainty will inevitably lead to outcome uncertainty regarding stewards' decisions which they are allowed to make due to their empowerment thus posing a considerable performance risk. Since stewards' own decisions might put company welfare at stake, they will refuse to take responsibility as a consequence. In my view, once more the potentially reversal effects of some of the usual tools, in this case empowerment, will have to be evaluated within the risk context of the company.

4.2.3. Agency- vs. Stewardship-theory: The role of environmental uncertainty

Having analysed the basic assertions of both theoretical approaches, the first impression is that they are perfectly disparate of each other. Agency theory depicts middle managers as individualistic, opportunistic, and self serving. In contrast, Stewardship theorists perceive mid-level managers to be driven by collectivism, behaving pro-organizational and trustworthy (Davis, Schoorman, & Donaldson, 1997). Thus the question arises which of both perspectives a principal should follow. Which approach can deliver the better performance implications regarding strategy implementation success?

In a series of research dialogues, Albanese, Dacin, & Harris (1997) indicated that Stewardship theory is simply an extension of Agency theory. In their view, there exists a continuum where agents might turn to stewards and vice versa. The answer provided by Davis, Schoorman, & Donaldson (1997) basically refused this approach but suggested that an integration of both theories might be possible. Since this discussion took place on a generic level, the appropriate way to solve the point at issue would have been an empirical test like Hoskisson, Hitt, and Yiu proposed it: "Therefore, more theoretical and, importantly, more empirical research is needed to understand

Stewardship theory's specific theoretical contribution to strategic management and to test its theoretical propositions through empirical research" (1999: 446).

Previously, some researchers already tried to validate either Agency theory or Stewardship theory as the best practice approach. Yet these studies resulted in mixed findings: Some results indicate that a non-executive board chair (i.e. Agency perspective) is associated with higher firm performance (Daily & Dalton, 1994; Rechner & Dalton, 1991). Contrary to these findings, other studies show that executive-chaired boards (i.e. Stewardship perspective) yield higher firm performance (Donaldson & Davis, 1991; Finkelstein & D'Aveni, 1994). There are still other studies pointing out that there is no performance difference at all regarding executive- versus outsider-chaired boards (Chaganti, Mahajan & Sharma, 1985).

From a rational perspective it seems rather unlikely that a middle manager will start working for a company with the initial goal to behave opportunistically whenever he or she gets the chance to do so. Even Jensen and Meckling (1994), notably the founders of economic Agency theory by their ground-breaking article in 1976, criticize this Agency model of man. They explain that the economic focus on a self-serving agent is due to necessary simplification in order to enable mathematical modeling. Consequently, a rather simplistic model of human behavior evolved which was not capable of covering the full range of human behavior. As Iyengar and Zampelli (2009) note, Agency theory is exceptionally restrictive in its view of managers, especially CEOs, as opportunistic, self-serving agents who are maximizing their personal welfare only. They assert "that Agency theory ignores a vast array of alternative motivations, for example, achievement, recognition, respect, reputation, altruism, and so on, that provide a CEO with the incentive to do the best he/she can in the responsible Stewardship of the assets of the firm" (Iyengar, & Zampelli, 2009: 1094). The basic assumption of managers who are not predominantly behaving self-serving and opportunistic is supported by Gomez-Mejia and Wiseman who notice that "although strategists acknowledge that some circumstances such as takeover threats are better explained by an Agency view, they also argue that Stewardship accounts for the majority of executive behavior" (1997: 359). Results of a study conducted by Boyd (1995) indicate that while Stewardship behavior can be said to be the standard behavioral pattern, some environmental conditions will produce the need of taking an Agency perspective.

Taking all the described premises of both Agency as well as Stewardship theory into account, it is my opinion that Agency as well as Stewardship measures will yield considerable results. I thus believe that both theories are ends to the same means rather than exclusive of each other, although previous findings are mixed. As opposed to most researchers in both fields, however, I see a need to include a contingency view on behalf of risk perceptions. As the assessment of the basic premises of both theories shows, there exists a considerable impact of risk attitudes on the usability of standard tools: Contract design has to be contingent on perceived environmental uncertainty, and the same applies to middle management empowerment. Thus a trade-off analysis is needed, indicating how context alters at least some of the usual instruments proposed by both theories.

Thus in what follows it will be necessary to analyse both theoretical viewpoints in direct contrast within the same research sample in order to be able to answer the question whether both theories prove correct. If only one theory should apply, this approach should tell which one it is. For this reason, specific hypotheses will be developed which will cover elements central to Agency as well as Stewardship view. In addition, hypotheses will cover a contingency approach with regards to the broad implementation context in order to get hold of the risk transfer issue mentioned.

4.3. Hypotheses development

4.3.1. Stewardship-related hypotheses

Middle management empowerment

Several previous studies indicate, that granting mid-level managers considerable discretion in strategy implementation leads to enhanced implementation success. For example, Nutt (1987) was able to show that implementation styles based on cooperation rather than edicts, thus transferring some decision authority to relevant employees (including middle managers) proved to produce nearly doubled success rates as compared to edict style. In addition, Gupta (1987) as well as Govindarajan (1988) emphasized the importance of decision decentralization between top managers and SBU general managers. The rationale behind their assumptions is that delegating decision-making authority downward to an SBU manager has two effects: First, the information processing capacity between top and middle management can not be overloaded. Thereby they can focus on major problems only instead of loosing oversight in too much unimportant information. Secondly, mid-level managers work closer to relevant markets and therefore have a faster and better access to important information necessary to take business level decisions.

On the whole, these results are not surprising since allocating resources requires decision-making authority. Although related to different theoretical perspectives aforementioned results closely resemble a basic Stewardship claim: Empowerment of key managers. As explained above, a middle manager should be granted considerable discretion within the strategy implementation process. This will enable him or her to maximize company utility. Managerial discretion, interpreted as an executive's ability to take strategic action is amongst others a function of organizational design used to grant the discretion (Carpenter & Golden, 1997). Consequently, the following hypothesis is stated:

Hypothesis 1a: High discretion levels granted to middle-managers will be positively associated to the likelihood of strategy-consistent resource-allocation.

As indicated in the Stewardship section (4.2.2.), environmental uncertainty (causing perceived business risk) can in my view be expected to alter the impact of discretion levels on strategy implementation success. Since higher discretion leads to higher responsibility, the potential downside is a considerable compensation and employment risk. This risk perception will weaken with increasing control levels over outcomes and vice versa. Technically speaking, the higher a perceived risk is, the lower the positive effect of discretion granted to a middle manager will be – since he or she will suffer from potentially reversal effects in case they fail. Therefore the following hypothesis is proposed:

Hypothesis 1b: Environmental uncertainty will moderate the relationship between discretion level and the likelihood of strategy-consistent resource-allocation, meaning that higher levels of uncertainty will weaken the positive effect.

Middle management facilitation

As stated by Guth & MacMillan (1986), a significant source of failure in strategy implementation on a middle management level is a perceived inability to execute a given strategy on the part of the mid-level manager. A well-informed top management has got various options to remedy the situation of perceived inability. They could assign the task to another middle manager whose skills match the given strategy implementation task (Szilagyi & Schweiger, 1984). As shown in the literature review, this selection-approach gained considerable empirical support since various authors could show that matching managers or managerial characteristics, respectively, to strategies yields positive impact on implementation success (Beal & Yasai-Ardenaki, 2000; Govindarajan, 1988, 1989; Gupta & Govindarajan, 1984). Consequently managers lacking the appropriate skills would have to be replaced by executives showing the relevant characteristics. However, being a human resource problem, this approach already gained considerable empirical attention and yielded significant results; it will not be traced further in this work.

As opposed to the replacement discussion, it is questionable whether every manager in charge of strategy implementation can have all the relevant skills and experiences beforehand. But if they are not replaced they will predictably perceive a performance risk on their behalf. Kerr & Jackofsky introduce management development as an alternate approach for accomplishing alignment between managers and strategies. They contend “that in many organizations reliance on selection alone are unlikely to achieve the desired manager-strategy match” (1989: 157). They suggest that management development increases the value a manager has for the organization, as he or she will develop new behaviors, attitudes, and motives and will gain new skills as well as knowledge.

As stated above, Kerr & Jackofsky (1989) propose to focus organization design on management development instead of management selection as approach for aligning managers and strategies. They identified different human resource tools of management development that are most relevant for strategy implementation. One of these tools, namely training, is directly related to development of skills. Succession planning as another proposed tool belongs to career development rather than to skill development. Even though all tools mentioned are equally relevant they are divided into skill development encompassing training as well as career development consisting of career and succession planning.

Training as a development tool aims at providing managers with a gain in three distinct categories (Kerr & Jackofsky, 1989). First, technical skills necessary for conducting daily business are provided or extended. Second, interpersonal skills comprising a manager's ability to work successfully with others are build up. These skills include decision-making, leadership, conflict resolution and the like. Finally, the development of conceptual skills is related to imparting a holistic perspective, combining corporate organizational goals and environmental influences.

As indicated above, another step relevant to building confidence in managers own abilities can be seen in using career development tools. They provide middle managers with medium to long term prospects for their career within a firm. This is especially true under the assumption that contracts encompassing career development tools are clearly long term contracts thus enhancing job security in addition to planned career path. As Stroh et al. (1996) put it: "Employment security, clear promotion ladders, and investments are all signals to managers that the organization expects to maintain a long-term relationship with them" (754).

As a general consequence, perceived skill level and self-confidence will increase based on the tools mentioned above. This is perfectly harmonic with Stewardship-theory in that it expects middle management facilitation to enhance managerial performance. Consequently, a middle managers' perceived performance risk will decrease with increasing use of management development tools. A decrease in perceived performance risk, in turn is assumed to increase the willingness to support implementation of a given strategy. Thus management development tools are assumed to enhance strategy contingent resource allocation. The following hypothesis is stated:

Hypothesis 2a: The use of middle management development tools is positively related to the likelihood of strategy-consistent resource allocation.

As indicated above, a middle managers' perceived performance risk will decrease with growing use of management development tools. In my view, this relationship only applies in a secure, thus stable environment. As soon as there exists an uncertain environment, the perceived performance risk on behalf of the middle manager will increase even if he or she received a lot of training or career support. This conclusion can in my opinion be drawn directly from the previously described impact of environmental uncertainty on company performance: If company performance is not controllable by a middle manager it will as well be uncontrollable with higher skills since these skills will not enable the middle manager to gain control over environmental uncertainty. Consequently, the positive effect of management development tools will be offset by environmental uncertainty, thus the following hypothesis is stated:

Hypothesis 2b: Environmental uncertainty will moderate the relationship between middle management development tools and the likelihood of strategy-consistent resource allocation, meaning that higher levels of uncertainty will weaken the positive effect.

4.3.2. Agency-related hypotheses

Variable pay

According to Eisenhardt (1988), low task programmability leads to low performance transparency and low evaluation possibility for agent behavior, respectively. This low evaluation possibility, in turn leads to the need of designing an outcome based contract in order to curb agent opportunism. As explicated in the explorative pilot study, the task of strategy implementation is highly complex and not at all programmable. Applied to a middle management agent responsible for strategy implementation, the principal will have to set up an outcome-based contract. Typically this outcome based contract means to design a system of incentive pay usually in the form of variable pay, thus rewarding the middle management agent to behave in the best sense of the principal, i.e. the top management (Eisenhardt, 1988). Therefore, variable pay will increase the consistency in strategy implementation and the following hypothesis is proposed:

Hypothesis 3a: The use of variable pay will positively affect the likelihood of strategy-consistent resource allocation.

As explicated in chapter 4.2.1., providing variable pay also means to transfer a significant compensation risk to the middle management agent. As long as the outcomes of their own behavior are easily controllable by middle management agents this risk transfer will be borne by the agent. If outcomes are not easily controllable, as is usually the case in high environmental uncertainty contexts imposing high business risk, risk transfer will not happen any more. Accordingly, Eisenhardt contends that "uncertainty creates risk and associated risk-reward trade-offs" (1988: 494). Hence middle management agents will closely analyse the incentive system at hand. If they perceive risks to be higher than possible rewards, they will refuse to comply with the usual variable pay logic and follow their own course, regardless of the incentives proposed. They will do so because economic conditions and other external contingencies beyond their control naturally lead to high business risk which, in turn, is connected to an increased probability of performance shortcomings, resulting in threats to income and job security. Therefore, once again, environmental uncertainty as the main driver of business risk, will moderate the effect of variable pay on strategy-consistent resource allocation. Accordingly the following hypothesis is developed:

Hypothesis 3b: Environmental uncertainty will moderate the relationship between variable pay and the likelihood of strategy-consistent resource allocation, meaning that higher levels of uncertainty will weaken the positive effect.

Measurement level – Individual versus Global measurement

Zenger & Marshall (2000) examined determinants of incentive intensity in group-based rewards. Within this context incentive intensity represented the "individual marginal gains in pay triggered by increased performance" (Zenger & Marshall, 2000:

149). Hence higher incentive intensity implies a better correspondence between incentive system design and effort motivation. Among other findings, the authors could show that, for employees, performance measurement at lower organizational levels has greater incentive-intensity than pay-plans linked to performance measurement at higher organizational levels. This result can be explained by the fact that lower-level measures are more controllable by lower-level employees than are high level measures. Hence risk-shifting has to be contingent on outcome-controllability.

With regard to middle managers, a similar relationship can be assumed since controllability of outcomes plays a major role, especially in high risk decisions. This assumption is closely connected to a behavioral Agency model dealing with drawbacks of incentive systems. Regarding these drawbacks, a considerable debate has begun on the impact and rationality of using performance contingent pay (Beatty & Zajac, 1994), thereby transferring risk to the agent. Agency theorists suggest that agents are always motivated to improve their personal wealth. Usually, this wealth is tied to principal's wealth by establishing variable pay structures based on firm performance. Thereby agents are expected to adopt risk preferences that resemble preferences of principals and will select and implement riskier strategic options. But there exist several authors stating that especially firm performance contingent-pay may lead to risk aversion instead of altering risk preferences. Wiseman and Gomez-Mejia (1998) contend: "This view argues that owing to noise in the relation between agent actions and firm performance, managers seek to reduce uncertainty in firm performance when their compensation is closely linked to that performance (139)". This clarifies that agents will not change risk preferences without having the opportunity to control potential outcomes of their decisions. Consequently, it is necessary for middle managers to control outcomes and to be measured accordingly. Thus incentives should be tied to their relevant field of responsibility:

Hypothesis 4a: If mid-level manager performance is evaluated at the individual responsibility level, the likelihood of strategy-consistent resource allocation is high. If mid-level manager performance is not measured at the individual level, the likelihood of strategy-consistent resource allocation is low.

Wiseman & Gomez-Mejia (1998) suggest that the compensation mix is typically contained in the contract between principal and agent. Thus an agent knows ex ante how much risk premium he or she is paid for pursuing risky firm-performance targets. The pursuit of these targets endangers future base-pay, even if performance is evaluated at the individual level, since the risk of agent-dismissal rises with environmental uncertainty. Thus agents are caught between safeguarding future base-pay by reducing employment risk, and implementing risky strategic decisions promising higher firm profitability thus pursuing contingent pay plans. Therefore, "in managerial risk assessments, the magnitude of potential losses is more salient than the probability of loss" (McLean Parks & Conlon, 1995: 824). This proposition is also used by Wiseman & Gomez-Mejia to indicate that agents can be expected to be far more anxious to preserve perceived current wealth than to draw additional wealth. Therefore, in high uncertainty environments which lead to high business risk, it can be assumed that a risk transfer to the agent even if it is combined with performance evaluation at individual level, might not be possible. Consequently, the positive effect of performance evaluation at individual level might by offset by environmental uncertainty, therefore the following hypothesis is proposed:

Hypothesis 4b: Environmental uncertainty will moderate the relationship between performance evaluation at individual level and the likelihood of strategy-consistent resource allocation, meaning that higher levels of uncertainty will weaken the positive effect.

All proposed hypotheses are summarized in figure 2. Their empirical test and the respective results will be displayed in the following section.

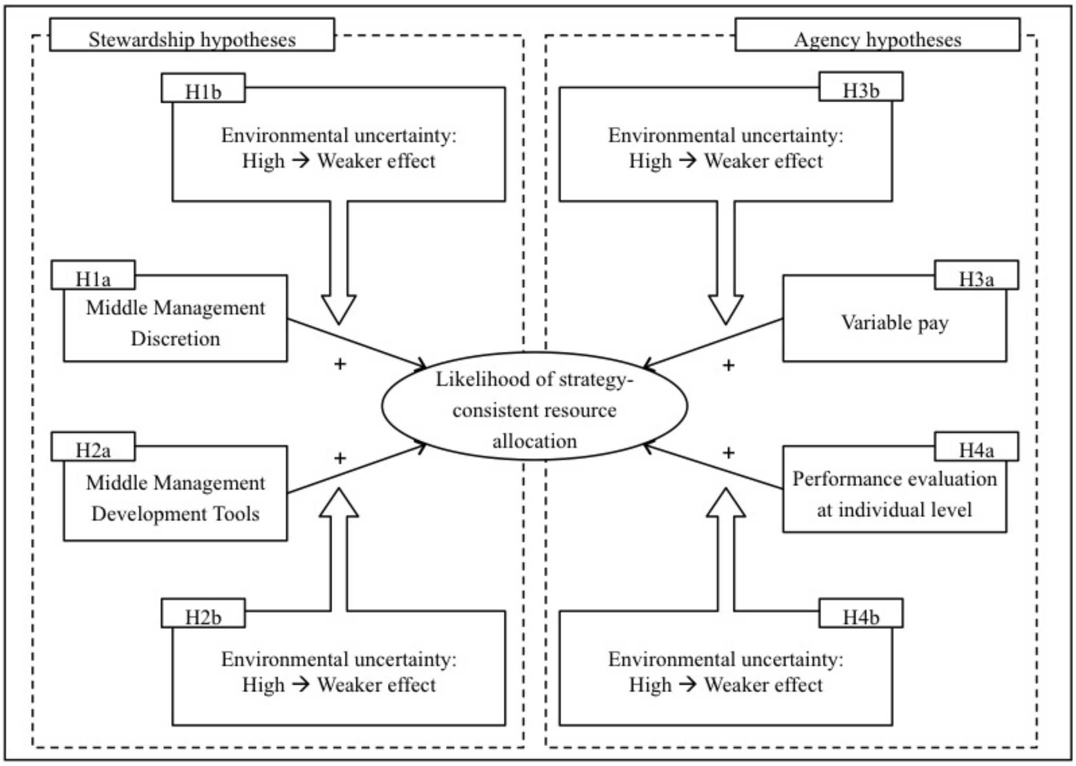

Figure 3: The central framework of hypotheses to be tested empirically

5. Empirical analysis

5.1. Data and Methods

5.1.1. Industry and respondent selection

Since a central construct in my research concept is perceived business risk based on environmental uncertainty, I have decided to collect data from different industries in order to maximize the probability of an ex ante divergence in environmental uncertainty. The chosen industries were specific sub-sectors of the German banking industry as well as of the German utilities industry. I have chosen the German banking market as one central industry since it is said to have a high competition which in fact is amongst others one of the most important drivers of environmental uncertainty. In an ex post perspective, the focus on the banking industry has proven especially helpful with regards to the global financial crisis. This crisis started in September 2007 with credit spreads on interbank loans rising significantly and leading to the collapse of the first medium-sized banks all across Europe. This development might have led the members of the banking industry to perceive business risks more broadly. In addition, the crisis resulted in a generally less stable environment, thus leading to some variance of risk perceptions due to differing business models within the researched sectors. The locally based public utilities sector has been chosen because it historically has low competition due to monopoly like structures. This structure, which is not in favor of customers, has recently been addressed by politics in order to increase competition, thereby at least driving down energy prices. But this process is ongoing and therefore I have assumed the overall competitiveness in local public utilities to be lower than in banking. Besides, the approach of addressing multiple industries as well as multiple companies gives me the opportunity to widen the methodological scope of the study conducted by Richter & Schmidt (2005) as they concentrated on one industry and two different companies only. In order to have a common basis as far as company size is concerned I have chosen to include companies with a local basis: Local savings banks, locally based credit unions as well as public utilities companies which typically provide their services within the borders of a city.

Having decided upon the industries in which the data collection should be conducted leads to the selection of the respondents who should be contacted. Since this study aims at identifying the effects of middle management behavior on strategy-consistent resource allocation it is obvious that respondents will have to be part of the middle management in the respective companies. The question is which functional roles and respective strategies (and vice versa) should be addressed. This selection has to be made bearing in mind, that the respective strategic plans as well as the connected resource allocations have to be understood thoroughly, and that the number of potential respondents should be comparatively high in order to yield acceptable response rates. As a matter of fact I have assumed that a focus on the marketing function would meet both requirements: First, marketing strategies have been widely applied, especially in strategy implementation research, as the literature review indicated. Therefore, marketing strategies as well as the respective instruments used are understood in detail. Second, marketing departments, as compared to for example production departments can be found in any company, regardless of the industry they work in. This is especially important for my sample, since addressing banks as well as municipal utilities implies the need for a function that is available in both industries. In addition, the availability of at least one marketing manager in every company should yield sufficient potential for participation of respondents.

Subsequent to the decision, which kind of functional strategies should be included for testing the developed hypotheses, the question arises how a potential strategy can by gauged. One way would be by using a classic typology of marketing strategies like they have been developed for example by Porter (1980). His typology is based on the assumption that a company has to decide on how to create value, either by following a differentiation strategy or by following a low cost strategy (Slater & Olson, 2000). A basic problem of such an approach would be that it is inflexible, meaning that any respondent would have to indicate one of the given alternatives no matter if the real company strategy fits any of the strategy types thus leading to increased probability of measurement errors. In case, the respondents refuse to answer, due to the fact that their strategy does not match any type, an important variable is lost. Another way would be to define strategy according to the pattern of strategic actions (e.g. new product development), which would have to be taken to reach a planned strategic position in the market. This interpretation of strategy has been proposed by Christensen & Donovan (2000) and has been described in chapter 2.2.1. According to the understanding of strategy implementation that is applied in this study, both approaches would call for the connection of resource allocation decisions to either strategy types or strategic actions.

I have decided not to define strategy by a standardized, inflexible typology but rather by a pattern of marketing actions which are employed by allocating resources to relevant marketing instruments. As a consequence, the necessary resource allocation a strategic plan calls for would have to be indicated flexibly for every responding company. This issue will be addressed in the measures section.

5.1.2. Data collection

The collection of suitable data for a given research question can basically be accomplished in two different ways. On the one hand secondary data can be collected from databases, news agencies and other external sources. On the other hand a researcher can collect primary data directly from practice for example by interviews, questionnaires, experiments and the like. Some researchers also use a combination of both data sources. I have decided to collect primary data since my research question calls for a dependent variable that represents resource allocation decisions as they have been taken directly on the middle management level. Secondary data would not have been available in this respect. Thereby, I have again been able to broaden the methodological focus of Richter & Schmidt (2005) since they have gathered data by using secondary sources like annual reports and press releases which represent resource allocation decisions on the top management level and are thus not compatible with my focus on middle management as basic driver of strategy implementation success. I will depict the different empirical steps I have taken to collect the final data as well as the specific objectives pursued in the figure 3 as well as in the subsequent paragraphs.

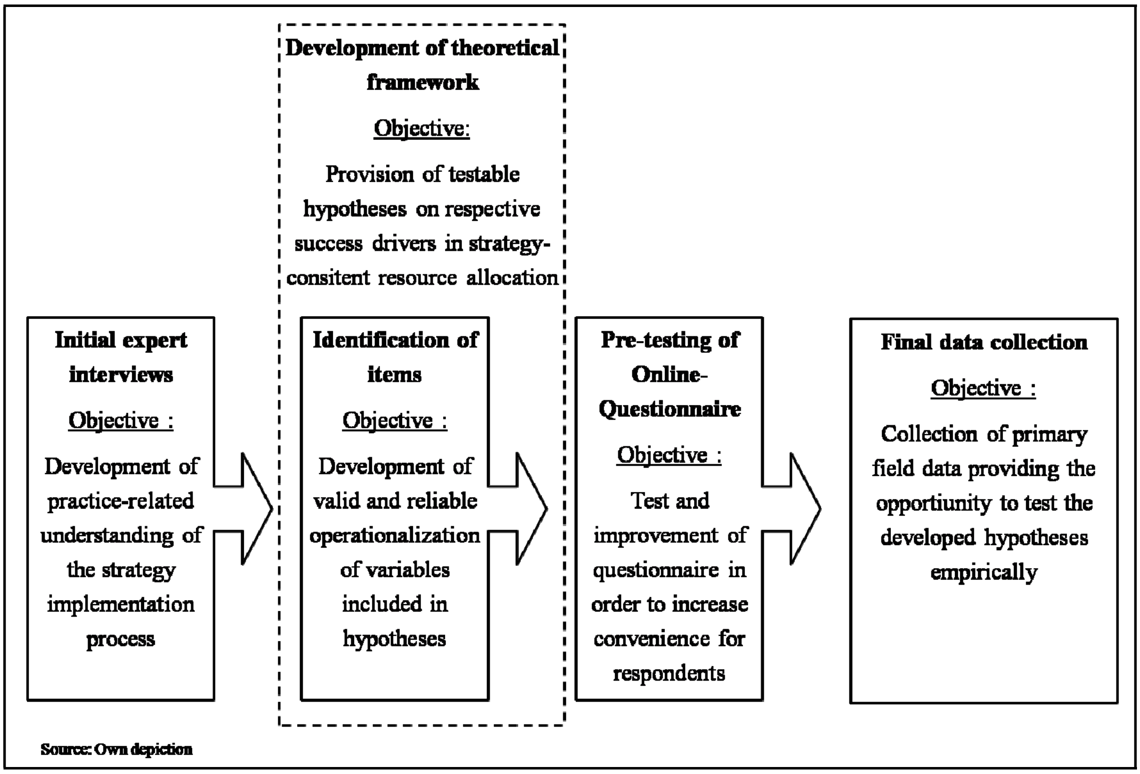

Figure 4: Process overview on empirical data collection

Initial expert interviews. As I have explained in chapter 2.1. I have first conducted expert interviews with 6 executives before I addressed the subject in deep by a literature review in order to develop a basic understanding of the phenomenon of strategy implementation as it takes place in practice. During these interviews I have also had the opportunity to get a basic idea of the relevant success drivers and gathered some initial ideas for measuring them in the empirical phase of my work.

Identification of items. Subsequent to the development of a theoretical framework based on the implications from practice and the theories which explain middle management behavior in practice I have developed the respective hypotheses. In doing so I proposed a relationship between the assumed success drivers in strategy implementation and strategy-consistent resource allocation. Drawing on these hypotheses I started an intensive literature research for suitable items which ideally have proven their validity and reliability in previous studies. Thereby I could reduce the risk of using an item which is neither valid nor reliable to a minimum since newly developed items always pose this very risk. Only the dependent variable implied the need of developing completely new items as the previous studies did not provide any measurement conception which was acceptable in terms of validity or in terms of matching the basic understanding of the strategy implementation process as I have developed it.

Pre-testing of Online-Questionnaire. In order to minimize the time a respondent needs to answer the questionnaire as well as to maximize data quality and analysis convenience I have developed and used an Online-Questionnaire which will be discussed in detail in one of the next chapters. With the purpose of testing the practical relevance as well as the convenient usability of the electronic questionnaires as well as the developed items they have been pretested with 6 top executives of the German banking as well as utilities industry and 4 researchers in organizational sciences. This pretest significantly supported the development of the final questionnaires, since it raised a lot of helpful implications in form, content and practicability, thus making the final questionnaire more convenient as well as meaningful.

Final data collection. With regards to the final data collection, there exists a potential shortcoming of empirical research which has first to be discussed and will be addressed in my data collection accordingly. This potential shortcoming is usually referred to as common method variance and is understood as “variance that is attributable to the measurement method rather than to the constructs the measures represent” (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). The detected variance in research models testing proposed hypothesis can in fact be partly due to measurement errors instead of hypothesized influence factors thus leading to biased results. The existence as well as the considerable extent of bias caused by common method variance has according to Podsakoff et al. (2003) been shown in many cases and by several researchers. One of the most likely causes is the common method effect generated by the use of a single informant or common source, respectively. This leads to one single respondent indicating the measures for independent as well as dependent variables thus producing a self-report bias since he or she might give answers in order to influence the results of the dependent variable according to what is perceived to be appropriate for them. Thus they give favorable answers which might be different from the true answers. The sources of this self-report bias are numerous: They can for example be based on a consistency motif in that respondents “try to maintain consistency in their responses to questions” (Podsakoff et al., 2003: 882). Or they can be based on implicit theories of how the asked questions and outcomes are related thus leading to illusory correlations. In addition, they can also be based on assumptions made by respondents with regards to the social desirability or acceptability, respectively, a given answer might reflect[7].

Since I have used resource allocation decisions and their consistency with the intended strategy as dependent variable, the motivation of a marketing manager would always be to display his or her resource allocation decisions as being consistent with the formulated strategy. Therefore, in order to avoid this specific common method bias which would be based on a combination of an implicit theory and social desirability on the part of a respondent, I have decided to use a two-sided measurement approach: I have contacted top managers (usually a member of the management board) responsible for marketing affairs, asking them to take part in our survey and to nominate relevant direct reports on the middle management level and convince them to take part in the survey as well. Therefore, two different questionnaires have been used for data collection. One of them has been used for individual middle management measures mostly representing the independent variables, the other one for measures of the corresponding top executive which represented the measurement of the dependent variable (details will be described in the measures section). Relevant mid-level executives had to be responsible for financial resource allocation of marketing and/or product management budgets. Both respondents combined represented a matched-pair. Although this has been a challenging way of obtaining answers to key questions from both, middle management as well as top management levels at the same time, I am sure that the approach has led to a unique data sample.

Before contacting relevant executives I have addressed three different trade associations each of them responsible for one of the industry subgroups I focused on: The “Bundesverband der deutschen Volksbanken und Raiffeisenbanken (BVR)” for local credit unions, the “Deutscher Sparkassen- und Giroverband (DSGV)” for local savings banks, and the “Verband kommunaler Unternehmen e.V. (VKU)” for the local public utilities companies. I have asked all of them for a formal recommendation letter in which they would recommend the participation in my study as valuable for practice and empirical research in order to increase response rates. I assumed this approach to be explicitly essential since I wanted to address the top executives at the apex of their

[7] For a detailed description of other single informant caused biases as well as additional general biases please refer to Podsakoff et al. (2003).

organization who always have tight time budgets and might be positively influenced by a recommendation of their trade association. Two of three trade unions provided me with a recommendation: The "Verband kommunaler Unternehmen e.V. (VKU)" drafted a recommendation letter which I included in the initial contact with the executives of the local public utilities companies[8]. The "Deutscher Sparkassen- und Giroverband (DSGV)" included a recommendation in their regular leaflet which is distributed to every local savings bank[9]. Afterwards, the contact procedure for the respondents has been as follows: First, I have sent an initial written letter, explaining the background of the survey and asking respondents to join. As explicated above, I included the recommendation letter for all public utilities and referred to the leaflet communication for all local savings banks. In case the companies or executives wished to join, respondents have been asked to send me an e-mail to which I have answered with two separate links to the Online-Questionnaires for the top manager as well as for the mid-level manager. In case I have not received any response, I have sent a reminder letter after 4 weeks again asking for participation. Respondents, who had signaled their willingness to participate and had received the links but had not yet filled out the questionnaire, have also been reminded by e-mail.

As indicated above, I have used an electronic questionnaire which was accessible by respondents via the World Wide Web. The basic functionality for this e-questionnaire is provided by a professional service firm. The whole e-questionnaire is programmable according to individual needs. Thereby, a researcher is able to define which questions have to be answered, or which ones can be skipped. In addition, questions are completely programmable by scripts, which is important for the development of special items. All this functionality is intended to increase data quality since the basic questions which unavoidably have to be answered in order to answer the research question can be selected and respondents cannot proceed until they provide the respective answers.

I have contacted every German local savings bank asking for their participation. In order to keep the company sizes within the banking sub-industry similar, thus preventing an ex ante selection bias, I have chosen to use the balance sheet total of the smallest local saving bank (around € 140 million balance sheet total) as a cut-off

[8] This recommendation letter is enclosed in the appendix.
[9] Due to additional confidential information in the leaflet I am not allowed to display any parts of it.

criterion for credit unions. Thereby I have contacted in total 436 local savings banks and 842 local credit unions. In addition, I have contacted 131 public utilities companies which have been provided by an external data source under the keyword ‘municipal utilities’ (“Stadtwerke”) in Germany. Thus, I have contacted 1,409 top executives asking them for their participation in my study.

5.1.3. Final data sample

I have received around 150 confirmations for participation, but not all of them eventually led to a fully filled in questionnaire. The overall sample consisted of 5 matched pairs from public utilities (yielding an initial response rate of 3.8 %), 54 matched pairs from local credit unions (yielding an initial response rate of 6.4 %), and 39 matched pairs from local savings banks (yielding an initial response rate of 8.9 %). Apparently the recommendation from the trade association of savings banks affected the response rate positively, while members of the public utilities industry have been pretty reluctant to the recommendation. This is especially obvious in the light of the fact that credit unions for which I did not get a recommendation yielded a response rate that is significantly above the one for public utilities. Unfortunately, 1 mid-level manager from a public utilities company as well as 2 mid-level managers from local savings banks indicated in a control question that they did not have any budget control. So these three matched pairs had to be erased which led to a total sample size of 95 matched pairs. Since a total of 1,409 companies have been contacted, the overall response rate is 6.7 %. This relatively low response rate is in part explainable due to the two-sided approach: A considerable number of completed questionnaires did not get a corresponding counterpart and consequently a matched pair could not be collected. In addition, top executives are usually pretty reluctant to take part, especially due to the mentioned time constraints. But, as the two sided approach has been obligatory in my view, I assume the moderate response rates to be acceptable.

I have controlled the received data for a potential response vs. non-response bias by conducting an analysis of variance (ANOVA) for each sub-sector sample along at least two dimensions: Balance sheet total for banks, turnover total for utilities companies as well as employee numbers. Whenever possible, I have used additional information like for example amount of savings deposits and receivables from customers and analyzed along these dimensions as well. Technically, an ANOVA has the goal of testing whether a variable's mean values of subgroups differ significantly from the overall mean values for a given sample (Backhaus, Erichson, Plinke, and Weiber, 2008). In the context of a response vs. non-response bias this means that if the mean value of any demographic variable defining the sample is significantly different from the overall mean value a response vs. non-response bias exists meaning that responding companies differ significantly from non-responding companies with respect to specific company numbers. As such, the sample would be biased and results could not be generalized for the whole group of companies or industry group, respectively.

The statistical test is conducted by an F-test. This means if the empirical F-value is higher than the tabular F-value the null hypothesis of the independence between a given variable and the response vs. non-response behavior has to be refused (Backhaus et al., 2008). In order to simplify the comparison of empirical and tabular F-Value, which is dependent upon the degrees of freedom as well as the chosen significance level, the used statistical application PASW Statistics (formerly known as SPSS) provided a ready-to-use significance level for the performed ANOVA. The interpretation of this level is as follows: If the significance level is higher than the probability of error under which the ANOVA is conducted (in my case 1 %) the null hypotheses of indifference cannot be rejected (Backhaus et al., 2008). In my case the significance levels of the ANOVA are all above 0.01 which means that at a trust level of 99 % the null hypothesis cannot be rejected. With regards to the mentioned comparison of empirical and tabular F-value this means that the empirical F-value was always lower as the tabular one for any tested dimension of the sample companies. In all cases the ANOVA did not indicate any response vs. non-response bias thus rendering the respective samples representative for their sub-sector.

Company type	Used variable	Degrees of freedom	Empirical F-value	Significance
Credit unions	Employees	114	0.420	0.518
	Balance sheet total	841	0.063	0.802
	Deposits	841	0.067	0.796
	Savings deposits	841	0.022	0.883
	Receivables from customers	841	0.029	0.865
Savings banks	Employees	435	2.247	0.135
	Balance sheet total	435	2.410	0.121
Public utilities	Employees	130	0.997	0.320
	Total sales	128	0.694	0.406

Table 1: Results from ANOVA for Response/Non-Response on several variables

5.1.4. Measures

The measurement of variables in social sciences has to cope with the fact that these variables usually only have an indirect empirical indication and thus are described as latent variables (Bronner, Appel, & Wiemann, 1999). That means variables like for example discretion are based on perceptions the respondents have and cannot be measured directly. Thus item scales have to be developed in order to gauge the underlying latent variable as good as possible and as trustworthy as possible by combining different items describing the latent variable. Firstly, measuring a variable as good as possible means to measure it on a valid basis thus making sure in the operationalization process to measure what was intended to be measured. Secondly, trustworthy measurement means that a variable measurement is reliable in that it can repeatedly be measured and will always deliver the same results (Bronner et al., 1999). Consequently, in developing an item scale it has to be assured that the measure is reliable in that all item results basically have the same tendency, meaning that for example a middle manager should not indicate by one item that his or her discretion is very low, while indicating by another item, that his or her discretion is very high. One appropriate measure for reliability is Cronbach’s alpha, which can have a value between 0 and 1 (Bronner et al., 1999). A Cronbach’s alpha of 1 indicates a perfectly unified item tendency, whereas 0 means that the item results are perfectly disparate to each other, thus indicating no reliability of the item construct.

Basically there exist two different ways of setting up and interpreting these item scales (Wilcox, Howell, & Breivik, 2008). On the one hand depending on the character of the latent variable to be measured they can be designed to measure the construct reflectively which means that the given answers to the items are a causal consequence of the construct. In other words the "direction of causality - from the latent variable to its measures – is conceptually appropriate…" (Podsakoff et al., 2003: 900). On the other hand, a construct can be measured in a formative way meaning that the construct itself is dependent on the item answers, thus the direction of causality is from the measures to the latent variable (Podsakoff et al., 2003; Wilcox et al., 2008). It has to be noted, that a formatively interpreted item scale does not have to provide a unified item tendency. This is due to the fact that a formative scale defines a variable by the items used and these items are combined by the researcher based on their appropriateness. Thus formative scales cannot be tested ex post for their reliability by calculating a Cronbach's alpha and are calculated as an index only. The different measurement conceptualizations will be explained and displayed in detail by the concrete measurement of the respective independent variables. It has to be noted that although these measures are described in English language here, they have been presented to respondents in German language since all respondents have been working with German companies.

Dependent variable

Resource allocation deviation. As explicated in the literature review section (Chapter 3.1.) there is an essential difference between successful strategy and strategy implementation success. In this thesis the basis of successful strategy implementation is to be examined. Thus a dependent variable measuring overall performance at business-unit or corporate level, e.g. return on investment (ROI) or market share, is simply not sufficient.

Consequently, I have decided to focus on resource allocation deviation as dependent variable since this is the direct way of measuring whether mid-level managers comply in their daily allocation decisions with top management plans: The lower the deviation the higher the consistency in strategy-specific resource allocation. Therefore, the hypothesized relationships will have to be inverted for empirical testing, meaning that a positive relationship to strategy-consistent resource allocation in a hypothesis will lead to a negative one with regards to resource allocation deviation.

In order to verify if middle managers used their financial budgets in the way the senior management called for, thereby implementing the planned strategy, it has been necessary to link middle management resource allocations with the “to be” cash allocations as favored by the company’s top management. As already indicated above, in order to provide a reliable measurement of resource allocation deviation and evade common method bias, I have decided to gather data by a two-sided approach. In a first step, the mid-level manager responsible for marketing has been asked to indicate how he or she allocated his or her budget in the previous financial year 2008 with regards to the announced strategy. In a second step, the superior executive had to indicate how the middle manager should have allocated his or her 2008 budget according to the communicated strategic plan. In both cases respondents have been asked to indicate the percentage of the annual budget they allocated (middle management) or should have allocated (top management) to the following categorized marketing instruments developed and used by Slater, & Olson (2001): A. Market research/segmentation; B. Product line breadth; C. Product innovation; D. Product quality; E. Customer service quality; F. Premium positioning; G. Multiple distribution channels (branch, internet, telephone); H. Advertising; I. Personal sales process. The mathematical difference between middle management (1) and top-management (2) allocations in each category has been squared, summed up and eventually the square root has been extracted from the sum:

$$\text{Resource allocation deviation} = \sqrt[2]{(A1\text{-}A2)^2 + \ldots + (I1\text{-}I2)^2}\ .$$

Mathematically, a special kind of standard deviation measure measuring deviation along 9 mathematical dimensions has been used. In case of a deviation of 0, the strategy was successfully implemented. The higher the deviation the more financial resources were allocated to objects other than the strategic blueprint proposed, thus strategy implementation failed to increasing extents.

Independent variables

Middle Management Discretion. The measurement of middle management discretion levels has been established by measuring decision autonomy or delegation, respectively. Three specific items originally used by Schriesheim, Neider, and Scandura (1998) have been adopted: Responding middle-managers have been asked to designate how they perceive the decision delegation they received from their supervisor. Items consisted of: 1. "My supervisor lets me make decisions by myself, without consulting him/her", 2. "My supervisor does not require that I get his/her approval before making decisions", 3. "My supervisor permits me to get needed information from him/her and the make my own decisions". Possible answers ranged on a 7-point-Likert scale from 1 = Never to 7 = Always, leading to the fact that high scores stand for high discretion levels. This measurement scale represents a reflective measurement which is assumed to be appropriate since the item values indicated by respondents are caused by the discretion they perceive. This interpretation is depicted in figure 3, which also depicts the basic distinction between reflective and formative item scales. On the left hand side the reflective model is displayed which means that the causal direction would be from the latent variable to the measures or items, respectively. Measurement of middle management discretion level is interpreted as reflective model, thus the formative model is rejected. Consequently, the reliability of the item scale can be evaluated by Cronbach's alpha which in fact has a value of 0.8 and therefore shows a high reliability of this item battery.

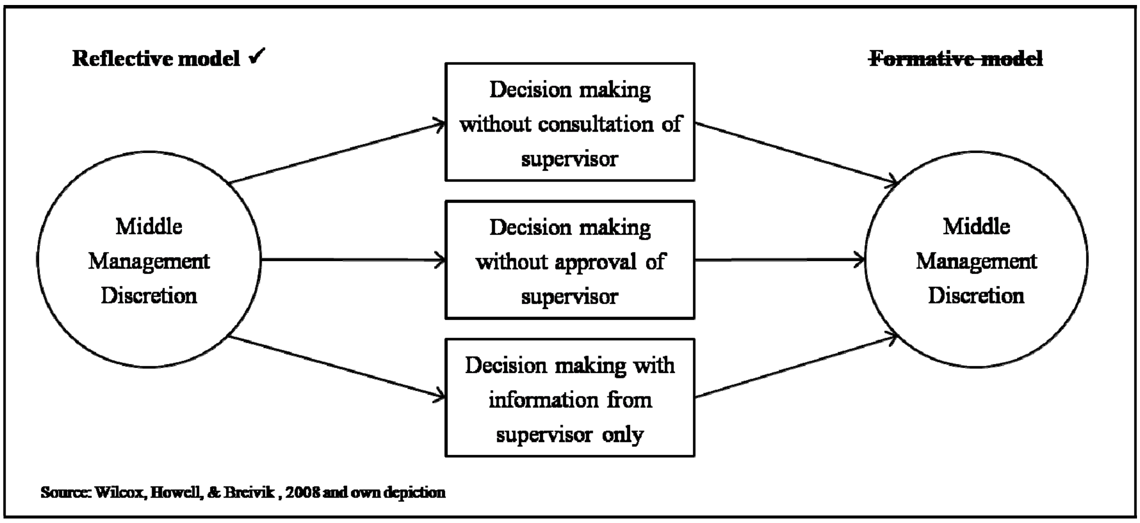

Figure 5: Reflective measurement model of middle management discretion level

Middle Management development. The individual development of a given mid-level manager has been measured by averaging a scale of 6 items originally used by Tharenou (2001). Opposite to Tharenou (2001) who used a likert-scale, middle management respondents have been asked to indicate the true number of times they participated in different development procedures during the past 18 month. These procedures consisted of: 1. Interviewing staff for selection, 2. Participating in conferences or industry meetings as representative of own organization, 3. serving on committees of any type within own organization, 4. Attending training or development courses run by outside organizations, 5. Attending training or development courses run by own organization, 6. Acting for three months or more in a higher position in their career. Due to some significant outliers the scale has been calculated on a logarithmic basis. Since this measure is calculated by real numbers and not by an item construct, a reliability measure like Cronbach's alpha is not needed.

Environmental uncertainty. Environmental uncertainty has been measured in several distinct dimensions addressing: Marketing/customer demand environment, competitive environment, and regulatory environment. Marketing/customer and competitive dimensions have been designed according to Dickson, & Weaver (1997). Each dimension has been evaluated by middle management respondents making use of a seven-point Likert-scale with 1 representing lowest parameter value and 7 representing highest value, and consisted of: 1. "How often does your company have to change its marketing practices to keep up with the market and competitors?": 1 = very seldom to 7 = very often (i.e. marketing competition), 2. "How intense is demand pressure of customers with regards to new products and services?": 1 = very low to 7 = very high (i.e. demand pressure), 3. "How easy are actions of competitors to predict?": 1 = very easy to 7 = very hard (i.e. unpredictability of competitive actions), 4. "How high is competitive intensity in your industry?": 1 = very low to 7 = very high (i.e. competitive intensity). The regulatory dimension, which is especially important in the banking industry, has been raised by several pre-testers and has thus been included by asking: "How high would you estimate the regulatory intensity (Compliance, admission to the market, competition law etc.) imposed on your company?": 1 = very low to 7 = very high (i.e regulatory intensity). This item scale is interpreted as a formative scale since the separate dimensions of uncertainty a respondent has to indicate are clearly not caused by the latent variable environmental uncertainty; they rather cause or define the latent variable. This interpretation is depicted in figure 4, which depicts the basic interpretation of this item scales. Environmental uncertainty measurement is interpreted as formative model, meaning that the causal direction goes from the items to the latent variable. Consequently, the reflective model is rejected. Due to the formative character of the combined item battery the scale has been calculated as index and can thus not be checked for its reliability by calculation of Cronbach's alpha.

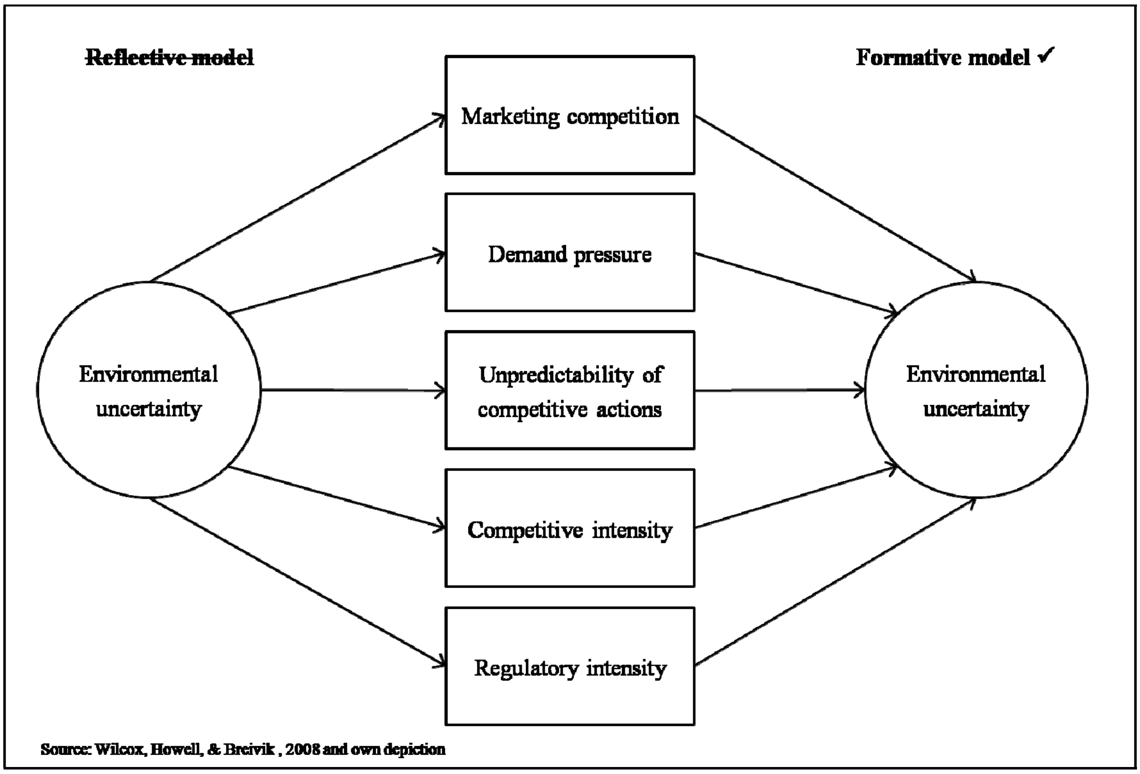

Figure 6: Formative measurement model of environmental uncertainty

Salary distribution. In order to determine the compensation structure of responding middle-managers, a simple scale has been used: Middle management respondents have been asked to indicate the percentage of variable compensation of their overall salary (Deutsch, 2005).

Performance evaluation. On the basis of a measurement used by Roth, & O'Donnell (1996) in order to measure criteria for salary adjustments, middle management respondents have simply been requested to specify on a dichotomous scale (No/Yes) whether their performance was evaluated at the individual level.

Control variables

As explicated in the hypotheses section, I intend to examine the effects of middle management-focused organizational design on strategy implementation success only. However, the literature review showed that there are other potential variables that could be expected to be associated with success in strategy implementation. The variables most consistent with the context of my study as well as the clarification of their possible influence and their measurement will be presented below.

Tenure in current position. As stylized result 1 in section 3.2. ("Some stylized results in empirical strategy implementation research") showed, there are a large number of managerial characteristics affecting success in strategy implementation. These characteristics are viewed from various theoretical perspectives. However, there exists a special theoretical perspective dealing with psychological as well as observable managerial characteristics. This perspective was first taken up by Hambrick & Mason (1984) and is known as Upper Echelon perspective. Among other things, it concentrates on demographic variables of managers and their respective effect on a number of constructs (e.g. commitment to innovation, firm performance, or change in strategy). A classic demographic variable, besides e.g. firm tenure, is management position tenure. The basic assumption is that lower tenures lead to higher inclination to change in strategy. This assumption was supported by the results of Boeker (1997). Consequently, lower tenure in a marketing management position might lead to a higher inclination to change resource allocations thus deviating from strategic plans as developed by senior management. Therefore I will control for this possible effect by including marketing management position tenure in the regression analysis. In addition agent tenure has been shown by Shaw, Gupta, & Delery (2000) to lower effort risk, thus implicating that higher tenure leads to decreased necessity of incentive pay.

In order to measure the time a mid-level marketing manager spent in the current position, respondents have been asked to indicate the total time (in years) for which they held their current position.

Time duration since Strategy announcement. In analysing the antecedents of consistency between corporate strategy concept and individual resource allocation decisions made by management, Richter, & Schmidt (2005) showed that the probability of high consistency levels decreases with the growing time lag between the announcement of a corporate strategy concept and individual resource allocation decisions. Therefore I will control for this potential effect by including the duration since strategy announcement as an approximation to the construct used by Richter, & Schmidt.

Based on the approach of Richter & Schmidt (2005) the time lag between strategy announcement and the answers to the questionnaire have been measured as follows: Middle management respondents have been asked to indicate on a 5-point Likert-scale how long ago the strategy of their business unit has been announced to them. The values consisted of: 1 = within the last month; 2 = Three month ago; 3 = Six month ago; 4 = Nine month ago; 5 = 1 year or more ago.

Industry effects. Since my sample consists of different industries and effects might vary accordingly, I have decided to control for this potential effect by using a dummy variable for the industry.

5.1.5. Data analyses

The data analysis enclosed two analytic steps: First I have conducted a hierarchical multiple regression analysis in order to detect the main effects as they are hypothesized. In a second step, I have conducted a special regression analysis in a split group approach. Thereby I have analyzed the potential moderating effects as they are hypothesized in the sub-sections of the hypothesis. This design has been suggested by Arnold (1982) and will be explained more deeply in the following chapter. The deciding argument to use this approach instead of the usually chosen regression analysis with an interaction term is the following fact: According to Aguinis (1995) several simulations, exploring the effects of sample size, showed that in small samples (120 data sets or lower) moderator effects, even if they are large, are undetected. In this respect, although the effects might be there, they would not be detectable by the use of an interaction term. Thus another, technically more appropriate approach has been chosen since my ample size was 95.

Another issue calls for discussion: The potential problem of endogeneity. In order to make sure that independent variables are not reversely affected by the dependent variable (i.e. endogeneity would exist) a bunch of statistical analyses would have been needed. In this study, for example, it could be argued that a middle manager, defecting in period 0 (i.e. deviating from the strategic blue print) could get a revised incentive structure in that he or she could get more incentive pay so as to align interests or could get a lower discretion so as to prevent her or him from defecting again in period 1. Thus the dependent variable, resource allocation deviation, would reversely affect the dependent variables discretion or variable pay. Although there seem to be a number of reasons to believe endogeneity might pose a problem I have not provided any of these analyses for two reasons: First, my data only consists of data in one period, effects from previous periods thus can not be analyzed, even if they might prevail. The second reason is a more practical one in that the mentioned examples of reverse effects from dependent on independent variable would mean assuming that middle managers behavior is perfectly monitored and the organizational alterations are implemented one-to-one. Since the costs of such absolute monitoring, yielding complete information, would be inconceivably high, it seems questionable that a direct effect from period 0 to period 1 will occur in any company. Altogether, endogeneity cannot, in my view, be analyzed with the given data and the analysis has been omitted accordingly.

In order to preserve the opportunity to use all given data, I have conducted a commonly used estimation procedure known as EM (Expectation Maximization) estimation to estimate missing values. This procedure estimates and replaces missing values by values which do not change the sample means but enable full usage of data which otherwise would have to be omitted. It is provided by the used statistical application PASW Statistics[10]. The number of replacements was considerably low since I have used “do answer”-checks in a large number of questions, meaning that respondents could not proceed with the questionnaire until they answered these questions central to my research question. Although this approach might have led to

[10] For a qualified overview on estimation procedures please refer to Allison (2002).

some respondents completely aborting the editing, I have received a comprehensive data set with very little need to estimate missing values.

5.2. Results

5.2.1. Notable descriptive findings on the sample

This chapter is meant to provide further insights into the collected data besides the used regression variables. The aim is to clarify which characteristics prevail within the middle management sample as these managers determine, theoretically and practically, the success of strategy implementation. Consequently they have to show specific characteristics in order not to bias the sample and the subsequent results. In addition, typical company size measures will be analyzed. Thus, selected descriptive results concerning the examined mid-level management as well as their respective companies will be presented and discussed.

Perceived environmental uncertainty

Since perceived environmental uncertainty is used as a moderator variable, it is worthwhile to analyse it a little bit closer. As explained in the measures section, it was put together as a formative index from several dimensions, which will be analysed separately along the different company sectors. With regards to marketing competition as well as demand pressure from customers, the mid-level managers within the banking industry seem to perceive only moderate uncertainty since averages are below the medium value of four and corresponding standard deviations are low (table 2). In contrast, mid-level managers within the utilities sector perceive higher uncertainty values according to the respective averages. Slightly above medium are the uncertainty perceptions for all sectors with regards to the predictability of competitor actions. Considerably high uncertainty perceptions within the banking industry prevail in overall competitive intensity as well as in regulatory intensity. This is not surprising since banking, at least in Germany, is highly competitive due to the specific sub-sector landscape where credit unions, savings banks and private banks compete for a fixed market share with very few opportunities for market consolidation. In addition, the German market is one of the most regulated markets in Europe and the financial market crisis will further intensify the regulatory framework. Middle managers in public utilities companies perceive slightly heightened competitive intensity and considerably high regulatory pressure, both of which might stem from recent political developments, introducing several instruments to intensify and concurrently regulate competition with the aim of turning energy prices down.

Category of Uncertainty	Credit unions		Savings banks		Public Utilities	
	ø	STDEV	ø	STDEV	ø	STDEV
Marketing competition	3,4	1,3	3,2	1	4,3	1
Demand pressure	3,7	1,3	3,6	1,2	4,8	0,5
Unpredictability of competitive actions	4,4	1,2	4,3	1,3	5	0,8
Competitive intensity	6,2	0,7	6,2	0,7	5,5	1
Regulatory intensity	6,1	1,1	6,3	1	6,3	0,5

Table 2: Descriptives on perceived environmental Uncertainty

Middle Management characteristics

Budget control

Since resource allocation by the definition used in this dissertation represents strategy implementation, it is important that mid-level managers have control over considerable budgets. As table 3 summarizes, most middle managers control considerably high budgets, although there exists a slightly mixed picture with regards to industries or industry sub-classes, respectively. Within the credit union sector, a considerable number of budgets (≈ 37 %) reside below the top class of € 250,000 and above, thus leaving only ≈ 44 % in the maximum budget control category. In contrast, within the savings banks sector, ≈ 70 % of respondents exert control over € 250,000 and more. Obviously the middle management in savings banks is granted a higher proportion of budget control as compared to their peers in credit unions. The picture in public utility companies is fairly mixed as well as incomplete since the overall number is considerably low and only half of them shared any information on their budget control[11].

Class of budget control	Credit unions		Savings banks		Public Utilities	
	#	%	#	%	#	%
Below € 10.000	1	1.9%		0.0%		0.0%
€ 10,000 to € 49,999.99	2	3.7%	1	2.7%	1	25.0%
€ 50,000 to € 99,999.99	4	7.4%		0.0%		0.0%
€ 100,000 to € 249,999.99	13	24.1%	5	13.5%		0.0%
€ 250,000 and above	24	44.4%	26	70.3%	1	25.0%
No Information	10	18.5%	5	13.5%	2	50.0%
Sum	54	100%	37	100%	4	100%

Table 3: Distribution of budget control

Professional background

In order to make sure, that mid-level managers responsible for execution of marketing strategies and the respective resource allocation in marketing instruments have the appropriate experience and know-how in this field, they were asked to indicate the functional area in which they had the most experience. Reassuringly, as table 4 indicates, the overwhelming proportion of middle managers responsible for marketing instruments is quite experienced in this very function. Only a small fraction has more experience in Finance/Controlling or Corporate development/Strategy. These results are similar in all three sectors. Besides the mentioned significant budget control, most of the middle managers do have the relevant experience in marketing and sales.

Professional background categories	Credit unions		Savings banks		Public Utilities	
	#	%	#	%	#	%
Finance/Controlling	6	11.1%	3	8.1%	1	25.0%
Marketing/Sales	42	77.8%	27	73.0%	2	50.0%
Human Resources/Organization	1	1.9%	1	2.7%		0.0%
Technology/Production		0.0%		0.0%	1	25.0%
Corporate Development/Strategy	3	5.6%	6	16.2%		0.0%
Others	1	1.9%				
No Information	1	1.9%		0.0%		0.0%
Sum	54	100%	37	100%	4	100%

Table 4: Distribution of professional background categories

[11] As already indicated above, it is worth mentioning that three questionnaires were excluded from analysis as the mid-level managers indicated that they did not have any budget control at all.

Tenure in current position

As they are directly related to a control variable, the descriptive findings regarding tenure in current position will be analyzed in the following. Within the sectors of credit unions and savings banks, the average tenure indicates considerable experience in the respective middle management position for all middle managers (above 7 years on average). But the standard deviation, almost as high as the average, tells a different story (see table 5). Obviously the picture is fairly mixed, meaning that very low as well as very high tenures are represented. Therefore, I conducted an analysis by tenure categories. This shows that a large number of middle managers within the credit union sector have tenure above 3 years (more than 60 %) and additional 20 % show tenure above 10 years. Similar figures apply to the savings banks: More than 50 % have tenure above 3 years, almost 25 % above 10 years. With respect to public utilities, average, as well as standard deviation is considerably lower, this is as well displayed in the category view. Overall it can be stated that in the banking sectors tenure is relatively high, whereas tenure seems to be medium in utilities sector.

Tenure categories	Credit unions		Savings banks		Public Utilities	
	#	%	#	%	#	%
Under 3 years	10	18.5%	9	24.3%	1	25.0%
3 to 10 years	33	61.1%	19	51.4%	3	75.0%
10 years and above	11	20.4%	9	24.3%		0.0%
Sum	54	100%	37	100%	4	100%
Average	7.8		7.5		3.8	
Standard deviation	6.5		6.2		2.2	

Table 5: Distribution of tenure in current position

Company characteristics

As the sample consists of two different industry sectors, banking and utilities, the size characteristics of the represented companies should be examined. According to the information displayed in table 6 credit unions are mostly small sized, savings banks in contrast are mostly medium sized with regards to the balance sheet total. This picture changes slightly regarding the employee numbers (table 7): Credit unions are rather medium sized, whereas savings banks are comparably large. Utility companies once again show a mixed picture: In terms of turnover as well as in terms of employee numbers they have a wide range between small and comparably large.

Banking: Class of balance sheet total	Credit unions		Savings banks		Utilities: Class of turnover total	Public Utilities	
	#	%	#	%		#	%
Below € 1 billion	36	66.7%	3	8.1%	Below € 5 million		0.0%
€ 1 bil to under € 5 bil	16	29.6%	26	70.3%	€ 5 mio to under € 50 mio	1	25.0%
€ 5 bil to under € 50 bil	1	1.9%	8	21.6%	€ 50 mio to under € 500 mio	2	50.0%
€ 50 bil to under € 500 bil		0.0%		0.0%	€ 500 mio to under € 1 bil		0.0%
€ 500 billion and above		0.0%		0.0%	€ 1 billion and above	1	25.0%
No Information	1	1.9%		0.0%	No Information		0.0%
Sum	54	100%	37	100%	Sum	4	100%

Table 6: Distribution of balance sheet total/turnover

Class of number of employees	Credit unions		Savings banks		Public Utilities	
	#	%	#	%	#	%
Below 100	16	29.6%	1	2.7%	1	25.0%
100 to 499	34	63.0%	16	43.2%	1	25.0%
500 to 4,999	3	5.6%	20	54.1%	2	50.0%
No Information	1	1.9%		0.0%		0.0%
Sum	54	100%	37	100%	4	100%

Table 7: Distribution of number of employees

5.2.2. Results of main effect regression analysis

Table 8 provides the summary statistics and Pearson Correlations for the variables tested in the following regression analyses. The matrix shows that existing significant correlations are only moderate. This is a first indication that the regression analysis can comply with the premise of non-existent multicollinearity. Nevertheless this premise will be controlled for by additional statistical instruments during the course of this analysis since the displayed correlations only show correlations between two variables, which is not sufficient (Backhaus et al., 2008).

The observable moderate and significant correlation between variable pay and individual performance evaluation is not surprising since variable pay is always granted on some kind of performance valuation. This valuation sometimes is designed in an individual basis.

Two variables show a considerably high variance around their mean: Tenure position as well as variable pay. Tenure position has already been analyzed on sub-sector basis in the descriptive findings (chapter 5.2.1.). As far as variable pay is concerned the base data shows that the existing values within the sample vary in a range from 0 % to 30 %. This variance is beneficial for the regression analysis since observable variance helps to trace the influence of variable pay on a metric basis as opposed to a nominal or ordinal basis.

Variables	ø	SD	N	1	2	3	4	5	6	7
1. Deviation in resource allocation	0,27	0,18	95							
2. Industry	1,47	0,58	95	-.083						
3. Tenure position	7,48	6,30	95	-.104	-.086					
4. Time lag strategy announcement	4,36	1,14	95	.076	-.034	.215*				
5. Discretion	5,09	1,03	95	-.048	-.207*	.152	.003			
6. Development tools	0,62	0,24	95	.042	.028	-.096	.014	.248*		
7. Variable pay	9,16	7,48	95	-.175	.212*	.009	.038	.037	.198	
8. Individual performance	3,61	1,92	95	-.026	.139	-.132	-.101	.043	.198	.428*

†: p ≤ 0,1; *: p ≤ 0,05; **: p ≤ 0,01; ***: p ≤ 0,001

Table 8: Pearson correlations, means & standard deviations for variables

As indicated in chapter 5.1.3. (“Data analyses”) I have used a multiple, linear hierarchical regression analysis to test the main effect hypotheses by regressing deviation in resource allocation on various control as well as explanatory variables. Prior to reporting on the respective results it is necessary to report on the main premises which have to be met within linear regression analysis, namely non-collinearity between independent variables, no heteroscedasticity as well as no autocorrelation of the residual, and the correct specification of the model.

According to the usual premises, independent variables enclosed within a regression model have to be independent from each other (i.e. showing no multicollinearity) otherwise the researcher would risk a decreased precision of the estimated values (Backhaus et al., 2008). To control for multicollinearity besides the already mentioned analysis of the correlation matrix a statistical instrument provided by the used statistical software PASW statistics has been used: The Variance Inflation Factor (short: VIF). The benefit of using VIF in contrast to correlations analysis is the fact that VIF values enclose the analysis of collinearity between all variables instead of only two as it is the case in the classic correlation matrix. According to older sources this factor should not exceed a value of ten, otherwise mulitcollinearity can be expected to pose a serious problem (Kennedy, 1980). Since the actual VIF values do not exceed a value of 1.31 it can be noted that even under a much lower and thus more conservative limit, multicollinearity does not pose a problem since the minimum value of the VIF is 1.

The problem of heteroscedasticity occurs when the distribution of residuals included within the dependent variable is not constant. In this case, the residuals would be dependent on the sequence of the observations. A practical example would be increasing residuals in a sequence of observations due to measurement mistakes caused by decreasing concentration of the observed respondent (Backhaus et al. 2008: 85). Inefficient estimations of the standard error of the regression coefficient would be the consequence. To control for heteroscedasticity Backhaus et al. (2008) suggest amongst others a visual inspection of the residuals by plotting them against the estimated values of the dependent variable. As this inspection did not yield any signs of heteroscedasticity here, I have assumed that it is no problem within my regression analysis.

Another difficulty when using regression analysis might be autocorrelation, meaning that residuals are correlated to each other. This problem is only detectable in longitudinal data and usually the Durbin/Watson test would be used (Backhaus et al., 2008: 98). As I have collected cross-sectional data only, a test for autocorrelation would be meaningless because the sequence of the data could be changed in any order and can therefore not lead to autocorrelation based on subsequent measurements related to each other. Thus I have omitted the test and assume that based on the fact that I collected cross-sectional data only autocorrelation does not pose a problem.

The number of 95 matched pairs does not indicate any over-specification errors since only 4 independent and 3 control variables have been used thus leaving enough degrees of freedom. Also, a sample of 95 matched pairs meets the minimum of 40 cases (Backhaus et al. (2008: 90) called for in order to make sure, that tests for significance (F-test and t-test) are valid irrespective of the distribution of the residuals, which should be the normal distribution.

The hypotheses have been tested by regressing resource allocation deviation (i.e. the inverted empirical measure for strategy-consistent resource allocation) on middle management discretion, middle management development tools, variable pay and individual performance evaluation. In addition, I have controlled for industry effects by using a sector dummy, and for tenure position as well as time lag since strategy announcement since the latter two variables exerted significant influence in previous studies. As already mentioned, I have tested the hypotheses in a hierarchical regression analysis, meaning that I have added the variables stepwise starting with the control variables (table 9). I have displayed the overall variance explained (adjusted R^2) as well as the additional variance explained by each model in contrast to the preceding one (Δ adjusted R^2).

As can be seen in table 9, the control variables did not have any significant effect on deviation in resource allocation within the tested sample. Especially the industry a matched pair belongs to did not have any influence thus the potential effects of the independent variables are valid for all tested sectors.

Hypothesis 1a theoretically predicted that higher discretion levels granted to mid-level managers will directly lead to higher likelihood of strategy-consistent resource allocation. Since strategy-consistent resource allocation has been measured inversely (i.e. by deviation in resource allocation) the empirical prediction is that higher discretion levels granted to mid-level managers will directly lead to lower deviation in resource allocation. Although the regression coefficients are negative which was hypothesized, none of them is significant therefore hypothesis 1 is not confirmed.

Hypothesis 2a assumed that higher usage of middle management development tools (e.g. to train them or make them acquainted with higher order lead functions) will increase the likelihood of strategy-consistent resource allocation deviation. Again, the empirical prediction is that higher usage of middle management development tools will directly lead to lower deviation in resource allocation. As these regression coefficients are again not significant the hypothesis was not supported by the analyzed sample.

According to hypothesis 3a higher levels of variable pay should lead to higher likelihood of strategy-consistent resource allocation. Empirically, this means that higher levels of variable pay should decrease the level of resource allocation deviation. The regression coefficient in the full scope model is negative and significant at a 10 % level, meaning that the probability of error with regards to accepting the hypothesis wrongly lies between 5 and 10 %. Although this is a rather weak significance level it can be stated that variable pay has a positive effect on strategy-consistent resource allocation, thus hypothesis 3a is temporary supported.

Hypothesis 4a predicted that performance measurement at the individual level will lead to a high likelihood of strategy-consistent resource allocation. The empirical interpretation for hypothesis testing is that performance measurement at the individual level will lead to low likelihood of deviation in resource allocation. Since the regression coefficient is neither negative nor significant hypothesis 4 is not confirmed by the collected data.

Looking at the values of adjusted R² it can be stated that the variance explained of any regression model is zero. In addition, the F-values are not significant. Consequently, none of the overall-models is significant or does explain any variance thus a substantial explanation for deviation in resource allocation can not be given. Just one single effect could be shown but it is not powerful enough to deduct operational policies for practical usage in companies of the tested industries.

Variables/Models	A	B	C	D	E
Industry (C)	-,091	-,101	-,105	-,066	-,069
Tenure position(C)	-,134	-,127	-,120	-,114	-,109
Time lag strategy announcement (C)	,102	,101	,098	,105	,110
Discretion (H1a)		-,049	-,063	-,058	-,060
Development tools (H2a)			,048	,081	,076
Variable pay (H3a)				-.178	**-.199**†
Individial performance evaluation (H4a)					,053
Adjusted R^2	-,003	-,011	-,020	-,001	-,010
Δ Adjusted R^2	-	-,008	-,009	,019	-,009
F-Value	,919	,737	,623	,980	,861

†: p ≤ 0,1; *: p ≤ 0,05; **: p ≤ 0,01; ***: p ≤ 0,001; All Variance Inflation Factors < 1,31

Table 9: Results of main effect regression analysis for resource allocation deviation

5.2.3. Results of moderator/subgroup regression analysis

In chapter 5.1.3. (“Data analyses”) I have specified that detecting moderating effects in a sample size like mine requires a special approach. The approach is called subgroup analysis or ”split group technique” and was described and discussed in deep by Arnold (1982).

Basically, the assumption in hypothesizing moderating effects is that a relationship between an independent and a dependent variable is conditional upon a third variable. That means the form (the regression coefficients) of the relationship varies with the moderator, i.e. the moderator and the independent variable interact in determining the dependent variable. It is important to note that, technically spoken, the moderator might as well be the independent variable and vice versa, meaning that only the correct specification of a moderated regression can determine which is the moderator and which is an independent variable.

In my study, environmental uncertainty is expected to moderate Stewardship as well as Agency variables. Specifically, low values of environmental uncertainty should lead to significantly positive effects of any independent variable whereas high values should lead to weaker effects. The analysis of these hypotheses by a subgroup approach means to calculate two different full scope regression models, one of them under the condition of low environmental uncertainty, the other one under the condition of high environmental uncertainty. The separation of low versus high values of environmental uncertainty is accomplished by splitting the sample at the median value of environmental uncertainty. Thereby a central premise of this approach is met: the moderator variable has to be dichotomous in order to provide a possibility to finally test the moderating effect (Arnold, 1982).

As table 10 shows, three variables show significant regression coefficients at one level of environmental uncertainty and no significant coefficients at the other level of environmental uncertainty: The results indicate that environmental uncertainty moderates the main effects of tenure position, discretion and variable pay. The corresponding VIF values are below 1,9 therefore again, multicollinearity is no issue. Also all other conditions for correct estimation of a regression analysis are met.

Yet according to Arnold (1982) this result is only a first step. Speaking in scientific terms, the confirmation of changing significance levels is just the necessary condition for proofing the existence of a moderating effect. The sufficient condition would be to show that the regression coefficient in the subgroup with low environmental uncertainty is significantly different from the coefficient of the same variable within the high environmental uncertainty subgroup which is only possible if the moderator variable is dichotomous, as I have already indicated above. Thus, Arnold (1982: 156) suggests conducting a t-test of the following mathematical shape:

$$t = \frac{C_{1\,low} - C_{1\,high}}{\sqrt[2]{((SE\ C_{1\,low})^2 + (SE\ C_{1\,high})^2)}} \quad \text{with } (n_{low} + n_{high} - 4)\ \textit{degrees of freedom}$$

where

$C_{1\,low}$ = Regression coefficient for variable 1 for those cases having a low environmental uncertainty

$C_{1\,high}$ = Regression coefficient for variable 1 for those cases having a high environmental uncertainty

$SE\ C_{1\,low}$ = Standard error of estimate for $B_{1\,low}$

$SEC_{1\,high}$ = Standard error of estimate for $B_{1\,high}$

Statistically, the difference between the regression coefficients in the low versus the high level group is significant, if the empirical t-value is higher than the theoretical t-value.

The empirical t-value of tenure position was below the theoretical t-value indicating that the differences between the regression coefficients is not significant and a moderator effect has to be rejected even though the necessary condition of changing significance levels between the subgroups was met. Thus, also in the moderator model the control variables did not have any significant effect on deviation in resource allocation within the tested sample.

Hypothesis 1b predicted that environmental uncertainty will moderate the relationship between discretion level and likelihood of strategy-consistent resource allocation. In the inverted terms of the empirical test that means that under high levels of uncertainty the negative effect of discretion level on resource allocation deviation will weaken. As the results of the respective regression analysis in table 10 shows, there exists no effect of discretion level on resource allocation deviation under high environmental uncertainty. But under low environmental uncertainty the effect is significantly negative. In addition, the analysis of the differences of the regression coefficients regarding discretion shows that the empirical t-values of the discretion coefficients exceed the theoretical t-values by far thus fulfilling the necessary condition of a moderator effect exerted by environmental uncertainty at a significance level of 0.001 under the given degrees of freedom (i.e. $df = 91$). Therefore hypothesis 1b has been temporary supported.

Hypothesis 2b assumed that environmental uncertainty will moderate the relationship between usage of middle management development tools and the likelihood of strategy-consistent resource allocation. In empirical terms the likelihood of resource allocation deviation will increase under high environmental uncertainty. As the regression coefficients in none of the subgroups have been significant the hypothesis has not been supported by the analyzed sample.

Hypothesis 3b predicted that environmental uncertainty will moderate the relationship between variable pay and likelihood of strategy-consistent resource allocation. In the inverted terms of the empirical test that means that under high levels of uncertainty the negative effect of variable pay on resource allocation deviation will weaken. As the results of the respective regression analysis in table 10 shows, there exists no effect of variable pay on resource allocation deviation under high environmental uncertainty. But under low environmental uncertainty the effect is significantly negative. In addition, the analysis of the differences of the regression coefficients regarding variable pay shows that the empirical t-values of the variable pay coefficients exceed the theoretical t-values by far thus fulfilling the necessary condition of a moderator effect exerted by environmental uncertainty at a significance level of 0.001 under the given degrees of freedom (i.e. $df = 91$). Therefore hypothesis 3b has been temporary supported.

Hypothesis 4b predicted that environmental uncertainty will moderate the relationship between performance measurement at the individual level and the likelihood of strategy-consistent resource allocation. In empirical terms the likelihood of resource allocation deviation will be high under high environmental uncertainty. As the regression coefficients in none of the subgroups have been significant the hypothesis has not been confirmed by the collected data.

Looking at the values of adjusted R^2 it can be stated that the variance explained in the low environmental uncertainty subgroup regression model is 6.5 %. The F-value of this subgroup is not significant. The adjusted R^2 in the high environmental uncertainty subgroup is 1.6 %, but again the F-value of the whole model is not significant. Overall two significant moderating effects have been detected which will enable the deduction of operational policies for practical usage in companies of the tested industries.

Variables	Environmental Uncertainty Low	Environmental Uncertainty High	Group Δ
Industry (C)	,068	-,178	
Tenure position(C)	,054	**-.291**†	n.s.
Time lag strategy announcement (C)	,241	,050	
Discretion (H1b)	**-.293**†	,190	***
Development tools (H2b)	,226	-,046	
Variable pay (H3b)	**-.348**†	-,051	***
Individial performance evaluation (H4b)	,053	,074	
Adjusted R^2	,065	,016	
F-Value	1,419	1,117	

†: p ≤ 0,1; *: p ≤ 0,05; **: p ≤ 0,01; ***: p ≤ 0,001; All Variance Inflation Factors < 1,9

Table 10: Results of moderator regression analysis for resource allocation deviation

In order to deliver an overview on the results of empirical testing for all calculated regression analyses, I have indicated within the hypothesis overview presented in figure 7 which hypotheses gained temporary support and which have been successfully falsified. Hypotheses which gained temporary support have been denoted by a check mark and rejected hypotheses have been marked by a cross.

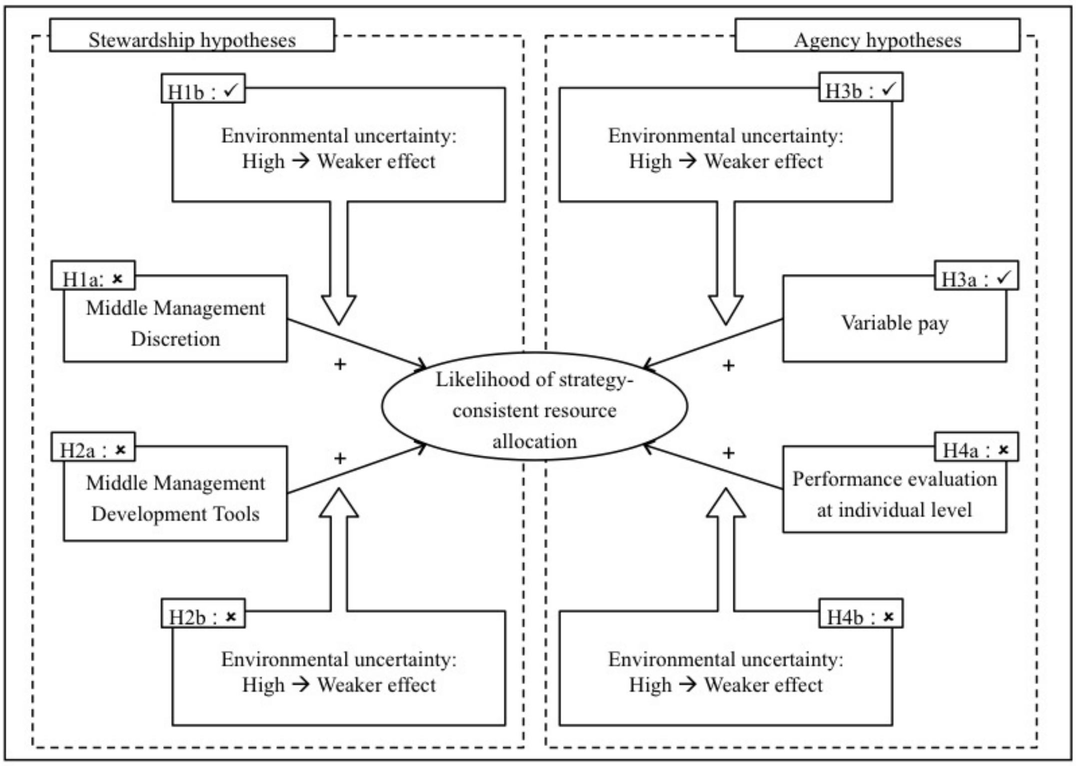

Figure 7: Results of empirical testing of central hypotheses framework

6. Conclusion

6.1. Discussion

6.1.1. Discussion of results

This empirical survey had three main goals: The first goal was to test which administrative mechanisms at middle management level would have direct effects on success in strategy implementation. Administrative mechanisms, though, have been based on two conflicting theoretical viewpoints, namely Agency vs. Stewardship theory. Therefore the empirical test should also have helped to clarify which of the two viewpoints, if any, can be seen as the most appropriate one in strategy implementation or, alternatively, whether both viewpoints represent rather two sides of the same coin. In addition, the second goal was to determine whether environmental uncertainty, understood as a context factor under which strategies have to be implemented, would indirectly affect success in strategy implementation by moderating the direct effects of administrative mechanisms. The third goal was to develop and test empirically an appropriate measure for strategy implementation success which is able to clearly separate implementation success from strategy success.

Empirical results regarding the direct effects did not in all cases yield the hypothesized effects. All relations, but one, were insignificant. Only variable pay, representing an Agency-related administrative mechanism, showed a significant negative effect on deviation in resource allocation thus temporary confirming the positive influence of incentive pay on success in strategy implementation. The second Agency-related mechanism, i.e. individual performance measurement did not affect success in strategy implementation which, in fact, led to a successful falsification of the underlying hypothesis in the best sense of Popper (2002) who claimed that the aim of any empirical testing should be the falsification of the tested hypotheses. The question is which reasons might be responsible for the failed confirmation of this hypothesis. On the one hand, it might be possible that asking for the effects of performance measurement at the individual level only has not been sufficient since it only represents half of the needed information. It might have proven helpful to test the opposed hypothesis as well which would have meant to test whether performance evaluation at the company level, thus far away from the middle management responsibility level, would have had negative effects on the likelihood of strategy-consistent resource allocation. Thus, a combined test of both hypotheses might have yielded significant results since the fact that measurement at individual level has no effect does not mean that measurement at the top level does not harm success in strategy implementation or strategy-consistent resource allocation, respectively. In addition, addressing a similar issue, due to the dichotomous focus on individual level measurement the effects of mixed evaluation approaches like for example the measurement of 30 % at the individual level, 40 % at business unit level, and another 30 % at company level would have been a more practically relevant approach thus yielding significant results. On the other hand, there are additional measurement approaches for middle management performance like subjective versus objective measurement which in the context of strategy implementation issues might add significant variance explanation. Therefore, this will be addressed again in the section on implications for future research.

Besides, all Stewardship-related administrative mechanisms, i.e. middle management discretion, and middle management development tools did not yield any significant effects thus again leading to a successful falsification of the respective hypotheses. A potential reason for this failed temporary support of these hypotheses might be seen in the phenomenon which Argyris (1973) called the self-fullfilling prophecy of a management philosophy based on the Agency theory model of man[12]. In fact, as my practical experience shows, nearly every company is aware of the fact that its employees as well as its managers might behave in an opportunistic way thereby acknowledging the need of Agency theory based control and/or incentive systems. As opposed to this experience, Stewardship theory explanations are not as widely distributed as are Agency explanations. Consequently, while nearly every company at least is aware of the negative performance implications opportunistic behavior of their employees at every level might have, a considerably lower number is aware of the fact that co-operative models of man can deliver true economic success. Thus, the Agency model of man might really pose a dominant self-fulfilling prophecy and consequently any Stewardship related administrative mechanism is only followed for some reason of political correctness. But to be indicative for success in strategy implementation it

[12] This assumption has already been discussed in chapter 4.2.2.

would have to be followed with true energy not as an alibi. In this respect an empirical test of the dominant management philosophy and the dominant model of man, respectively, might prove to be an excellent future research opportunity. Although this opportunity seems to be pretty interesting, it would mean to open up a considerably wider field of research thus leaving the small issue of strategy implementation success. Therefore it will not be addressed in the section on implications for future research. But deciding upon these results that Agency theory is the most appropriate theoretical lens to use in strategy implementation issues would surely be jumping to conclusions as long as the full scope of the study has not been taken into account. Specifically, the failed confirmation of the Stewardship-related hypotheses might as well be due to untested contextual factors, this assumption is to be addressed in the following paragraphs.

Besides the hypothesized direct effects, there have been some indirect hypotheses regarding potentially moderating effects of environmental uncertainty which also have to be analyzed since they also used both theoretical viewpoints. The basic assumption regarding the moderating effects of environmental uncertainty was that high environmental uncertainty would lead to high perceived business risk. This business risk perception would in turn lead to significant performance risk and subsequently to compensation and job-security risk on the part of the middle management responsible for strategy implementation as long as business risk would be transferred to them by variable pay or increased responsibilities. The problem is that middle managers can not control the environmental impact on company performance and therefore are expected to refuse any administrative mechanisms which further transfer risk to them. Consequently, low levels of environmental uncertainty would make the risk transfer work, high levels would hinder the risk transfer.

This assumption proved to be partly correct since the empirical test for two of the four moderating effects of environmental uncertainty have been significant in two ways: Firstly, under low environmental uncertainty the use of variable pay as well as discretion led to significant negative impact on deviation in resource allocation. Secondly, under high environmental uncertainty this effect disappeared and it could be shown by an additional test that both subgroups (high vs. low environmental uncertainty) were different on a maximum level of significance thus temporary supporting the basic assumption of a moderating effect of environmental uncertainty under both theoretical viewpoints. The remaining two moderating effects environmental uncertainty has been proposed to have did not yield significant effects: Neither the effect of usage of middle management tools nor the effect of performance measurement at the individual level on strategy-consistent resource allocation has been significant. An obvious but simple explanation would be that the assumed risk transfer implied by both hypotheses simply is no issue, meaning that management development tools are reasonable under any context, even under environmental uncertainty. As far as the measurement of middle management performance at the individual level is concerned, the risk transfer might as well be completely acceptable since a respective middle manager might always have the needed self-confidence in his or her own capabilities thus appreciating the measurement at the individual level under any circumstance, especially since the effects on compensation are not as direct as they are in the case of variable pay.

Overall it can be stated, that the main effects of administrative mechanisms on strategy implementation success are limited but get partly obvious and profound as soon as the contingency factor environmental uncertainty is used. Obviously a research perspective focusing on direct effects only leads to oversimplification since in my case significant effects in administrative mechanisms based on both theoretical viewpoints appeared in the moderating effects analysis whereas the main effect analysis would have led to incomplete findings and conclusions. Consequently, it has to be noted that both of the theoretical viewpoints, Agency as well as Stewardship theory, provided different but working administrative mechanisms. Therefore the major conclusion is that successful strategy implementation or strategy-consistent resource allocation, respectively, depends on the correct analysis and inclusion of context factors rather than on a specific theoretical viewpoint applied.

Besides the results from empirical testing of the hypotheses, the chosen two-sided measure of resource allocation deviation as measure for strategy implementation success proved feasible. Thus I have successfully developed and employed a measure which evaluates strategy implementation success only, and is not mixed up with strategy success. In addition, this measurement approach is completely consistent with my basic understanding of strategy implementation as a resource allocation process.

6.1.2. Discussion of contribution

The crucial goal of any empirical study, especially in strategic management, where the findings should be applicable in practice, is to develop the addressed subject further for example by broadening the theoretical basis or by identifying new, additional success drivers. Thus every researcher should try to clarify where he or she effectively contributed to the research on the chosen subject. Therefore, in what follows, I will discuss how my study and its results, respectively, contribute to research in the field of strategy implementation success.

First, on the theoretical side, since most previous studies have used contingency theory to explain effects on strategy implementation success I have contributed largely to strategy implementation research in presenting the first study which uses an integrated theoretical framework of Agency- and Stewardship theory in order to explain the behavior of the basic organizational level held responsible for strategy implementation success: the middle management.

Second, only a small fraction of previous studies (e.g. Dobni & Luffman, 2003) have taken contextual, thus indirect effects on strategy implementation success into account. Since perceived risk is an especially important part of the theories I have used, I have enclosed environmental uncertainty, interpreted as the major driver for risk perceptions into my analysis as a moderator variable. By this, I have expanded the widely used approach of only taking direct effects on strategy implementation success into account.

Third, as indicated in the literature review section, previous studies have used a large variety of descriptions for the basic conception of strategy implementation. These conceptions could be categorized into three distinct types: Contingency focused, behavior focused, and resource focused. The resource focused conception, although prevalent in practice as my expert interviews denoted, has only been used by one single previous study (Richter & Schmidt, 2005). So, I have provided the second empirical study focusing on strategy implementation as the process of strategy-consistent resource allocation.

Fourth, as indicated by stylized fact 2 and the respective discussion, almost every prior study used company performance at various levels and to various extents as a measure for strategy implementation success which in my view is not acceptable as the performance effects of strategy implementation can not be separated from the performance effects of the pursued strategy. Therefore, I have developed a two-sided measurement approach thereby preventing a single source bias, and measuring deviation in resource allocation by comparing the resource allocation decisions actually taken by mid-level marketing managers with the “to be” allocations top executives deemed correct according to the strategic plan. Since in my understanding strategy implementation is represented by strategy-consistent resource allocation I have explicitly and separately measured strategy implementation success.

Since the study conducted by Richter & Schmidt (2005) is the one my own study is closest to, I want to outline the differences between our studies briefly. With regards to data collection, we had pretty different approaches: While I have addressed two different industries and 95 different companies, the have focused on one industry and two different companies. In addition, I have collected primary data using a questionnaire, and Richter & Schmidt collected secondary data only. As far as the dependent variable, evaluation of consistency in resource allocation is regarded, the difference between our approaches lies in the fact that they have used a rating approach while I have applied a direct, two sided measurement as indicated above. Overall, except for one, they have used different influence factors on strategy implementation success: Hierarchical level, decision timing, and resource type. The influence factor which is somewhat similar to my own influence factors is the administrative context but it did not yield significant results. I have summarized the major difference between our studies in figure 8.

Dimensions of distinction	Richter & Schmidt (2005)	Kloninger
Industry focus	Pharmaceutical industry	Banking & public utilities
Number of different companies involved	2	95
Data collection method	Secondary data	Primary data
Measurement of resource allocation consistency	Rating of taken decisions against published plans	Two-sided comparison of actual resource allocation

Source: Own depiction

Figure 8: Distinction between Richter & Schmidt (2005) and Kloninger

6.2. Limitations of the study

This study has been limited in that it exclusively focused on one influence factor on strategy implementation success: the middle management and its risk perceptions vis-à-vis environmental uncertainty. As the literature review has shown, there exist various sources of influence on strategy implementation success. Although I interpreted middle management as the key determiner for success in strategy implementation it is important to be aware of further potential influences on successful strategy implementation, especially in the light of the conception of strategy implementation I have used. For example, further investigations into the detailed design of an appropriate incentive system seem necessary. In addition resource allocation issues and processes have been omitted in my analysis and will have to be examined since this process is central to success in strategy implementation. Also, I have focused on marketing-related strategies only, thus the empirical test of my theoretical explanations could only be explored in this small fragment of strategy types. An expansion to other strategy types seems to be necessary.

A further limitation can be seen in the relatively small sample size and the exclusive focus on two of three parts of the German banking industry. This limits the possibility to generalize the findings to banking. In addition, other industries should be examined with larger samples in order to examine industry specific influence factors on strategy implementation success. Although I tried to encompass at least one other industry the small fraction of utility companies did not yield enough potential for inter-industry variance.

Another limitation can be seen in the fact that only cross-sectional data has been collected. A longitudinal study would have the potential of clarifying whether the effects of administrative mechanisms as well as environmental uncertainty are fully reflected in the strategy implementation success of the current period or whether they might affect strategy implementation success in subsequent periods as well.

6.3. Implications from the study

6.3.1. Implications for Practice

The results of this study have both practical and theoretical relevance. At the level of practice, they suggest that the top management of any company ought not to adopt a standardized, single approach to the way they perceive their middle manager's behavioral predispositions. This means that the usually exclusive focus on Agency related organizational design will have to be broadened to a combined Agency and Stewardship design since both of them have, at least with regards to strategy implementation issues, proven that they represent an important success driver. Thus both kinds of administrative mechanisms will have to be integrated in organizational design frameworks: Control and incentive systems to curb opportunistic behaviors as well as granting of considerable discretion levels in order to make economic use of the co-operative motivation a Steward has. In addition, the temporary supported moderating hypotheses show that companies need to adopt a flexible approach taking external factors like environmental uncertainty into account thus tailoring incentive systems and discretion structures to the respective impact of risk perceptions of middle managers, which in turn are driven by environmental uncertainty. In practical terms, this implies two steps: First, a given company would have to determine which level of environmental uncertainty is perceived at the middle management level prior to designing an incentive system. Second, the variable pay systems as well as routines of discretion granting would have to mirror the perceived environmental uncertainty. For both administrative mechanisms the empirical results imply that they will not work under high perceived environmental uncertainty, thus alternative ways of motivating middle managers for strategy-consistent resource allocation will have to be developed. In particular, this study has practical implications in two critical areas: strategic human resource management and incentive system design.

From the standpoint of strategic human resource management, this study has useful implications not only for those responsible for selection and development of general managers in banking industry but also for the general managers themselves. For an employer, the general manager selected for a job should be one whose discretion level is appropriate for the implementation of the intended marketing strategy. Likewise middle managers themselves should attempt to select a company with a discretion structure that fits their own expectations. In addition, Human Resource Management should be aware of the fact that environmental uncertainty will affect the usage of discretion by middle managers.

This study can also help practitioners develop new approaches to the design of incentive systems. Especially with respect to the effect of variable pay general managers can derive useful insights. Results of this study indicate that the simple application of an incentive system with variable pay will not secure pro-organizational behavior. Variable pay has rather to be contingent upon perceived employment or compensation risk influenced by environmental uncertainty.

6.3.2. Implications for Theory and Future Research

From the perspective of theory development this study adds to the stream of research in strategic management that has addressed strategy implementation issues at middle management level. This is the first empirical study that has examined the linkages between environmental uncertainty and classic theories of Agency perspective and Stewardship perspective.

In my view there exist at least two theoretical starting points from which future research could further develop the findings I presented since I only took these two aspects into consideration on a basic level. The first aspect would be further insights into incentive pay in analysing respective structures; the second aspect would be further insights into the overall metrics of resource allocation and resource provision, respectively. Both aspects will be elaborated in detail within the following paragraphs.

With respect to an incentive system using variable pay there are some additional structures which could be analysed like, for instance, the measurement criterion: Performance measurement can be divided into input- versus output-related measurement. Empirical results of Gupta (1987) show, that subjective performance measurement is most appropriate in strategy implementation tasks as opposed to objective measurement. One reason for these findings is that the highly complex and unprogrammable task environment implies a very low connection between middle management effort and implementation results. Consequently, in order to measure and evaluate a middle manager's implementation performance, a superior top manager should be able to trace and evaluate task trade offs on a subjective basis. This is not possible in objective measurement systems, which are not able to take dynamic implementation impediments into account (Gupta, 1987). These impediments might be quite numerous, as was shown in the review and interview section. Generally, the type of performance measurement might be added to future research designs.

A second insightful design instrument for an incentive system might be the evaluation term, meaning the distinction in long- vs. short-term performance evaluation. Reaching a strategic position as it is called for in a long-term strategic plan almost inevitably includes a variety of equivocal decision alternatives with respect to resource allocation. For example, the goal of customer satisfaction in industrial goods might be achieved by enforcing product quality, by investing in a high-quality brand image, or by investing in a highly-skilled sales force. Since financial resources are limited, the variability of alternatives creates uncertainty and complexity (Finkelstein & Boyd, 1998). Accordingly, the probability of swiftly identifying the best alternative decreases with an increasing number of alternatives. In addition, since strategy implementation is a task that needs cooperation on all hierarchical levels, any decision will take time to get into action properly. Therefore a short-term performance evaluation will not reflect the needs and situational contingencies of the strategy implementation task. Consequently a mid to long-term evaluation would be necessary and should therefore be reflected in future research designs.

One of the most important design variables in an incentive system is the pay mix. Pay mix usually covers the ratio of variable-to-base pay as well as the type of variable pay. Typically long-term variable pay can consist of equity holdings like stocks, stock options, or merit pay plans which determine future increases in base pay depending on current performance. Which form of variable pay should be chosen for managers responsible for strategy implementation? As indicated above, transferring risk to mid-level managers might fail due to a loss aversion. Besides the above mentioned issue of outcome-controllability, Bloom & Milkovich (1998) assume that the pay mix might as well be influenced by the loss aversion. They propose that greater business risk will lead to higher base-pay for managers. Managers will only accept increased risk-levels if they are offered some insurance protecting them against loss of future compensation or employment stability. Higher base-pay increases a manager's current wealth, thus rendering losses less painful. Consequently, higher base-pay is an insurance against the detrimental effects of high business risk. Statistics support this proposition. Eisenhardt (1988) uncovered that outcome uncertainty had a negative effect on the use of commissions and positively affected the use of salaries. Accordingly, under conditions of uncertainty, i.e. business risk, base pay was preferred vis-à-vis variable pay. In addition, Zajac & Westphal (1994) could empirically show that the use of stock options is related negatively to several measures of business risk. This is a strong indication that equity holdings of any kind are not able to mitigate the negative effects of incentive systems on risk preferences. In fact, this result is not surprising since business risk usually threatens firm performance thus decreasing the value of equity holdings. Subsequently, current wealth is still at stake.

Obviously middle managers have to be paid a risk differential that is itself not bound to business risk. As a consequence, based on findings of Bloom & Milkovich (1998) and Zajac & Westphal (1994) it could be assumed that merit pay plans are the best design alternative for variable pay since they will be able to mitigate goal incongruence *and* diverging risk preferences on the part of middle managers. This design element of an incentive system should therefore as well be included in future research designs in order to develop a comprehensive framework for the design of incentive systems used by top management to assure successful strategy implementation at the middle management level.

As indicated above, resource issues would have to be the second cornerstone of future research since resource allocation according to strategic goals proved to be a viable basic conception of the strategy implementation process. One first step would be the discussion of resource endowment or organizational resources, respectively.

As indicated in Chapter 2.2., strategy implementation is represented by the process of organizational resource allocation. In using a Stewardship as well as an Agency perspective, it was revealed that behavioral problems in allocating resources can be resolved properly. Although both theories have been shown to be a productive approach to the development of a strategy implementation theory, the question arises whether all resources needed in strategy implementation are under organizational or middle management control. In general, allocation decisions are dependent on resource sharing requirements within the organization as well as on resource acquisition options from outside the organization. Govindarajan & Fisher (1990) contribute to the issue of resource sharing by providing relevant empirical results. Their data shows that sharing specific resources, e.g. marketing resources, is associated with higher SBU effectiveness in any competitive strategy. Although resource sharing is not directly connected to resource availability, both constructs are closely correlated as coordination of resource needs within an organization is necessary in both cases. This notion is supported by the expert interviews I have conducted as well as specific empirical results provided by Miller (1997) and Richter & Schmidt (2005).

An organization needs to adjust to environmental uncertainty, cope with challenging interdependencies, and actively manage or control flows of strategic resources (Carroll, 1993; Oliver, 1991). In this context Barringer and Milkovich (1998) state that control of critical resources might not be shaped exclusively by external relations but also by internal actors. Therefore two different perspectives on resource allocation control are called for, one of them representing internal control, the other concerning external control of strategic resources (Pfeffer & Salancik, 1978; Ulrich & Barney, 1984).

As far as internal control is concerned, intraorganizational processes of strategic resource allocation are crucial since they determine organizational efficiency (Carroll, 1993). Key actors capable of influencing the allocation of those resources critical to organization performance will thereby inevitably gain considerable influence within a company (Pfeffer & Salancik, 1978). With respect to strategy implementation tasks, middle managers are assumed to be these key actors. Slack resources also contribute to strategic consistency in resource allocation since they also enable middle managers to lower allocation pressure which typically results from resource scarcity.

Two distinct categories of slack resources are generally used: Available or unavailable slack (Chattopadhyay, Glick, & Huber, 2001; Smith et al., 1991; Wiseman & Bromiley, 1996). Available slack resources are directly ready for discretionary use. Conversely, unavailable slack resides, for example, in an organization's cost structure and is therefore not readily usable (Mone, McKinley & Barker, 1998). Possessing slack resources creates greater organizational flexibility with regard to strategic resource allocations. Executives in charge of strategy implementation will experience considerably lower resource conflicts which in turn will increase their willingness and capability of allocating those strategic resources in accordance to the strategic master plan. Therefore, taking the availability of internal slack resources into account might prove useful in future research.

In addition to internal allocation of strategic resources also externally procured resources might be valuable to an organisation since they can also lower scarcity of strategic resources. External control of strategic resources is aimed at decreasing the company's dependence on external actors and/or increasing external actors' dependence on the individual company. A given company is not by itself able to generate all resources it needs to stay competitive (Pfeffer & Salancik, 1978). Since environments are said to show considerable variation with respect to their munificence, concentration, and interconnectedness (Lenz & Engledow, 1986), organizations face the challenge of controlling multiple relationships. These relations are established with providers of critical resources, be they governments providing funds, unions controlling personnel, or simply other firms (Barringer & Milkovich, 1998). Numerous scholars as well as previous research results indicated that strategic alliances are one of the most salient means to acquire external resources (e.g. Gulati, 1999; Ireland, Hitt, & Vaidyanath, 2002; Kale, Dyer, & Singh, 2002; Mellewigt, 2003). Accordingly, Dyer and Singh (1998) propose that in inter-firm cooperation inter-organizational competitive advantage may evolve with shared knowledge and resources. From a resource perspective these co-operations will mitigate detrimental effects of environmental uncertainty by providing external resource inflow. Thus resource allocation pressures in strategy implementation tasks will be decreased by inter-firm cooperation. Yet the positive influence of resource sharing on strategy-consistent resource allocation is expected to apply only to environments characterized by munificence. The justification of this contingency is that if resource scarcity is given, the possibility and rationality to share resources with others will decrease. Therefore, taking the availability of external resources based on cooperative relationships into account might prove useful in future strategy implementation research as long as the basic implementation process is seen in strategy-consistent resource allocation.

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Appendix A: Affirmation

<u>Eidesstattliche Versicherung</u>

Ich versichere, dass ich die vorliegende Dissertation selbständig verfasst habe. Andere als die angegebenen Hilfsmittel und Quellen wurden nicht benutzt. Die Arbeit hat keiner anderen Prüfungsbehörde vorgelegen. Es ist mir bekannt, dass ich bei Verwendung von Inhalten aus dem Internet diese zu kennzeichnen habe und einen Ausdruck davon mit Datum sowie der Internet-Adresse (URL) als Anhang der Dissertation beizufügen habe.

Datum, Unterschrift

Appendix B: Interview guideline

Date: ______________ Participant: ____________________________________

Position/role: ____________________________________

Telephone: ____________________________________

e-mail: ____________________________________

Note:

- In case a question cannot be answered, note the respective contact!
- Whenever a potential data access is apparent note data base name and responsible contact person!
- Whenever key departments, key teams or key players are apparent note names, functions and contact data!

---

a) What does your company understand by strategy implementation?

b) Which strategies or types of strategies, respectively, are to be implemented?

c) Which implementation obstacles emerge according to your experience? What are the relevant causes of these Obstacles?

d) Which solutions to these obstacles have been chosen in your company and how successful have they been?

e) Which special projects have been pursued in order to solve implementation obstacles, what were the goals and how successful have these projects been? How has success been measured?

f) Which general influence factors on strategy implementation success could you identify? Which effects do internal company factors (e.g. organization, employees) and external factors (e.g. competitors, market) have?

g) How do other companies you know cope with the implementation obstacles?

h) Which problems are to be solved besides?

Appendix C: Recommendation letter "Verband kommunaler Unternehmen e.V."

VKU

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Verband kommunaler
Unternehmen e.V.

Geschäftsführendes
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Empfehlungsschreiben:
Onlinebefragung zu Einflussfaktoren der unternehmerischen Ressourcenverteilung

27.04.2009

Sehr geehrte Damen und Herren,

vor dem Hintergrund der aktuellen wirtschaftlichen Lage gewinnt das Thema Ressourcenoptimierung in der unternehmerischen Praxis auch für kommunale Unternehmen stetig an Bedeutung. Viele strategische Projekte und Programme werden auf den Prüfstand gestellt, um Ressourcen frei zu setzen. Dabei können strategisch wichtige Projekte verschoben oder sogar abgebrochen werden, obwohl sie für den zukünftigen Unternehmenserfolg von großer Bedeutung sein könnten.

Das Institut für Management am Lehrstuhl von Prof. Dr. Thomas Mellewigt (Freie Universität Berlin) führt deshalb zurzeit eine Studie zu den Einflussfaktoren strategisch optimaler Ressourcenverteilung durch. Im Zentrum steht die Frage, wie Organisations- und Anreizinstrumente gestaltet werden müssen, um eine strategisch optimale Verteilung der knappen Unternehmensressourcen zu gewährleisten.

Im Rahmen der Studie werden mithilfe eines kurzen Online-Fragebogens elementare Praxisinformationen erhoben. Die Qualität und der praktische Nutzen der Untersuchung hängen entscheidend von der Mitwirkung von möglichst vielen Unternehmen ab. **Der VKU begrüßt die Fragestellung des Forschungsprojekts aufgrund seiner Praxisrelevanz und möchte Sie daher ermutigen, den Online-Fragebogen zu beantworten.**

Bankverbindung
Berliner Sparkasse
Bankleitzahl 100 500 00
Konto-Nr. 66 00 00 91 00
Ust.-IdNr.: DE 123065069

Der Zeitaufwand für die Beantwortung der Fragen für Sie und Ihre Mitarbeiterin/Ihren Mitarbeiter ist nachweislich gering. Als Dank können Sie am Institut für Management der Freien Universität Berlin einen detaillierten Endbericht anfordern und die praxisorientierten Ergebnisse für die eigene Unternehmensplanung nutzen.

Mit freundlichen Grüßen

Hans-J. Reck

Hans-Joachim Reck
Hauptgeschäftsführer

Appendix D: Brief summary of results

This dissertation focused on middle management behavior as specific success driver of strategy implementation. Applying two opposing theories, Agency- vs. Stewardship theory, the respective administrative systems which can be used to guide middle management behavior have been tested in an empirical survey. In order to incorporate potential effects of a company's environmental uncertainty on middle management behavior and the use of administrative mechanisms, respectively, the empirical analysis has been expanded to moderating effects to gauge the influence of environmental uncertainty.

Consequently, the empirical survey had two main goals: The first goal was to test which administrative mechanisms at middle management level would have direct effects on success in strategy implementation. Since administrative mechanisms have been based on two conflicting theoretical viewpoints, namely Agency vs. Stewardship theory, the empirical test should also have helped to clarify which of the two viewpoints, if any, can be seen as the most appropriate one in strategy implementation or, alternatively, whether both viewpoints represent rather two sides of the same coin. In addition, the second goal was to determine whether environmental uncertainty, understood as a context factor under which strategies have to be implemented, would indirectly affect success in strategy implementation by moderating the direct effects of administrative mechanisms.

With regards to direct effects on strategy implementation success only variable pay, representing an Agency-related administrative mechanism, showed a significant positive effect on success in strategy implementation thus temporary confirming the respective hypothesis. The assumption on the moderating role of environmental uncertainty proved to be partly correct since the empirical test for two of the four moderating effects of environmental uncertainty have been significant: Under low environmental uncertainty the use of variable pay as well as discretion led to significant positive impact on success in strategy implementation, while the positive effect diminished under high uncertainty. Overall it can be stated, that the main effects of administrative mechanisms on strategy implementation success are limited but get partly obvious and profound as soon as the contingency factor environmental uncertainty is used. Obviously a research perspective focusing on direct effects only leads to oversimplification since in my case significant effects in administrative mechanisms based on both theoretical viewpoints appeared in the moderating effects analysis whereas the main effect analysis would have led to incomplete findings and conclusions. Consequently, it has to be noted that both of the theoretical viewpoints, Agency as well as Stewardship theory, provided different but working administrative mechanisms. Therefore the major conclusion is that successful strategy implementation or strategy-consistent resource allocation, respectively, depends on the correct analysis and inclusion of context factors rather than on a specific theoretical viewpoint applied.

Appendix E: Brief summary of results – German version

Die vorliegende Dissertation analysiert das Verhalten des mittleren Managements einer Unternehmung unter der Annahme, dass dieses Verhalten ein spezifischer Erfolgsfaktor im Rahmen der Implementierung einer Strategie darstellt. Unter Anwendung zweier gegensätzlicher Theorien, der Agency Theorie einerseits sowie der Stewardship Theorie andererseits, werden administrative Mechanismen, welche genutzt werden können um das Verhalten des mittleren Managements zu steuern, empirisch auf ihre Einflusswirkung getestet. Dabei werden zusätzlich potentielle Einflüsse aus der Umwelt eines Unternehmens, sowie ihre Wirkung auf das Verhalten des mittleren Managements und die Nutzung der administrativen Mechanismen in die Analyse einbezogen, indem die potentiell moderierenden Effekte von Umweltunsicherheit betrachtet werden.

Daher hat die vorliegende empirische Untersuchung zwei Ziele: Als erstes soll getestet werden, welche administrativen Mechanismen direkte Effekte auf Erfolg in der Strategieimplementierung haben. Da die administrativen Mechanismen auf den beiden oben genannten, gegensätzlichen Theorien beruhen sollte der empirische Test auch genutzt werden um zu analysieren, welcher der beiden theoretischen Ansätze im Rahmen der Strategieimplementierung als passender angesehen werden kann oder, ob möglicherweise beide Theorien zwei Seiten derselben Münze darstellen. Außerdem war ein weiteres Ziel, zu prüfen ob Umweltunsicherheit, interpretiert als Kontextfaktor unter welchem eine Strategie implementiert werden muss, einen indirekten Effekt auf Erfolg in der Strategieimplementierung haben würde, indem sie die direkten Effekte der administrativen Mechanismen moderiert.

Im Rahmen der direkten Effekte hat nur variable Vergütung, ein Agency Mechanismus, einen positiven Einfluss auf Implementierungserfolg ausgeübt, was als vorläufige Bestätigung der zugrunde liegenden Hypothese zu werten ist. Auch die Annahmen zur moderierenden Rolle der Umweltunsicherheit wurden teilweise vorläufig durch signifikante Ergebnisse bestätigt. Unter hoher Umweltunsicherheit war der positive Effekt von variabler Vergütung und Entscheidungsfreiheit auf Implementierungserfolg nicht mehr nachweisbar, während er unter niedriger Umweltunsicherheit noch signifikant vorhanden war. Insgesamt lässt sich festhalten, dass die direkten Effekte der administrative Mechanismen begrenzt sind, aber teilweise profund nachweisbar werden, wenn der Kontingenzfaktor der Umweltunsicherheit einbezogen wird. Scheinbar führt eine Untersuchungsperspektive, die sich nur auf direkte Effekte konzentriert zu einer zu starken Vereinfachung, da in der vorliegenden Untersuchung signifikante Effekte der administrativen Mechanismen beider Theorien gefunden wurden während die alleinige Analyse der direkten Effekte zu unvollständigen Ergebnissen und Rückschlüssen geführt hätte. Dementsprechend kann festgestellt werden, dass beide theoretischen Perspektiven, Agency und Stewardship Theorie, unterschiedliche, aber effektive administrative Mechanismen hervorgebracht haben. Daher ist die Haupterkenntnis der vorliegenden Untersuchung, dass erfolgreiche Strategieimplementierung eher auf der Einbeziehung und korrekten Analyse von Kontextfaktoren basiert als auf der Nutzung spezifischer theoretischer Ansätze.

Appendix F: Curriculum Vitae Sven Matthias Kloninger

For reasons of data protection,
the curriculum vitae is not included in the online version

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