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STRENGTHENING ORGANIZATIONS THROUGH AMBIDEXTERITY
AN EMPIRICAL INVESTIGATION

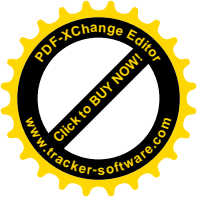
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AUTHOR'S DECLARATION

Whilst registered as a candidate for the above degree, I have not been registered for any other research award. The results and conclusions embodied in this dissertation are the work of the named candidate and have not been submitted for any other academic award.

Michael Hans Gino Kraft



ABSTRACT

Just like the proverb says: “When the wind of change blows, some build walls, others build windmills”. Whether it is a question of unclear future prospects, tougher competitive conditions, the rapid increase in information and communication technologies - the modern world of work and life places ever greater demands on organizations. Life teaches us that the only constant is change itself.

So the question is how to deal with the new and/or unexpected situations. From an organizational point of view, an ability to adapt to the changing demands of the environment becomes relevant. Or, to put it another way: Only those who are able to be flexible and agile today will find a path to confidently face changes and use them profitably.

However, to ensure this agility in organizations, leaders and employees are needed who can switch between different types of behavior. Under this premise, this paper summarizes the arguments and counterarguments in the scientific discussion on ambidexterity in organizations. Although academic interest in the study of ambidexterity is growing, there is still a need for empirical research to fully understand its nature. Subsequently, the purpose of this dissertation is to systematically deepen our understanding of ambidextrous behavior by developing and validating an integrative research model that covers its antecedents, effects and interrelationships. In the following, the respective fields of research will be defined more precisely.

Does ambidexterity pay off and how do these behavior occur? And what factors influence agility in organizations? These fundamental questions play an important role in the long-standing research on ambidexterity. Equally crucial is the linking of ambidextrous behavior with means to increase organizational effectiveness, as it provides the economic feasibility and thus the legitimacy for implementation in the reality of the organization.

Based on this assumption, the first major focus of this research is to uncover the importance of ambidexterity in leadership and employee behavior in relation to agility. Therefore, the effects of ambidextrous behavior are studied to determine which components are most important for increasing organizational agility. While the potential effects of ambidextrous behavior will attract most academic attention, this study will take a broader position by also examining the antecedents of this phenomenon.

So what actually causes people to behave ambidextrously? And why do some leaders behave ambidextrously? To address these questions, the second main research will be based on analyses at the individual behavioral level. More specifically, my research interest is in the



perceived environmental influences of leaders. Given the limited theoretical and empirical attention in the past, this dissertation goes beyond the existing literature by further exploring the relationship between perceived environmental dynamics and leadership behavior.

In contrast, the investigation of how leadership aspects change or facilitate the effects of employee behavior has a long tradition in the existing literature. However, much knowledge about an ambidextrous leadership style is still missing. Therefore, the third major field of this dissertation is the explorative investigation of the influence of employee behavior in consideration of an ambidextrous leadership style.

The empirical validation of the research agenda is based on a quantitative analysis of the proposed Antecedent-Behavior-Outcome research model and forms the core of this dissertation. Thus, each variable was first examined and operationalized from a theoretical perspective. The sample comprised 719 employed participants in a cross-sectoral context. Statistical techniques for modeling correlation and regression analyses were used to verify the assumed relationships.

The results of the study indicate that ambidextrous behavior of leaders has a positive effect on employee behavior. Furthermore, it was found that the ambidextrous behavior of employees have a positive and significant impact on agility in organizations. Overall, it can be stated that ambidextrous behavior of leaders and employees contributes to agility in organizations. Interestingly, perceived environmental dynamics were not the decisive factor for the facet of ambidexterity. However, it could be confirmed that perceived environmental dynamics have a positive influence on agility in organizations. In summary, the study has provided important insights into understanding ambidexterity in terms of agility.

From a practical perspective, the results suggest that it is recommended to develop ambidextrous leaders and employees in order to influence agility at the organizational level as well. It can be stated that traditional forms of organizations require a high degree of ambidexterity, as essential interrelations between ambidextrous behavior and agility could be identified in this dissertation. Most importantly, this thesis is the first to look at ambidextrous behavior in an integrative approach to combine macro- and micro-specific factors, and to link this to objective measurements of leadership and employee effectiveness.

Accordingly, practitioners are well advised to implement ambidextrous behavioral practices in organizational reality. The study of the antecedents of ambidexterity and agility is also crucial, as it gives us insight into the origins of the adaptability of organizations. The resulting patterns between ambidexterity and agility have shown that it is worthwhile to study ambidextrous behavior on an individual level and to use its potential in practice.

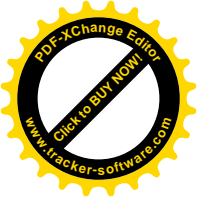


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1 PRELIMINARIES OF RESEARCH

Never before have success and failure been so close together as they are today. This understanding is shared at least by the majority of publications in the economic sciences. Whether technical changes, ever shorter product life cycles, higher development costs or increasing market interdependencies - the survival of an organization often depends on one of these factors.

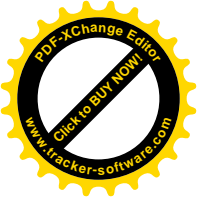
Given these findings, how can organizations as a whole, but particularly managers and employees, deal with this development in order to survive in these times? This predominant question seems to be relevant not only for practitioners but also for the academic discourse. Theoretically, it is postulated that an exclusive orientation of companies towards exploitative activities (improvement of existing resources, products and markets) or exploratory actions (development of new technologies, skills, products) seems less effective and less promising.

In this respect, the organizational theorist James March (1991) recognized that these dynamic circumstances require a simultaneous balance of two opposing activity patterns of organizations and provided a conceptual basis through his classification of exploration and exploitation. This so-called ambidextrous perspective enables companies to ensure the efficiency of their financial operations on the one hand and to develop new products or business models on the other.

According to Gibson & Birkinshaw (2004), and also He & Wong (2004), it could already be empirically proven that this ambidextrous behavior has a positive effect on company results. In the present day, an increasing number of scientific papers identify this concept of ambidexterity towards as a key driver for organizations to fulfil company targets in handling with these environmental impacts (Gupta et al., 2006). The authors Raisch & Birkinshaw (2008, p. 382), referenced, that the number of studies on ambidexterity in the leading journals of management research has risen from less than 10 in 2004 to more than 40 in 2008.

In addition to the challenge of behaving ambidextrously in a volatile surrounding, many recent publications emphasize the importance of organizational agility as an ability to respond to uncertainties and changes in market conditions (Teece et al., 2016; Ravichandran, 2018; Tuan, 2016; Lu & Ramamurthy, 2011; O'Reilly & Tushman, 2008; etc.).

In this regard, organizational agility is characterized by its ability to be flexible and adaptable to changes in the environment in order to optimize its performance. Given this evidence, the agility of organizations is becoming more relevant as the world faces increasingly demanding and complex issues and many companies are expected to improve and adapt quickly



and continuously. Teece et al. (2016) stated in this context, that particularly disruptive environmental require agile capabilities from companies in order to find appropriate responses.

However, enabling agile aspects reaches the limits of organizational feasibility. Lee et al. (2015) described that the implementation and transformation of agile elements in structures and processes represents a major challenge for many companies. According to Fojcik (2015), this is primarily caused by the fact that companies are not able to fully promote flexibilization due to a lack of financial capacity and organizational resources.

Given these findings, agile-related organizational activities are becoming increasingly important as a leadership task to secure the long-term performance of an organization (O'Reilly & Tushman, 2013). Subsequently, this research work is based on the premise that leaders and employees can contribute to organizational agility and thus to a profitable path through their behavior. This leads to the assumption that an organization can improve agility through ambidextrous behavior.

Combining the fields of agile capabilities and ambidextrous behavior, respective research has been receiving an increased academic attention in recent years (Rialti et al., 2018; Zeng et al., 2017; Kortmann et al. 2014; Raisch et al., 2009; Van Looy et al. 2005; Zheng et al., 2017; etc.). Although preliminary empirical results are promising, there are still many ways to fully understand the antecedent and impact of ambidextrous behavior in agility research (O'Reilly & Tushman, 2013). Especially with the emergence of ambidextrous leadership researchers are increasingly able to investigate a promising leadership style in this area. The conceptualization of ambidextrous leadership focuses on the appropriate behavior of leaders and the promotion of behaviors among employees in organizations (Rosing et al. 2011, Zacher et al., 2016).

Against this background, the central question that motivates this paper is what can be achieved through ambidextrous behavior in terms of organizational agility? How can ambidextrous abilities deal with stability and efficiency on the one hand and uncertainty and creativity on the other? What does this mean for the leadership of employees? And can ambidexterity at the individual level be a contemporary and adequate model in the context of organizations?

Additional work is highly warranted in terms of understanding the effectiveness of ambidextrous behavior by, for instance, modeling impact criteria. Accordingly, the main interest of the study is to explore the perspectives of ambidextrous behavior in an organizational context and to contribute to ambidextrous research.



2 RESEARCH OBJECTIVES

The overall objective of this research is to deepen our understanding of ambidextrous behavior by examining its antecedents, implications and processes from a leadership and employee perspective. In particular, building on this area of interest, I pursue four different research questions, which are derived below.

Does ambidexterity pay off? In the more than fourth years of study and research on ambidextrous behavior this provocative question arises an ongoing vivid role. In this context, several authors argue that the link between flexibilization and economic success underpins the core purpose of an ambidextrous discourse (Martínez-Climent et al., 2019; Alghamdi, 2018; Zacher et al., 2014; Tuan, 2017). More precisely, forwarding a comprehension that ambidextrous behavior does have impact on the organizational agility, it promotes legitimacy when it comes to implementing and training ambidextrous leaders in daily business. With the conception of ambidextrous leadership forwarded by Rosing et al. (2011), I tie with the approach of ambidexterity in the sense of an agile organization. Examining if ambidextrous leadership has a positive influence on organizations is currently one of the most popular topics in the practical and scientific literature. Nevertheless, I argue that the relevance of this leadership style must also be reflected in the perception of employees. In order to determine this relevance, it is first necessary to analyze to what extent the current leadership style is applied.

Research Question 1: What is the level of ambidextrous leadership as perceived by employees?

Since both employees and leaders are necessary to achieve goals, I also apply the ambidextrous approach to employee behavior. So what makes people behave ambidextrously? With reference to the leadership literature, there are a number of examples of how this question can be answered at the individual employee level. Given this assumption, it is expected that the practice of two leadership behaviors will have a positive effect on the ambidextrous behavior of employees. In this context, it is postulated that a positive correlation between leadership style and employee behavior can ensure organizational agility. Therefrom, a very essential goal of this dissertation is to investigate the potential impact of an ambidextrous leadership style on behavioral outcome criteria on an employee level. Given that this complex topic is so prominent in the academic literature, I contribute to existing research by extensively investigating the causes and consequences of ambidextrous leadership.



Research Question 2: Does leadership enhance the ambidexterity of employees?

Ambidextrous behavior as conceptualized in this dissertation captures facets from interpersonal behavioral traits that deal with the leadership of subordinate employees. This behavioral approach is modeled two-dimensional combining all related contents into two single measurements. In this respect, it should be determined to what extent the behavior of leaders and employees has an effect on the organizational level and what influence leaders and employees contribute to this. In a quantitative approach, I draw on existing study (e.g. Rosing et al. 2011, Mom et al. 2006, Lu & Ramamurthy, 2011) in order to foster a better understanding of how ambidextrous behavior has a decisive effect on agile relevant criteria. Therefore, the purpose of this research is to extend existing research by studying the impact of this leadership approach.

Research Question 3: How effective is ambidextrous behavior in terms of agile capabilities?

So far, the research questions predominantly focused on the consequences of ambidexterity in behavioral concerns. As it is described to investigate the understanding of ambidextrous leadership behavior, I will also be addressing its antecedents. In this respect, what makes leaders behave ambidextrous? Why are leaders able to act ambidextrous and which circumstances promote this behavior? Referring to leadership literature, the majority of researchers draws beside intrapersonal traits on organizational and environmental characteristics. Identifying this surroundings predicting ambidextrous leadership validly. Considering the attention to the relationship between circumstances and ambidexterity in the past empirically this work exceeds literature by exploring this depended further.

Research Question 4: In which environmental surrounding is ambidextrous leadership valid?



3 RESEARCH MODEL

As described in the previous sections, the focus of this study is to uncover an integral relationship between behavioral science contexts within organizations. In this regard, it will be examined to what extent macro-specific factors are related to micro-specific behavioral patterns.

This will allow to identify success indicators to empirically prove the importance of ambidexterity with respect to agility. Since previous research indicates that organizational agility is dependent on employees and leaders, these two factors are the focus of this research on ambidexterity (Yang & Liu, 2012). Due to the fact that several indicators related to ambidextrous behavior have been uncovered in the literature, this paper does not claim to be completeness. The purpose of this work is to build on existing relevant studies by developing and validating this comprehensive model of ambidextrous behavior in terms of organizational agility. However, the previous theoretical overview serves as a starting point for the development of the integrative research model of this dissertation. Based on the conceptualized theoretical framework, hypotheses are derived and formulated in this chapter. This procedure to the work is intended to ensure the theoretical basis for this work and make a contribution to the ambidextrous literature. In particular, I will discuss the impact of ambidexterity, the antecedents of ambidexterity, and finally the factors influencing ambidextrous behavior from an organizational and agile perspective.

Development of the ABO-Model

In the last decade, the number of published work on ambidexterity, both empirically and theoretically, is growing steadily. However, most of the existing studies focus on specific aspects of ambidexterity, such as the process and outcomes. Nevertheless, so far there are only a few research studies that deal with several perspectives in an integrative model. According to Kearny (2013), an integrative research model is particularly useful if research is carried out at different levels (e.g. leadership behavior and organizational results). Therefore, the overall goal of this study is the development and empirical validation of such an integrative model of an ambidextrous leadership style in an agile context.

For the purpose of this paper, I define a model as integrative if (a) it covers aspects of causes and effects of the respective interest variables (here ambidextrous leadership and ambidextrous employee behavior) and (b) combines different levels of perspectives on criteria (e.g. organizational agility as a factor of behavior impact).

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Consequently, this integrative model includes questions at the micro and macro level. In this context, Colemans (1994) model of micro-macro relations forms a suitable basis for the conceptual framework. This model is used particularly in sociology (Hedstrom & Swedberg 1998) and in organizational literature, for example in the study and relation of individual and organizational behavior (Udehn, 2001). From this it can be assumed that it can be very useful for leadership literature to analyze the effectiveness of certain leadership styles. This model underlines the importance of linking different levels and presenting the role of the individual in relation to the organization (figure 1).

To address the research questions, I developed the Antecedents-Behavior-Outcome (ABO) framework by adapting Coleman's model to explicitly consider ambidextrous behavior in an organizational context. In addition to the ambidextrous leadership, the behavior of employees and their effects on organizational agility is also examined and integrated into this framework. In this way, the ambidextrous activity patterns and the dual effects can be considered and integrated in a more differentiated way.

The model links the role of the individual at the micro level with variables at the macro level, such as the influencing factor of a dynamic environment and its influence on the behavior of managers and employees and their outcomes (see figure 1). Therefore four types of relations are included: (a) macro-micro-relation on how perceived environmental dynamics affect the behavior (open, closing) of the leaders (link 1); (b) micro-micro-relation on how this leadership behavior influences individual employee actions (exploration, exploitation) (link 2); in (c) a micro-macro relationship is investigated in which the combined individual actions of the employees predict the agility of the organization (Link 3); and (d) the macro-macro-relation, which examines the relationship between causes and effects at the macro level, i.e. to what extent organizational agility depends on the perceived environmental dynamics of an organization (link 4).

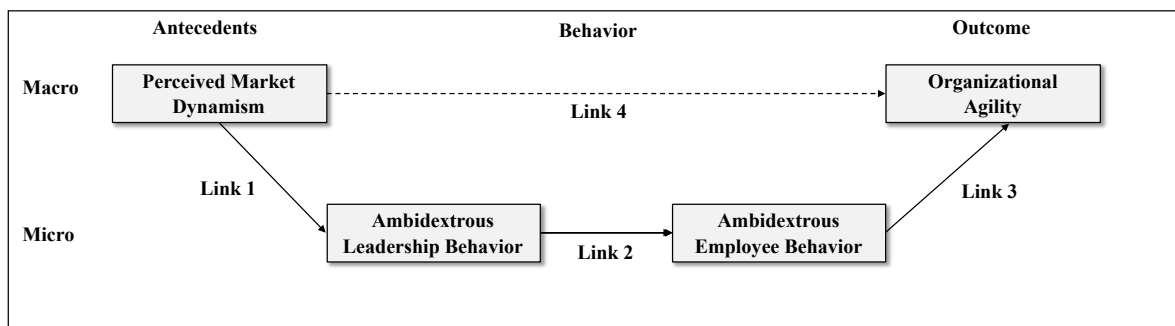


Figure 1: Antecedents-Behavior-Outcome (ABO) Framework as an Integrative Research Model of the Dissertation



4 MATERIALS & METHOD

To ensure the scientific standard of this work, a coherent and logical arrangement of materials and methodology is of particular importance. For this reason, this Chapter focuses on the choice of methodology in terms of research design and discusses it in relation to the research questions. Subsequently, it discusses the circumstances of the study and the instruments of data collection. In this context, descriptive information on the data is addressed and materials on the study population, sample size ratio and the technique of data analysis is presented. In addition, the measurements in are discussed and data analysis is provided. To substantiate the chosen procedure and method, this Chapter also deals with the data sources and the processing software used.

Research Design

This paper follows a confirmatory quantitative research approach based on the concept defined by Popper (1989). According to this approach, hypotheses are deductively derived from existing theories in order to subsequently verify their validity in an empirical study. Since this approach is still relevant in the leadership literature, it was chosen with the intention of being able to make valid statements about the relationships investigated (Bortz & Döring, 2002).

In contrast to qualitative research, a much larger number of data cases can be reached and evaluated with standardized quantitative measurement methods using statistical test procedures. According to Bortz & Döring (2002), this increases generally the representativeness of the results.

Given to the high expenditure of time in the collection and processing of qualitative data (e.g. conducting individual surveys with subsequent interpretation of the collected answers), their results are usually based on a small number of cases. A survey with standardized questions also ensures a higher degree of objectivity in the implementation and evaluation. Due to the fact that a quantitative approach takes into account the anonymity of the participants, this type of survey can also reveal personal questions (e.g. about the stress experience or personality) and partially much more validated statements than a personalized survey (Bortz & Döring, 2002).

On the other hand, a qualitative approach allows an in-depth and at the same time more profound analysis of patterns and attitudes. Furthermore, it should be noted that quantitative methods always require on a measurable side of a construct and must presuppose it.



Nevertheless, quantitative measurement methods still play an important role in the scientific discussion, as they allow better control and comparison of data. Since this work focuses in particular on the assessment and behavior of employees and leaders, a quantitative approach is preferred. Given that the main objective of this research is to validate the ABO framework presented in Chapter 2, no individual sectors and organizational differences were analyzed. In this context, the primary goal is to establish an overall validation of the postulated hypotheses. This approach is supported by the work of Weibler & Keller (2015). As suggested in these paper in particular, a more integrated, cross-sectoral model should be developed.

Sample & Procedure

The participants in this study were recruited through different channels and organizations. Primarily, part-time students were personally invited to participate in seminars. Other part-time students followed the invitation and completed the questionnaire via a university intranet portal. In this context, part-time students were defined as professionals who can spend up to 10 hours per week studying in addition to their working hours (Bargel & Bargel, 2014). In the second round of the survey, employees were invited to participate in the study via direct organizational contacts. In the sense of a snowball multiplication system, the participants were asked to invite professional friends and colleagues to participate in the survey (Pundt & Schyns, 2005). In a letter of invitation, the research intentions were outlined in a prologue and a web link was provided which led directly to the corresponding questionnaire (see Appendix I). Responses to the questionnaire were obtained with the assurance of anonymity. The participants were asked about various aspects of their work that affect both themselves and their working environment.

More precisely, the participants were asked about their perception of the leadership behavior of their superiors (ambidextrous leadership behavior), their perception of organizational and work-related characteristics (e.g. environmental dynamics, organizational agility) and demographic aspects.

To ensure the quality of the sample, only participants who have sufficient language skills in English and are employed by an organization for at least 30 hours per week could be considered in the data analysis. In this context, two compulsory pre-selection questions were included in the investigation. To enable participants to distinguish between leaders and employees, a clear distinction between leaders and employees was also ensured by an item of their job role.



In this respect, leaders were defined as supervisors with staff responsibilities. This leadership responsibility could be assumed through the employment contract or through the organizational structure. However, for this study, understanding the own role in the organization is decisive (Rosing et al., 2011). The questionnaire was designed and respondents were collected using the SurveyMonkey survey platform. In this context, the project was started in January 2020 and the questionnaire closed in March 2020.

The statistical analysis of the hypotheses was tested using the IBM SPSS Statistics software. This procedure enabled a total of 719 participants to be studied. The population of participants was 889, which means that appx. 80% of all respondents could be included in the survey. The remaining 20% could not be considered because they did not meet the minimum requirements of the pre-select questions or did not fully answer the questions.

With regard to the materials, the following descriptive statistics were determined: In this respect it was found that 50.3% of the respondents were male, 49.2% female and 0.05% diverse. The average age of the respondents was ranging from 31-40 years (31.8%). The other age groups were distributed as follows: Up to 20 years 6%, from 20-30 years 18.6% and over >50 years about 22%. This sample was answered by 62% of staff. 30.9% of respondents reported that they work as Middle Manager and 7.1% as Senior Manager.

The average tenure of the respondents was 5-10 years (26.8%). In addition, 21.3% of those surveyed stated that they had been working in the organization for >15 years. In addition, about 20% of the participants stated that they work in an organization for up to 1-3 years and 17.9% stated that they had been in an organization for 3-4 years.

Out of the respondents, 64.4% worked in profit organizations, 9% in non-profit organizations, 22.3% in government institutions and 4.3% in other Organizations. In relation to the size of the organization, 6.8% worked in organizations with less than 10 employees, 14.3% worked in organizations with up to 50 employees, 11.5% up to 100 employees, 16.1% up to 250 employees, 12, 1 % up to 500 and 39.1% stated they were employed in organizations with more than 500 employees.

Measures

This research applied a descriptive cross-sectional method at the first place. The study instrument is structured, self-administered, and comprises five parts. The Cronbach alpha was used to quantify the reliability of the variables.



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This method specifies the ratio of the observed variance to the variance of the true test values and is therefore a measure of the internal consistency. Cronbach-Alpha can take values between minus infinity and 1, but only positive values can be interpreted meaningfully. The advantage of Cronbach's alpha is that it provides an easy-to-interpret measure of the strength of reliability. In this context, it is assumed that a Cronbach's alpha above $>.70$ is considered sufficiently good (Blanz, 2015).

As already described, two obligatory pre-selection questions regarding English language skills and employment were asked to ensure the sampling quality. The items are: Do you believe that your English (reading, understanding, writing) is good enough to proceed with the survey? The answer were nominally scaled with yes, my English is good enough or no, stop here. The item for the employment were: What is your employment status? The answers were working - full-time; working - part-time (30 hours or more per week); unemployed/ looking for work; attending vocational retraining; retired - formerly working; retired - formerly not working; in education - apprenticeship; in education - school; in education - college/ university; not working - but did before, not working - and did never before; not applicable.

Subsequently, the participants were asked to complete a survey to assess the leadership behavior of their immediate supervisor and organizational agility. The first part refers to ambidextrous leadership, which consists of two dimensions: opening and closing the leadership behavior. Both scales were developed and adapted by Rosing et al. (2011) and consist of a total of 10 items. Participants were asked to evaluate their supervisor's leadership behavior by using two activity patterns.

The statements for opening leadership behavior are: Allows different ways of accomplishing a task; Encourages experimentation with different ideas; Motives to take risks; Gives possibilities for independent thinking and acting; Allows errors. The statements for closing leadership behavior are: Monitors and controls goal attainment; Established routines; Takes corrective action; Controls adherence to rules; Sanctions errors. The answers were adjusted and measured with a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Cronbach's alphas for two scales were .82 for Leader Opening behavior and .74 for Leader Closing behavior. Due to the fact that the internal consistency of the scale could be considerably increased by excluding an item, one item was deleted (all included items are shown in APPENDIX 1). The internal consistency for an ambidextrous leadership style was measured with ($\alpha = .79$).



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In the second section the employee ambidextrous behavior was conceptualized through the two measures of exploration and exploitation of employee activities linked to agility. This variable indicates the ability of an individual to balance activities in terms of agility. Both employee behaviors were surveyed by 10 items in total. The exploration scale was developed and adapted by March (1991) and Mom et al.'s (2006) and consists of 5 items. The statements were; to what extent did you, last year, engage in work related activities that can be characterized as follows: Searching for possibilities with respect to products/services, processes, or markets; Focusing on strong renewal of products/services or processes; Activities that are new/unknown to you; Activities requiring quite some adaptability/flexibility from your side; Activities requiring you to learn new skills or knowledge.

To examine the exploitative part of the activities, 5 items of Mom et al. (2006) and Weibler & Keller (2011) were also adapted and transferred for exploitation. The statements were; to what extent did you, last year, engage in work related activities that can be characterized as follows: Activities which you carry out as if it were routine; Activities that serve to fulfill day-to-day business; Activities from which you have broad experience; Activities that are conducted according to clear guidelines; Activities primarily focused on achieving short-term goals. All items were measured on a 5-point Likert scale (1 = to a very small extent to 5 = to a very large extent).

Cronbach's alphas for two scales were .80 for Employee Explorative behavior and .74 for Employee Exploitative behavior. Since the internal consistency of the extent of exploitation could be considerably increased by excluding an item, this item was dropped. The reliability test on the ambidextrous behavior of employees has shown that the instruments with 9 items have sufficient reliability ($\alpha = .79$).

In the third part, based on the adapted and more recent measurement by Jansen et al. 2009, a five-point measurement was included which includes the environmental dynamics. The respondents were asked to evaluate the following five statements. The statements were: Environmental changes in our local market are intense; Our customers regularly ask for new products and services; The competition in our market is very strong; In a year, a lot has changed in our market; In our market the products and services change quickly and often. The statements were measured on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree). The scale ($\alpha = .82$) showed the rate of change and the instability of the external environment.

In the fourth part, Organizational Agility was measured. Two constructs were measured that reflect a company's ability to respond to market or demand changes. On the one hand,



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Market Capitalizing Agility and, on the other hand, Operational Adjustment Agility. Both scales were originally described by Goldman et al. (1995) & Tsourveloudis & Phillis (1998) and quantitatively validated by Lu & Ramamurthy (2011) with five items.

The Operational Adjustment Agility was measured by three factors, where participants were asked to evaluate the following statements: We can respond quickly to special requests of our customers when such demands arise; We are quick to make appropriate decisions in the face of market/customer-changes; Whenever there is a change in our business, we can quickly make the necessary internal adjustments. The two statements on Market Capitalizing Agility were: We are constantly looking for opportunities to reinvent/change our organization to better serve our market; We treat market related changes as opportunities to capitalize quickly. The items were adjusted and measured with a 5-point scale from 1 (strongly disagree) to 5 (strongly agree). Since the internal consistency could be significantly increased by constructing the items collectively in one scale, Organizational Agility was then used and calculated with a single scale. The items on Organizational Agility can be found in APPENDIX 1. The Cronbach's Alpha for the single scale was .82.

The descriptive section was measured in the last part of the study. It comprised items on the demographic and socio-economic characteristics of the participants and their employer. Participants reported their gender (female, male and diverse), group of age (<20, 20-30, 31-40, 41-50, 50>), job profile (management position, staff or other), duration of employment (<1 year, 1-2 years, 3-4 years, 5-10 years, 11-15 years, >15 years), number of employees (<10, 10-50, 51-100, 101-250, 251-500, >500), industry sector (public sector, private sector, non-profit sector and other), market position (we are market leaders with decisive influence, we are among the key players, we are probably characterized by average market performance, we are lagging behind, we produce a loss, we are struggling to survive) and sales development in recent years (increased significantly, increased, stagnated, reduced, decreased significantly). All items for measured items are listed in APPENDIX I: QUESTIONNAIRE.



5 RESULTS

This results section summarizes the data collected and the statistical approach. All relevant results should be reported, even if they contradict the hypotheses. In this context, the aim is to present the data in a pure form without interpreting the results. The results are presented in order to the research hypotheses. Table 1 illustrates the descriptive statistics and the corresponding coefficients used to quantify the relationship between the variables involved in the calculations. Since the sample size of the survey is quite large, a graphical method of the QQ plot and histogram was used instead of the mathematical test (Kolmogorov-Smirnov or Shapiro-Wilk test). According to Wilcox (2012), a normal distribution of the variables can be assumed for a larger sample ($N > 30$) due to the central limit theorem. In this context it can be stated that the distribution of the data does not differ significantly from the normal distribution.

Correlation analyses

Based on this assumptions, the calculation of the correlation and regression analysis was performed with the described control variables. The partial correlation analysis revealed several significant correlations between the variables. A correlation measures the intensity of a statistical relationship between two or more variables (Sen & Srivastava, 1990). It can be understood that a positive correlation is "the more variable A... the more variable B" or vice versa, a negative correlation is "the more variable A... the less variable B" or vice versa. In this context, significant correlations were found between all tested variables. According to Cohen (1998), a correlation $r < .10$ is considered weak. In addition, a correlation coefficient of .30 is considered moderate correlation and a correlation coefficient of .50 or greater is considered strong or high correlation.

According to this definition, all calculated correlations between the main variables from the ABO model can be classified as weak or moderate. With regard to perceived environmental dynamics, the highest correlation values were found with ambidextrous employee behavior and organizational agility. These two correlations can be classified as moderate (ambidextrous employee $r = .38$, $p < .01$; organizational agility $r = .42$, $p < .01$). Contrary to *hypothesis 1*, the ambidextrous leadership behavior correlated only slightly with the perceived market dynamics (ambidextrous leadership $r = .28$, $p < .01$).

For this reason, *hypothesis 1* cannot be accepted on the basis of the correlation calculation. It can therefore be assumed that the perceived market dynamics have a significant influence on leadership behavior, but this influence is only weak.



RESULTS

With regard to the leadership, it was found that both open and closed leadership behavior is most significantly related to ambidextrous leadership behavior (Open Leadership $r = .83$, $p < .01$; Closing Leadership $r = .74$, $p < .01$). Similar to the two leadership behaviors, the highest significant correlation between explorative and exploitative employee behavior was found (Exploration $r = .84$, $p < .01$; Exploitation $r = .73$, $p < .01$). These findings are not surprising, since ambidextrous behavior can be formed from the respective behavior patterns.

In accordance with *hypothesis 2* it could be proven that ambidextrous leadership behavior correlates with ambidextrous employee behavior (Ambidextrous Leadership $r = .46$, $p < .01$). It can be stated that, if an ambidextrous leadership style is applied, this has a positive moderate influence on ambidextrous employee behavior. In addition, a similarly significant correlation between ambidextrous leadership behavior and organizational agility was found. In this context it can be assumed that an increasingly ambidextrous leadership style has a positive moderate effect on the agility of organizations (Ambidextrous Leadership $r = .40$, $p < .01$).

In *hypothesis 3* a connection between ambidextrous employee behavior and organizational agility was postulated. This assumption was confirmed by the correlation analysis of the survey (Ambidextrous Employee $r = .42$, $p < .01$). Even if the correlation is positively moderate, it is obvious that the behavior is significantly related to the organization. It can be assumed that an increasing ambidextrous behavior of employees and also of leaders promotes an increasing agility of the organization.

Finally, a positive correlation between perceived market dynamics and organizational agility was found in *hypothesis 4* (Organizational Agility $r = .42$, $p < .01$). In this respect, it can be stated that an increasingly perceived market dynamic is positively related to the agility of the organization. All results of the correlation analysis can be found in table 1.



RESULTS

Table 1 Descriptive Statistics & Correlations of the Researched Variables

	Mean	SD	1	2	3	4	5	6	7
1 Opening Leadership Behavior	3,48	.755	-						
2 Closing Leadership Behavior	3,53	.660	.301**	-					
3 Exploration Employee Behavior	3,16	.757	.393**	.262**	-				
4 Exploitation Employee Behavior	3,34	.686	.220**	.392**	.294**	-			
5 Ambidextrous Leadership Behavior	12,43	3,76	.832**	.746**	.409**	.355**	-		
6 Ambidextrous Employee Behavior	10,00	3,70	.375**	.374**	.841**	.730**	.467**	-	
7 Perceived Market Dynamism	3,20	.812	.231**	.241**	.378**	.250**	.288**	.388**	-
8 Organizational Agility	3,34	.689	.348**	.318**	.350**	.328**	.400**	.429**	.426**

**Pearson Correlation is significant at the 0.01 level (2-tailed). N = 719.



RESULTS

Regression analyses

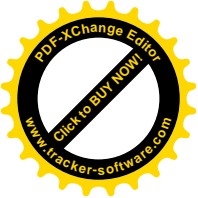
In addition to the correlation statistics, a regression analysis was performed to test the hypotheses. The regression analysis is used as a statistical method to investigate the effects of correlations between different (dependent and independent) variables from the ABO model. Thus, linear regression is a useful method for this work, as it allows and reveals predictions and correlations between two variables (Kearny, 2013). To prove the individual relationships, all variables from the ABO model were tested sequentially and separately.

In order to analyze the influence of the predictor variables on the explained variable, the standardized regression coefficients as well as the R^2 values were calculated and presented in the following tables. The regression coefficients express the influence of the predictor variables on the explained variable. According to Keller & Weibler (2015), the model results can be compared more effectively by calculating a standardized coefficient. With regard to the R^2 value, it is determined how well the independent variable can explain the variance of the dependent variable. The R^2 is always between 0% (useless model) and 100% (perfect model fit). It should be noted that the R^2 is a measure of goodness for describing a linear relationship.

For the interpretation of the regression results, Falk & Miller (1992) recommended that when explaining causal relationships in the behavioral sciences, R^2 values should be equal to or greater than .10 so that the explained variance of a particular endogenous construct can be considered appropriate. They point out that human behavior is simply more difficult to predict than physical phenomena, and therefore lower R^2 values of less than 50% could be found.

Regression analysis via the macro-micro link to hypothesis 1

In this context, the first regression analysis examined the relationship between perceived environmental dynamics and ambidextrous leadership behavior. As suggested by the ABO model, ambidextrous leadership was evaluated as an independent variable and perceived environmental dynamics as a dependent variable in the regression analysis. The main objective was to find out to what extent the perceived environmental dynamics of managers and employees influence the corresponding leadership behavior of managers. From a technical point of view, the two control variables (age, term of office) were first included in the regression analyses (see Model a table 2). In the second step, the predictor variable of the perceived environmental dynamics was then entered into the regression equation and calculated (see Model b table 2).



RESULTS

In this context, the results of the correlation matrix already showed only a moderate correlation between the perceived market dynamics and the ambidextrous leadership style ($R^2 = .084$). In the regression analysis it was found that the perceived environmental dynamics explain or predict about 8% of the dependent variables. Contrary to expectations, it could not be proven that perceived market dynamics have a significantly positive effect on ambidextrous leadership behavior. Based on the recommendation of Falk & Miller (1992) and the calculated results in the regression analysis, *hypothesis 1* could not be accepted and is therefore rejected ($\beta = .288$; $p < .05$). It can be assumed that there is no significant correlation between the two variables examined as assumed. Consequently, *hypothesis 1* is rejected. To illustrate the relationships, figure 3 illustrates the moderate effect of perceived market dynamics on ambidextrous leadership behavior.

Table 2 Results of the Regression Analysis with Ambidextrous Leadership as Dependent Variable

Dependent variable	Ambidextrous Leadership Behavior	
	Model a	Model b
<u>Control variables</u>		
Age	-.024 ^a	-.008 ^b
Tenure	-.584 ^a	-.022 ^b
<u>Predictors</u>		
Perceived Market Dynamics		.288^{b**}
R ²	.001	.084
Adjusted R ²	-.002	.080

Shown are standardized regression coefficients (β). $P^* < 0.10$ & $P^{**} < 0.05$. $N = 719$.

Dependent Variable: Ambidextrous Leadership Behavior

a Predictors: (Constant), Age, Tenure

b Predictors: (Constant), Age, Tenure, Perceived Market Dynamics

RESULTS

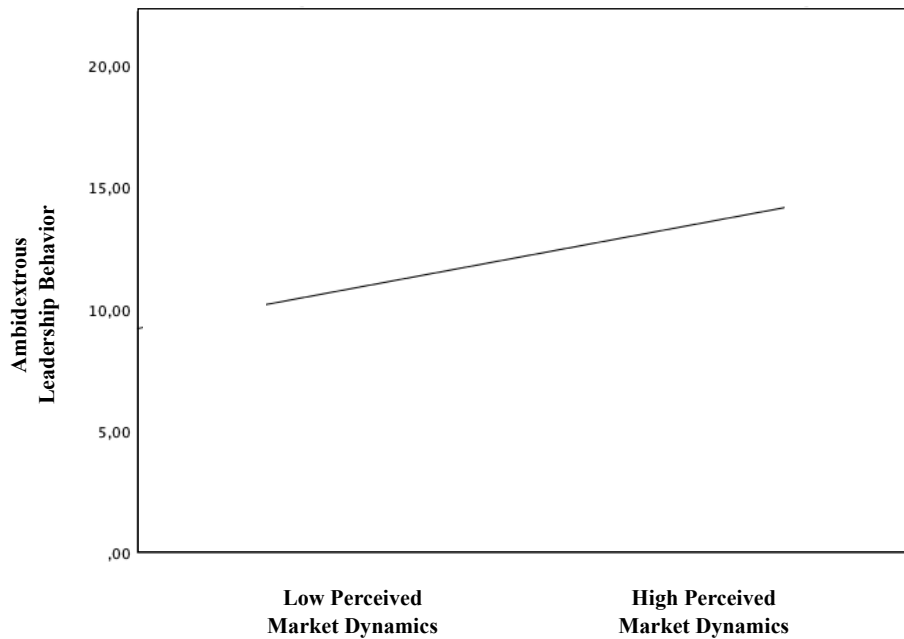


Figure 2 The Effects of the Macro-Micro Relationship between Perceived Market Dynamics on Ambidextrous Leadership

Regression analysis via the micro-micro link to Hypothesis 2

A different picture emerges for the internal ambidexterity of managers and employees. Table 3 shows the results of a regression analysis with ambidextrous employee behavior as a dependent variable. However, to avoid bias due to multicollinearity between the variables, two different models were examined. In the first model both styles (open, closed) were included together in the regression equation. In a second model the regression with ambidextrous leadership was then examined and calculated. In accordance with *hypothesis 2*, model b showed that the addition of ambidextrous leadership to the regression calculation led to a significant increase in the explained variance ($R^2 = .219$; $p < .05$). The standardized regression coefficient of interaction was $\beta = .467$. Consequently, *hypothesis 2* can be accepted and is confirmed.

From this it can be concluded that ambidextrous Leadership is capable of predicting ambidextrous behavior of employees beyond the variance already explained by the control variables, open and closed leadership. A comparison between the two models shows that both leadership styles together can provide an almost equally high explanation for the variance in employee behavior. However, it is also evident that an ambidextrous leadership style can have a higher R^2 value separately. As shown in figure 4, a high level of ambidextrous leadership has a high and positive effect on ambidextrous employee behavior.

RESULTS

Table 3 Results of the Regression Analysis with Ambidextrous Employee Behavior as Dependent Variable

Dependent variable	Ambidextrous Employee Behavior	
	Model a	Model b
<u>Control variables</u>		
Age	-.026 ^a	-.025 ^b
Tenure	.009 ^a	.002 ^b
<u>Predictors</u>		
Opening Leadership Behavior	.288^{a**}	
Closing Leadership Behavior	.287^{a**}	
Ambidextrous Leadership Behavior		.467^{b**}
R ²	.216	.219
Adjusted R ²	.212	.216

Shown are standardized regression coefficients (β). $P^* < 0.10$ & $P^{**} < 0.05$. $N = 719$.

Dependent Variable: Ambidextrous Employee Behavior

a Predictors: (Constant), Age, Tenure, Opening Leadership Behavior, Closing Leadership Behavior

c Predictors: (Constant), Age, Tenure, Ambidextrous Leadership Behavior

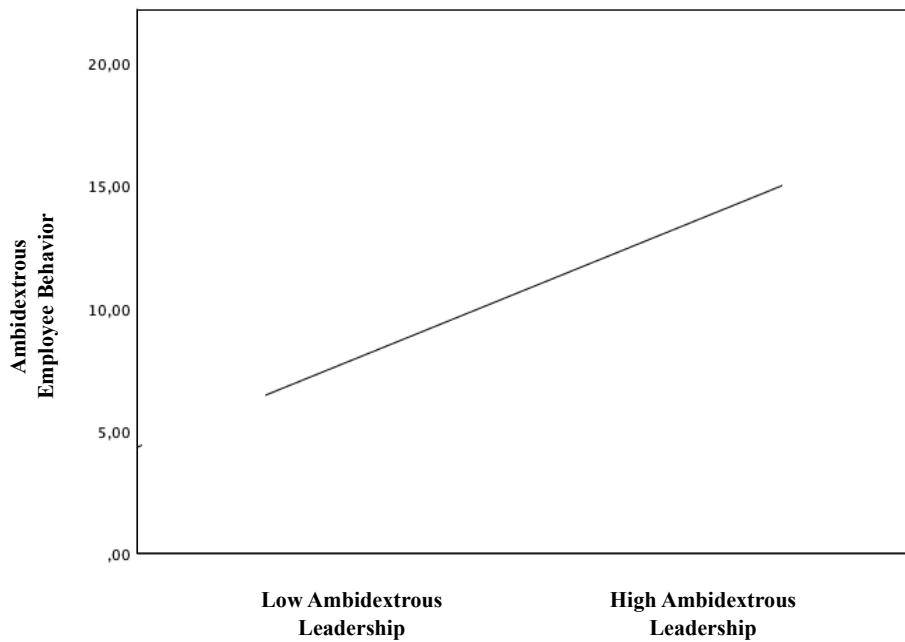
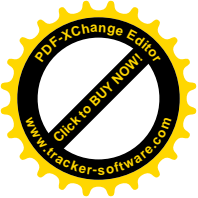


Figure 3 The Effects of the Micro-Micro Relationship between Ambidextrous Leadership on Ambidextrous Employee Behavior



Regression analysis via the micro-macro link to hypothesis 3

With regard to the regression analysis regarding organizational agility, three models were calculated. Table 4 presents the results of the regression analysis on organizational agility. In the first model a, the extent to which employee behavior of exploration and exploitation can predict the variance of organizational agility was examined. The second model b examined the extent to which ambidextrous employee behavior is related to organizational agility in comparison to model a. In this context it can be noted that although both models a and b can explain (Model a - $R^2 = .179$; Model b - $R^2 = .185$) only 17% and 18% of the variance of organizational agility respectively, there is a significant correlation between these variables ($\beta = .280$ & $\beta = .430$, $p < .05$). The more the ambidextrous behavior of employees is developed, the higher the organizational agility (see figure 5). In accordance with Falk & Miller (1992) *hypothesis 3* can be confirmed and accepted.

Table 4 Results of the Regression Analysis with Organizational Agility as a Dependent Variable

Dependent variable	Organizational Agility	
<u>Control variables</u>	<u>Model a</u>	<u>Model b</u>
Age	.028 ^a	-.008 ^b
Tenure	-.016 ^a	-.022 ^b
<u>Predictors</u>		
Exploration Employee Behavior	.280^{a**}	
Exploitation Employee Behavior	.245^{a**}	
Ambidextrous Employee Behavior		.430^{b**}
R^2	.179	.185
Adjusted R^2	.174	.180

Shown are standardized regression coefficients (β). $P^* < 0.10$ & $P^{**} < 0.05$. $N = 719$.

Dependent Variable: Organizational Agility

a Predictors: (Constant), Age, Tenure, Exploration Employee Behavior, Exploitation Employee Behavior

b Predictors: (Constant), Age, Tenure, Ambidextrous Employee Behavior

c Predictors: (Constant), Age, Tenure, Perceived Market Dynamics

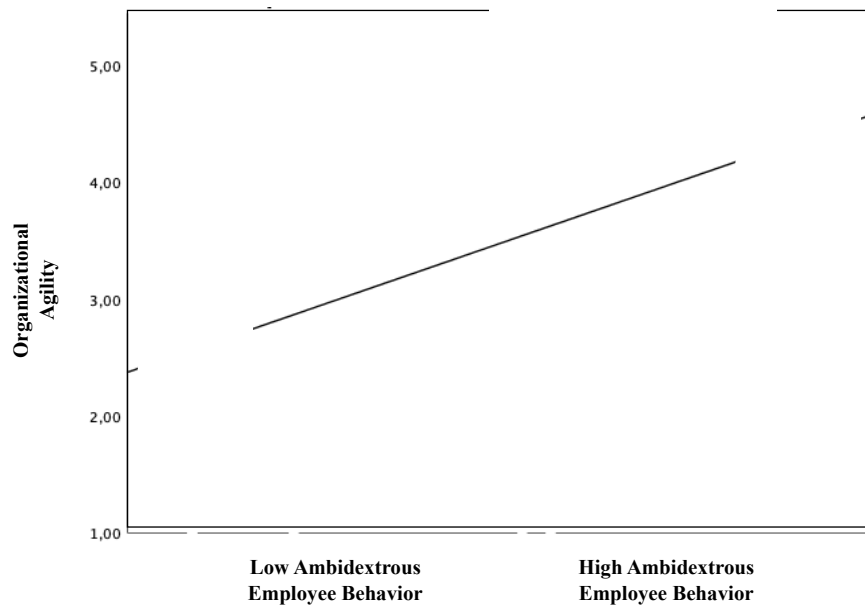


Figure 4 The Effects of the Micro-Macro Relationship between Ambidextrous Employee Behavior on Organizational Agility

Regression analysis via the macro-micro link to hypothesis 4

In relation to *hypothesis 4*, another model was set up in addition to employee behavior, in which the perceived market environment was calculated for organizational agility (see model a and b in table 5). In this study the two macro-level variables were investigated in combination. As in the previous regression analyses, the control variables in the regression equation were entered in the first step and the perceived market dynamics were included in the second step. The result of this regression analysis indicates that even the perceived market environment can predict the variance of organizational agility to 18% (model b - $R^2 = .182$, $p < .05$). In accordance with Falk & Miller (1992) *hypothesis 4* can be also confirmed and is accepted. It can be stated that a perceived market dynamic has an influence on the agility of organizations, as postulated in *hypothesis 4*. Figure 6 illustrates the effect of the regression analysis on organizational agility.

RESULTS

Table 5 Results of the Regression Analysis between Organizational Agility & Market Dynamics

Dependent variable	Organizational Agility	
<u>Control variables</u>	<u>Model a</u>	<u>Model b</u>
Age	.011 ^a	.016 ^b
Tenure	-.018 ^a	-.028 ^b
<u>Predictors</u>		
Perceived Market Dynamics		.427^{b**}
R ²	.001	.182
Adjusted R ²	-.003	.179

Shown are standardized regression coefficients (β). P* < 0.10 & P** < 0.05. N = 719.

Dependent Variable: Organizational Agility

a Predictors: (Constant), Age, Tenure, Exploration Employee Behavior, Exploitation Employee Behavior

b Predictors: (Constant), Age, Tenure, Perceived Market Dynamics

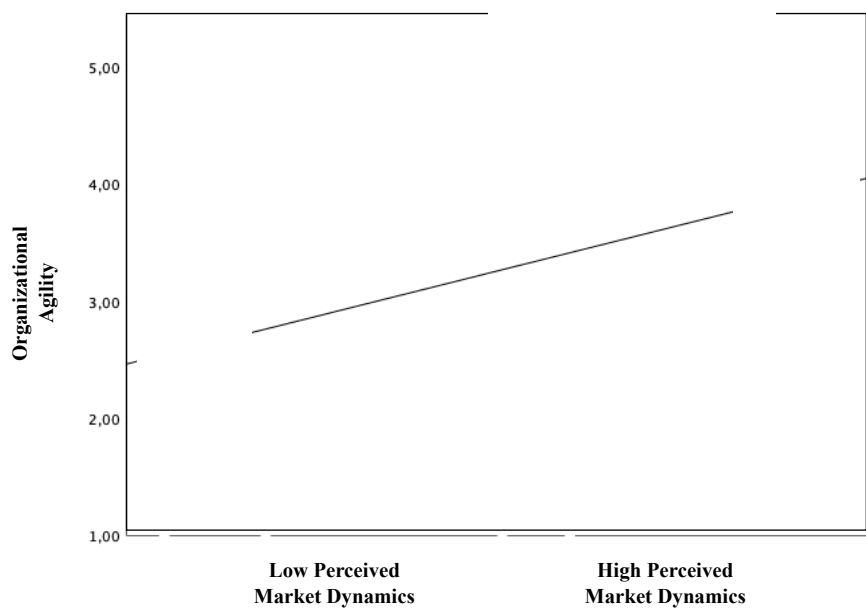


Figure 6 The Effects of the Macro-Macro Relationship between Perceived Market Dynamics on Organizational Agility

Summary of the statistical regression analysis

Transferring the general results of the regression analysis to the research model, the hypotheses can be understood by using macro-micro-macro logic. In order to visualize the relationship between the individual hypotheses once again, the standardized regression coefficients were processed and illustrated in figure 7 by using and illustrating the ABO model.

RESULTS

In this context, table 5 summarizes the results of the individual hypothesis tests of the ABO framework. Overall, it can be stated that the independent and dependent variables are in part moderately related to each other. However, only a maximum of 10-20% of the variance could be explained by the predictors for the theses.

Nevertheless, it can be stated that only a linear relationship was regressed. If several variables were included in the regression equation, this would also affect R^2 . Against this background, the presented results are revealing with regard to the ABO model.

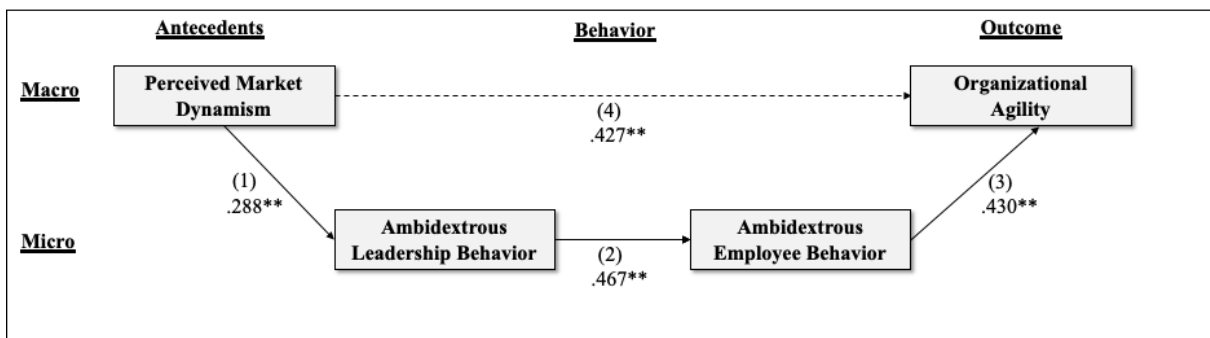


Figure 7 Overall Results of Hypothesis Testing using the Standardized Regression Coefficients

Table 5 Overview of the Regression Analysis with the Research Model

Dependent variables	Ambidextrous Leadership Behavior		Ambidextrous Employee Behavior		Organizational Agility	
	Macro-Micro	Micro-Micro	Micro-Macro	Macro-Macro		
Hypotheses	(1)	(2)	(3)	(4)		
<u>Control variables</u>						
Age	-.022 ¹	-.025 ²	.026 ³	.016 ⁴		
Tenure	-.008 ¹	.002 ²	-.018 ³	-.028 ⁴		
<u>Predictors</u>						
Perceived Market Dynamics	.288^{1**}				.427^{4**}	
Ambidextrous Leadership Behavior		.467^{2**}				
Ambidextrous Employee Behavior			.430^{3**}			
R ²	.084	.219	.185	.182		
Adjusted R ²	.080	.216	.180	.179		

Shown are standardized regression coefficients (β). $P^* < 0.10$ & $P^{**} < 0.05$. $N = 719$.

1 Macro-Micro: (Constant), Age, Tenure, Perceived Market Dynamics

2 Micro-Micro: (Constant), Age, Tenure, Ambidextrous Leadership Behavior

3 Micro-Macro: (Constant), Age, Tenure, Ambidextrous Employee Behavior

4 Macro-Macro: (Constant), Age, Tenure, Perceived Market Dynamics



6 NEW SCIENTIFIC RESULTS

The central contribution of the dissertation to leadership and behavioral research is that existing theoretical approaches to ambidexterity were further developed and empirically tested. In this regard, the ABO framework was developed as an integrative concept to propose and contribute an alternative to the prevailing perspectives in the ambidextrous literature.

In this context, it can be noted that ambidextrous behavior is addressed with the traditional means of organizational impact. The presented empirical study showed that there is a significant correlation between the ambidextrous behavior and agility performance of organizations. Reviewing the conceptual work on ambidexterity, different leadership characteristics and behavioral patterns are discussed. By distinguishing between leadership and employee behavior, the study opens up a still underdeveloped research area. The results indicate that the fostering of ambidextrous behavior as a visible behavioral component, such as demonstrating open and closed leadership tasks (error tolerance, setting rules), accounts for a share of the influence of organizational agility.

Another merit of the present work is the focus on the integration of ambidextrous mechanisms into a leadership model. In most of the relevant literature, the processes of how ambidexterity is characterized in leadership behavior are mainly driven by theory. Multifactorial empirical evidence is scarce. As one of the very few exceptions, Zheng et al. (2017) confirmed culture and organizational identification as important factors. My work extends the scope of existing research by considering and developing people and organization as additional variables in an integrative framework.

The results support that ambidexterity is introduced into the individual behavior of followers and that ambidextrous leaders can contribute to and improve the agility of organizations, which is reflected in increased flexibility and organizational behavior of employees. On the other hand, dealing with issues related to ambidextrous leadership also implies investigating antecedents.

In my empirical work I have identified the perceived market dynamics as crucial for the emergence of ambidextrous leadership, which is in line with the study by Keller & Weibler (2015). In an attempt to understand the antecedents of flexible ability, I also considered perceived environmental dynamics as instruments of this category. In this case, the study could not fully confirm the positive correlations of ambidextrous leadership, as it was significantly related to both criteria. However, this dissertation strengthens the importance of ambidextrous leadership as an important dimension of the explanation of leadership behavior.



Another important impulse for the existing literature is the inclusion of employees. While this approach has been consistently neglected in the past, my study confirmed its relevance in terms of leadership. When relying on employee behavior, a leader who shows a high degree of ambidextrous leadership behavior (e.g., when he or she can take open and closed actions at the same time) is more likely to develop a reputation for flexible leadership if by being a more visible role model for imitation.

Furthermore, I contribute to the validation of the ABO model to explain ambidextrous leadership behavior within social structures. While in the literature to date the leadership personality, or leadership effectiveness, has been investigated, my work provides important empirical support for an understanding of social issues. Overall, my results confirm the theoretical findings of several authors who postulate beneficial and detrimental effects on the emergence and influence of ambidexterity in an organizational context.

In addition to the theoretical contribution to ambidextrous literature, this dissertation is characterized by the inclusion of several important methodological strengths. These strengths relate to aspects of measurement sources as well as analytical methods. Starting from the different measurement sources, I have taken several steps to ensure the external validity of the results and to reduce the measurement bias resulting from the usual applied methods (Podsakoff et al., 2003). Here, the study was conducted as a field study, which means that all participants were employed and therefore had a supervisor and/or subordinate. Therefore, this work goes beyond existing studies that investigated ambidextrous leadership in experimental environments that rely only on student participants (e.g. Ferdig, 2007). Since the study was conducted in different organizations and settings, this heterogeneity in data composition further strengthens the external validity of my results.

Consequently, it can be stated that this study proved scientifically for the first time that there is a statistical and theoretical correlation between ambidexterity at the individual level & agility at the organizational level. Finally, the new scientific results can be summarized in two main categories. In the first category, a methodological leverage was achieved with this dissertation. This includes:

- 1 The assembly and testing of the linked variables within the ABO framework;
- 2 The combination of micro- and macro-specific factors from the perspective of ambidexterity in leadership and employee behavior.

The second category comprises an empirical leverage effect, in which the following novel results could also be summarized:



- 3 There is a significant correlation between ambidextrous behavior and the agility performance of organizations;
- 4 Ambidextrous leaders can contribute to and improve the agility of organizations, which is reflected in increased flexibility and organizational behavior of employees.

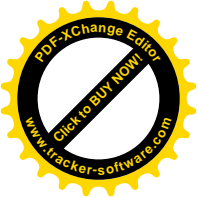
7 RECOMMENDATIONS & CONCLUSIONS

Considering the technical developments in recent years and the resulting uncertainties in the business world, both practitioners and scientists are increasingly concerned about business problems and possible solutions. With this paper I have addressed some of the currently predominant issues. In particular, I examined not only behavior but also the antecedents, effects and contingencies associated with business. Focusing on organizational frameworks, this work essentially supports the claim that "ambidexterity actually pays off". The results showed that ambidextrous leadership and employee behavior are positively related to improving agility related factors. Surprisingly, my work is the first to prove a positive statistical relationship between ambidexterity and objective measures of agility. Since the improvement of a general performance is linked to leadership, this dissertation provides economic incentives not only to study but also to put ambidexterity into practice.

Accordingly, practitioners should pursue the implementation of ambidextrous leadership and employee behavior in the organizational culture through appropriate development programs or leadership competence models. While ambidextrous leadership in companies has proven so useful from an agile perspective, research on the history of ambidextrous leadership has fallen short of expectations.

Here it became clear that perceived market dynamics do not necessarily create an internal need for flexibility and have a positive influence on it. This dissertation contributes to existing research by not only addressing the question of whether ambidexterity has positive effects. By identifying an integrative approach, it was possible to investigate not only leadership but also the effect of employee behavior with respect to ambidexterity. To predict the agility of organizations through individual behavior, the perceived market dynamics were identified as an important antecedent. Since the resulting contexts can vary in organizational situations, researchers and practitioners are invited to consider these contextual situations when investigating perceived market dynamics as an antecedent of organizational agility.

This dissertation has so far demonstrated that ambidexterity is worthwhile and thus challenging. Extensive research and thorough practice are always justified to strengthen the



RECOMMENDATIONS & CONCLUSIONS

ambidextrous approach to entrepreneurial tasks. Leaders should recognize the ambidextrous potential in leading people and deal with these issues especially in dynamic times. To conclude this work, I refer to the great pianist Tom Lehrer: "Life is like a piano. What you get out of it depends on how you play it."



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APPENDIX I: QUESTIONNAIRE

Welcome, Willkommen, Fogadtatás, Benvenuto,

as part of my dissertation project on the analysis of the perspectives of Ambidextrous Leadership behavior, we would like to ask you to answer a few questions about your professional experience and your field of activity.

The questionnaire consists of 38 questions and will take about 5-10 minutes of your time.

All questions will be evaluated anonymously and confidentially at the Faculty of Economic Science at the University of Kaposvár. We would like to thank you very much for your support of this research project! Further information on the research project can be obtained from:

Michael Hans Gino Kraft, M.Sc.

Doctoral Candidate in Management and Organizational Sciences
Kaposvár University

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Ambidextrous Leadership Behavior. Please indicate the extent to which you agree with the following statements in regard to your immediate supervisor.

1. My supervisor allows different ways of accomplishing a task
2. My supervisor encourages experimentation with different ideas
3. My supervisor motivates to take risks
4. My supervisor gives possibilities for independent thinking and acting
5. My supervisor allows errors
6. My supervisor monitors and controls the goal attainment
7. My supervisor establishes routines
8. My supervisor takes corrective action
9. My supervisor controls adherence to rules
10. My supervisor sanctions errors

Adopted Items (Rosing et. al., 2011). The answers were adjusted and measured with a 5-point scale from 1 (strongly disagree) to 5 (strongly agree).



APPENDIX I: QUESTIONNAIRE

Ambidextrous Employee Behavior. Relative to your own work, to what extent did you, last year, engage in work related activities that can be characterized as follows.

11. Searching for possibilities with respect to products/services, processes, or markets
12. Focusing on strong renewal of products/services or processes
13. Activities that are new/unknown to you
14. Activities requiring quite some adaptability/flexibility from your side
15. Activities requiring you to learn new skills or knowledge
16. Activities which you carry out as if it were routine
17. Activities that serve to fulfill day-to-day business
18. Activities from which you have broad experience
19. Activities from which you have broad experience; Activities that are conducted according to clear guidelines
20. Activities primarily focused on achieving short-term goals

Adopted Items (March, 1991; Mom et. al., 2006, Weibler & Keller, 2011). The answers were adjusted and measured with a 5-point scale from 1 (strongly disagree) to 5 (strongly agree).

Market Dynamics. Relative to your job environment, how you perceive the dynamics of your market.

21. Environmental changes in our local market are intense
22. Our customers regularly ask for new products and services
23. The competition in our market is very strong
24. In a year, a lot has changed in our market
25. In our market the products and services change quickly and often

Adopted Items (Jansen et. al., 2009). The answers were adjusted and measured with a 5-point scale from 1 (strongly disagree) to 5 (strongly agree).



APPENDIX I: QUESTIONNAIRE

Organizational Agility. Relative to your competitors, how well your organization performs or is positioned to perform the following activities.

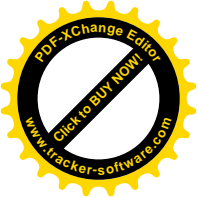
26. We can respond quickly to special requests of our customers when such demands arise
27. Whenever there is a change in our business, we can quickly make the necessary internal adjustments
28. We are quick to make appropriate decisions in the face of market/customer-changes
29. We are constantly looking for opportunities to reinvent/change our organization to better serve our market
30. We treat market related changes as opportunities to capitalize quickly

Adopted Items (Goldmann et. al., 1995; Tsourveloudis & Phillis, 1998). The answers were adjusted and measured with a 5-point scale from 1 (almost never true) to 5 (almost ever true).

Descriptive Statistics

31. What is your gender?
32. What is your age?
33. What is your job role?
34. How long have you been working for your organization?
35. How many people work for your organization?
36. Which of the following categories best describes the industry you primarily work in (regardless of the actual job position)?
37. What do you think of this? Which is right for your business?
38. What is the reality of your organization? Real revenue over the last 5 years...

Adopted Items 36-43 (Excellence in Leadership and Management Network © 2020, www.leadershabits.com, Excellent Leader Excellent Enterprise Questionnaire - ELESQ).



APPENDIX II: CONTENT-BASED LITERATURE REVIEW

