Essays on Organizational Ambidexterity and Diversity Management from an International Perspective

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Lucas A. Müller

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LIST OF ABBREVATIONS

BiPoC	Black, indigenous, people of color
BLM	Black lives matter
CEE model	Culture exploration exploitation model
CEM	Categorization elaboration model
CQ	Cultural intelligence
e.g.	Example given
EV	Electric vehicle
HR	Human resources
HQ	Headquarter
i.e.	Id est - that is
I-P-O	Input-mediator-output model
IB	International business research
IDV	Individualism-collectivism index
IMOI+C	Input-mediator-output-input and context model
LGBTQI+	Lesbian, gay, bisexual, transgender, queer, intersexual
LTO	Long-term orientation index
OEM	Original equipment manufacturer
PDI	Power distance index
R&D	Research and development
UAI	Uncertainty avoidance index

I.   OVERVIEW OF CUMULATIVE DISSERTATION

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1. Background and Motivation

Since many decades, international business research (IB) marks one of the most important sub disciplines in business research. It provides insights into how organizations successfully operate in an international context, addressing factors such as internationalization strategies, intercultural management, and the management of diverse teams (Szkudlarek, Romani, Caprar, & Osland, 2020). Given the rapidly globalizing world and the growing importance of intercultural and multicultural encounters within and outside organizations, the importance of IB is increasing. As a result, managers operate and act more interculturally than ever before. The current scientific literature shows that cultural influence on organizational and managerial action can neither be denied nor concealed, as it was discussed for years with culture-bound and culture-free perspectives (Hickson & McMillan, 1981; Maurice & Sorge, 2000) such as convergence and divergence theory (Adler, 2008; Barmeyer, Bausch, & Mayrhofer, 2021; Inglehart & Welzel, 2005). Consequently, culture and its various forms of expression, varying values, norms and resulting behavior are considered to be a central element of conducting business internationally. This also includes organizational behavior such as the culture-conscious managerial handling of radical innovation through different ambidexterity architectures or the successful utilization of team and workforce diversity. Despite the high relevance of an international perspective on organizational ambidexterity and the management of diversity within teams, both topics represent aspects that not have been thoroughly studied yet (Minbaeva, Fitzsimmons, & Brewster, 2021; Tarba, Jansen, Mom, Raisch, & Lawton, 2020; van Knippenberg, Nishii, & Dwertmann, 2020).

The scientific literature on organizational ambidexterity focuses on the ability of companies to continuously develop and exploit their core activities while at the same time exploring new

lines of business (March, 1991; O'Reilly & Tushman, 2013; Tushman & O'Reilly, 1996). It may be understood as an organizational framework for companies that find themselves in discontinuous situations. Hasty technological change may be one reason for this. An important aspect of being ambidextrous is the balance between exploration and exploitation which may be expressed in different architectural ways of implementation. From a static perspective, literature discusses three different forms of ambidexterity. Static forms are divided into separative or integrative approaches (Fojcik, 2015; Müller & Stephan, 2020; O'Reilly & Tushman, 2013). The more recently discussed dynamic perspective describes the process of balancing traditional and new business lines from initiation of a new technology towards its scale (Raisch & Tushman, 2016). Studies show that ambidextrous companies are more successful, especially in the long run. The reason for this is that almost every company has to adapt to changes triggered by breakthrough business models, products or disruptive technologies. In order not to compromise their core business, organizational ambidexterity is essential (Tushman & O'Reilly, 1996). Even though the academic discussion on both perspectives of organizational ambidexterity is lively, the culture-conscious management of exploration and exploitation remains largely unexplored. This is particularly surprising as organizations operate increasingly internationally. To address the aforementioned research gap, the first two essays of this dissertation provide an international perspective on organizational ambidexterity. More precisely, its forms of implementation are linked to Hofstede's concept of cultural differences (Hofstede, 2001; Hofstede, Hofstede, & Minkov, 2010). Based on the premise that managers and employees act according to the value system they learned in their childhood (Barmeyer et al., 2021; Hofstede et al., 2010; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Newman & Nollen, 1996), it can be assumed that certain forms of ambidexterity are more likely to be implemented than others, as certain ways of behaving are also a

precondition for their implementation (Boumgarden, Nickerson, & Zenger, 2012; Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2013). Essay 1 explores whether companies rooted in specific cultures tend to implement either separative or integrative forms of ambidexterity from a static point of view. It may also be argued that cultural differences are reflected in the management of new technologies and their organizational graduation process. Accordingly, essay 2 explores the sequence of different forms of ambidexterity from initiation towards scale (Proff, 2019; Raisch & Tushman, 2016; Tarba et al., 2020). Similar to the first paper, assumptions based on cultural value patterns and the necessary actions for a dynamic perspective on organizational ambidexterity are derived and empirically analyzed.

While the central element that connects the essays presented in this cumulative dissertation is international management, the second conceptual pillar is the management of workforce diversity. Organizations are becoming increasingly diverse for a variety of reasons. Globalization, for example, results in international talent acquisition, enabling people from a wide range of backgrounds and origins to work together (Minbaeva et al., 2021; Morris, Snell, & Björkman, 2016). As a consequence, scientists have been discussing the effects of team and workforce diversity for a long time. Diverse workforces and teams are regarded as more innovative than homogeneous teams. Scholars agree that those positive effects stem from different perspectives which lead to a gain in information compared to homogeneous units (Stahl & Maznevski, 2021; van Knippenberg et al., 2020). However, as diversity is seen as a "double-edged sword", it may also carry negative consequences like miscommunication, misunderstandings and conflict. Van Knippenberg et al. (2004) see identity threat as the main source of diversity disadvantages. While conceptual perspectives on how diversity works are fairly well researched, studies on how to deal with it successfully are scarce (van Knippenberg

et al., 2020). Motivated by this research gap, essay 3 empirically examines how cultural and general workforce diversity is effectively managed. To bring the results to a practicing audience, essay 4 explains in three and a half steps how diversity success can be established and maintained.

1.1 Contributions

This cumulative dissertation contains theoretical-conceptual as well as empirical implications for international business research, organizational ambidexterity literature from a static as well as a dynamic perspective (O'Reilly & Tushman, 2013; Raisch & Tushman, 2016), and diversity management (Minbaeva et al., 2021; Roberson, 2019; Stahl & Maznevski, 2021; van Knippenberg et al., 2020).

The first two essays of this dissertation contribute to organizational ambidexterity literature by adding an international, culture-conscious perspective on the management of exploitation and exploration. More precisely, the first essay deals with the question whether the cultural background of a company has an impact on the implementation of specific ambidexterity forms. By contextualizing cultural values and resulting behavior based on Hofstede's concept of intercultural differences (Hofstede, 2001; Hofstede et al., 2010), which includes the norms and behavior necessary for the implementation of static forms of ambidexterity, the essay contributes to static ambidexterity literature as it adds an international, culture-conscious perspective. The empirical results indicate that intercultural differences are reflected in the adoption of separative or integrative forms of ambidexterity and, hence, the essay expands empirical research in this field. Motivated by those findings, the second essay deals with the question whether the cultural background of a company has an impact on the

trajectory of dynamic ambidexterity from the initiation of explorative activities until their scale. Similar to the first essay, it contextualizes cultural values and resulting behavior based on Hofstede's concept of intercultural differences (Hofstede, 2001; Hofstede et al., 2010) with the dynamic handling of ambidexterity (Proff, 2019; Raisch & Tushman, 2016; Tarba et al., 2020). It contributes to existing literature by providing a better understanding of different processual approaches and creating awareness for cultural differences. Furthermore, the empirical findings indicate the importance of trailblazer technologies for the organizational initiation of exploratory activities (Raisch & Tushman, 2016).

The third and the fourth essay of this cumulative dissertation contribute to the literature of cultural and general diversity management. The empirical study of essay 3 aims at exploring how diversity can be exploited as an organizational capability. In addressing this research question, the essay contributes to management literature by developing a processual model that describes in three contextualized steps how deep-homogeneity in surface-diversity creates a complementary tension and promotes diversity success. It expands the scarce amount of literature on diversity management (Roberson, 2019) and contributes to the much needed empirical exploration of management processes (van Knippenberg et al., 2020). Since the model is built on establishing deep-homogenization in a surface-diverse workforce, it adds to the body of literature on different levels of diversity. It also contributes to international business research by expanding diversity categories beyond culture (Minbaeva et al., 2021). Research on cultural as well as general diversity in teams often follows an input-process-output logic (Minbaeva et al., 2021; Stahl & Maznevski, 2021; Stahl, Maznevski, Voigt, & Jonsen, 2010; van Knippenberg et al., 2004). Scholars criticize the lack of contextual factors influencing this process model (Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Zellmer-Bruhn & Maloney, 2020).

By identifying a diversity-promoting and simultaneously homogenizing corporate context, the third essay also contributes to closing this conceptual gap in the diversity literature.

Building on the findings of the third essay, the fourth essay provides a more practical contribution to management literature on diversity. Drawing on the positive effects that diversity can have on the performance of work groups and teams, essay 4 describes why deep-homogeneity in surface-diversity enhances the beneficial consequences of diversity, such as innovativeness, for a practitioner readership. Moreover, a three-and-a-half-step model is presented that provides a practically feasible and managerially sound toolkit for achieving deep-homogeneity within surface-diversity. By providing contextualized guidelines on staffing, onboarding, and the ongoing management of a workforce, the essay offers practical advice on how diversity is established and how it can be exploited as an organizational capability. Accordingly, it contributes to general managerial literature by tackling a real "zeitgeist" phenomenon.

1.2   Avenues for Future Research

The dissertation's individual essay results offer implications for future studies. While the first two essays hold implications for organizational ambidexterity, essay 3 and essay 4 offer inferences for future studies concerning diversity management.

The derived implications of the first two essays may motivate future studies on an international perspective of organizational ambidexterity. Drawing on the scarce body of literature on the microfoundations of ambidexterity, we would like to encourage prospective research to examine the interrelationship between culture and ambidexterity in more detail. Research on microfoundations describes the fundamental individual and collective activities

required to balance exploration and exploitation activities and adapt them to changing internal and external conditions (Tarba et al., 2020). Following this logic, conflict behavior, for example, was identified as a microfoundation for the implementation of ambidexterity forms (Martin, Keller, & Fortwengel, 2019). In this context, it could be argued that the interpretation of conflicts and the resulting conflict behavior are influenced largely by cultural characteristics. As cultural values and the dimensional scores used for the first two essays are expected to interfere, future studies should address the interrelation of cultural values on organizational ambidexterity. Additionally, since both empirical studies are based on qualitative data, prospective studies are encouraged to re-examine the impact of cultural differences on static as well as dynamic ambidexterity with quantitative data. With respect to dynamic ambidexterity literature, future studies should also consider the theoretical implementation of trailblazer technologies prior to the initiation stage (Raisch & Tushman, 2016).

The results of the third paper on managing diversity show how deep-homogeneity serves as a driver for surface-diversity success. More precisely, it examines how deep homogeneity mitigates the negative consequences of workforce diversity, including conflicts and miscommunication that can also be caused by intergroup tension and identity threat (van Knippenberg et al., 2004). Thus, the information assets of diverse expertise and perspectives that diversity creates can be leveraged without risking negative outcomes. Even though the study includes a comprehensive discussion of management and contextual factors for diversity success, it provides implications for future studies in the field of diversity management. Essay 3 represents a single case study based on qualitative data. Therefore, I would like to motivate future studies to investigate the positive effect of deep-homogeneity on surface-diversity in quantitative studies. Prospective research should also address the different levels of diversity

suggested in essay 3 so that a better distinction can be made between existing studies on diversity levels. Furthermore, the exact role of deep-homogeneity for diversity complementarity and synergy should be investigated in future studies to contribute to the generalizability of the essay's results. Given the scarcity of empirical studies on a synergistic-complementary perspective on diversity management, we want to motivate scholars and practitioners to work together closely (van Knippenberg et al., 2020). In addition, the identification of the organizational context as a simultaneous driver of deep-homogeneity and surface-diversity raises the question of how exactly the context affects employees and which socio-cognitive mechanisms are stimulated and activated. Based on the empirical results, it may be argued that there is no need to differentiate between cultural and general diversity in management. This is based on the empirical results of the selected case and should be confirmed through future studies.

2. Summary of the Essays

The present cumulative dissertation consists of four essays. While the first two essays focus on the empirically based contextualization of organizational ambidexterity from a static (essay 1) and dynamic perspective (essay 2) with cross-cultural differences, essay 3 studies the successful management of a diverse workforce and identifies deep-homogeneity as a driver for diversity success. The empirically based, contextualized three-stage management model of essay 3 is examined from a more practical perspective in essay 4. While table 1 provides an overview of the essays, the following extended abstracts give a more comprehensive summary of this cumulative dissertation.

Essay 1 - To Separate or to Integrate? The Normative Effect of National Culture on Organizational Ambidexterity of Automotive OEMs in Transition towards Electric Mobility

Given the scarcity of an international perspective on organizational ambidexterity, the first essay focuses on contextualizing cross-cultural differences with the static forms of managing exploitative and explorative behavior (Hofstede et al., 2010; O'Reilly & Tushman, 2013). It empirically analyzes the automotive industry's disruptive change towards a new era of electric mobility (Krommes & Schmidt, 2017). This transition is characterized by the critical management challenge of organizing and balancing traditional businesses and new venture lines. Essay 1 investigates how incumbent OEMs with different cultural backgrounds handle this challenge. The article suggests that national culture plays a crucial role in a firms' organizational implementation of explorative and exploitative work since cultural values affect managerial behavior and the choice of organizational designs. Based on an in-depth longitudinal analysis of eleven car manufacturers from six nations, it scrutinizes the implementation of different ambidexterity forms and contextualizes the results with Hofstede's (2010) work on cultural dimensions. The findings indicate that structural separation of explorative and exploitative behavior occurs in organizations rooted in long-term oriented, collectivistic and uncertainty avoiding cultures (Hofstede et al., 2010; Hofstede & Minkov, 2010; O'Reilly & Tushman, 2013). Integrative forms of ambidexterity are prevalent in organizations rooted in short-term oriented, individualistic and uncertainty accepting cultures (Gibson & Birkinshaw, 2004; Hofstede et al., 2010; Hofstede & Minkov, 2010; O'Reilly & Tushman, 2013).

Essay 2 - An International Perspective on Dynamic Ambidexterity – The Normative Effect
of National Culture on Automotive OEMs' Transition towards Electric Mobility

Motivated by the findings of the first essay, the second essay focuses on an empirical investigation of altering dynamic ambidexterity strategies of automotive OEMs in their sometimes arduous transition towards vehicle electrification. This shift marks one of the greatest transformations in the automotive industry's history and may be seen as the beginning of a new era of mobility. The fundamental change from combustion towards electric vehicles does not occur abruptly, but constitutes a long-term process in which the balance between exploration and exploitation must constantly be adjusted and redefined. This process of balancing traditional and new business lines from initiation of a new technology until its scale is known as dynamic ambidexterity (Raisch & Tushman, 2016; Tarba et al., 2020). The rise of explorative initiatives may be divided into different evolutionary phases which are defined by altering strategies and exploitation-exploration balances, which require different ambidexterity architectures. There is no consensus among scholars on the exact sequence of the different ambidexterity forms (Proff, 2019; Raisch & Tushman, 2016; Tarba et al., 2020). The current models are shaped by Western perspectives and omit the fact that management decisions and, thus, organizations are strongly influenced by its individuals' cultural background (Müller & Stephan, 2020; Prashantham & Eranova, 2020; Tarba et al., 2020). Based on 11 longitudinal case studies of incumbent car manufacturers from six nations, the findings of essay 2 suggest that the cultural background of a company has an impact on the implementation of dynamic ambidexterity. More precisely, our findings indicate substantial differences in the implementation of different forms of ambidexterity from initiation to scale, which cannot be

properly explained by previous theoretical approaches. Furthermore, essay 2 identifies the importance of trailblazing technologies for initiating explorative activities.

Essay 3 - Drivers of Diversity Success: A Dutch Unicorn Fairytale

While the first two essays focus on finding differences between the management of explorative units based in different cultures, essay 3 dives into the management of a diverse workforce. Over the past decades, the management of diversity has become one of the most important sub-disciplines of international business research (Adler & Aycan, 2020; Kraimer, Bolino, & Mead, 2016; Zellmer-Bruhn & Gibson, 2013). Especially in companies with an international orientation, it is important to understand how people with diverse backgrounds can work together successfully. Yet, there is a lack of managerial concepts unfolding how diversity may be exploited as an organizational capability (Minbaeva et al., 2021; van Knippenberg et al., 2020). In a qualitative single case study of a Dutch fintech unicorn, the third essay sheds light into darkness and answers the question of how organizations master the trade-off between international talent acquisition and working with people of all different backgrounds successfully. Furthermore, this study gives insights on how to manage diversity in general, instead of focusing solely on cultural diversity as it argues that cultural and general diversity are closely related. The emerging and contextualized three-stage management model illuminates how deep-homogeneity in surface-diversity forms a complementary tension and drives diversity success. The results give important implications of how to create an environment in which diversity may be exploited as an organizational capability.

Essay 4 - Managing Diversity: How to establish and maintain Diversity Success in Three and a Half Steps

Workforce diversity withholds many advantages. Innovativeness through radical ideas rarely arises in comforting uniformity. Diversity promotes openness and strengthens the potential to generate radical innovation stemming from different opinions and deviating perspectives (Bouncken, Brem, & Kraus, 2016; Joshi & Roh, 2009; Mathieu, Hollenbeck, Knippenberg, & Ilgen, 2017; Wang, Cheng, Chen, & Leung, 2019). Most companies have understood this. Nevertheless, a diverse workforce also harbors dangers, conflicts are seen as unproductive and do harm to the company's climate. There seems to be a trade-off due to which diversity is seen as a "double-edged sword" (Minbaeva et al., 2021; Stahl & Maznevski, 2021; van Knippenberg & Mell, 2016). However, the trade-off can be defied: for managers it is crucial to have a strategic toolbox which helps to sharpen the positive side of the sword and dull the other. This is particularly relevant for managers in internationally oriented companies that are confronted with diversity on a regular basis. The fourth essay of this dissertation introduces three and a half managerial steps to establish and maintain deep-homogeneity in surface-diversity, which is vital to exploit diversity's benefits while circumnavigating its drawbacks.

Table 1: Overview of the dissertation's four essays

	Essay 1	Essay 2	Essay 3	Essay 4
Title	To Separate or to Integrate? The Normative Effect of National Culture on Organizational Ambidexterity of Automotive OEMs in Transition towards Electric Mobility	An International Perspective on Dynamic Ambidexterity – The Normative Effect of National Culture of Automotive OEMs in Transition towards Electric Mobility	Drivers of Diversity Success: A Dutch Unicorn Fairytale	Managing Diversity: How to establish and maintain Diversity Success in Three and a Half Steps
Authors	Lucas A. Müller (80%) Michael Stephan (20%)	Lucas A. Müller (80%) Michael Stephan (20%)	Lucas A. Müller	Lucas A. Müller (80%) Michael Stephan (20%)
Research Question	Does the cultural background of a company have an impact on the implementation of different static ambidexterity forms?	Does the cultural background of a company have an impact on the trajectory of dynamic ambidexterity?	What drives diversity success?	N/A (practice paper based on essay 3)
Theoretical foundation	Static ambidexterity and cross-cultural theory	Dynamic ambidexterity and cross-cultural theory	General and cultural diversity literature	Diversity management literature
Method	Multiple longitudinal case studies (10 years); pattern matching	Multiple longitudinal case studies (20 years); chronological sequencing	Explorative single case study; Gioia-methodology	N/A (practice paper based on essay 3)
Sample	11 incumbent automotive OEMs	11 incumbent automotive OEMs	1 Dutch fintech unicorn	N/A (practice paper based on essay 3)
Main theoretical implication	The findings indicate that structural separation of explorative and exploitative behaviour occurs in organizations rooted in long-term oriented, collectivistic and uncertainty avoiding cultures. Integrative forms of ambidexterity are prevalent in organizations rooted in short-term orientated, individualistic and uncertainty accepting cultures.	The study adds an international perspective on the dynamic handling of architectural types of organizational ambidexterity by contextualizing the empirical findings with intercultural differences. Furthermore, it identifies the importance of trailblazing technologies for initiating exploration.	The results show how deep-homogeneity in surface-diversity forms a complementary tension and, thus, identifies deep-homogenization as a driver for diversity success.	N/A (practice paper based on essay 3)
Main practical implication	MNCs should allow and promote ambidexterity forms in foreign sister companies or subsidiaries that are supported by their local culture.	The study encourages managers of multinationally operating companies to add a more international perspective on the dynamic handling of exploitation and exploration by incorporating cultural factors to strategic decisions.	The study offers a contextualized three-stage managerial model with which deep-homogeneity can be utilized as a driver for surface-diversity success.	This practice-oriented paper introduces a strategic toolbox of three and a half steps to establish and maintain deep-homogeneity in surface-diversity, which is vital to exploit diversity's benefits while circumnavigating its drawbacks.
Publication	Published in International Journal of Automotive Technology and Management, 20(4), 457-482, and in an abbreviated form as a book chapter in *Neue Dimensionen der Mobilität* (pp. 65-79). Springer Gabler, Wiesbaden. Edited by Heike Proff.	Under review in International Journal of Automotive Technology and Management. Published in abbreviated form as a book chapter in *Transforming Mobility - What Next?* (pp. 33-53). Springer Gabler, Wiesbaden. Edited by Heike Proff.	Presented at EIBA (European International Business Academy) conference 2021 in Madrid. Manuscript under preparation for submission.	Practice paper based on essay 3. In preparation for submission.

3.   Deutsche Zusammenfassung der Artikel

Die vorliegende Dissertation besteht aus vier Artikeln, von denen die ersten drei empirisch basiert sind. Während sich die ersten beiden Artikel mit der Kontextualisierung der organisationalen Ambidextrie aus statischer (Essay 1) und dynamischer Perspektive (Essay 2) mit interkulturellen Unterschieden beschäftigen, wirft Essay 3 einen Blick in das erfolgreiche Management von diversen Teams und identifiziert Tiefenhomogenität als organisationalen Treiber für den Erfolg einer oberflächlich hochdiversen Belegschaft. Das empirisch basierte und kontextualisierte dreistufige Managementmodell wird in Essay 4 aus praktischer Perspektive beleuchtet. Die folgenden Kurzzusammenfassungen der einzelnen Essays dienen der Übersicht der vorliegenden kumulativen Dissertation.

Essay 1 - To Separate or to Integrate? The Normative Effect of National Culture on Organizational Ambidexterity of Automotive OEMs in Transition towards Electric Mobility

In Anbetracht der nur geringen Anzahl an Studien, die eine internationale Perspektive auf die organisationale Ambidextrie einnehmen, untersucht das erste Essay der vorliegenden Dissertation Unterschiede in der Implementierung explorativer Aktivitäten etablierter Unternehmen und kontextualisiert diese mit interkulturellen Unterschieden (Hofstede et al., 2010; O'Reilly & Tushman, 2013). Die empirische Umsetzung erfolgt durch die Analyse des disruptiven Wandels der Automobilindustrie zur Elektromobilität (Krommes & Schmidt, 2017). Dieser transformative Prozess ist durch die kritische unternehmerische Herausforderung gekennzeichnet, traditionelle Geschäftsfelder und neue Unternehmensbereiche zu organisieren und auszubalancieren. In Essay 2 wird untersucht, wie etablierte OEMs mit unterschiedlichem kulturellem Hintergrund mit dieser Herausforderung umgehen. Der Artikel legt nahe, dass die

nationale Kultur eine entscheidende Rolle bei der organisatorischen Umsetzung von explorativen und exploitativen Aktivitäten in den Unternehmen spielt, da kulturelle Werte das Managementverhalten und die Wahl des Organisationsdesigns beeinflussen. Basierend auf einer ausführlichen Längsschnittanalyse von elf Automobilherstellern aus sechs Ländern wird die Umsetzung verschiedener Formen von Ambidextrie untersucht. Die Ergebnisse werden anschließend mit Hofstedes (2010) Arbeit über kulturelle Dimensionen kontextualisiert und zeigen, dass eine strukturelle Trennung von explorativem und exploitativem Verhalten in Organisationen auftritt, die in langfristig orientierten, kollektivistischen und Unsicherheit vermeidenden Kulturen verwurzelt sind (Hofstede et al., 2010; Hofstede & Minkov, 2010; O'Reilly & Tushman, 2013). Integrative Formen der unternehmerischen Beidhändigkeit sind in Organisationen vorherrschend, die in kurzfristig orientierten, individualistischen und Unsicherheit akzeptierenden Kulturen verwurzelt sind (Gibson & Birkinshaw, 2004; Hofstede et al., 2010; Hofstede & Minkov, 2010; O'Reilly & Tushman, 2013).

Essay 2 - An International Perspective on Dynamic Ambidexterity - The Normative Effect of National Culture on Automotive OEMs' Transition towards Electric Mobility

Motiviert durch die Ergebnisse des ersten Essays, widmet sich dieser Artikel einer empirischen Untersuchung der sich verändernden dynamischen Ambidextriestrategien von Automobilherstellern bei ihrem Übergang zur Elektromobilität. Dieser diskontinuierliche Wandel markiert einen der größten Umbrüche in der Geschichte der Automobilindustrie und kann als Beginn einer neuen Ära der Mobilität angesehen werden (Fojcik, 2015). Die Transformation von Verbrennungs- zu Elektrofahrzeugen vollzieht sich jedoch nicht abrupt, sondern stellt einen langfristigen Prozess dar, bei dem das Gleichgewicht zwischen explorativen und exploitativen Aktivitäten kontinuierlich angepasst und neu definiert werden

muss. Die kontinuierliche Anpassung des Gleichgewichts zwischen traditionellen und neuen Geschäftsfeldern von der Initiierung einer neuen Technologie bis zu ihrer Skalierung wird als dynamische Ambidextrie bezeichnet (Raisch & Tushman, 2016; Tarba et al., 2020). Die prozessuale Entwicklung explorativer Initiativen kann in verschiedene Evolutionsphasen unterteilt werden, die durch wechselnde Strategien und Gleichgewichte zwischen Exploitation und Exploration gekennzeichnet sind und unterschiedliche Ambidextriearchitekturen erfordern. Über die genaue Abfolge der verschiedenen Ambidextrieformen besteht im aktuellen wissenschaftlichen Diskurs kein einheitliches Verständnis (Proff, 2019; Raisch & Tushman, 2016; Tarba et al., 2020). Die derzeitigen Ansätze sind von westlichen Betrachtungen geprägt und lassen außer Acht, dass Managemententscheidungen und damit auch Organisationen stark vom kulturellen Hintergrund der Individuen beeinflusst werden (Müller & Stephan, 2020; Prashantham & Eranova, 2020; Tarba et al., 2020). Auf der Grundlage von 11 Longitudinalfallstudien etablierter Automobilhersteller aus sechs Nationen legen die Ergebnisse von Essay 2 nahe, dass der kulturelle Hintergrund eines Unternehmens einen Einfluss auf die Umsetzung von dynamischer Ambidextrie hat. Konkret werden erhebliche Unterschiede bei der Umsetzung der verschiedenen Formen der Ambidextrie von der Initiierung bis zur Skalierung aufgezeigt, die sich mit den bisherigen theoretischen Ansätzen nicht angemessen erklären lassen. Darüber hinaus wird in Essay 2 die besondere Rolle von Vorreitertechnologien für die Initiierung explorativer Aktivitäten hervorgehoben.

Essay 3 - Drivers of Diversity Success: A Dutch Unicorn Fairytale

Während sich die ersten beiden Essays darauf konzentrieren, Unterschiede zwischen dem Management von Forschungseinheiten in verschiedenen Kulturen festzustellen, geht es in Essay 3 um das Management diverser Teams. In den vergangenen Jahrzehnten hat sich das

Management kultureller Diversität zu einer der wichtigsten Teildisziplinen der internationalen Businessforschung entwickelt (Adler & Aycan, 2020; Kraimer et al., 2016; Zellmer-Bruhn & Gibson, 2013). Gerade in dynamischen Unternehmen mit internationaler Ausrichtung ist es wichtig zu verstehen, wie Menschen mit unterschiedlichen Hintergründen erfolgreich zusammenarbeiten können. Gleichzeitig fehlt es an Managementkonzepten, die aufzeigen, wie Diversität als organisatorische Fähigkeit genutzt werden kann (Minbaeva et al., 2021; van Knippenberg et al., 2020). In einer qualitativen Einzelfallstudie eines niederländischen Fintech-Unicorns wird im dritten Essay die Frage beantwortet, wie ein junges Unternehmen den Spagat zwischen internationaler Talentakquise und erfolgreicher Zusammenarbeit mit Menschen unterschiedlichster Herkunft meistert. Darüber hinaus gibt diese Studie Einblicke in das Management von Diversität im Allgemeinen, anstatt sich nur auf kulturelle Vielfalt zu konzentrieren, da kulturelle und allgemeine Diversität eng miteinander verbunden sind. Das daraus resultierende und kontextualisierte dreistufige Managementmodell verdeutlicht, wie tiefe Homogenität in oberflächlicher Diversität ein komplementäres Spannungsverhältnis bildet und den Erfolgsfaktor für Vielfalt darstellt. Die Ergebnisse enthalten wichtige Implikationen für die Schaffung eines Kontexts, in dem Vielfalt als eine organisatorische Fähigkeit genutzt werden kann.

Essay 4 - *Managing Diversity: How to establish and maintain Diversity Success in Three and a Half Steps*

Diversität birgt viele Vorteile. Innovationsfähigkeit durch radikale Ideen entsteht selten in behaglichem unternehmerischen Einheitsbrei. Diversität fördert Aufgeschlossenheit und stärkt das Innovationspotenzial, welches durch unterschiedliche Meinungen, deren Austausch und abweichenden Perspektiven profitiert (Bouncken, Brem, & Kraus, 2016; Joshi & Roh, 2009;

Mathieu, Hollenbeck, Knippenberg, & Ilgen, 2017; Wang, Cheng, Chen, & Leung, 2019). Die meisten Unternehmen haben das verstanden. Dennoch birgt eine heterogene Belegschaft auch Gefahren. Konflikte werden als unproduktiv angesehen und schaden dem Betriebsklima. Offensichtlich gibt es einen Trade-off, aufgrund dessen die Vielfalt als "zweischneidiges Schwert" angesehen wird (Minbaeva et al., 2021; Stahl & Maznevski, 2021; van Knippenberg & Mell, 2016). Der Trade-off kann jedoch umgangen werden: Für Manager ist es entscheidend, über eine strategische Toolbox zu verfügen, die dabei hilft, die positive Seite des Schwertes zu schärfen und die andere abzustumpfen. Dies gilt insbesondere für Führungskräfte in international ausgerichteten Unternehmen, die regelmäßig mit unterschiedlichsten Diversitätsfaktoren konfrontiert werden. Das vierte Essay dieser Dissertation stellt dreieinhalb Managementschritte vor, um eine tiefe Homogenität in der Oberflächenvielfalt zu etablieren und zu erhalten. Diese ist entscheidend, um die Vorteile der Vielfalt zu nutzen und gleichzeitig ihre Nachteile zu umgehen.

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II.   TO SEPARATE OR TO INTEGRATE? THE NORMATIVE EFFECT OF NATIONAL CULTURE ON ORGANIZATIONAL AMBIDEXTERITY OF AUTOMOTIVE OEMS IN TRANSITION TOWARDS ELECTRIC MOBILITY

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To Separate or to Integrate? The Normative Effect of National Culture on Organizational Ambidexterity of Automotive OEMs in Transition towards Electric Mobility

Abstract

The automotive industry is undergoing a disruptive change towards a new era of electric mobility. This transition is characterized by the critical management challenge of organizing and balancing traditional businesses and new venture lines, a phenomenon described as organizational ambidexterity. We investigate how OEMs with different cultural backgrounds handle this challenge. Our suggestion is that national culture plays a crucial role in the firms' organizational implementation of explorative and exploitative work since cultural values affect managerial behavior and the choice of organizational designs. Based on an in-depth longitudinal analysis of eleven car manufacturers from six nations, this work scrutinizes the implementation of different ambidexterity forms and contextualizes the results with Hofstede's work on cultural dimensions. Our findings indicate that structural separation of explorative and exploitative behavior occurs in organizations rooted in long-term oriented, collectivistic and uncertainty avoiding cultures. Integrative forms of ambidexterity are prevalent in organizations rooted in short-term oriented, individualistic and uncertainty accepting cultures.

To Separate or to Integrate? The Normative Effect of National Culture on Organizational Ambidexterity of Automotive OEMs in Transition towards Electric Mobility

1. Introduction: Relevance of the Topic

The automotive industry is currently undergoing a disruptive technological change towards electric mobility (Krommes & Schmidt, 2017). For most incumbent OEMs, however, until today the traditional lines of business prove to be very profitable. Incumbent businesses do indeed generate the cash flows needed for the investments into new business lines. The period of disruptive transition will therefore be characterized by a longer-lasting co-existence of new and incumbent business operations, with old and new technologies, and with old and new business logics inside (Fojcik, 2013; Proff, 2019). The capability to effectively organize the balance between innovative future businesses and traditional business lines is called 'organizational ambidexterity'. So far, the literature on organizational ambidexterity has been dominated by research of scholars with a primarily Western perspective. The automotive industry, though, is inherently globalized. The major OEMs are headquartered across all Triad regions – North America, Europe, and Asia – and do business across all these markets. The different national markets across the Triad are characterized by inherently different cultural profiles and understandings of "good" management and organizational design practices. How do these different national cultures impact on the way of how to handle ambidexterity successfully?

While management literature regarding organizational ambidexterity expands rapidly (Fourné, Rosenbusch, Heyden, & Jansen, 2019; Snehvrat, Kumar, Kumar, & Dutta, 2018) , the appropriate and culture-oriented use of different types of ambidexterity remains largely unexplored. This is surprising as businesses increasingly operate internationally and, thus, culture-conscious management becomes vital (López-Duarte, Vidal-Suárez & González-Díaz, 2016; Tung & Stahl, 2018). Organizations, which not only act according to their own national

culture but also leverage intercultural differences ensure decisive competitive advantages over those who fail to do so.

Scientific literature globally concurs that culture involves values, knowledge, beliefs as well as moral and other social factors grounded on and shared by a society (Rinne, Steel, & Fairweather, 2012; Schwartz, 2006; Tylor, 1958). According to Hofstede, culture is *the collective mental programming* shared with other members of a nation and is composed of values and behaviors learned in the childhood (Hofstede, 2001). Although the pool of theories referring to national culture is large, Hofstede´s concept of cultural differences presumably has the biggest impact on IB research and is, undoubtedly, a much-noticed concept in the field of national culture (Medcof & Wang, 2017; Taylor & Wilson, 2012; Tung & Stahl, 2018). It determines national culture by dividing it into its peculiarities (Hofstede, Hofstede, & Minkov, 2010). Many scholars addressed this concept and drew promising inferences about culture-conscious innovation behavior of organizations (Černe, Jaklič, & Škerlavaj, 2013; Efrat, 2014; Hayton & George, 2002; Herbig & Dunphy, 1998; Lin, 2009; Rinne et al., 2012). Medcof and Wang (2017) studied this interrelationship and developed the CEE model that scrutinizes the direct influence of national culture on a firm's ability to explore or exploit. Hence, it may be assumed that national culture stimulates an organization's innovativeness to such an extent, that it is reflected in a firm´s capability to innovate either incrementally or radically.

While the impact of national culture on the ability to explore or exploit has been examined, research has gained little insight into the role which culture plays when a firm innovates incrementally and radically simultaneously. Drawing on cultural peculiarities and their impact on collaborations among employees, we argue that cultural aspects should endorse

a company's implementation of ambidexterity to overcome the paradoxical tension between exploitation and exploration.

Ambidexterity is interrelated with organizational learning, survival, competitive advantage and technological innovation (Benner & Tushman, 2003; Siggelkow & Levinthal, 2003). Consequently, various researchers have examined this concept and observed different forms of organizational ambidexterity and the balance between exploration and exploitation intensively (Fojcik, 2015; Gibson & Birkinshaw, 2004; Güttel & Konlechner, 2017; Wang & Rafiq, 2014). Ambidexterity can be achieved in various ways that differ not only in the degree of separating explorative and exploitative activities, but also in diverse behaviors and work patterns that individuals have to adopt. Through the identification of appropriate cultural values, behaviors and resulting work patterns, we combine Hofstede's (2001) theory and the forms of organizational ambidexterity (Duncan, 1976; Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2013; Tushman & O'Reilly, 1996). Our theoretical assumptions are assessed by means of 11 longitudinal case studies of international automobile manufacturers. This paper extends current knowledge on culture-conscious management of exploration and exploitation. Thereby, we tackle the need of inter-cultural research to follow a solution-oriented approach instead of solely identifying differences (Romani, Barmeyer, Primecz, & Pilhofer, 2018). We point out the importance of culture in the way a firm deals with the question whether to separate or to integrate.

Within the next section, we create a basic understanding of national culture, its mechanisms and peculiarities by describing and examining Hofstede´s theory of cultural differences. The following part is dedicated to ambidexterity and its organizational manifestations. Both theories are aligned and create the basis of the work´s propositions.

Subsequently, the methodological background to approach the question whether culture has an impact on the choice between different ambidexterity forms as well as the sample selected to answer this question are introduced. In the next section, we describe the explorative findings, while the following section relates them to our theoretical propositions.

2. Conceptual Background

2.1 Intercultural Differences

According to research, every individual is defined by its potential actions, inner mind patterns and personal feelings (Hofstede, 2001; Inglehart & Welzel, 2005; Kluckhohn & Strodtbeck, 1961; Schwartz, 2011). However, social systems only exist because the individual's behavior cannot be seen as random (Hofstede, 2001). Social systems and, thus, national cultures are based on "values, beliefs and assumptions that distinguish one group from another" (Newman & Nollen, 1996, p. 754). There are numerous methods and theories about the description and differentiation of a nation´s individualities and peculiarities. Geert Hofstede's work on cultures, their differences and similarities among nations is one of the most relevant in past and present research. However, Hofstede's work is not without its critics (Dupuis, 2014; Fang, 2005; Kirkman, Lowe, & Gibson, 2017; McSweeney, 2002; Nakata, 2009). Scholars are concerned by the potential of stereotyping, the 'outdated' data and, thus, the disregard of longitudinally changing cultural characteristics, intra-national diversity as well as organizational culture (Barmeyer, 2018; Chapman, 1996; Tsui, Nifadkar, & Ou, 2007; Tung, 2008). Yet, there are numerous studies that support Hofstede. Several replication studies show the temporal consistency and stability of his model and mitigate the critics of outdated data (Beugelsdijk, Maseland, & van Hoorn, 2015; Minkov, 2018; Minkov et al., 2019). Furthermore, Newman and

Nollen's study (1996) revealed empirically that work units perform stronger when they act according to Hofstede's management practices of the respective culture they are located in, which also diminishes the effect of organizational culture. In addition, critics are accused of not having sufficiently dealt with the derivation process of his findings (Barmeyer, 2018).

The current model consists of six dimensions. However, for the purpose of connecting cultural values and organizational ambidexterity, not every dimension is suitable. We assessed values and resulting behavior identified by Hofstede (2001) and compared this to the values and behavior expected to be important for structural, sequential or contextual ambidexterity (O'Reilly & Tushman, 2013). This evaluation revealed that three of Hofstede's dimensions are highly congruent with the different organizational forms of exploration and exploitation. Consequently, *power distance*, *masculinity versus femininity* and *indulgence versus restraint* are not conceptually congruent and will, therefore, be disregarded in the further course of the study.

Long-term versus short-term orientation may be portrayed as the difference of nations that feel more comfortable preparing for a long period in contrast to those that prefer the preparation of the near future (Hofstede, 2001). More specifically, virtues such as freedom, rights, achievement and thinking for oneself are located mostly in *short-term oriented cultures* (Hofstede & Minkov, 2010). Following this logic, short-term oriented cultures focus upon short-term profit and, thus, tend to concentrate on solving current difficulties (Hofstede & Minkov, 2010; Medcof & Wang, 2017). Furthermore, flexibility is fairly important in work life. Members of those societies see themselves as stable individuals and are sensitive regarding trends. In contrast, *long-term oriented cultures* mainly value virtues such as thrift, learning, honesty, adaptability, responsibility and self-discipline at the workplace. Moreover, long-term

orientated cultures can be seen as more analytical than their synthetic counterpart, meaning that they aim attention at long-term success (Hofstede & Minkov, 2010; Rinne et al., 2012). To achieve this, top managers consider an overarching goal with lower management levels as important (Hofstede, 2001). Furthermore, members learn to accept that desires cannot invariably be gratified immediately (Hofstede & Minkov, 2010).

Undoubtedly, human societies are gregarious. However, societies differ with respect to their extent of gregariousness. *Individualism vs. collectivism* may be portrayed as the way people live together. Either they see themselves as individuals with a sense of autonomy or as a collective like a team (Hofstede, 2001; Medcof & Wang, 2017). Members of *individualistic cultures* are loosely coupled and determine management as the management of individuals (Černe et al., 2013; Hofstede, 2001). Additionally, the task of work is considered to be more important than relationships. Individualism is connected to autonomy, a protective and inflexible behavior concerning individuals' ideas and intellectual direction (Newman & Nollen, 1996; Schwartz, 2006). Furthermore, entities of individualistic cultures are more likely to express their own preferences. In contrast, *collectivistic cultures* are characterized by strong inter-individual connections. Accordingly, management is considered as the management of a group. This sentiment is reflected in a belief of collective decisions and solidarity, which relates to the opinion that the workplace is an in-group in the emotional sense of the word (Hofstede, 2001). Other scholars linked it to embeddedness, a behavior that opposes change and hierarchy disruption. Accordingly, individuals in collectivistic cultures tend to maintain the *status quo* by acting according to the group or organizational unit they are embedded in (Černe et al., 2013; Hofstede, 2001; Schwartz, 2006).

Uncertainty avoidance may be portrayed as the "extent to which a culture programs its members to feel either uncomfortable or comfortable in structured situations" (Hofstede, 2001, p. XIX). Societies that are characterized by *low uncertainty avoidance* may be linked to behaviors that reflect, *inter alia*, a flexible understanding of time. Furthermore, individuals tend to reach decisions independently and do not endorse strict rules. Also, professional all-rounders take on an important role in low uncertainty avoidance cultures. Additionally, transformational leader roles appeal to organizational members in those cultures (Hofstede, 2001), which is related to the management and support of individuals, their own development creativity and flexibility (Bass, 1999). These characteristics correspond with a higher tolerance for ambiguity in work structures and work procedures (Hofstede, 2001). National cultures, that exhibit the characteristics of *high uncertainty avoidance*, feature a rather rigid mindset (Hofstede & Soeters, 2002). Time is seen as a valuable and rare resource, which is handled conservatively. Furthermore, an ideological preference for group decisions is commonly accepted. Additionally, individuals prefer a tight framework of rules and feel less comfortable with breaking them. This attitude correlates with an appeal of hierarchical control regarding leadership. According to Hofstede (2001), conservative societies consider specialists and their expertise as more essential in an organizational context than generalists. Moreover, organizational management is conceptualized in a highly formalized way.

2.2   Organizational Ambidexterity

Organizational ambidexterity is widely accepted as the ability to adapt to changes in the environment (exploration) while also managing current needs (exploitation) (Duncan, 1976; Gibson & Birkinshaw, 2004; March, 1991; Tushman & O'Reilly, 1996). Exploitation is often associated with the realization of incremental innovation, whereas exploration is often linked

to the implementation of radical innovation (O'Reilly & Tushman, 2013). While it is commonly accepted that ambidexterity has a positive effect on a company's long-term success, it is still widely discussed how both conflicting matters can be managed successfully (Andriopoulos & Lewis, 2009). There is no consensus on whether a separation into different units, similar unit or similar unit but different time frames is the best and most successful option. While Duncan (1976) states that *sequential ambidexterity* is characterized by shifting between dual structures over time, O'Reilly and Tushman (2013) claim that this asynchronous form of ambidexterity may be less successful in discontinuous situations. They recommend a structural separation of both exploration and exploitation with own processes, resources and capabilities, called *structural* or *simultaneous ambidexterity*. While these attempts to achieve ambidexterity have a rather separating character, Gibson and Birkinshaw (2004) mention the possibility to encourage individuals to manage their time independently. This rather integrative form of ambidexterity is labelled *contextual ambidexterity*. Scholars such as Raisch and Tushman (2016) claim that the management of exploration-exploitation tension "evolves over time through exchanges between leaders across different levels in an organization" (p. 17). This dynamic perspective explores shifting processes of new businesses in their transition towards scale by distinguishing several phases. It represents a longitudinal view of the static differentiation of different types of ambidexterity (Fojcik, 2015; Luger, Raisch, & Schimmer, 2018; Proff, 2019; Raisch & Tushman, 2016). Both, the static and the dynamic model distinguish two groups of ambidexterity forms. *Separative approaches* follow a logic of segregation. Accordingly, contradictory forces and inconsistencies between both sides of ambidexterity are reconciled and minimized by spatial or temporal isolation (Lavie, Stettner, & Tushman, 2010). On the contrary, *integrative approaches* realize exploitation and exploration without structural, interorganizational or any other spatio-temporal form of separation (Fojcik,

2015). Instead, it is described as a simultaneous implementation of ambidextrous behavior into one unit and is realized by an encouraging organizational context of support (Gibson & Birkinshaw, 2004). All of these approaches of organizational design require their own set of elements and are described as follows (Boumgarden, Nickerson, & Zenger, 2012).

Sequential ambidexterity is the temporal sequencing of exploration and exploitation within one organizational unit (Boumgarden et al., 2012; Duncan, 1976; O'Reilly & Tushman, 2008). Due to its temporally segregational character, scholars reckon sequential ambidexterity among the category of separative approaches. Still, it can be asserted that the separative character of sequential ambidexterity is not specifically strong due to the period of time in which the transition between exploitation and exploration takes place. Sequential ambidexterity is translated into action with temporally bounded projects and workshops (Chen, 2017; Güttel & Konlechner, 2017). Managers and employees, who initiate this temporal approach, face special skill requirements and values concerning the switching process (Blarr, 2012). Managers need to be sensitive regarding the identification of the exact moment in which the change process has to be initiated. However, planning and implementing explorative sequences causes considerable costs. Additionally, the transition phase between exploitation and exploration may lead to decreasing performance due to employees' inflexibility to change their mind-sets (Blarr, 2012; Chou, Yang, & Chiu, 2018). Thus, managers should emphasize the implementation of generalists and more flexible employees instead of specialists. Project work can occur internally, cooperatively or externally.

Structural ambidexterity implies the simultaneous but structurally separated placement of explorative and exploitative behavior into different business units within one organization (Birkinshaw, Zimmermann, & Raisch, 2016). The units have self-generated

competencies, systems, incentives and processes (O'Reilly & Tushman, 2008). Such autonomous systems support each other in a complementary and beneficial way (Chen & Katila, 2008; O'Reilly & Tushman, 2008). Classical forms of structural ambidexterity manifest themselves in departments and divisions within organizational structures. However, due to the implementation of an individual structure, this form of ambidexterity creates a considerable amount of costs (Siggelkow & Rivkin, 2006). *Spin-outs,* the legal externalization of a business model resulting in an independent business, may be seen as a radical form of structural ambidexterity. Thus, it divides exploration and exploitation structurally (Güttel & Konlechner, 2017; Tushman, Smith, Wood, Westerman, & O'Reilly, 2010). This provides a high level of autonomy and is mostly practical for ultimate or long-lasting decisions (Güttel & Konlechner, 2017). Other than that, explorative joint ventures are a form of cooperative interorganizational structural ambidexterity. (Fojcik, 2015; Stettner & Lavie, 2014).

Contextual ambidexterity refers to the decision-making of a single individual within one organizational unit to either concentrate on explorative or exploitative work. It is based on an individual´s judgement to divide work time between both conflicting manners. Accordingly, it is based on an organizational context shaped in a dynamic and flexible way. It requires managerial behavior and items that support self-discipline, stretch, support and trust (Ghoshal & Bartlett, 1994; Gibson & Birkinshaw, 2004). Furthermore, individual autonomy is important and can be achieved by shared ambitions, effortless access to resources, and active decision making participation (Fojcik, 2015). Nonetheless, contextual ambidexterity does not necessarily have to be implemented throughout the entire company.

2.3 Proposition Development

Although many scholars found evidence that national culture affects management decisions by having an impact on organizational culture and, thus, on managerial decisions, it can be said that managers act accordingly to the values they acquired in their childhood (Barmeyer, 2018; Hofstede, 2001; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Newman & Nollen, 1996). Following this logic, Ingersoll and Adams refer to this context by declaring that "the Child is the 'Father' to the Manager" (1992, p. 497). Additionally, Newman and Nollen identified supporting evidence for this assumption. According to them, "work units, that are managed consistent with the values of the external national culture are more profitable than work units in which the fit is less well achieved" (Newman & Nollen, 1996, p. 773). Therefore, it can be said that every individual, including top managers, engineers and other employees, is programmed to act according to the cultural values learned in their childhood. Additionally, research has shown that their practices regarding work are more successful if they are adapted to the local culture (Hofstede, 2001; Newman & Nollen, 1996). Hence, we suggest the direct influence of national culture on management behavior, which allows for an abbreviation of the propositions.

As elaborated before, employees as well as managers are liable to specific requirements when they choose and execute a particular form of ambidexterity. Prior literature connected those requirements with courses of conduct and corporate values (Boumgarden et al., 2012; Fojcik, 2015; Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2008). From this value- and behavior-oriented perspective, the choice for a special form of organizational ambidexterity and national culture can be understood as correlating and supporting factors. Following this logic, decisions for a particular form and against others are based on a chain of influences in the fields

of societal values, norms, behavior and external influences (Hofstede, 2001). From this, the explanatory model arises as a result. On basis of this model, the propositions can be formed.

Individuals in *long-term oriented cultures* tend towards values and behavior connected to rationality, endurance and perseverance (Hofstede & Soeters, 2002). Members of these cultures learn that desire is not gratified immediately and thrift is important to gain long-term profit by investing saved money. Furthermore, they are considered to be analytical and tend to a more rigid mindset, which may be associated with prude behavior (Hofstede & Soeters, 2002). Regarding ambidexterity, the described values and resulting behavior can be connected to conditions that managers and employees need to meet to be structurally ambidextrous. Especially the higher costs of structural ambidexterity align with long-term orientation, regardless of whether they are initiated by the implementation of new structures for explorative work or coordination costs between exploitative and explorative parts of an organization (Gibson & Birkinshaw, 2004; Raisch, 2008; Siggelkow & Rivkin, 2006). It can be assumed that these costs increase with the extent to which the separation is accomplished. It may appear controversial that thrift as a value of long-term oriented cultures is connected to an approach of ambidexterity, which involves higher costs. However, thrift is an inevitable value to create financial resources, which are necessary to invest in structural changes and to coordinate both sides. Furthermore, Hofstede and Minkov (2010) connect thrift to perseverance and long-term profit, which is consistent with the assumption that investments in separative structures are made with the intention to create a long-lasting effect. This implies that organizations located in long-term oriented cultures show a greater preference for structural ambidexterity. Additionally, the structural implementation of exploitation and exploration may be seen as the

most pragmatic method to achieve ambidexterity. This may be connected to individuals of long-term oriented cultures, who are believed to be pragmatic (Hofstede, 2001).

Proposition 1a   *Long-term orientation supports structural ambidexterity.*

Accordingly, *short-term oriented cultures* and its individuals are characterized by values and behavior connected to freedom, rights, achievement, flexibility and sensitivity (Hofstede & Minkov, 2010). Furthermore, they appreciate self-determination and leisure time. Short-term orientation shares congruities with contextual ambidexterity. Especially the characteristic of *thinking for oneself* suggests a connection with contextual ambidexterity's understanding of individual self-judgement about dividing time between exploration and exploitation (Carmeli & Halevi, 2009; Gibson & Birkinshaw, 2004; Hofstede & Minkov, 2010). Additionally, contextual ambidexterity demands flexible individuals, which further indicates a congruence. Another supportive indicator for this association can be found in the strive for being a stable individual (Heine, 2003; Hofstede et al., 2010; Minkov, 2007). Individual management is a core value of this particular form of ambidexterity (Gibson & Birkinshaw, 2004). Unlike its counterpart, short-time orientation is connected to short-term profit (Hofstede & Minkov, 2010; Medcof & Wang, 2017), which implies a preference of seemingly less expensive organizational forms like contextual ambidexterity. The agreement with temporal or sequential ambidexterity is also underlined by the previously mentioned trait of sensitivity, which is necessary to select the ideal timing for a switching process between exploration and exploitation. Furthermore, the described values, virtues and behaviors match with sequential ambidexterity to a certain extent, since it is described as moderately separating, moderately expensive and moderately flexible. All of this circumstantial evidence leads to the following proposition.

Proposition 1b   *Short-term orientation supports contextual and moderately sequential ambidexterity.*

Individualistic cultures are described as loosely coupled. Those individualistic societies view task management as the management as an individual and, furthermore, focus their tasks on work (Hofstede, 2001; Newman & Nollen, 1996). Additionally, members of those societies are seen as autonomous. This is reflected in their understanding of responsibility according to which individuals are accountable for their own results. Moreover, Schwartz (2006) found that those societies tend to encourage their members to pursue their own ideas individually and called this behavior intellectual autonomy. All these characteristics of individualism may be reflected in managerial practices that are crucial in creating and managing contextual ambidexterity. Especially the creation of an organizational context, that supports active decision making of individuals of an organization, relates to the described sense of self-accountability for results and the task focus in individualistic cultures (Fojcik, 2013; Gibson & Birkinshaw, 2004; Hofstede, 2001; Newman & Nollen, 1996). Another commonality can be found in autonomy. While members of individualistic cultures feel comfortable with autonomy (Hofstede, 2001), it's also an important virtue in contextual ambidexterity. Moreover, flexibility is another relevant factor of the described ambidextrous approach (Carmeli & Halevi, 2009; Gibson & Birkinshaw, 2004), which can be connected to individualism and its loosely coupled and less gregarious individuals. However, individualism and its counterpart collectivism may also be linked to sequential ambidexterity. As already mentioned, sequential ambidexterity requires moderately flexible work structures and, thus, flexible employees and managers, who are able and willing to switch between explorative and exploitative work patterns (Chou et al., 2018). Anyhow, the necessary level of flexibility to achieve sequential ambidexterity is lower

compared to contextual ambidexterity. Henceforth, it may be assumed that cultures, which score moderately on individualism, are prone to sequential ambidexterity.

Proposition 2a   *Individualism supports contextual and moderately sequential ambidexterity.*

Unlike its counterpart, *collectivism* describes societies that feel comfortable with belonging to a group. Consequently, these cultures show a greater degree of gregariousness. As previously described, they put an emphasis on collective decisions and solidarity. In contrast to the individualistic understanding of management, collectivistic cultures consider management as management of a group (Hofstede, 2001). These values and their connected behaviors can also be found in structural ambidexterity. Especially its opposing character towards change and hierarchy disruption can be connected with this ambidextrous approach (Černe et al., 2013; Schwartz, 2006). This is because structural ambidexterity is a good strategic tool to avoid conflicts and circumvent the break of path dependencies within an organizational unit (O'Reilly & Tushman, 2008). Furthermore, collectivistic societies are associated with embeddedness and preference of maintaining the status quo. Correspondingly, Černe et al. (2013) predict a low level of innovativeness within collectivistic environments due to a restraint towards radical innovations. However, it is conceivable that conservative managers tend towards structural ambidexterity due to their lack of flexibility, which is important to realize contextual or sequential ambidexterity. Even though sequential ambidexterity and its form of project work could be connected to some values, that indicate collectivism, such as the management of a group, it is equalized by individuals opposing behavior against change. Change is a very important feature of sequential ambidexterity because of the switching process between

exploitation and exploration (Blarr, 2012). Accordingly, we suggest that collectivism supports the decision to implement structural ambidexterity.

Proposition 2b   *Collectivism supports structural ambidexterity.*

Members of cultures that score a high level of *uncertainty avoidance (UAI)* tend to feel comfortable in structured situations. Consequently, they are described with attributes like rigidness, hierarchy and formality, which indicate a rather inflexible nature (Hofstede & Soeters, 2002). Primarily, this becomes apparent in a specific concept of time. In cultures that are characterized by a high degree of uncertainty avoidance, time is considered seldom and precious. Hofstede (2001) describes this demeanor with the phrase "time is money" (p. 167). This suggests that high uncertainty avoidance cultures disclaim flexible time management and, thus, oppose the most flexible variant of ambidexterity, contextual ambidexterity. This is primarily corroborated by their disposition to hierarchic control, which constitutes an antithesis to flexibility in these cultures. Hence, separative approaches such as structural ambidexterity are preferred within such cultures. This is reinforced by the eminence of specialists, who are relevant in structural ambidexterity for separating exploitative and explorative processes (Jørgensen & Becker, 2017). Furthermore, individuals from these nations prefer tight regulatory frameworks, which are more distinctive to forms of structural ambidexterity than contextual ambidexterity, which is in turn characterized by a liberal working environment and behavior. All of these connections are taken into account in the subsequent proposition.

Proposition 3a   *High uncertainty avoidance supports structural ambidexterity.*

Cultures that score a *low level of uncertainty avoidance* are portrayed as societies, whose members feel less comfortable in structured situations. Correspondingly, members of these

cultures show a greater degree of flexibility, in which time is just a frame of orientation. Unlike its counterpart, low uncertainty is also associated with a propensity for own decision making (Hofstede, 2001). This propensity finds expression in behaviors that are indispensable for the implementation and realization of contextual ambidexterity. Individuals, who undertake contextual ambidexterity are expected to decide for themselves whether they want to work exploratively or exploitatively (Gibson & Birkinshaw, 2004). This is further reflected in their concept of time since individuals are also motivated to decide independently how much time they devote to their tasks. Hence, it may be supposed that contextual ambidexterity mainly corresponds to the behavior of individuals, who pertain to cultures with low uncertainty avoidance. This assumption achieves support in bilateral appreciation of the transformational leadership model. Hofstede (2001) found out that low uncertainty avoidance predicts transformational leadership, which may be seen as another commonality because many scholars (e.g. Havermans, Den Hartog, Keegan, & Uhl-Bien, 2015; Meglio, King, & Risberg, 2015; Nemanich & Vera, 2009) identified the importance of this leadership theory in contextual ambidexterity. Furthermore, another commonality between contextual ambidexterity and societies characterized by a low UAI is the perceived importance of generalists at work (Gibson & Birkinshaw, 2004). Generalists are needed to meet the required skillset, that is crucial when individuals both explore and exploit (Blarr, 2012). Consequently, it may be assumed that cultures characterized as uncertainty-accepting rather than uncertainty-avoiding, tend towards sequential ambidexterity. Especially the appreciation of generalists and the flexible mindset corresponds with temporal arrangements of explorative and exploitative work. For instance, project work may be seen as a design form in which individuals work explorative in timely limited periods. Consequently, they are deployed flexibly.

Proposition 3b   *Low uncertainty avoidance supports contextual and moderately sequential ambidexterity.*

All things considered, it may be stated that the impact of cultural dimensions is two-fold. Thus, it is of major interest to deductively assess whether the two-fold characteristics correlate with separative or integrative approaches. In order to properly understand the construct of propositions, it is necessary to elaborate on the specific position of sequential ambidexterity. Here, the bipolar nature of cultural dimensions is particularly noteworthy. Hence, the connection of both theoretical constructs and the concomitant formation of propositions lead to a certain distribution of constructs of ambidexterity. It is clearly recognizable that structural and contextual ambidexterity mostly oppose each other, which leads to the question where sequential forms are situated.

Figure 1: Propositions
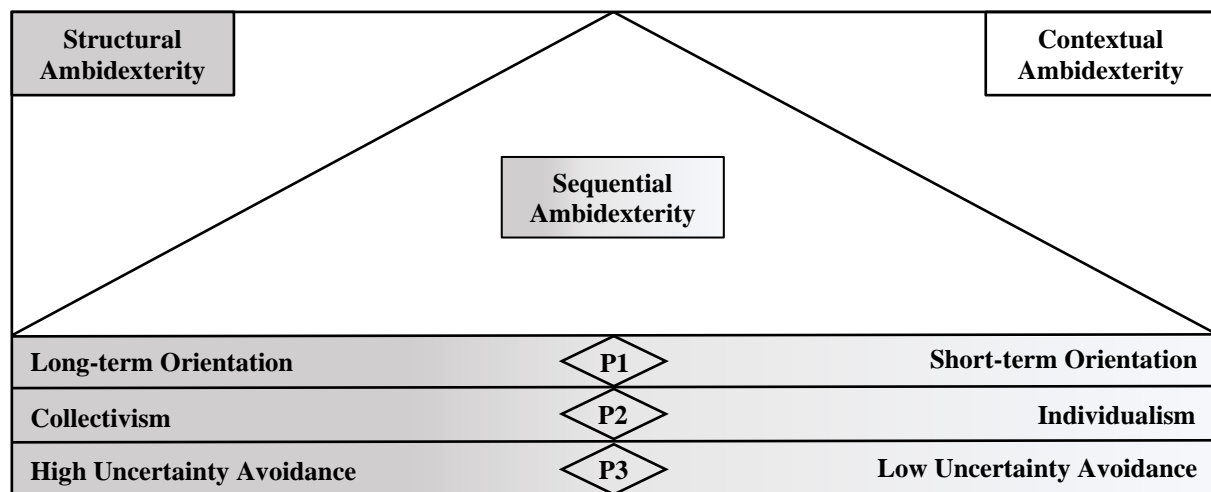
According to the propositions, sequential ambidexterity is more likely to be found among those cultural dimensions that support values of contextual ambidexterity. Nonetheless values that are close to structural ambidexterity may also be found. Following a two-fold

contemplation, it can, thus, be stated that sequential ambidexterity is located between the opposing contextual and structural forms but exhibits a tendency towards contextual ambidexterity. The underlying concept of the propositions is illustrated in figure 1. However, other than the theoretical illustration, a fluent passage among different forms of ambidexterity is expected in practice.

3.   Methodological Background

The practical object of investigation of this study is the rise of electric mobility and the organizational behavior of incumbent car manufacturers regarding this phenomenon. More precisely, we concentrated on organizational behavior and information connected to research and development activities of technologies such as lithium-ion cells, solid-state cells, battery packaging, battery management systems, electric motors, recuperation, power electronics control units, drive units, the general development of electrified powertrains and platforms. The analyzed OEMs hinge on current technological developments regarding drivetrain electrification (Fojcik & Proff, 2014; Krommes & Schmidt, 2017). Consequently, the shift towards electrified cars forces OEMs to not only exploit but also explore in order to build new resources and competencies (Proff, 2011). This may happen structurally, sequentially or contextually. Due to the industry's strong internationality with global players from a wide range of countries and different cultural areas, it is of great interest to discover whether organizations based in distinct societies cope with this phenomenon differently.

Most studies in the field of organizational ambidexterity follow a quantitative approach to measure the influence of ambidextrous business models on corporate performance (Dranev, Izosimova, & Meissner, 2020; He & Wong, 2004; Lubatkin, Simsek, Ling, & Veiga, 2006).

Studies following a qualitative approach remain scarce. However, qualitative approaches are better suited to highlight the specific implementation of structures, processes, routines and behavior. The few qualitative studies on the topic of ambidexterity habitually adopted single-case-study methodology (Åkesson, Sørensen, & Eriksson, 2018; Chan, Teoh, Yeow, & Pan, 2019; Heracleous, Papachroni, Andriopoulos, & Gotsi, 2017; Huang & Kim, 2013; Pellegrinelli, Murray-Webster, & Turner, 2015; Turner & Lee-Kelley, 2013; Tuzovic, Wirtz, & Heracleous, 2018). However, referring to the present research focus, which features a comparative character without laying claim to a solely comparative emphasis, the conduct of multiple case studies appears to be the most appropriate design. This choice was made due to the fact that every proposition contains one out of two extremes regarding cultural aspects of the targeted subjects of investigation and connects it with an organizational decision in favor of a special form of ambidexterity. Correspondingly, the study is designed to cover companies with diverging cultural backgrounds, with every company being an individual unit of analysis. Thus, a holistic design is conducted in the present study (Baxter & Jack, 2008). The object of investigation is the emergence of a radical innovation and its impact on organizational design. As a result, our approach is the analysis of eleven car manufacturers over ten years and their organizational behavior regarding the emergence of electric mobility. In order to adequately address the propositions, we searched for information on their organizational approach to electric mobility. Here, we paid special attention to information on both time-limited and time-unlimited work, work in teams, in projects, in entire explorative departments as well as flexible, integrative work models. The longitudinal approach not only allows deep insights into processes and emerging problems (Pellegrinelli et al., 2015; Turner & Lee-Kelley, 2013). Furthermore, it provides information about dynamic developments triggered by external

factors. An example of this is the interconnectedness of cultural differences with regard to external factors such as crisis (Hofstede, 2001).

The analyzed data stems from qualitative, primary sources. More precisely, we used corporate documents such as annual reports, registration documents, sustainability reports and annual magazines (Bowen, 2009). Altogether, we analyzed 20.856 text pages in 111 documents, of which 30 were written in German and 81 in English. The collected and described data of the case studies was broken down to enable a sorted conceptualization (Ghauri, 2004). For this purpose, we employed a modified and adjusted form of coding, originally invented by Strauss and Corbin (1990). While the original intention of this method was inductive coding, which is often connected to grounded theory, the special focus of the present work is directed on particular events. Hence, it applies a form of deductive coding in which the final categories derive from theory. During the open coding process, we identify events, ideas and incidents that are connected to organizational habits and can be connected to practical variations of the presented ambidexterity forms. During the axial coding process, we connect the previously generated categories by analyzing them and afterwards developing new dimensions. Six categories derived, each describing a phenomenon, which is crucial for testing the formulated propositions. Ultimately, this information was further systemized, leading to three final categories, representing the three main forms of organizational ambidexterity. The content has been hand-coded by a single individual to avoid distinct data interpretation. The categorization of the data was carried out jointly. Moreover, the amount of analyzed documents provided triangulation for data validity in terms of longitudinal inter- and intra-case events (Maxwell, 2008; Yin, 2018).

Figure 2: Deductive coding scheme
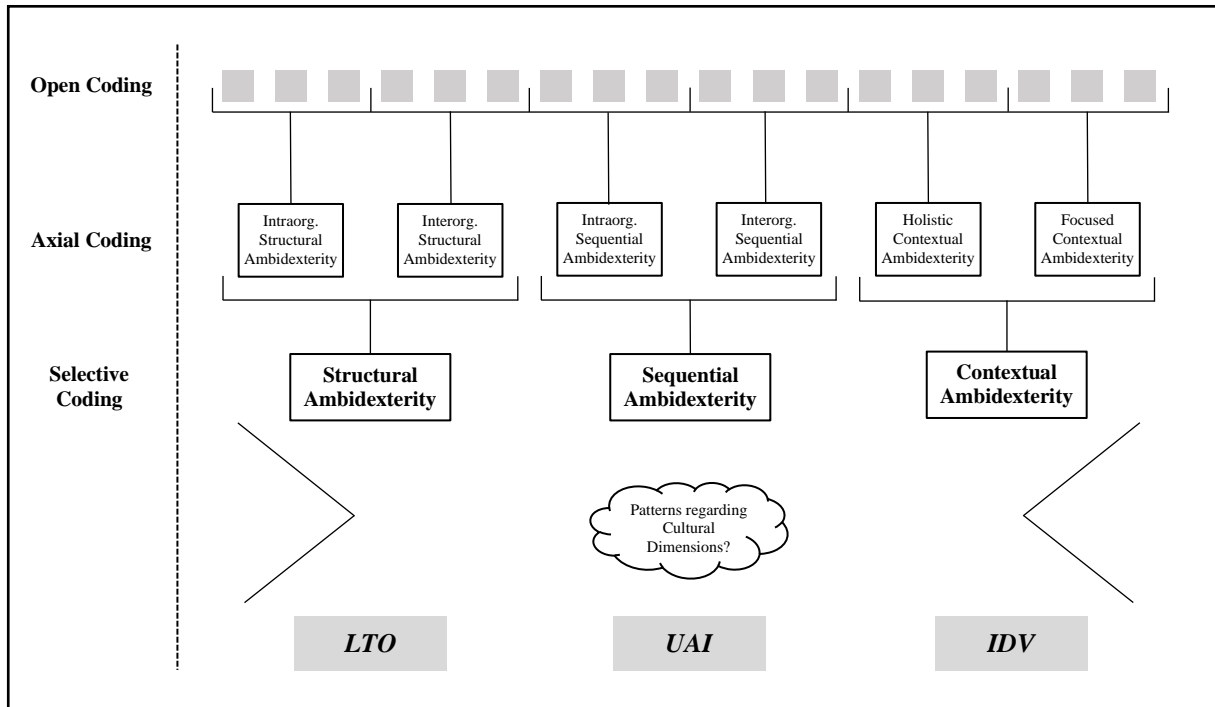
Nonetheless, it needs to be considered that our propositions do not only address ambidexterity but also specific cultural dimensions. Thus, after the coding process, it is examined whether organizations with different cultural backgrounds show special accumulations or patterns in the choice of the final three categories. For this purpose, a technique called pattern matching is used to further analyze the data generated by the coding analysis of the case studies. It compares the companies' behavior as empirically based patterns with the patterns predicted by our propositions (Cassell, Cunliffe, Grandy, & Sinkovics, 2018; Yin, 2018). An example for this may be the following pattern: A company based in a culture described as highly long-term oriented conducts primarily structural ambidexterity. This example originates from Proposition 1a. The following table grants a comprehensive overview of the selected sample and their specific scores on the three selected cultural dimensions.

Table 2: Overview of the selected firms and their cultural characteristic

Organization	Cultural Area	National Culture	LTO[a]	IDV[b]	UAI[c]
Volkswagen		Germany	83	67	65
BMW		Germany	83	67	65
Daimler	Europe	Germany	83	67	65
PSA		France	63	71	86
Volvo		Sweden	53	71	29
Ford	North America	USA	26	91	46
Toyota		Japan	88	46	92
Nissan		Japan	88	46	92
Honda	East Asia	Japan	88	46	92
Kia		South Korea	100	18	85
Hyundai		South Korea	100	18	85

[a]Hofstede et al., (2010, pp. 255-258). [b]Hofstede et al., (2010, pp. 95-97). [c]Hofstede et al., (2010, pp. 192-194).

4.   Results

4.1   Detecting the OEMs' ambidextrous Behavior

The German company **BMW** pursued a highly versatile approach in the realization of electric mobility. BMW conducted all forms of ambidexterity to implement explorative work regarding the electrification of their fleet. Separating forms such as structural ambidexterity were their main focus while sequential and light forms of contextual ambidexterity were enforced as well. In the course of the longitudinal study, we also observed a shift from sequential to structural

forms of ambidexterity. A good example for this is the evolution of *project i*, which later became the structurally separated *BMWi* division. The trigger for this decision was the increased strategic relevance of electric mobility. BMW's German competitor **Daimler** also showed diverse approaches of handling electric mobility. During the time of investigation, we observed a change in the company's behavior with regard to the organizational realization of exploring different concepts of electric vehicles and related technologies. However, Daimler chose measures corresponding to all three ambidexterity forms to implement explorative activities. Primarily, forms of structural ambidexterity were implemented. Good examples for that are Li-Tec Battery GmbH and Deutsche ACCUmotive GmbH. Li-Tec (dissolved 2015) was physically and legally separated, which points to the categorization as structural ambidexterity. Later, this cooperation with Evonik led to the research-oriented joint venture Deutsche ACCUmotive, which also represents a form of structural ambidexterity. However, sequential and contextual ambidexterity were also identified towards the end of the study period. **Volkswagen** followed an equally diversified approach in embedding explorative activities into its organization and, thus, enforced all forms of ambidexterity. However, the focus was on structural ambidexterity, followed by sequential ambidexterity. Contextual ambidexterity was merely identified in a mild form as an idea management system. As with the other German manufacturers, we were also able to determine a shift to separative forms at VW. One example of this is the Center of Excellence in Salzgitter, where VW bundled research on batteries from 2018 onwards. Further examples are the Future Centers established by VW in 2017, in which work is carried out flexibly but still structurally separated from the group. In contrast to the versatile proceeding of these German OEMs, the Swedish car manufacturer **Volvo** predominantly worked with exploratory measures, which are related to sequential and contextual ambidexterity. This can be illustrated by numerous R&D time-limited projects on energy storage technologies and

inductive charging. Measures like the establishment of cross-functional work environments in 2015 and job-rotations in 2014 underpin the rather flexible way Volvo deals with their fleet electrification. However, in the beginning of the examination period, Volvo also infrequently applied structural ambidexterity. An example for that is a partnership with Vattenfall AB called V2 Plug-In-Hybrid Vehicle Partnership AB. The **Groupe PSA (PSA)**, in turn, followed various concepts to implement explorative work. All three ambidexterity approaches were found within the last ten fiscal years of PSA, with sequential ambidexterity being most prominent. PSA's incubator, which was integrated into the company's structures from 2015 onwards, can be initially identified as a form of structural ambidexterity since it has a separative character. However, the classification as a sequential ambidexterity form is more obvious, since employees within the incubators work for a certain period on projects that are primarily of explorative origin. Also they evidently strived for mild forms of contextual ambidexterity in the establishment of a topic-oriented idea management system. Compared to its European competitors, the Japanese manufacturer **Toyota** was less creative regarding the forms of explorative work integration. Toyota's case revealed solely forms of structural ambidexterity. One of numerous examples for their strict structural separation is the creation of a specialized battery R&D department within the structures of Toyota's subsidiary `Toyota Central Research & Development Laboratories Inc.´. Similarly, **Nissan**'s efforts regarding the organizational realization of EV-explorative work followed a rather singular approach. We found that Nissan exclusively enforced structural ambidexterity. This can be illustrated, for example, by Nissan's structurally separated battery business unit in Yokohama, Japan. Like the other Japanese manufacturers, **Honda** focused solely on structurally separative organizational methods to implement explorative work, which can be illustrated with the example of Honda's so-called `Electric Vehicle Development Division´. The Korean car manufacturer **Kia** also showed a

rather homogeneous picture with regard to its explorative activities in the EV sector. Our findings lead to the conclusion that Kia's explorative activities were almost exclusively structurally segregated. However, they also conducted sequential ambidexterity to a minor degree. Kia's sister company, **Hyundai,** acted similarly unilateral in their implementation of explorative activities. Considering all activities screened by our study, Hyundai focused on the structural separation of exploitation and exploration. Sequential and contextual ambidexterity were not found within the period of investigation. An example for that is Hyundai's Environmental Technology Center in Mabuk, Korea. In contrast to the Asian OEMs, the American car manufacturer **Ford** acted less separative. The company focused on sequential and contextual forms of ambidexterity. Structural ambidexterity could be found to a minor degree. One example for that is Ford's 2016 established Greenfield Labs in the Silicon Valley. However, Ford´s rather integrative approach is reflected in the transformation of its Dearborn campus into a flexible, integrative and collaborative facility. Concluding, severe differences within the OEMs' approaches became apparent in the coding process. While some companies conducted explorative efforts of all three forms, other OEMs relied solely on structurally separating attempts.

Table 3: Interpretation of results over 10 years

		08	09	10	11	12	13	14	15	16	17
BMW	CA									*	**
	TA	0		0			0				
	SA		+		++	++	+	+	+	+	++
Daimler	CA			*			*		*	*	*
	TA	0		00							0
	SA	+	++	++	++	++	+	+	+	+	++
VW	CA	*	*	*	*	*	*	*	*	*	*
	TA	0	0	00					0	0	
	SA	++	+	+++	+++	+++	++		+	+++	+++
Volvo	CA			***				*		*	*
	TA	0	0	0	000	0	0		0		0
	SA		+								
PSA	CA		*					*	*		*
	TA	00		0	000	0	000		0		0
	SA	+++		+	++				+	+	++
Toyota	CA										
	TA										
	SA	++	+		++	+		+	+++	+++	++
Nissan	CA										
	TA										
	SA	++	+	+++	+++	+	+	+	+	+	
Honda	CA										
	TA										
	SA	++	+	+		+				+++	++
Kia	CA										
	TA						0				
	SA	++	++	+	+	+	+	++	++	++	++
Hyundai	CA										
	TA										
	SA	++	++	+	++			+	+	+	+
Ford	CA						*	*		*	
	TA	0	0		00			0	0		0
	SA				+					+	+

CA	Contextual Ambidexterity (*, **, ***)	*, -, +	One code identified[†]
TA	Sequential Ambidexterity (-, --, ---)	**, --, ++	Two - three codes identified[†]
SA	Structural Ambidexterity (+, ++, +++)	***, ---, +++	Three or more codes identified[†]

Note: We use an interpretation of code frequency (code groundedness) to give our qualitative data a quantitative expression and, thus, to identify dominant categories. The codes were evaluated for each case (company) by fiscal year. Please note that the measure presented in this table is still qualitative-based and does not claim to be a quantitative measure.

[†]Per case per year

4.2   Long-term Orientation and Organizational Ambidexterity

Considering the first pair of propositions and, more specifically, the positive influence of long-term orientation on structural ambidexterity mentioned in Proposition 1a, companies in cultures with a high score in this dimension are thought to implement predominantly structural ambidexterity. Conversely, this means that companies from cultures, that are predominantly short-term oriented, are believed to primarily implement integrative forms like contextual ambidexterity, which arises from Proposition 1b. According to this distinct frame, companies that are characterized by a medium score, presumably implement sequential ambidexterity, while not ruling out both other forms.

Regarding the detected organizational behavior of our sample and their cultural background, it can be clearly determined that companies in long-term oriented cultures rely on the choice of structural ambidexterity. This is particularly significant for Asian companies within the sample that often exclude other forms. Corresponding to their LTO-score of 83, the analyzed German OEMs were also very structure-oriented. In line with the proposition construct and since Germany is not long-term oriented to full extent, other forms could also be identified. Furthermore, it can be stated that the investigated companies from cultures that are not considered to be long-term oriented, such as American (26) Ford, Swedish (53) Volvo and French (63) PSA, are reluctant to implement structurally separating forms of ambidexterity. Instead, they prefer to implement sequential ambidexterity and also show efforts in contextual ambidexterity, which could not be identified at Japanese (88) or Korean (100) OEMs.

As a consequence, Proposition 1a and Proposition 1b can be fully confirmed. There is a recognizable correlation between both long-term orientation and short-term orientation of

nations and their choice of special forms of ambidexterity. In particular, it can be verified that companies based in long-term oriented cultures conduct structural ambidexterity predominantly. With a decrease in the long-term orientation of the nations, in which the examined companies are based, the likelihood of finding sequential and, finally, contextual ambidexterity forms increases.

4.3 Individualism, Collectivism and Organizational Ambidexterity

Hofstede's cultural dimension individualism versus collectivism is the essential component of the second pair of propositions. Proposition 2a illustrates the correlating effect between individualism and the preference of contextual ambidexterity as well as a moderate tendency towards sequential ambidexterity. Accordingly, OEMs that are based in cultures characterized as individualistic, are expected to apply contextual and moderate sequential ambidexterity. On the other hand, Proposition 2b illustrates the correlating effect between collectivism and the preference for structural ambidexterity. Hence, OEMs that are based in cultures characterized as collectivistic, are anticipated to behave in a rather structural way regarding their ambidextrous behavior.

Considering the detected organizational behavior of our sample and their cultural background, it can be clearly determined that the extent of Hofstede's dimension individualism and collectivism has an impact on the choice of ambidexterity forms. Indeed, companies in cultures that are described as individualistic, such as the USA (91) France (71), Sweden (71) and Germany (67), are more likely to pick flexible forms of ambidexterity, while companies from rather collectivistic nations, such as Korea (18) and Japan (46), almost exclusively conducted structural ambidexterity. However, although Germany is rated 67 and, thus, may be

seen as individualistic, they focused on structural ambidexterity. At first glance, this seems to be a contradiction. However, this slight displacement also occurs among Japanese companies, which were expected to conduct structural, but also sequential ambidexterity, since Japan has an IDV-index of 46. In general, this shift of a high degree of structural approaches towards individualism can be observed across the whole sample.

Concluding, there is a recognizable correlation between both individualism and collectivism of nations and their choice of special forms of ambidexterity. In particular, companies from individualistic cultures use flexible forms of ambidexterity more frequently. This especially becomes apparent within French, American and Swedish OEMs. Conversely, a tendency towards sequential and contextual ambidexterity cannot be asserted with respect to German companies. Accordingly, Proposition 2a is merely confirmed to a certain extent. However, it can be verified that companies based in collectivistic cultures predominantly conduct structural ambidexterity, which fully supports Proposition 2b.

4.4 Uncertainty Avoidance and Organizational Ambidexterity

The last pair of propositions describes the effect, which the amount of uncertainty avoidance of a national culture has on the preference of particular forms of ambidexterity. More specifically, Proposition 3a illustrates the effect between high uncertainty avoidance and the preference of structural ambidexterity. Hence, the investigated OEMs based in cultures characterized by high uncertainty avoidance are expected to prefer structural ambidexterity. Conversely, Proposition 3b illustrates the effect between low uncertainty avoidance and the preference of contextual and moderately sequential ambidexterity. Henceforth, analyzed companies based in nations characterized by a low degree of uncertainty avoidance, are believed to behave more flexible

with contextual ambidexterity. Sequential ambidexterity is again expected to be situated between structural and contextual ambidexterity.

Compared to the previously examined dimensions, our observations revealed a weaker correlation between UAI and the chosen forms of ambidexterity. This is primarily attributable to France, that was believed to be much more structurally-oriented due to its high score of 86. However, apart from the French company PSA, it can be determined that the extent of Hofstede's dimension uncertainty avoidance has a strong impact on the choice between ambidexterity forms, which matches the expectations. Japanese (92) and Korean (85) OEMs almost exclusively conducted structural ambidexterity. German manufacturers also focus on structural separation, while Ford from the US (46) and Volvo from Sweden (29) represent the most flexible and integrative attempts within our sample.

Due to France's unexpected flexibility in terms of ambidexterity, the correlation between nations' uncertainty avoidance and their companies' choice of particular forms of ambidexterity can only be supported partly. However, Proposition 3a can still be confirmed to a limited extent because all other investigated companies acted as predicted. Proposition 3b, in turn, can be fully confirmed.

5. Discussion

In 11 longitudinal case studies, we find support for our theoretical model, which contextualizes the different forms of ambidexterity with Hofstede's concept on cultural differences. Consequently, it can be stated that Hofstede's cultural values and behavior correlate with those of the special forms of ambidexterity (Chen, 2017; Chou et al., 2018; Duncan, 1976; Gibson &

Birkinshaw, 2004; Güttel & Konlechner, 2017; Hofstede, 2001; Hofstede & Minkov, 2010; Hofstede & Soeters, 2002; O'Reilly & Tushman, 2008; Siggelkow & Rivkin, 2006).

While national culture played an insignificant role in organizational ambidexterity research in the past, our study reveals that national culture has a considerable influence on the implementation of ambidexterity within companies. Only Medcof and Wang (2017) have scientifically connected both concepts. However, their study targets the impact of culture on either explorative or exploitative behavior. The study lacks of a connection of cultural aspects and special forms of ambidexterity. In contrast, our study reveals that the extent of long-term orientation influences the implementation of organizational ambidexterity (P1). Accordingly, it can be assumed that values and behaviors such as rationality, endurance, perseverance, thrift, being analytical and rigidness (Hofstede & Soeters, 2002) have a supportive effect on the implementation of structurally separating ambidexterity forms (Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2008; Raisch, 2008; Tushman et al., 2010). In turn, we show that companies in less long-term oriented cultures tend to implement less separative and rather integrative forms of ambidexterity, such as sequential and contextual ambidexterity. This supports the statement that values and behavior such as free thinking, flexibility and sensitivity play a crucial role in how a company is and should be ambidextrous.

We also found a positive relationship between cultural factors of the dimension individualism versus collectivism and the forms of ambidexterity (P2). It can be stated that attributes of collectivism have a stronger effect on the choice of the ambidexterity form, which can be seen in the tendency of our results. Attributes such as loosely coupled and individual decision making are noteworthy (Hofstede, 2001). They can be found in individualistic cultures and, above all, promote the implementation of rather integrative forms of ambidexterity

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(Carmeli & Halevi, 2009; Gibson & Birkinshaw, 2004). Thus, our results change the way we view the implementation of ambidexterity in the light of individualism versus collectivism. Future models of organizational ambidexterity should take our results regarding collectivism versus individualism more strongly into account.

Our study also identifies a connection between uncertainty avoidance and organizational ambidexterity. This is especially relevant for uncertainty accepting cultures that clearly tend to implement more flexible forms of ambidexterity, such as contextual and sequential ambidexterity (P3b). Consequently, values and behaviors such as comfort in unstructured situations, flexibility, or the tendency to make one's own decisions play a supporting role in the implementation of rather integrative forms of ambidexterity. However, our results also indicate that a strong expression of uncertainty avoidance is no guarantee for the implementation of structurally separating ambidexterity forms (P3a). This can be seen in the relatively flexible and integrative way PSA is organizing the shift towards electric mobility. Consequently, we assume that, although there is a positive association between attributes such as rigidness, hierarchy as well as formality and structurally separating forms of ambidexterity, this association is weaker than for the other cultural expressions. Our study adds value to the understanding of organizational ambidexterity. As a consequence, concepts for the implementation of structural ambidexterity (Birkinshaw et al., 2016; O'Reilly & Tushman, 2013, 2008), sequential ambidexterity (Boumgarden et al., 2012; Duncan, 1976; O'Reilly & Tushman, 2013) and contextual ambidexterity (Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2013) should be extended by cultural expressions.

Due to the longitudinal structure of our study, we also identified distinctions in the handling of ambidexterity across the analyzed period. Companies of strongly long-term

oriented, collectivistic and uncertainty avoiding countries structurally separate exploratory tasks from the beginning. This can be observed in particular among the Asian companies of the sample. Among German OEMs, radical innovations are not initially separated strongly and the focus is on sequential ambidexterity instead. However, with an increasing strategic relevance of vehicle electrification, separation took place. This is not the case for OEMs such as Volvo or Ford that both originate in cultures expected to be rather integrative. As a consequence, the question arises whether the assumptions of dynamic ambidexterity (Luger et al., 2018; Raisch & Tushman, 2016), especially the division into different phases (Proff, 2019), should be investigated under the inclusion of cultural determinants. We want to encourage future ambidexterity research to expand our understanding how culture affects the implementation of organizational ambidexterity over time.

Our results give rise to several managerial implications. With the overall goal of working in a constructive intercultural way, decision-makers should be aware of the supporting role, that culture plays in regard to the implementation and conduct of different forms of ambidextrous behavior (Barmeyer & Franklin, 2016). This applies in particular to ambidextrous organizational units abroad. More specifically, multinational companies should allow and promote ambidexterity forms in foreign sister companies or subsidiaries that are supported by their local culture. Furthermore, managers of organizations whose cultural background differs from their own, should give a high degree of consideration on cultural distinctions in the way people prefer to work exploratively. Another important implication is the approach towards radical innovation over time, which seems to differ between cultures. According to our results, we recommend that organizations in long-term oriented and rather individualistic cultures, such as German companies, initially implement sequential ambidexterity. With an increasing

strategic relevance, these measures should be transformed into structural ambidexterity. In addition, our study relativizes the increasingly common assumption that flexibility in the organization of radical innovations is desirable. The implementation of flexible and integrative organizational models should only be implemented to a limited extent in companies from long-term oriented, collectivist and insecurity-preventing cultures.

This study is not without limitations. Since we focused solely on the rise of electric mobility, the findings' generalizability is limited with respect to other radical innovations. Furthermore, due to the focus on the automotive industry, the cultural variation among the examined companies is limited. Additionally, it is questionable if our choice to disregard organizational culture of companies in the same market has affected our findings. Moreover, the results' validity is restricted since the analysis is based on annual reports and, thus, on the companies' own communication, and a potentially biased self-presentation. Nevertheless, we tried to mitigate this limitation by conducting inter-document triangulation (Maxwell, 2008; Yin, 2018). Based on the implications and limitations, directions for further research can be identified. In particular, the present study should be replicated in order to determine the impact of cultural dimensions on the choice between different forms of ambidexterity. Attention should be aimed at the inclusion of other national cultures and the special consideration of external factors such as economic crises. Furthermore, it is possible, that cultural dimensions influence each other. This interrelationship and the resulting tension should be further evaluated. Our study focused the rise of electric mobility and, thus, specific technologies. The selection of a different object of investigation may increase empirical confirmation of the model across industries and technologies. Another point of prospective research concerns the study's theoretical model. Even though the present models' basic tendencies are of high empirical

relevance, the special role of overlapping ambidexterity forms should be taken into account. Lastly, it is necessary to investigate how explorative work in interculturally influenced units such as explorative joint-ventures proceeds.

6. Conclusion

Given the scarcity of prior research on the effect of national culture on ambidextrous behavior, the present study provides novel and meaningful insights into a complex and largely unexplored academic field. The results show that the choice of different forms of ambidexterity and, accordingly, the general organizational structure of companies depend on a company's national culture. This becomes particularly evident in view of the fact that almost all identified explorative activities took place in the organizations' origin countries, which also mitigates Caprar's (2011) concerns regarding foreign locals. To summarize, our findings underpin the large impact of national culture on the implementation of explorative behavior in organizations. Concluding, we show that national culture and its peculiarities have a strong impact on organizational behavior. Culture appears to be the *sine qua non* for understanding why organizations such as the analyzed car manufacturers tend towards special forms of ambidexterity.

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Appendices

Appendix 1: Detailed information on the analyzed documents

Organization	National Culture	Overall Number of analyzed Pages per Case	Overall Number of analyzed Documents	Document Types (Number)*
BMW	Germany	2,477	10	Annual Report (10)
Daimler	Germany	2,817	10	Annual Report (10)
Volkswagen	Germany	3,985	10	Annual Report (10)
PSA	France	3,876	10	Registration Document (10)
Volvo	Sweden	838	11	Corporate Report with Sustainibility (4), Annual Report (6), Financial Report (1)
Ford	USA	1,864	10	Annual Report (10)
Toyota	Japan	1,071	10	Annual Report (9), Sustainibility Report (1)
Nissan	Japan	482	11	Annual Report (10)
Honda	Japan	704	10	Annual Report (10)
Kia	South Korea	1,281	10	Annual Report (10)
Hyundai	South Korea	1,461	9	Annual Report (9)
Total		20,856	111	

*Note: The listed documents often contain sub-documents such as financial statements or annual magazines.

III. AN INTERNATIONAL PERSPECTIVE ON DYNAMIC AMBIDEXTERITY – THE NORMATIVE EFFECT OF NATIONAL CULTURE ON AUTOMOTIVE OEMS' TRANSITION TOWARDS ELECTRIC MOBILITY

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An International Perspective on Dynamic Ambidexterity – The Normative Effect of National Culture on Automotive OEMs' Transition towards Electric Mobility

Abstract

The automotive industry is in the midst of one of the greatest transformations in its history. The shift towards electric vehicles marks the beginning of a new era of mobility. Incumbent OEMs are facing the challenge of mastering this technological change. However, the fundamental change does not occur abruptly, but constitutes a long-term process in which the balance between exploration and exploitation must constantly be adjusted and redefined. This process of balancing traditional and new business lines from initiation of new technologies until their scale is known as dynamic ambidexterity. In this article, we analyze how OEMs from different cultural areas practice this dynamic process in the light of electric mobility. Based on eleven longitudinal case studies of incumbent car manufacturers from six nations, we argue that the cultural background of a company has an impact on the implementation of dynamic ambidexterity in the transition from combustion towards electric vehicles. More precisely, our findings indicate substantial differences in the implementation of different forms of ambidexterity from initiation to scale, which cannot be properly explained by previous theoretical approaches. Furthermore, we identify the importance of trailblazing technologies for initiating exploration.

Keywords: international management, dynamic ambidexterity, organizational design, intercultural management, electric mobility, automotive management

1.   Introduction and Relevance

The automotive industry is currently undergoing radical changes caused by vehicle
electrification, autonomous and networked driving, as well as new service-oriented business
models (Kessler & Stephan, 2013; Krommes & Schmidt, 2017; Proff, 2021). These rather
disruptive than incremental changes on various levels create existential challenges for the
incumbent manufacturers. Correspondingly, OEMs find themselves in discontinuous market
situations. One of the most challenging aspects in the current situation is the transition from
combustion engines to electric vehicles. Automotive manufacturers have to accumulate new
technological resources and competencies, while, at the same time, old business areas guarantee
the financial basis for exploring new technologies (Proff, 2019). However, the inability to fully
exploit old profitable activities and simultaneously establish new capabilities for radical
innovation creates an organizational conflict (Tushman & O'Reilly, 1996). Academic research
has addressed such challenges of managing incremental and radical innovation in numerous
streams of research. One prominent stream of research focuses on organizational ambidexterity,
i.e. the capability of organizations to orchestrate both - to explore radically new fields of
business while also exploiting existing resources in established fields. Despite the increasing
number of studies in this field, management research criticized the rather static approach of
ambidexterity research, which differentiates separative and integrative forms of organizational
ambidexterity (Fojcik, 2015; O'Reilly & Tushman, 2013). Separative approaches include forms
of structural and sequential ambidexterity while integrative approaches include forms of
contextual ambidexterity (Fojcik, 2015; Gibson & Birkinshaw, 2004; Lavie, Stettner, &
Tushman, 2010; O'Reilly & Tushman, 2013). This rather static view emphasizes organizational
behavior at a single point in time or over a short period of time. Organizational

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recommendations for handling the process from the initiation to scaling of radical innovation and the associated business model remain mostly unaddressed. It is only in recent years that the static view has been expanded by the factor of time, which leads to a dynamic conception of balancing future ventures and traditional lines of business (Luger, Raisch, & Schimmer, 2018; Raisch & Tushman, 2016). Consequently, scholars describe the organizations' constant need to adapt the balance between exploration and exploitation to altering environmental situations (Luger et al., 2018) and outline processual patterns of ambidexterity that allow companies to initiate and scale explorative activities alongside exploiting their traditional core businesses (Raisch & Tushman, 2016; Tarba, Jansen, Mom, Raisch, & Lawton, 2020). This process may be divided into different evolutionary phases which are defined by altering strategies and exploitation-exploration balances, which require different ambidexterity architectures. Nonetheless, there is no consensus among scholars on the exact sequence of the different ambidexterity forms. The process may be interfered by different microfoundations like conflict, cognitive flexibility or leadership behavior (Barney & Felin, 2013; Kiss, Libaers, Barr, Wang, & Zachary, 2020; Martin, Keller, & Fortwengel, 2019; Mom, Chang, Cholakova, & Jansen, 2019; Tarba et al., 2020). Most current models of ambidexterity are shaped by Western perspectives and omit the fact that management decisions and, thus, organizations are strongly influenced by its individuals' cultural background (Müller & Stephan, 2020; Prashantham & Eranova, 2020; Tarba et al., 2020). Culture may be described as the collective programming of the mind that distinguishes one group of people from the other (Barmeyer, Bausch, & Mayrhofer, 2021; Hofstede, 2001). It consists of social factors like values, knowledge, beliefs and moral that are shared among society (Rinne, Steel, & Fairweather, 2012; Schwartz, 2006; Tylor, 1958). Some scholars, such as Geert Hofstede (2001), have used empirical studies to distinguish culture into a number of dimensions that can be used to differentiate societies from

one another (Barmeyer et al., 2021; House, Hanges, Javidan, Dorfman, & Gupta, 2004). These differences are also reflected in organizational behavior and how companies address radical innovation from initiation to scale (Medcof & Wang, 2017; Müller & Stephan, 2020). We argue that culture has a normative influence on the implementation and organization of different ambidextrous architectures.

In our study, we analyze eleven incumbent car manufacturers from six cultures over a period of 20 years. The results reveal differences in the process paradigm of dynamic ambidexterity, which cannot only be explained by OEMs' altering timing strategies (Proff, 2019). In a nutshell, the research focus of our study rivets on the question of how the cultural background of OEMs in the automotive industry affects their strategic approach to handle ambidexterity in the disruptive transition towards electric mobility over time: Will a firms' cultural background influence its trajectory to handle ambidexterity?

Our study enriches existing literature on organizational ambidexterity in several ways. We add an international perspective on the dynamic handling of architectural types of organizational ambidexterity by contextualizing our findings with Hofstede's concept of intercultural differences (Hofstede, Hofstede, & Minkov, 2010; Proff, 2019; Raisch & Tushman, 2016). Consequently, we identify cultural characteristics as a determinant of dynamic ambidexterity, which opens up the concept of organizational ambidexterity for international business (IB) research and culture for organizational science vice versa (Tarba et al., 2020). We contribute to ambidexterity literature by providing a better understanding of different organizational strategies regarding the architectural implementation of radical innovation from initiation to scale (Fojcik, 2015; Proff, 2019; Raisch & Tushman, 2016).

The article is organized as follows. In the next section, we describe the conceptual background by examining existing literature on static and dynamic ambidexterity. After introducing culture generally, we examine and describe Hofstede's concept of cultural differences, which is then contextualized with the processual frame of dynamic ambidexterity. The alignment of culture and ambidexterity allows for theoretical propositions to be developed. The next section illustrates the methodological background of this study. Afterwards, we present our findings, which are then discussed. The final section concludes and proposes avenues for future research.

2.   Conceptual Background

Existing literature needs to be taken into consideration when targeting the question whether culture and its peculiarities have an impact on the dynamic handling and the trajectory of organizational ambidexterity. Previous studies have examined the interaction of culture and the management of radical innovation (Medcof & Wang, 2017; Müller & Stephan, 2020). However, these studies do not take into account time as a factor for the trajectory of different organizational styles in handling radical innovation. They solely identify cultural preferences with regard to static forms of ambidexterity and, thus, whether companies with a specific cultural background tend to separate or integrate explorative and exploitative behavior at a certain point in time. The present study aims to close this gap. The following section is dedicated to the dynamic understanding of organizational ambidexterity.

2.1 Dynamic Ambidexterity

The construct of dynamic ambidexterity is a fairly new concept in the field of organizational ambidexterity (Luger et al., 2018; Proff, 2019; Tarba et al., 2020). Generally, organizational ambidexterity is understood as the critical management challenge of balancing traditional and new lines of business. Accordingly, the improvement of traditional business lines is connected to the *exploitation* of existing resources, capabilities and competencies, while the new lines of business demand for *exploration* of entirely new resources, capabilities and competencies (March, 1991; Raisch, Birkinshaw, Probst, & Tushman, 2009; Tushman & O'Reilly, 1996). The balance between exploitative and explorative behavior tends to be approached from a static perspective. Scholars distinguish different ways of handling those contradictory orientations, which vary in their degree of organizational separation between explorative and exploitative behavior (Fojcik, 2015; O'Reilly & Tushman, 2013). They consider three different forms of static ambidexterity that describe ambidextrous behavior at a specific point in time:

- *Structural ambidexterity* is considered as the simultaneous execution but spatial separation of exploration and exploitation (Birkinshaw, Zimmermann, & Raisch, 2016) In practice, this form of ambidexterity is implemented through dedicated explorative departments or business units. Due to its spatially divisive nature, it is considered a separative form of ambidexterity.

- *Sequential ambidexterity* is regarded as the temporal sequencing of exploration and exploitation (Duncan, 1976; O'Reilly & Tushman, 2008). This form of ambidexterity is realized primarily through time-limited, exploratory project work. Sequential ambidexterity is considered to be separative due to time separation of exploration and

exploitation. Still, this form of ambidexterity represents a rather mild form of separation without a structural division.

- *Contextual ambidexterity* is the individual decision whether to work exploitative or explorative (Gibson & Birkinshaw, 2004). A prominent example for such a contextual approach is Google's 80/20 rule (Mccarthy & Gordon, 2011). Exploratory idea management concepts also fall into this category. This organizational form of implementing ambidextrous behavior on the individual level is considered to be integrative.

The static view is unsuitable to explain and analyze the continuous change and adaptation of business activities (Jansen, Tempelaar, van den Bosch, & Volberda, 2009; Raisch et al., 2009; Raisch & Tushman, 2016). Dynamic approaches incorporate a temporal perspective and are intended to cover and to better explain phases of change, such as the change towards electric mobility. Along Fojcik's (2015) approach, Proff (2019) distinguishes three different research streams of dynamic approaches. The *transitivity approach* describes the transitional character between explorative and exploitative activities over time. Another conceptual point of view outlines the *proportional division* between exploration and exploitation. A third research branch refers to the *processual modelling*. It focuses on further developing the static approach and examines the trajectory of separative and integrative approaches over time. This approach was developed by Raisch and Tushman (2016) and has been enhanced by Proff (2019). Overall, the dynamic perspective is particularly interesting because it is of great help in understanding the organizational realization of innovative business ventures. It serves as the conceptual blueprint for what is referred to as dynamic ambidexterity in the following.

In a study on six explorative initiatives of three large companies, Raisch and Tushman (2016) identify a processual transition of separative to integrative ambidextrous forms over five evolutionary phases. In the 'initiation phase' (1) top management controls the existing exploitative and, thus, far weak explorative activities. Exploitative and explorative procedures are usually implemented structurally separated in business units. In the subsequent 'exploration phase' (2) explorative units differentiate from their exploitative peers with the development of their own skill sets and corporate identity. Accordingly, the two organizational orientations continue to separate structurally from each other. During the following 'transition phase' (3) the structurally separated explorative unit is undergoing a graduation process. According to Raisch and Tushman (2016), two legitimacy aspects are essential for this development. Economic legitimation describes the consensus at the overall company level that explorative behavior is sustainable and profitable. Cognitive legitimation refers to the recognition of exploitative decision makers that exchanging and sharing resources with the explorative business area is synergetic. In 'exploitation phase' (4) the new business further expands and in the 'scale phase' (5), the initially explorative and structurally separated business becomes fully integrated. In summary, the process model of Raisch and Tushman (2016) reveals an organizational change from structural separation (peer differentiation and peer graduation) to integration, which is achieved by company-wide ambidexterity or cross-unit integration (peer integration and scale). The sampling of Raisch and Tushman's study (2016) represents a limiting factor, as only initiatives with already existing structural separation were analyzed. Consequently, ambidextrous processes without structural separation from initiation to scaling were excluded during sampling.

Figure 3: Dynamic ambidexterity process according to Raisch and Tushman (2016)

Structural Ambidexterity	*Structural Ambidexterity*	*Contextual Ambidexterity*
Exploration phase (2)	Transition phase (3)	Exploitation phase (4)
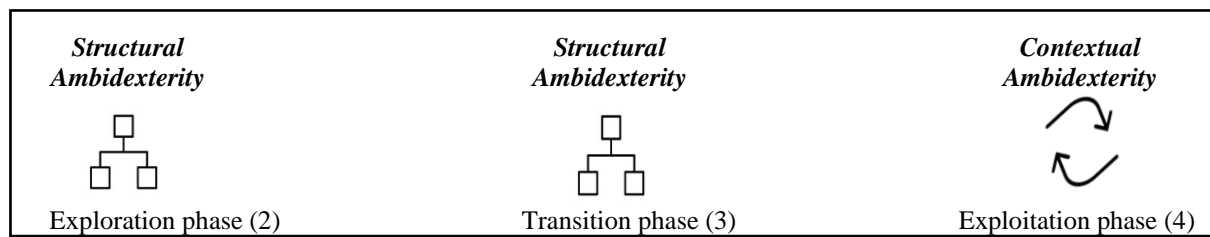
In a qualitative, explorative analysis of 52 companies in the automotive industry, Proff (2019) confirms and refines Raisch and Tushman's (2016) five-step model. In her extension of the original model, Proff (2019) identifies further transitional drivers and distinguishes early and late innovators regarding their organizational implementation of new business activities during exploration (2), transition (3) and exploitation (4) phases. Accordingly, in the exploration phase (2), early innovators are assumed to structurally separate both lines of business from each other ('peer differentiation') by following a structurally ambidextrous approach. In the subsequent transition phase (3), early innovators proceed by integrating both lines of business. In the process of 'peer graduation' contextual forms of ambidexterity are implemented. In contrast to Raisch and Tushman's approach (2016), Proff (2019) suggests that the exploitation phase (4) is defined by another phase of structural separation. The reason for this behavior is the refusal to abandon traditional business lines. Thus, in the case of early innovators, a process from structural ambidexterity over contextual ambidexterity and back to structural ambidexterity is expected. However, this process does not apply for late adopters. Due to initial hesitancy, late adopters tend to implement exploratory activities in an integrative manner. Thus, contextual ambidexterity can be found in the exploration phase (2). Accordingly, peer separation does not occur. It is not until the subsequent transition phase (3) that an organizational separation of exploitative and explorative activities takes place. In the

exploitation phase (4), late innovators again rely on integrative contextual ambidexterity until the replacement of the old business by the new lines of business is completed (Proff, 2019).

Figure 4: Dynamic ambidexterity process according to Proff (2019)
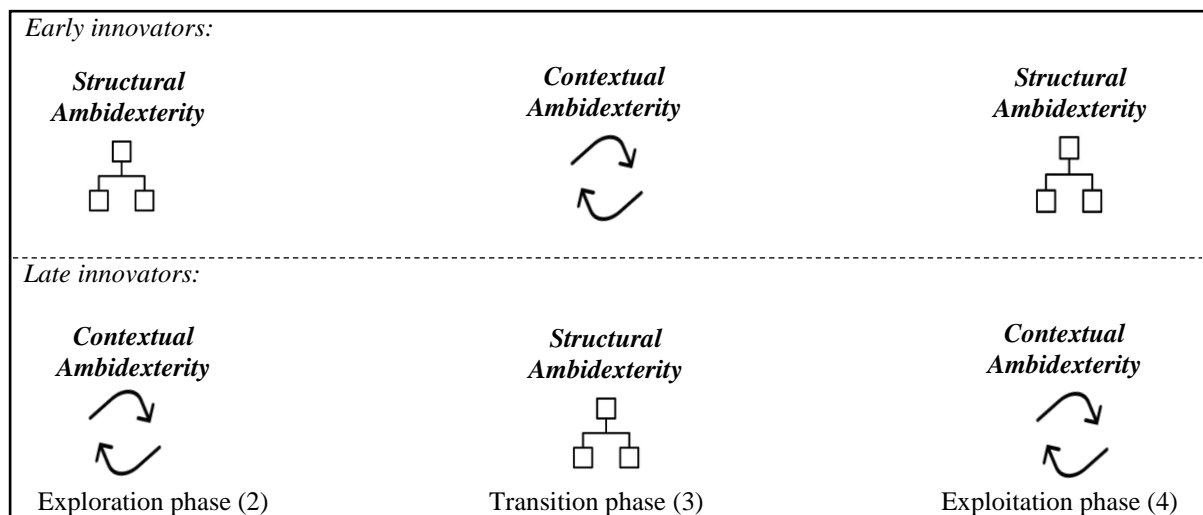
The aforementioned models of dynamic ambidexterity are mainly based on field observations conducted in Western companies. Accordingly, and in light of the impact of cultural factors on the implementation of static forms of ambidexterity (Müller & Stephan, 2020), the question arises, whether this processual course varies in the international and, cross-cultural context. In the following, the topic of culture is first analyzed in respect of organizational processes and then contextualized with dynamic ambidexterity.

2.2 National Culture

Each individual is socialized during its life. In this context, values are learned that have a significant influence on human behavior and, thus, on work and organizational practices (Smith et al., 2002). Consequently, managers are influenced by a value system, which Samovar and Porter (1991) define as a pool of rules, that has a crucial influence on the decision making

process. This pool of rules relates, for example, to expectations and assumptions about life, the environment, work, society, religion and morality. Academia considers culture as a learned value system, which normatively determines processes of thinking, behaving, acting and feeling of individuals. One of the most important representatives of this understanding of culture is the Dutch researcher Geert Hofstede. First published in 1980 and along with many other publications (Hofstede, 2001; Hofstede et al., 2010; Hofstede & Minkov, 2010), he defined the concept of culture as 'software of the mind'. His statistical analysis of values revealed that individuals with differentiating cultural backgrounds distinguish themselves over areas, which he labelled *dimensions of culture*. These dimensions are intended to provide objective and comparable criteria with which societies can be analyzed and differentiated (Barmeyer et al., 2021; Hofstede, 2001; Hofstede et al., 2010; Kirkman, Lowe, & Gibson, 2017). In his model Hofstede defines and differentiates six cultural dimensions, four of which are particularly relevant with regard to organizational management practices.

Power distance (PDI) measures the extent to which less powerful members of organizations expect and accept that power is unequally distributed (Hofstede et al., 2010). Members of organizations in high power distance cultures tend to accept that their superiors have more power than they have themselves. Companies have a tendency to be organized as hierarchical systems with a high degree of power centralization. This results in subordinates expecting to be told what to do, which can be achieved by following an autocratic leadership style (Hofstede et al., 2010; H. Wang & Guan, 2018). Members of societies described by low power distance are less likely to tolerate unequal power distribution. Organizations in such cultures tend to have a decentralized distribution of authority and can be described as more

flexible. Accordingly, companies have fewer supervisory personnel and work-relationships are rather consultative than autocratic or commanding (Hofstede et al., 2010).

Individualism versus collectivism (IDV) describes the degree to which members of a society either see themselves as stable individuals with a great sense of autonomy or feel a strong group affiliation. Members of individualistic societies are characterized by task orientation, universalism and high self-interest. Accordingly, they feel comfortable reaching goals on their own. From a management perspective, emphasis is placed on managing the individual (Černe, Jaklič, & Škerlavaj, 2013; Hofstede et al., 2010). Furthermore, Goncalo and Staw (2006) found that individualistic values encourage creativity of groups if that is a significant goal. In contrast, members of collectivistic societies emphasize the group they belong to and feel a strong sense of inter-individual connection and gregariousness. Management is understood as the management of groups and their success as a collective (Černe et al., 2013; Schwartz, 2006). Employees do neither tend to bend rules nor to break out of established and familiar organizational structures. Accordingly, individuals in collectivistic societies are likely to oppose hierarchy disruption and change (Černe et al., 2013; Goncalo & Staw, 2006; Schwartz, 2006).

Uncertainty avoidance (UAI) refers to the extent to which members of a society are comfortable with an uncertain future (Hofstede et al., 2010). Strong uncertainty avoiders feel uncomfortable, if not threatened, by unknown situations. Individuals in these societies try to 'beat the future' by creating security through institutions and a tight framework of rules. Leadership approaches are very hierarchical and management styles tend to be formal (Hofstede, 2001). Moreover, individuals characterized as uncertainty avoiders are time efficient since they consider time to be very valuable. In general, uncertainty avoiders may be

characterized by having a rigid mindset which can be linked to functional fixedness (Duncker & Lees, 1945; Glucksberg, 1964). In contrast, individuals in weak uncertainty avoiding societies are relatively tolerant towards an unknown future and are, thus, not agitated by uncertain situations. Characteristics such as independent work, flexibility and self-confidence are very common, which is particularly evident in the workplace. It can therefore be said that individuals in uncertainty accepting societies are more likely to cope with new and flexible work structures that are not determined by clear rules of behavior (Bass, 1999; Hofstede, 2001).

The extent to which individuals of a society tend to show either a future oriented or a pragmatic perspective is labelled *long-term versus short-term orientation (LTO)*. Individuals who are socialized by long-term oriented cultures are more likely to prepare for the long run. From a business perspective, the focus is on future success, which resonates with attitudes such as thrift, self-regulation and discipline. Consequently, individuals can be described as holistic, synthetic and structured (Hofstede & Minkov, 2010; Medcof & Wang, 2017; Rinne et al., 2012). In contrast, short-term oriented cultures are defined by individuals, who concentrate on short-term success. As a result, tasks are solved with a higher flexibility in order to achieve a quick solution. Individuals in those cultures are described as sensitive towards what is new (Hofstede & Minkov, 2010; Medcof & Wang, 2017).

2.3 Proposition Development

Hofstede's concept is based on Kluckhohn and Stodtbeck's (1961) assumptions according to which societies deal with universal problems. However, societies find different solutions based on individual sets of values and beliefs. These sets of values and beliefs determine cultures and create their differences (Barmeyer et al., 2021; Trompenaars & Hampden-Turner, 1998). Every

individual is culturized and so are managers, who base strategic management decisions on their learned set of values (Newman & Nollen, 1996). As a result, it can be stated that organizational processes like the management of radical innovation are influenced by cultural aspects (Medcof & Wang, 2017; Müller & Stephan, 2020). We suggest that this includes processual behavior such as dynamic ambidexterity.

Individuals in societies characterized by *high power distance* are defined by values and attitudes such as hierarchy-seeking and -accepting. Structure is important and power distribution in organizations is rather centralized. Thus, leaders are harder to approach (Hofstede et al., 2010). A rigid and hierarchical way of organizing implies that separate structures are being preferred for emerging and radical technology trends. This results in the preliminary assumption that strong power distance leads to the preference of structural ambidexterity forms in early stages of the process model (Fojcik, 2015; O'Reilly & Tushman, 2013, 2008). It can be assumed that the preference for structural separation will be maintained for a long time. As the awareness of strategic complementarity grows, it can be expected that common structures will be created through integrative processes by facilitating contextual ambidexterity in later stages of the processual model (Fojcik, 2015; Gibson & Birkinshaw, 2004; C. L. Wang & Rafiq, 2014). We assume that this is not the case in organizations characterized by *low power distance*. Due to decentralized organizational practices and independent ways of working, the management of new technologies in the early stages of the process model are characterized by less separative and rather integrative approaches such as contextual or sequential ambidextrous forms. These integrative approaches are kept during the whole process.

Proposition 1a   *High power distance supports structural ambidexterity during exploration and transition phase along with integration during exploitation phase.*

Proposition 1b   *Low power distance supports sequential and contextual integration during all phases.*

Members of *individualistic* societies are expected to work autonomously with a focus on the task of work (Hofstede et al., 2010; Newman & Nollen, 1996). Individuals feel personal responsibility for their work outcomes. In a previous study, these values and behaviors were associated with integrative ambidexterity forms (Müller & Stephan, 2020). With regard to dynamic ambidexterity, we assume that organizations in individualistic cultures approach the implementation of less separative and integrative forms of ambidexterity such as sequential and contextual ambidexterity in early stages (Fojcik, 2015; Gibson & Birkinshaw, 2004; O'Reilly & Tushman, 2013). We assume that there will be a shift from integrative behavior to structural separation during the transition phase. The reason for this behavior can be seen in the effort to concentrate and bundle the resources linked to the new technologies. In the exploitation phase, however, the focus returns to integrative forms of ambidexterity. As *collectivism* refers to societies described as group-oriented with an emphasis on group decisions and an opposing attitude towards change and flexibility (Hofstede, 2001), we suggest that organizations facing radical innovation, respond with the separation of exploitation and exploration. In line with Raisch and Tushman (2016), we assume that initial collaborative projects between both units and integration processes emerge earliest in the exploitation and scaling phase when resource exchange and synergy create a sense of collective affiliation of both exploitative and explorative units. This sense of belonging, which grows late in the process, can in turn be associated with

collectivistic behavior (Hofstede et al., 2010; Raisch & Tushman, 2016). However, if collective identity is not achieved, structural ambidexterity may prevail even in the late exploitation phase.

Proposition 2a   *Individualism supports contextual and sequential ambidexterity during exploration and exploitation phase along with structural ambidexterity during transition phase.*

Proposition 2b   *Collectivism supports structural ambidexterity during exploration and transition phase along with contextual and sequential ambidexterity during exploitation phase to some extent.*

Individuals in *uncertainty avoiding* cultures may be described as hierarchy-oriented and structure-seeking (Hofstede et al., 2010). They tend to feel uncomfortable in unknown and unstructured situations. This, in turn, may be connected to an initial orientation towards structurally separative behavior in situations in which a trend towards a new technology emerges. In later phases, this uncertainty-driven skepticism could dissolve, so it can be assumed that the integration process will be increasingly characterized by integrative and flexible forms of ambidexterity (Fojcik, 2015; Gibson & Birkinshaw, 2004). Members of societies that score *low on uncertainty avoidance* are defined as less structure seeking. This is reflected by a greater level of flexibility in the work environment and a willingness to decide individually how much time to divide between tasks (Hofstede, 2001; Hofstede et al., 2010). The value-oriented proximity of uncertainty accepting societies to the characteristics needed in the implementation of integrative ambidexterity forms has been noted before (Müller & Stephan, 2020). Consequently, it can be assumed that there is no immediate need to structurally separate explorative activities on the basis of the mentioned characteristics. This is also possible due to the high value of generalists, who can work exploratively as well as exploitatively (Blarr, 2012;

Gibson & Birkinshaw, 2004; Hofstede et al., 2010). We assume that structural separation will be implemented in later phases. Here, technical capabilities must be focused via organizational specialization so that resource and competence bundling through structural separation becomes indispensable. The integration process will ultimately begin again through contextual ambidexterity in the scaling phase.

Proposition 3a   *High uncertainty avoidance supports structural ambidexterity during exploration and transition phase along with sequential and contextual ambidexterity during exploitation phase.*

Proposition 3b   *Low uncertainty avoidance supports contextual and sequential ambidexterity during exploration and exploitation phase along with structural ambidexterity during transition phase.*

A *high long-term orientation* is described by attitudes such as thrift and pragmatism. Organizations influenced by a great extent of long-term orientation have been connected to structural separation of exploration and exploitation (Müller & Stephan, 2020). We believe that this cultural orientation in the context of dynamic ambidexterity leads to the quick initiation of explorative structures. Furthermore, the fact that long-term success is considered important suggests that a quick consensus on resource sharing is reached in late phases like the exploitation phase as indicated by Raisch and Tushman (2016). Thus, we suspect integrative forms of ambidexterity in later stages of the process model. Cultures that are characterized by being more *short-term oriented* are associated with flexibility, short-term success and thinking for oneself, which may be related to integrative ambidexterity forms (Gibson & Birkinshaw, 2004; Hofstede et al., 2010; Müller & Stephan, 2020). Consequently, we assume that organizations in short-term oriented societies tend to integrate explorative activities into the

organization during exploration stages. Along Proff's (2019) concept for late adopters, we assume that companies defined as short-term oriented may show separation activities during the transition phase and integrate again during the exploitation and scale phase. We argue that companies in short-term oriented cultures tend to adopt innovations late. This phenomenon may be explained by inhibited innovation behavior due to the importance of short-term success (Hofstede & Minkov, 2010; Müller & Stephan, 2020).

Proposition 4a   *Long-term orientation supports structural ambidexterity during exploration and transition phase along with integration during exploitation phase.*

Proposition 4b   *Short-term orientation supports contextual and sequential ambidexterity during exploration and exploitation phase along with structural ambidexterity during transition phase.*

It is important to note that cultural characteristics oscillate and cross-influence each other. As an example, we suspect organizations in cultures that are described by high power distance, strong long-term orientation, collectivism and strong uncertainty avoidance as very structurally separative throughout the entire process from initiation to scale. Correspondingly, we assume a persistent focus on integrative forms of organization in individualistic, uncertainty avoiding, and long-term oriented cultures with low power distance. Thus, companies may deviate from the aforementioned process patterns.

3.   Methodological Background

We conducted a multiple longitudinal case study, examining the organizational behavior of eleven incumbent car manufacturers over a period of 20 years. More precisely, we analyzed the companies' explorative initiatives in their transition towards electric vehicles from initiation towards scale. We focused on the behavior of the selected companies in terms of exploratory initiatives on technologies such as battery cell development, -production, -management systems, electric powertrains, special platforms such as Volkswagen's MEB platform, electric motors and their control units. All companies considered in our study have been concerned with the shift towards vehicle electrification throughout the past two decades. As a result of this trend, new resources and competencies need to be generated, which requires continuous ambidextrous orientation (Müller & Stephan, 2020; Proff, 2019). The transition cannot be done 'overnight', but takes a substantial amount of time. As a result, the object of study is particularly suited to pursuing a processual perspective (Langley, Smallman, Tsoukas, & Van De Ven, 2013). Within the analyzed time span, both organizational and technological developments show discontinuous characteristics (Fojcik, 2015). From a conceptual perspective, this process of initiation towards scale and graduation of new business lines is described as dynamic ambidexterity. The studies on which this concept is based largely reflect a Western perspective (Proff, 2019; Raisch & Tushman, 2016; Tarba et al., 2020). This prompts the question, whether it also applies to companies from different cultural backgrounds and, thus, to globally operating OEMs.

The collected qualitative data is obtained from corporate documents such as annual reports, sustainability reports, annual magazines and registration documents (Bowen, 2009). These data sources allow the identification of organizational and strategic changes over time.

Overall, we analyzed over 220 documents with more than 37.000 pages. Using a method of systematic coding, we dismantled and reduced the collected data by identifying exploratory corporate activities. Those activities were then categorized in terms of static ambidexterity forms (Ghauri, 2004; Müller & Stephan, 2020; Strauss & Corbin, 1990, 2014). The ex-post investigation period of 20 years gave us the opportunity to consider and analyze technological transformation, organizational developments as well as the trajectory between different technologies over time (Pellegrinelli, Murray-Webster, & Turner, 2015; Turner & Lee-Kelley, 2013).

Table 4: Selected firms and cultural characteristics based on Hofstede (2010)

Organization	*Cultural Area*	*National Culture*	*PDI*	*IDV*	*UAI*	*LTO*
BMW		Germany	35	67	65	83
Daimler		Germany	35	67	65	83
Volkswagen	Europe	Germany	35	67	65	83
PSA		France	68	71	86	63
Volvo		Sweden	31	71	29	53
Ford	North America	USA	40	91	46	26
Toyota		Japan	54	46	92	88
Nissan		Japan	54	46	92	88
Honda	East Asia	Japan	54	46	92	88
Kia		South Korea	60	18	85	100
Hyundai		South Korea	60	18	85	100

Our longitudinal study follows the theoretical considerations developed in the previous chapter in a deductive manner (Yin, 2018). The contextualization of dynamic ambidexterity with cultural factors is at the core of this study. In order to realize this methodologically, the collected qualitative data is analyzed as chronological sequences (Yin, 2018) with cultural peculiarities. For this purpose, Hofstede's cultural scores listed in Table 4 are adopted. This allows for a cross-case analysis.

4.   Results

The OEMs' organizational Behavior in Transition towards the Electric Vehicle

In the early stages of the investigated time period, the German company **BMW** was particularly focused on hydrogen technology. In subsequent years, the Munich-based OEM gradually shifted its focus to hybrid drivetrains, without explicitly creating own structures for this technology. 2008 marked an important year in BMW's transition towards electric mobility. The so-called 'project I' initiated the company's efforts in developing an electric car. This effort can be described as sequential ambidexterity. Later it resulted in distinct explorative structures like a competence center for battery development. Towards the end of the reviewed period, the transformation of BMW's research and development center 'FIZ' into a hub for the company's technological development with a focus on new technologies, indicated integrative processes in transition towards electric mobility. At the beginning of the 2000s, **Daimler** considered the fuel cell to be the most promising future technology. The company was already working on hybrid powertrains, which, along with synthetic fuels, were intended to pave the way for the fuel cell. Daimler had created independent structures and projects for both technologies at an early stage. After the separation from Chrysler in 2007, numerous technology cooperations and

projects were established. Besides separative structures for specific technologies like the battery, Daimler transformed its organization towards integrative 'swarm intelligence'. As with BMW, this occurred towards the end of the analyzed period. Like the other German OEMs, **Volkswagen** was primarily working on synthetic fuels in the early 2000s. In addition, research was carried out in cooperative ventures and in-house structures on the fuel cell, which was considered to be the most promising technology for future vehicles. In 2007, the focus shifted towards battery-powered automobiles. Fixed-term projects helped to build up competencies. Dedicated structures were also quickly created in this area. Examples include the 'TWIN Drive project' and a battery systems development department. These structures were largely expanded and extended during the period under review. Towards the end of the analyzed period, the Group's strategic focus is on electric mobility. VW bundles competencies in the 'Center of Excellence'. However, the most recent dissolution of the electric mobility board department, with the transfer of competencies to individual specialist areas, points to an emerging process of integration at Volkswagen. In 2001, the French **Groupe PSA** (since 2021 Stellantis) was confident that fuel cells are the future. Nevertheless, the company was also working on hybrid vehicles and synthetic gas. Dedicated structures like a cooperative project with Électricité de France (EDF) were implemented early. Those measures separated explorative behavior for the duration of the project. Besides, they initiated a network of experts and many other temporal projects. In addition to those projects, PSA started to integrate explorative activities. A good example for this is the 'Powertrain Expertise Center', which opened in 2018. In this facility, PSA combines its development work on electric as well as internal combustion engines. In the first half of the period under review, the Swedish company **Volvo** was a subsidiary of Ford Motor Company (FMC). Nevertheless, Volvo was already working on the electrification of its vehicles before the takeover by Geely in 2010. Due to the small size of the company, this was

done in projects and by a specific department in product development. Since the takeover, Volvo focused on the development of hybrid and electric vehicles. Explorative projects such as 'DRIVe' were carried out with highly integrative measures, including heterogeneous teams and cross-discipline collaboration. With the exception of specific technologies such as battery technology and some collaborations, Volvo did not place a high priority on separating explorative units until the end of the study period. During the beginning of the studied period, the American OEM **Ford** concentrated on fuel cells and hybrid technology. Explorative work was merely organized in projects such as the 'Ford Escape Hybrid project team' in 2003. Integrative approaches were already conducted in 2007 when Ford formed a 'Transformation Advisory Council' to remain informed in terms of upcoming trends. However, big separative structures with regards to electric vehicles were not in place in 2010. The reason for this may be the strategy not to develop stand-alone electric cars, but to equip existing product lines with electric motors and batteries. Except for an electrical powertrain department, significant structural separation was not identified by the end of the investigation period. Ford continued to rely on rather integrative structures and collaboration such as the adaption of Volkswagen's electric module platform. In 2001, the Japanese OEM **Toyota** already had considerable experience in the field of electric mobility due to the Prius, which was launched in 1997. Toyota followed a very separative approach. From the beginning on, dedicated explorative departments within the structurally separated research and development organization, worked on technologies for vehicle electrification. Each development division had its own engineers, facilities and laboratories. In order to engage technology transfer across those structures, Toyota established the 'Technical Planning Department' within the corporate center. The structurally separative approach was followed throughout the whole study period. A good example for this is the department for battery development within the structurally separated research subsidiary

'Toyota Central R&D Laboratories Inc.'. In 2019, Toyota restructured its electric vehicle efforts and concentrated production in addition to development activities at a new facility called 'ZEV'. Much like its Japanese rival, **Nissan** managed the trend towards electric vehicles in a structurally separative way. In 2001, Nissan concentrated on fuel cells, which they considered to be the most promising technology for environmentally friendly vehicles. Afterwards, the focus shifted towards battery electric vehicles (BEVs). In 2007, Nissan and NEC started to collaborate in battery development and created 'Automotive Energy Supply'. The structural separation of exploratory activities proceeded to the end of the investigation. The third Japanese company under investigation, **Honda**, also structurally separated explorative behavior from the beginning on. In early stages, departments in the research and development subsidiaries 'Honda R&D Co. Ltd.' and 'Honda Engineering Co. Ltd.' worked on hybrid and fuel cell technologies. Later, joint activities with Hitachi regarding electric vehicles obtained their own organizational structure. In 2019, Honda reorganized its research and development facilities and established the 'Innovative Research Excellence Center', which reflects structural ambidexterity. Much like the other companies, the South Korean OEM **Kia** focused on fuel cell technology in the early 2000s. They structurally separated explorative activities. Good examples for this are the exploratively working 'Japan R&D Center', in Chiba and the 'Eco-Technology Research Institute' in Yonging, Korea. Both units focus on next-generation technologies and are separated from exploitative units. This separative organizational structure continued to exist to the end of the period under investigation. Similar to its sister company, **Hyundai** structurally separated explorative efforts from the beginning on. This is not surprising, as Hyundai and Kia share many facilities.

Based on our observations, we can conclude that the transitional process towards electric vehicles started in the mid to late-2000s, when companies sensed that the dominant design would tip towards battery-electric mobility (Proff, 2019). The transition phase emerged in the early to mid-2010s. Based on our findings, we assume that the exploitation phase began with increasing market acceptance and greater product range in the very late 2010s.

Dynamic Ambidexterity and Power Distance

Based on our conceptual propositions, we suggest that a high degree of power distance enhances separative forms during early process phases, which then may be integrated at later exploitation and scale phases (Proposition 1a). With regard to the French PSA (PDI: 68), this can be observed with rather mild separative measures. PSA focused on sequential ambidexterity during the first stages. The Japanese (PDI: 54) and South Korean (60) companies tend to have a moderately high power distance without integrating explorative structures at later phases. Companies in cultures that score low on power distance such as BMW, Daimler, Volkswagen (PDI: 35) and Ford (PDI: 40) tend to initiate explorative activities less structurally separated with sequential forms of ambidexterity (Proposition 1b). However, during the exploration phase they tend to use structural ambidexterity, which eventually transforms to integrative forms during exploitation and scale. In our sample, Volvo from Sweden scores lowest on power distance (PDI: 31). According to our expectations, they did not strongly separate explorative efforts and implemented contextual and sequential ambidexterity forms during each phase in transition towards electric vehicles.

Dynamic Ambidexterity and Individualism versus Collectivism

Companies in very individualistic countries are expected to implement explorative activities rather integratively throughout the whole process (Proposition 2a). This is especially the case for Ford (IDV: 91) and Volvo (IDV: 71). Both companies worked with sequential and contextual ambidexterity forms throughout all stages. French PSA (IDV: 71) started to integrate explorative activities towards the end of the observation period. This is also the case for the German manufacturers (IDV: 67), which started with sequential, moved on with structural and lastly integrated with contextual ambidexterity forms. The rather collectivistic Japanese (IDV: 46) and South Korean (IDV: 18) organizations implemented structural ambidexterity throughout all phases from initiation towards scale (Proposition 2b).

Dynamic Ambidexterity and Uncertainty Avoidance

A high degree of uncertainty avoidance is suspected to encourage integrative measures only at very late stages (Proposition 3a). This dominance of separation can be seen at the Japanese (UAI: 92) and South Korean (UAI: 85) companies. However, integrative measures were omitted even in late phases of the study period. PSA (UAI: 86) seems to be an exception in this respect. The French company tended to implement structural but also sequential ambidexterity during exploration and transition phase. This is also the case for the German companies. However, with a score of 65, Germany may be seen as moderately uncertainty avoiding. This can be seen during late stages, in which integrative measures were predominant. The less uncertainty avoiding companies Ford (UAI: 46) and Volvo (UAI: 29) integrated their EV efforts rather flexible throughout the whole process (Proposition 3b). This is particularly evident for

Volvo. No persistent separative structures were identified at either company during the exploration phase. Only at Ford, mildly independent units could be found during this phase.

Dynamic Ambidexterity and Long-term Orientation

Asian OEMs in particular are amongst the companies with a strong long-term orientation. As expected (Proposition 4a), organizations such as Kia (LTO: 100) and Toyota (LTO: 88), separated exploration and exploitation divisionally during exploration and exploitation phase. Against our expectations, no integrative activities were observed by the end of the period under review. German OEMs (LTO: 83) tended to begin with sequential ambidexterity, went on with structural ambidexterity and started to integrate during exploitation phase using contextual ambidexterity. PSA (LTO: 63) implemented sequential forms of ambidexterity during exploration and transition phase, while Volvo (LTO: 53) and Ford (LTO: 26) relied on tight coupling throughout all phases (Proposition 4b).

Dynamic Ambidexterity and Cultural Clusters

In general, there are no substantial deviations from the expected processes. Nevertheless, we would like to emphasize again the interrelationship of different cultural value orientations. To reflect this, we point out certain clusters with similar approaches and cultural values (Hofstede et al., 2010; House et al., 2004):

The first one is the *Germanic cluster*, which is described by low power distance, relatively high uncertainty avoidance, moderate collectivism and long-term orientation (Hofstede et al., 2010). It is represented by the companies BMW, Daimler and Volkswagen. During the exploration phase, those companies separated explorative activities by

implementing projects and, thus, being sequentially ambidextrous. In the subsequent transition phase, the German companies structurally separated by implementing structural ambidexterity. During the exploitation phase, explorative activities are integrated by contextual forms of ambidexterity. PSA, as part of the *Latin-Europe cluster*, is characterized by high power distance, uncertainty avoidance, relatively high collectivism and a moderate long-term orientation (Hofstede et al., 2010). During the exploration and transition phase, we identified sequential and structural ambidexterity. During the exploitation phase, PSA, like the Germanic companies, chose integrative ambidexterity forms. Similarities were also identified between Volvo (*Nordic cluster*) and Ford (*Anglo cluster*), that both score low on power distance, high on individualism and relatively low on uncertainty avoidance and long-term orientation (Hofstede et al., 2010). Throughout all phases, Volvo and Ford implemented explorative activities rather integratively using sequential and contextual forms of ambidexterity. Lastly, relatively high power distance, collectivism, high uncertainty avoidance and a high long-term orientation define the *Asian cluster*. The analyzed companies consistently implemented structural ambidexterity in all phases.

5.   Discussion

Our study analyzed the organizational challenge that established OEMs from six different nations face during their transition towards electric vehicles. We find support for the proposed model, which connects culture and the processual implementation of different ambidexterity architectures from initiation towards scale. Hence, it can be assumed that cultural values influence not only the choice between separative and integrative, static forms of ambidexterity at a certain point in time (Müller & Stephan, 2020), but also dynamic ambidexterity and, thus,

explorative activities from their initiation to scale (Hofstede, 2001; Hofstede & Minkov, 2010; Hofstede & Soeters, 2002; Proff, 2019; Raisch & Tushman, 2016).

Few studies have addressed the relationship between culture and ambidexterity (Medcof & Wang, 2017; Müller & Stephan, 2020). However, to date, no research has been done on the relationship between culture and dynamic ambidexterity, although many related microfoundations such as conflict behavior could be attributed to cultural values (Martin et al., 2019; Tarba et al., 2020). Our study addresses this conceptual gap by contextualizing culture and its values with organizational behavior throughout the processual life cycle of a new technology to its scaling. The findings mostly reflect the expected differences in organizational behavior. Accordingly, our study shows that the analyzed OEMs, which have a cultural background defined by moderate to high power distance, mainly implement separative ambidexterity forms during exploration and transition phase (P1). However, the fact that, contrary to our assumption, integrative measures are not implemented later on may indicate that the final phase has not yet been reached for these manufacturers (Proff, 2019). It can be assumed that cultural values such as seeking for and accepting hierarchy and structure, which are associated with high power distance (Hofstede et al., 2010), also have an impact on the management of radical innovation over time (Raisch & Tushman, 2016). Likewise, our results show support for the assumption that companies in cultures characterized by low power distance are more inclined to implement sequential and contextual ambidexterity during all phases of the process. This is particularly evident in the case of the Swedish car manufacturer Volvo, which scores the lowest on power distance. Nevertheless, German Volkswagen shows structural ambidexterity towards the exploration phase. This behavior may be attributed to other cultural characteristics like a high long-term orientation, which lead the German company to

use more separative measures during exploration and transition phase (Hofstede et al., 2010; Hofstede & Minkov, 2010).

Our findings also support the proposed relationship between the different dynamic ambidexterity processes and the degree of individualism vs. collectivism (P2). Consequently, it can be assumed that the values attributed to individualistic or collectivistic societies have an influence on the processual organization of radical innovation. Thus, cultural values and attributes such as autonomy and the tendency to make individual decisions initially lead to the implementation of integrative forms of ambidexterity, which are later manifested structurally by the shift of more and more resources in the transition phase (Hofstede et al., 2010; O'Reilly & Tushman, 2013; Raisch & Tushman, 2016). Our assumption that the tendency towards autonomy and individual decision-making leads to integration via contextual forms of ambidexterity in the exploitation phase was also sustained. Conversely, our assumptions also apply to the behaviors of organizations in collectivist cultures.

We found a relationship between uncertainty avoidance and dynamic ambidexterity (P3). This is especially the case for the exploration and transition phase. Accordingly, it can be assumed that less tolerance for uncertainty and ambiguity results in initial structural separation (Hofstede et al., 2010; Raisch & Tushman, 2016). Contrary to what we expected, our results show that companies in highly uncertainty-avoiding societies did not implement integrative measures towards the end of the study period. However, this does not necessarily mean that the companies won't integrate their structurally separated explorative units in the future. It is noticeable that companies in slightly less uncertainty avoiding cultures already initiated integrative measures towards the end of the investigation period. One explanation for this, apart from other interfering cultural characteristics, could be that cultural values are almost never

pronounced at their extremes (Hofstede et al., 2010).This is also reflected in organizational behavior (Müller & Stephan, 2020). Contrary to our assumption, no strong structural separation of exploration and exploitation could be identified during the transition phases of the companies in less uncertainty avoiding cultures. This contradicts the model of Raisch and Tushman (2016). Based on their study of 6 exploratory initiatives, they propose that in the transition phase structural separation of peers takes place. However, with the exception of the European geography, there is no indication of the specific cultural background of the companies under study. Moreover, an established structural separation is a fixed selection criterion for the analysis of an initiative in their study. This is based on an ambidexterity understanding, which is characterized by structural and spatial separation and results in disregard of dynamic ambidexterity processes without such a strong separation of exploitation and exploration (Raisch & Tushman, 2016).

In addition, our study identifies a connection between dynamic ambidexterity and the extent of long-term orientation (P4). Strongly long-term oriented companies tend to structurally separate during exploration and transition phase while rather short-term oriented organize their explorative initiatives less separative during those stages. This may be explained by values connected to this cultural dimension (Hofstede & Soeters, 2002). It is evident that companies in moderately high long-term oriented cultures show integrative measures towards the end of the study period. Companies in less long-term oriented cultures, such as Volvo or Ford, have not integrated strong structural separations at any stage. It is also evident that the more long-term oriented a company is, the earlier it has dealt with electric vehicles and their gateway technologies. At Ford, organizational efforts in the area of vehicle electrification emerged much later than at Toyota. We argue that this has an effect on the organization during exploration and

transition stage resulting in less segregation of both peers (Proff, 2019; Raisch & Tushman, 2016). The tendency to implement either integrative or separative measures during early stages may also be attributable to cultural values and behaviors such as thrift, long-term strategic planning and a willingness to invest in future technologies (Hofstede, 2011; Hofstede et al., 2010; Hofstede & Minkov, 2010).

Even though our assumptions are largely supported by the qualitative data, we observed an interrelation of different cultural dimensions. This is reflected in the identified cultural clusters, whose members' organizations deal very similarly with the dynamic organization of electric mobility. The Germanic cluster with the German automotive manufacturers is a good example of this. Their low power distance, relatively high uncertainty avoidance, moderate collectivism, and long-term orientation lead first to sequential, then to structural, and finally to contextual ambidexterity. Consequently, it can be assumed that particular cultural characteristics described by different cultural scores lead to deviating dynamic ambidexterity strategies (Hofstede et al., 2010; Raisch & Tushman, 2016; Tarba et al., 2020). This also applies to the other cultural clusters described in the previous section.

Our findings provide several managerial implications. We encourage managers of multinationally operating companies to add a more international perspective on the dynamic handling of exploitation and exploration by incorporating cultural factors to strategic decisions (Fojcik, 2015; Proff, 2019; Raisch & Tushman, 2016; Tarba et al., 2020). We identify four groups of companies that suggest the influence of different value systems on the dynamic approach to new business. These insights are particularly important for multinational automotive companies since cross-border corporate mergers can give rise to cultural misunderstandings in transition towards new business lines, which may conflict with the

company's own organizational processes. Another insight is the importance of technological trajectory in the dynamic handling of radical innovation. We observed that fuel cell technology and hybrid technology served as an organizational trailblazer for the transition towards vehicle electrification. Often, structures from these trailblazer technologies could be utilized to initiate explorative initiatives and ventures. In addition, we are expanding the scientific literature on dynamic ambidexterity by creating cultural awareness and, thus, contributing to the understanding of different processual approaches (Raisch & Tushman, 2016). We show that, contrary to the assumption of Raisch and Tushman (2016), there also exist dynamic ambidexterity processes without a strong structural separation of exploitation and exploration during exploration and transformation stage. Given the cultural preconditions, this applies to the transition phase in particular.

We acknowledge limitations to our study, which give rise to interesting future research fields. The pool of analyzed companies and, thus, cultural areas, is restricted by focusing on the rise of electric mobility. Therefore, our study should be replicated with a different technological focus. Furthermore, by conducting content analysis of the companies' own communication, our results might be biased. An example may be information non-disclosure on explorative activities due to confidentiality causes (Luger et al., 2018). As a result, future studies could use different data sources to review our study's validity. We want to encourage companies that face rapid technological change to partner with scientists. Another limitation is the interrelation of cultural values, which we tried to match by considering cultural clusters. Future studies should focus on this aspect by further contextualizing cultural distance with organizational behavior (Barmeyer et al., 2021; Brouthers & Brouthers, 2001; House et al., 2004). The still ongoing transition towards vehicle electrification itself may be seen as another limitation. Although we

assume that exploitation and scale phase have already been reached, future studies should continue to monitor this process. We believe that the distinction of the stages referred to by Raisch and Tushman (2016) should be further investigated and would like to motivate future studies to consider the implementation of trailblazer technologies in the model of dynamic ambidexterity prior to the initiation stage.

6.   Conclusion

The management of radical innovation and the associated challenge of organizing new businesses from initiation to scaling is essential for the future success of every incumbent company. Our study contributes to this dynamic perspective of organizational ambidexterity by contextualizing the organizational process of exploratory activities from initiation to scaling with cultural characteristics. Based on the analysis of 11 automotive OEMs and their organizational efforts for vehicle electrification over the last two decades, we show that the cultural background of a company has an impact on the implementation of dynamic ambidexterity in the transition from combustion towards electric vehicles. More precisely, our findings indicate substantial differences in the implementation of different forms of ambidexterity from initiation to scale, which cannot be properly explained by previous theoretical approaches. To summarize, our study reveals the high relevance of an international perspective on management processes such as dynamic ambidexterity. We have added an important facet to the existing literature on organizational ambidexterity and hope to have paved the way for future studies in this field. Culture influences not only the form of ambidexterity at a given point in time, but also the processual flow from initiation to scaling of a radical innovation (Müller & Stephan, 2020). Concluding, we hope that our study will inspire further

research in this area to enable incumbent companies, like the analyzed OEMs, to survive technological discontinuity in a successful way.

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Appendices

Appendix 1: Detailed information on the analyzed documents

Organization	National Culture	Overall Number of analyzed Pages per Case	Overall Number of analyzed Documents	Document Types (Number)*
BMW	Germany	4,938	21	Annual Report (20), Sustainability Report (1)
Daimler	Germany	5,279	21	Annual Report (20), Sustainability Report (1)
Volkswagen	Germany	6,597	21	Annual Report (20), Sustainability Report (1)
PSA	France	5,568	20	Registration Document (20)
Volvo	Sweden	1,308	14	Corporate Report with Sustainability (4); Annual Report (9); Financial Report (1)
Ford	USA	1,864	20	Annual Report (20)
Toyota	Japan	2,148	21	Annual Report (20); Sustainability Report (1)
Nissan	Japan	1,277	20	Annual Report (20)
Honda	Japan	1,685	20	Annual Report (11), Sustainability Report (9)
Kia	South Korea	2,266	21	Annual Report (18), Sustainability Report (3)
Hyundai	South Korea	2,787	21	Annual Report (18), Sustainability Report (3)
Total		37,041	220	

*Note: The listed documents often contain sub-documents such as financial statements or annual magazines.

IV.   DRIVERS OF DIVERSITY SUCCESS:

A DUTCH UNICORN FAIRYTALE

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Abstract

Over the past decades, the management of diversity has become one of the most important sub-disciplines of international business research. Especially in companies with an international orientation, it is important to understand how people with diverse backgrounds can work together successfully. Yet, there is a lack of managerial concepts unfolding how diversity may be exploited as an organizational capability. In a qualitative single case study of a Dutch fintech unicorn, this study sheds light into darkness and answers the question of how organizations master the trade-off between international talent acquisition and working with people of all different backgrounds successfully. Furthermore, this study gives insights on how to manage diversity in general, instead of focusing solely on cultural diversity as I argue that cultural and general diversity are closely related. The emerging and contextualized three-stage management model illuminates how deep-homogeneity in surface-diversity forms a complementary tension and drives diversity success. Such success arises from altering perspectives that lead to greater creativity and innovativeness. The results give important implications on how to create an environment in which diversity may be exploited as an organizational capability.

Keywords: managing diversity, international management, diversity, homogeneity

1.   Introduction

Workforce diversity has become a hot topic in business research. More and more studies show that diversity can lead to higher performance and success through increased innovativeness and creativity (Stahl & Maznevski, 2021; van Knippenberg & Mell, 2016). This academic development goes along with the increasing globalization as well as digitalization of the workplace resulting in a growing number of diverse workforces. Over the last two decades, new communication technologies, close collaboration and a sharp increase in global mobility have changed the way people work (Adler & Aycan, 2020; Kraimer, Bolino, & Mead, 2016; Zellmer-Bruhn & Gibson, 2013). As a consequence, many companies face the challenge of managing cultural diversity successfully within the organization. In the academic discourse, multicultural teams were only introduced at a fairly recent stage. The initial understanding of cross-cultural management as an exchange between geographically defined, homogeneous islands of national culture has evolved into a much more dynamic and contextually embedded understanding of cultural diversity (Minbaeva, Fitzsimmons, & Brewster, 2021). Consequently, the focus is no longer on grasping differences as a source of problems to be bridged and addressed, but on leveraging them as a potentially positive capability (Adler & Aycan, 2020; Barmeyer, Bausch, & Mayrhofer, 2021). This complementary understanding of workforce diversity is essential for success, since it withholds many advantages like innovativeness and creativity (Minbaeva et al., 2021; Morris, Snell, & Björkman, 2016; Stahl & Maznevski, 2021). However, diversity may also serve as a source for conflict that hinders success. Although it is commonly accepted that diversity is not a strategic resource per se, literature still lacks a management oriented perspective on how to deploy and exploit it (Minbaeva et al., 2021; van Knippenberg, Nishii, & Dwertmann, 2020). What drives diversity success?

This unresolved research question is particularly but not exclusively relevant to companies that are already 'born global' instead of gradually globalized. Those firms are becoming increasingly prevalent in the advent of digitized business models. The concept of born global describes organizations that focus on international markets very early or right after their establishment (Rialp, Rialp, Urbano, & Vaillant, 2005; Zander, McDougall-Covin, & L Rose, 2015). A high degree of internationalization requires individuals in born global companies to be able to identify cultural diversity and act accordingly. Due to the diverse nature of the organization and its heterogeneous workforce, this applies not only to external actions (Jones & Casulli, 2014; Meuleman & Wright, 2011), but also to internal collaboration (Barmeyer et al., 2021). However, recognizing and managing cultural diversity is not sufficient, as general diversity factors often go hand in hand with cultural diversity (Minbaeva et al., 2021; Stahl & Maznevski, 2021). If diversity is managed incorrectly, a number of potential misunderstandings may occur, which can hinder workforce functioning and, thus, success. In order to overcome these misunderstandings, organizations need to establish a context in which diversity is exploited as a source of creativity and innovation (Bouncken, Brem, & Kraus, 2016; Joshi & Roh, 2009; Stahl, Maznevski, Voigt, & Jonsen, 2010; van Knippenberg, De Dreu, & Homan, 2004; van Knippenberg & Mell, 2016; Wang, Cheng, Chen, & Leung, 2019). Referring to the award winning meta-analysis of Stahl et al. (2010), cultural diversity is frequently stated as a mixed blessing or "*double-edged sword*", which on the one side may impede team performance and on the other side may function as a fertile soil for synergy and complementarity. The aforementioned study improved the understanding of cultural diversity within teams by identifying factors that "moderate the relationship between diversity and team performance" (Stahl & Maznevski, 2021, p. 5). Although it contributes to the understanding of mechanisms in culturally diverse teams, it does not include contextual factors and excludes

general diversity attributes, concentrating solely on cultural diversity. Furthermore, it is widely regarded that research on the positive effects of diversity is scarce (Barmeyer & Mayer, 2020; Stahl & Maznevski, 2021; Stahl & Tung, 2015; van Knippenberg et al., 2020). Research lacks managerial concepts describing "how the potential benefits of diversity can be unleashed while the frictions arising from diversity can be mitigated" (Stahl & Maznevski, 2021, p. 19). In this light, van Knippenberg et al. (2020, p. 88) motivate organizations "to further develop such practices and partner with scientists who can evaluate their effectiveness."

In order to illuminate this important aspect, an explorative field study on a born global Dutch fintech unicorn has been conducted, which considers diversity a key to its success. With a global workforce consisting of over 100 nationalities and a highly inclusive environment, this strongly growing company represents a great single case study to analyze how diversity is managed successfully (Yin, 2018). The explorative study is based on 20 interviews, 14 hours of active and passive observations at the corporate headquarter and the qualitative analysis of corporate documents. It provides a deep and rich understanding of management practices that support turning diversity into a valuable organizational capability. For data analysis and theory building, the study follows an adapted approach of the Gioia methodology (Gioia, 2021; Gioia, Corley, & Hamilton, 2013; Mees-Buss, Welch, & Piekkari, 2020; Welch, Paavilainen-Mäntymäki, Piekkari, & Plakoyiannaki, 2022).

The present study addresses the aforementioned research gap by developing new theoretical prospects through identifying management mechanisms that allow diverse organizations to overcome misunderstandings and miscommunication. Consequently, it contributes to management literature by presenting a model that describes in three contextualized steps how deep-homogeneity in surface-diversity forms a complementary

tension and drives diversity success (Q. M. Roberson, 2019; van Knippenberg & Mell, 2016; van Knippenberg et al., 2020). Because it builds on the establishment of deep-homogenization amongst a surface-diverse workforce, it expands knowledge on different diversity levels (Jansen & Searle, 2020). Furthermore, this study contributes to international business research by expanding diversity categories beyond culture (Minbaeva et al., 2021). The study gives rise to the essence of what makes working with people from various backgrounds a success.

In the following, the current literature on cultural and general diversity is reviewed, which gives rise to theoretical inconsistencies that drive the empirical work of this paper. Section three describes the methodological approach applied to detect managerial and contextual drivers for diversity success. Afterwards the results of the exploratory study on a Dutch born global are presented. Subsequently the findings are discussed. A last section concludes and paves the way for further research avenues.

2.   Theoretical Background

Successful teamwork is not only essential in sports to achieve goals. Within commercially oriented organizations, team members must also work together successfully to ensure a company's success. Early management literature on teamwork ignored the issue of culture. This has changed in recent decades and the literature has shifted its focus from cross-national comparisons of monoculturally homogeneous teams to the analysis of multicultural teams, or multicultural work groups (Zellmer-Bruhn & Maloney, 2020). Such culturally diverse teams consist of individuals from two or more cultural backgrounds, which work together on a regular basis (Earley & Gibson, 2002). Prior to this academic development, the concept of culture was strongly influenced from the 1970s onwards by scholars such as Geert Hofstede, Robert J.

House, Nancy Adler or Fons Trompenaars (Adler, 1983; Hofstede, 1980; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Trompenaars & Hampden-Turner, 1998). Even though these concepts may differ, they share fundamental underlying principles and elements. Culture, therefore, may be understood as a shared system of beliefs and values that define the 'shoulds' and 'oughts' of life and determine the meaning that people attach to aspects of their environment (Stahl et al., 2010). Furthermore, culture has an identity-defining effect on individuals and appears not merely as a country-based concept of culture, but rather as a dynamic construct with intertwining, dynamic boundaries. Consequently, there are interwoven subcultures, even within national borders. Additionally, the concept of culture includes the emergence of cultural dynamics within companies, around professions, arts or religions (Stahl et al., 2010; Tung, 2008). In recent decades, culture is no longer viewed statically but more dynamically. Cultural value systems have been progressively supplemented by contextual factors as explanatory variables (Caprar, Devinney, Kirkman, & Caligiuri, 2015; Minbaeva et al., 2021). This is mainly due to the growing awareness of the relevance of multicultural teams, which is increasingly important in the emergence of globalization and international talent scouting. In the last 20 years, the number of publications on the topic of team diversity have surged (Minbaeva et al., 2021). But why is cultural diversity within teams so important?

Culture has an indirect impact on how teams work together and how they perform. The IMOI framework is commonly applied to improve our understanding of teamwork in general and what influences, including cultural diversity, affect it (Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Mathieu, Hollenbeck, Knippenberg, & Ilgen, 2017). It represents a circular process model of teamwork including input factors (I) such as team composition and values as well as mediating mechanisms (M) such as team processes and team outcomes (O) like team

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effectiveness, creativity, individual well-being or innovativeness. With the portrayal of the outcomes (O) as input (I) for a subsequent team cycle, the circular process model is completed. In order to also consider the environment, in which teams are embedded, Zellmer-Bruhn and Maloney (2020) add another category, which is labelled 'context' (C). In consideration of this IMOI+C model (see figure 5), diversity categories like culture can be understood as an input (I) as well as moderating internal and external context factors, which are mediated by mechanisms (M) (Maloney, Bresman, Zellmer-Bruhn, & Beaver, 2016; Zellmer-Bruhn & Gibson, 2013; Zellmer-Bruhn & Maloney, 2020). This framework is widely accepted in team psychology literature.

Figure 5: IMOI+C concept, based on Zellmer-Bruhn & Maloney (2020)
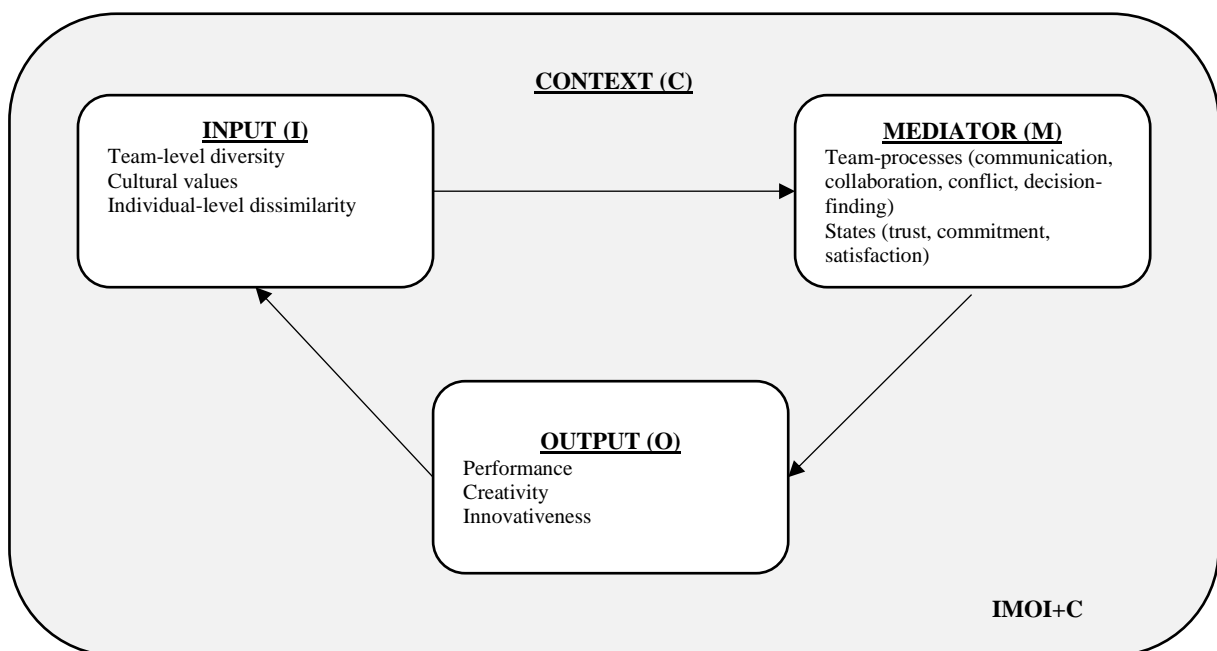
Further research on contextual factors such as moderators and mediators labels cultural diversity within teams 'a double-edged sword'. Based on different theoretical approaches, Stahl et al. (2010) defined a model aimed at a "better understanding of the mechanisms and boundary

conditions under which diversity affects team outcomes" (Stahl & Maznevski, 2021, p. 4). With respect to the above mentioned input-process-output logic, they argue that cultural diversity can have a negative as well as a positive impact on teamwork. Following the similarity-attraction theory and the social-categorization theory, it can be assumed that cultural differences lead to negative team performance due to the attraction of similarity, resulting in negative group formation and social categorization processes (Berscheid & Walster, 1978; Byrne, 1971; O'Reilly & Williams, 1998; Tajfel, 1978). Information processing theory, on the other hand, confirms that different cultural perspectives lead to higher information density, creativity and adaptability (Cox, 1993, 1994). These findings, derived from previous literature, should be examined and illuminated more closely. In the further course of this significant publication for the management of culturally diverse teams, the authors conducted a meta-analysis to gain a better understanding of the mechanisms and contextual conditions that influence the functioning of culturally diverse teams. In general, the very idea behind their concept was "that process gains and process losses resulting from diversity might offset one another in their impact on team performance, and would further depend on contextual moderators" (Stahl & Maznevski, 2021, p. 7). This main processual understanding is also expressed in the IMOI+C model described above, which is derived from input-process-output logic (Ilgen et al., 2005).

2.1   Cultural Diversity as a Mixed Blessing – and what next?

Cultural diversity is proven to be a conceptual double-edged sword, affecting teamwork both positively and negatively. In other and more nuanced words, diversity acts as a driver for process gains while being a source for process losses due to increasing diverging forces and decreasing convergence factors (Stahl & Maznevski, 2021). Amongst others, creativity and satisfaction may be seen as intervening processes that mediate team performance of culturally

diverse teams positively. Especially creativity resulting from deep-level cultural diversity leads to team success. This is mainly due to the circumstance that creativity leads to increased innovation output and thus higher team performance (Wang et al., 2019). Likewise, culturally diverse teams show higher satisfaction compared to homogeneous teams, which also leads to higher team performance. On the contrary, it is often assumed that cultural diversity may lead to a higher task conflict level, which results in decreasing performance (Stahl & Maznevski, 2021). Furthermore, they suffer performance losses due to the mediating effect of lower social integration. According to Stahl et al. (2010), communication between team members as a mediator is not relevant. Accordingly, effects resulting from language barriers do not play a crucial role in their model. The concept is complemented by a number of moderators that influence mediators and thus have an indirect impact on team performance itself. These contextual factors include the geographical dispersion of team members, task complexity, team size and team tenure (Stahl & Maznevski, 2021; Stahl et al., 2010). Individual-level factors have been added only by recent studies and address moderating effects like individual cultural intelligence and cross-cultural competence. They are described as a pool of abilities, awareness and skills obligatory to effectively work together with people from different socio-cultural backgrounds (Szkudlarek, Romani, Caprar, & Osland, 2020). In order to develop cultural competences, individual training but also experience is essential (Caligiuri & Lundby, 2015; Caligiuri, Mencin, Jayne, & Traylor, 2019; Zellmer-Bruhn & Maloney, 2020). Cultural intelligence is especially important for managers. Research has shown that communication benefits from a leader's cultural intelligence in that members are less hesitant to express disagreement or voice new information (Ng, Van Dyne, & Ang, 2019). This is especially the case for leaders that are multicultural, which may lead to the promotion of effective knowledge

exchange through boundary-spanning communication (Eisenberg & Mattarelli, 2017; Vora et al., 2019; Yagi & Kleinberg, 2011).

In summary and according to the current state of knowledge, cultural diversity within teams does not influence their success directly, but indirectly via mediators (e.g. creativity, cohesion or conflict), which in turn are influenced by moderators (e.g. geographic configuration or cultural intelligence). The contemporary research environment of culturally diverse teams is very dynamic and lively. Nevertheless, there are conceptual gaps that need to be addressed. First of all, scholars should move on from just analyzing cultural diversity towards a broader understanding of diversity. General diversity attributes often go hand in hand with cultural diversity and also appear to be a mixed blessing for success (Minbaeva et al., 2021; Stahl & Maznevski, 2021; van Knippenberg et al., 2004; van Knippenberg & Mell, 2016). Additionally, moderators can exist as an interrelated bundle with complex combinations. Those combinations should be addressed by moving away from simplification towards unfolding complex interrelations. Complementary to this, literature lacks a management perspective on how to utilize diversity as a capability. To address this gap, it is necessary to move from pure understanding to successfully managing diversity and its exploitation as an organizational capability (Minbaeva et al., 2021; Stahl & Maznevski, 2021; Zellmer-Bruhn & Maloney, 2020). This may also include context-creating management activities.

2.2   Unfolding Diversity – Categories beyond Culture

It may be argued that the concept of the "double-edged sword" displays a rather narrow understanding of culture and diversity (Zellmer-Bruhn & Maloney, 2020). By opening up the model for a more nuanced understanding of diversity, the field of international business may

expand its conceptual horizon. Recent publications added different dimensions of diversity such as contextual and personal diversity (Taras et al., 2019), human capital, social capital and demographic diversity (Tasheva & Hillman, 2019) or surface-level and deep-level diversity (Wang et al., 2019). However, this should not be the end of the conceptual progress. Diversity must be seen as a much broader concept including diversity categories beyond culture. According to Roberson (2019), "diversity refers to any compositional differences among people within a work unit" (p. 70). More precisely, it reflects individuals' unique experiences in historical, political, and other environmental contexts (Q. M. Roberson, 2019). In their widely regarded AMR article, Harrison and Klein (2007) divide diversity into three fundamental subcategories. *Separation diversity* represents distinctions in values, beliefs or attitudes. It indicates disagreement or opposition among unit members. *Variety diversity* is defined by differences in knowledge or experience of peers and also includes network ties. The last category, *disparity*, describes "differences in proportion of socially valued assets or resources held among unit members" (Harrison & Klein, 2007, p. 1203). This broader view of diversity behind culture opens up further processual views according to aforementioned I-P-O or IMOI+C logic may enrich the discourse of international business studies (Q. M. Roberson, 2019). The successful management of diversity in a broader way, can lead to performance advantages over more homogeneous work groups (van Knippenberg & van Ginkel, 2021). Similar to Stahl et al. (2010), van Knippenberg et al. (2004) describe the impact of general diversity factors within a workforce as a "double-edged sword" with both positive and negative effects on success. Unlike Stahl et al. (2010), they argue that this applies to all diversity factors and not just specific factors such as culture. In their widely regarded categorization-elaboration-model (CEM) they reconceptualize and integrate information/decision making and social categorization perspectives on workforce diversity and performance. The model includes

mediators such as social categorization and moderators such as identity threat and takes the view that elaboration of information and social categorization interact in such a way that diversity biases interfere with elaboration (van Knippenberg et al., 2004). Therefore, the argument arises that, by preventing identity threat through managerial action, for instance, the positive effects of diversity through informational resource enrichment are strengthened while the negative effects based on intergroup tension are weakened. One way to achieve this is by establishing an organizational consensus that diversity adds value (van Knippenberg, Haslam, & Platow, 2007; van Knippenberg et al., 2020). However, even with the consideration of the literature on diversity, the question remains unanswered as to what exact management practices should be implemented in order to successfully exploit workforce diversity.

2.3   Lack of Management Paradigm for Diversity

Managing diversity is crucial to secure performance and success for teams, units and organizations. In recent years there has been progress on how diversity is managed. Nonetheless, the lack of a management paradigm still represents a bottleneck in diversity literature (Minbaeva et al., 2021; van Knippenberg et al., 2020). Thus, there is a need to focus on a better processual understanding of the interrelationship between diversity and contextual influences (Minbaeva et al., 2021; Stahl & Maznevski, 2021; Tung & Stahl, 2018). This also includes the I-P-O and IMOI+C logic. Based on the literature examined prior to this study, several categorical ways to manage diversity within a work unit emerge. These different management categories can be divided into *programmatic approaches* and *contextual approaches* (Q. M. Roberson, 2019).

Amongst the programmatic approaches, *staffing* describes managerial practices to attract, select and recruit applicants for specific positions. Individual characteristics like cultural intelligence and group fit are very important for team performance. Thus, an effective staffing represents an important management practice to ensure diversity leads to success (Collings & Isichei, 2018; Q. M. Roberson, 2019; Stahl & Maznevski, 2021). *Diversity training* is another programmatic approach to manage differences within a work group. It generally represents mediation for addressing unconscious bias, enabling constructive team relations and improving attitudes towards diversity. Besides a focus on diversity awareness, those trainings may target affective, behavioral or cognitive outcome (Kulik & Roberson, 2008). Other trainings may target the improvement of cultural intelligence, which is understood to be the skill to interact efficiently with those that are culturally different (Maznevski, 2020). This property gives a diverse workforce the ability to work together successfully through effective communication, less conflict and enhanced trust (Stahl & Maznevski, 2021). Nevertheless, studies show that trainings should be used in a targeted way and need to be adapted to group and individual characteristics (L. Roberson, Kulik, & Tan, 2013; Q. M. Roberson, 2019). The managerial realization of *mentoring programs* may help to enable faster integration into organizational networks and, thus, may lead to higher performance. Mentoring is a relationship between an experienced individual and a protégé, who is benefitting from knowledge and other resources transmitted by its mentor (Creary & Roberts, 2017; Kram, 1988).

Another approach to managing diversity is based on generating and preserving a *social environment or context* that leverages diversity and promotes inclusion. Such a context of inclusion helps individuals to make sense of their social environment, which is crucial for diverse units of people. Access to information and a sense of belonging are key factors to ensure

an inclusive environment (Mor-Barak & Cherin, 1998; Q. M. Roberson, 2006). Additionally, the involvement of subordinates in the decision-making process and a context of mutual respect and learning enhances the creation of a fruitful social environment (Nishii, 2013). Such a context may be the result of an overarching organizational culture (Barley, 1983; Martin, 2002; Maznevski, 2020; Meares & Bennett, 2020).

Admittedly, there is still a lack of knowledge about the successful management of cultural, as well as general diversity, despite the different management approaches outlined above. In particular, the interrelation of different programmatic management approaches is not well-understood. Furthermore, the described management approaches do not consider different layers of diversity. This gives rise to the question of how diversity is successfully managed within companies and their work units, taking into account different diversity levels.

3.   **Research Approach and Methods**

In order to address the aforementioned research gaps, this study is following a single-case study approach. More precisely the focus is on a Dutch fintech company headquartered in the city of Amsterdam. The analyzed company was launched back in 2006, may be seen as a born global and, due to its high market-value, represents a so-called unicorn. The fintech concentrated on international markets from the beginning. This does not only include numerous of internationally dispersed merchants but also applies to its international workforce stemming from more than 100 nations across the globe. As of early 2022, the company employs more than 2.100 FTEs, most of them located in Amsterdam. The company has 27 offices across Europe, Asia-Pacific, North- and South-America, which makes it very internationally dispersed. Due to strongly diversity-oriented recruitment processes, most teams are highly

diverse, in cultural and other aspects. This includes continuous diversity management practices that have been developed by the company itself. Given the scarcity of diversity management theory based on assessment of existing processes (van Knippenberg et al., 2020), the adoption of the described company represents a "revelatory case" at which the phenomenon of interest may be observed in a transparent way (Yin, 2018). To further investigate the case, a qualitative approach is adopted. The advantage is that contextual drivers but also processual behavior like management techniques can be explored, whilst not neglecting different diversity input-factors. Although it does not seem to be 'en vogue' to consider contextual factors in theory-building studies, Welch et al. (2022) argue that context is important to build a theoretical foundation. The present study also follows this logic. Conducting a qualitative single case study has many additional advantages for finding out how complementarity is created in cultural diversity. It allows for a deeper partial-emic insight into the organization of teams and helps to understand complex interrelationships of mediators and moderators (Ghauri, 2004; Piekkari, Welch, & Ghauri, 2013; Pudelko, 2020; Yin, 2018). Consequently, the in-depth case study approach provides a strong base for proposition development and, thus, rich description and contextualization (Eisenhardt & Graebner, 2007; Tsang, 2013; Welch et al., 2022).

Data Sources and Data Collection

The collected qualitative data stems from four main sources. One source for data collection were twenty semi-structured interviews (Guest, Bunce, & Johnson, 2006). This includes one senior executive, Head of Tech Support Europe, and nineteen midlevel managers and senior team members with positions in tech support, HR, software engineering and product management. The interviewees stem from various cultures and have diverse backgrounds, having studied subjects like aerospace engineering, psychology, communication science or

business administration. Many of them manage diverse teams. After the initial interview in summer 2021, the first contact person was asked to identify further potential interview partners. In this process, it was ensured that a heterogeneous group of interviewees emerged (Huber & Power, 1985; Miller, Cardinal, & Glick, 1997). The informants represent what Gioia et al. (2013) label "knowledgeable agents". It describes interviewees that are able to explain their intentions, behavior, thoughts, and emotions knowledgably. The semi-structured and open-ended interview approach ensured quick adaptation and refinement by including supplementary questions. The interviews lasted 45-50 minutes on average and were held by a single researcher between May 2021 and April 2022. The transcription was conducted by two individuals while the coding process has been carried out by one individual to avoid distinct data interpretation. The interviews were analyzed in a computer-assisted way, using the software MAXQDA (Kuckartz, 2014). Fourteen interviews were conducted digitally, while the other interviews were conducted in person at the corporate headquarter in Amsterdam, Netherlands. In addition to gathering interview data, observations totaling over 14 hours allowed for further insights into how diversity is lived and breathed across the corporate HQ in Amsterdam. Observations include meetings, lunch, coffee breaks, the possibility to get an own desk for two days and an after-work socializing event hosting tech support engineers and product managers. Those observations also helped to create a holistic understanding of how a strong corporate context embeds managerial action (Zellmer-Bruhn & Maloney, 2020). Furthermore, company documents and corporate media like annual reports, corporate magazines, information videos or press releases were assessed. Considering such sources of information offers the advantage of creating a more fine-grained overall picture by including strategic changes, historical events, actions and performances. In addition, the overall context of the company can be derived and

more clearly grasped. Moreover, the analysis of the documents allowed for media-document-interview in addition to intra-interview triangulation (Yin, 2018).

Table 5: Data inventory

Data Inventory

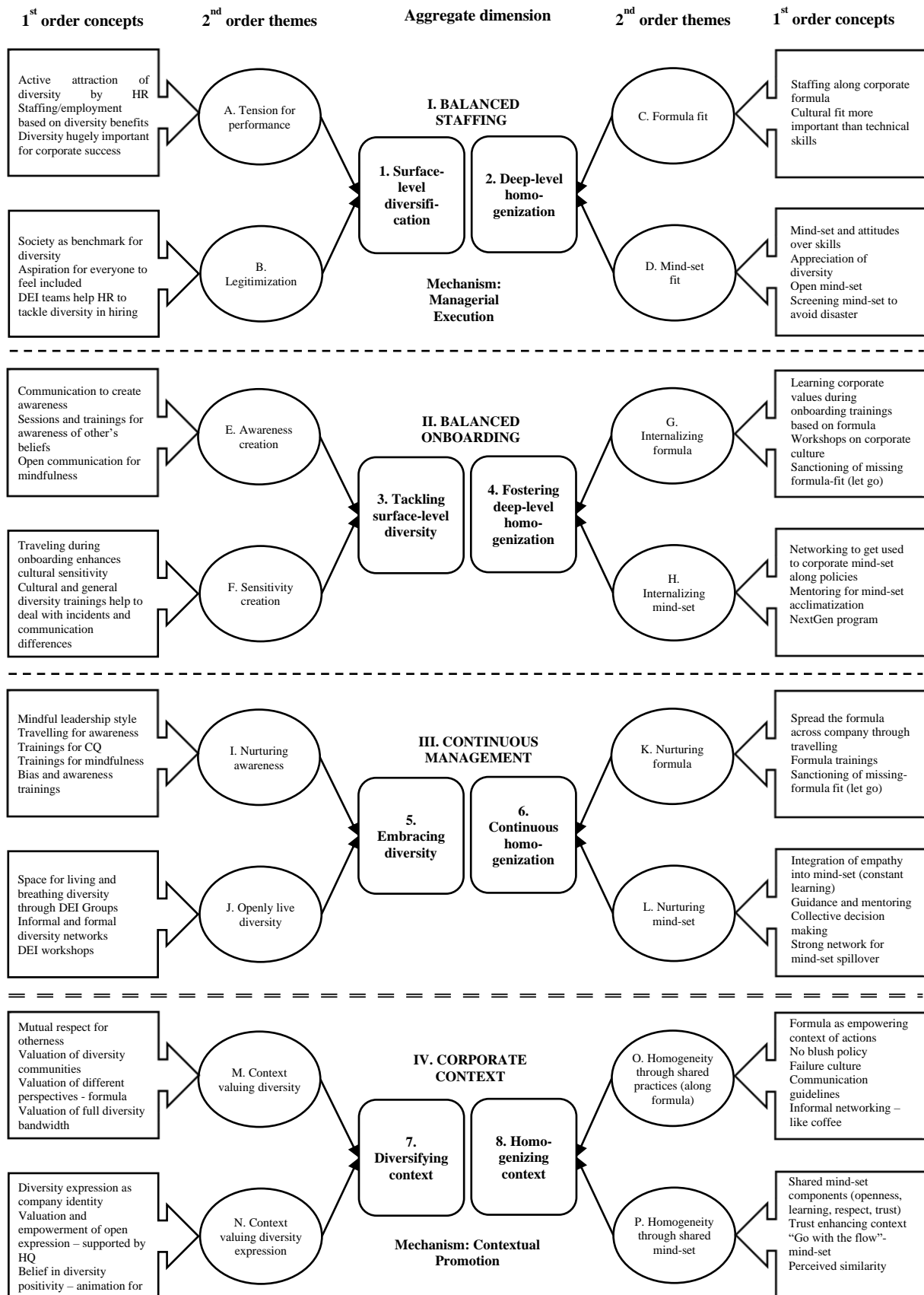| Source of Data	Type of Data	Use in Analysis
20 semi-structured interviews	12 interviews with team leads in tech support	Conceptualizing the process of diversity management within teams. Interview aimed to enrich understanding of processual habits and changes in addition to difficulties and management solutions.
	1 interview with head of tech support Europe	
	2 interviews with product manager	
	1 interview with software engineer	
	1 interview with senior support engineer	
	3 interviews with HR business partners	
	Length per interview: approx. 45-50 minutes	
16 hours of observations	2 full work days at corporate HQs in city center of Amsterdam, Netherlands including lunch, meetings, own desk in work area and after-work socializing events	Practical insights into how work is done at HQs. Observation of work processes and contextual factors. Observations of communication style. Triangulation of informants' statements on work environment.
Annual reports	4 annual reports of 2018, 2019, 2020 and 2021; approx. 600 pages	Triangulation of distinct events and informants' statements. Information about contextual factors such as corporate culture.
Corporate documents	Corporate magazines, Shareholder letters, Prospectus, Press releases; 438 pages	Triangulation of distinct events and informants' statements about certain contextual factors.

4. Data Analysis

The collected data was inductively analyzed under constant comparison techniques (Corbin & Strauss, 1990; Nag, Corley, & Gioia, 2007). Generally, the data analysis followed an adapted approach of the Gioia template (Gioia, 2021). Following these approaches provides a solid basis for rigorous evaluation of the gathered qualitative data.

In the preliminary rounds of data analysis, each interview was coded individually using terms, labels or phrases. Thus, data was broken down into discrete parts. The analysis followed the open coding approach, in which descriptive first-order codes were derived (Corbin & Strauss, 1990; Maanen, 1979). This process was iterated several times while repeatedly reading the interviews, which allowed for differences and similarities among informants to be identified (Glaser & Strauss, 1967; Nag et al., 2007). In the succeeding step, categories were accumulated into higher-order themes by identifying interrelationships. Examples for extracted thematic categories are 'tension for performance' (A), 'legitimization' (B), 'formula fit' (C) or 'mind-set fit' (D). Consequently, the fractured data was reassembled to detect categorical relationships. This step represents axial coding (Corbin & Strauss, 1990; Strauss & Corbin, 2014). The data was coded in a computer-assisted way, using MAXQDA, a qualitative data analysis program (Kuckartz, 2014). The use of MAXQDA allowed for grasping and keeping track of emerging categories (Gioia, Price, Hamilton, & Thomas, 2010). As a result, similar concepts as well as themes and eventual examples could be quickly identified and grouped, resulting in aggregated dimensions such as 'surface-level diversification' (1) and 'deep-level homogenization' (2). The division between deep-homogeneity and surface-diversity is prevalent for all dimensions. Surface-diversity categorizes explicit factors that are needed to achieve different perspectives and create the foundation for complementarity and synergy. This includes visible as well as invisible attributes of cultural, educational or ethnic diversity. Deep-homogeneity categorizes implicit values, a shared mind-set and behaviors that are vital to exploit different perspectives in a complementary synergetic way.

Figure 6: Overview of data structure and coding of diversity activities

1st order concepts	2nd order themes	Aggregate dimension	2nd order themes	1st order concepts

I. BALANCED STAFFING

- Active attraction of diversity by HR
- Staffing/employment based on diversity benefits
- Diversity hugely important for corporate success

A. Tension for performance

- Society as benchmark for diversity
- Aspiration for everyone to feel included
- DEI teams help HR to tackle diversity in hiring

B. Legitimization

1. Surface-level diversification

2. Deep-level homogenization

Mechanism: Managerial Execution

C. Formula fit
- Staffing along corporate formula
- Cultural fit more important than technical skills

D. Mind-set fit
- Mind-set and attitudes over skills
- Appreciation of diversity
- Open mind-set
- Screening mind-set to avoid disaster

II. BALANCED ONBOARDING

- Communication to create awareness
- Sessions and trainings for awareness of other's beliefs
- Open communication for mindfulness

E. Awareness creation

- Traveling during onboarding enhances cultural sensitivity
- Cultural and general diversity trainings help to deal with incidents and communication differences

F. Sensitivity creation

3. Tackling surface-level diversity

4. Fostering deep-level homogenization

G. Internalizing formula
- Learning corporate values during onboarding trainings based on formula
- Workshops on corporate culture
- Sanctioning of missing formula-fit (let go)

H. Internalizing mind-set
- Networking to get used to corporate mind-set along policies
- Mentoring for mind-set acclimatization
- NextGen program

III. CONTINUOUS MANAGEMENT

- Mindful leadership style
- Travelling for awareness
- Trainings for CQ
- Trainings for mindfulness
- Bias and awareness trainings

I. Nurturing awareness

- Space for living and breathing diversity through DEI Groups
- Informal and formal diversity networks
- DEI workshops

J. Openly live diversity

5. Embracing diversity

6. Continuous homogenization

K. Nurturing formula
- Spread the formula across company through travelling
- Formula trainings
- Sanctioning of missing-formula fit (let go)

L. Nurturing mind-set
- Integration of empathy into mind-set (constant learning)
- Guidance and mentoring
- Collective decision making
- Strong network for mind-set spillover

IV. CORPORATE CONTEXT

- Mutual respect for otherness
- Valuation of diversity communities
- Valuation of different perspectives - formula
- Valuation of full diversity bandwidth

M. Context valuing diversity

- Diversity expression as company identity
- Valuation and empowerment of open expression – supported by HQ
- Belief in diversity positivity – animation for

N. Context valuing diversity expression

7. Diversifying context

8. Homogenizing context

Mechanism: Contextual Promotion

O. Homogeneity through shared practices (along formula)
- Formula as empowering context of actions
- No blush policy
- Failure culture
- Communication guidelines
- Informal networking – like coffee

P. Homogeneity through shared mind-set
- Shared mind-set components (openness, learning, respect, trust)
- Trust enhancing context
- "Go with the flow"-mind-set
- Perceived similarity

Nonetheless, it was also possible to collect additional examples in order to display more detailed categories. This practice was pursued until a saturated understanding of the processes emerged (Gioia et al., 2013, 2010). The resulting processual framework represents the grounded theory and shows the dynamic relationship among the emerging concepts. Lastly, the use of power quotes supports the explanation of the model in order to better understand and summarize the emerging model (Pratt, 2009).

5.   Emergent Findings

The aim of this study is to identify managerial drivers for diversity success. To do this, it was crucial to consider a wide range of complex phenomena. This primarily includes management processes for cultural and general diversity, taking contextual factors into account. An important part of this is the consideration between different levels of diversity. The underlying data structure is shown in figure 6. First order categories are shown in the boxes in the left and right sides of the figure; the phrases in the ovals describe second order themes; and the eight round-cornered boxes in the center display the overarching dimensions which are derived from analyzing the data.

Table 6: Representative quotes for additional evidence

Second-Order Themes	Representative Quotes
	I. Balanced staffing **1. Surface-level diversification**
A. Tension for performance	"When you hire people with a diverse background, they look at issues, challenges, and at opportunities in a very different way. And this is what we like to achieve. We have people with different perspectives just to make sure we challenge each other." (Interview 18, HR business partner) "So, being challenged is super important and one of which is through diversity. It could be through gender, could be through cultural differences, it could be through traditional differences, as well. So, personally, for me, diversity plays a huge, important role - to create more clashing differences, to make something better in the future." (Interview 9, team lead tech support)
B. Legitimization	"Two years ago it was that they found that we needed to be more diverse. What we benchmark against is usually society. We want to reflect society in our local offices." (Interview 12, product manager) "To support the Management Board in identifying DEI focus points, we founded a DEI working group in 2020. Ensuring that we create a comprehensive view of the team and our efforts, the working group is comprised of colleagues from around the world." (Corporate document on building ethical business)
	I. Balanced staffing **2. Deep-level homogenization**
C. Formula fit	"We screen people before we hire them, for instance. And that is how then we also make it work because indeed there is a really big opportunity for disaster in that as well, that it does not go right because you – it could also just be that people are so different from each other that they just disagree all the time and you do not get to any results. Instead, we make sure that also even when hiring people, we already look so strongly at: "Is that person a formula fit? Do they match with the corporate culture that we have envisioned?"" (Interview 12, product manager) "Also in interviews that we do to hire new people, the [company name] formula is crucial. They always start with one or two interviews around the [company name] formula and there is also a final interview around the [company name] formula, as well." (Interview 11, head of tech support Europe)
D. Mind-set fit	"We definitely try and look for a certain type of person right there, and they're definitely ambitious. They're proactive, they're like passionate teams have been. And so I think it's interesting that we have managed to get such diversity because we're looking for a very specific type of person and we have a like a strong referral scheme as well." (Interview 13, product manager) "We only want to work with people that are open to listening to different perspectives that are open to feedback, that are vocal in sharing their own opinion but that will also be very willing to listen to listen to other opinions. That is a very important part within [company name]." (Interview 12, product manager)

II. Balanced onboarding:
3. Tackling surface-level diversity

E. Awareness creation	"That is something that was definitely mentioned early, to be mindful of diversity." (Interview 1, team lead tech support)
	"So a new a new joiner can go onto our internal docs and see what diversity communities exist. We also created a video that everyone new needs to watch. And it's again, it's really important that we care about our communities and you can find a space." (Interview 13, product manager)
F. Sensitivity creation	"We have some training on sensitivity and cross-cultural awareness. And that's kind of an important one. I think we even do it as soon as we start, by the way. So that's how important it is." (Interview 18, team lead tech support)
	"When I started in this very international team and we talked a lot about diversity. There was a lot of conversation about the fact that we all come from different backgrounds, that we all come together and how we work together." (Interview 1, team lead tech support)

II. Balanced onboarding:
4. Fostering deep-level homogenization

G. Internalizing formula	"It was really interesting in the onboarding because you do a session with every team. And when they would introduce you to their team, what they do, every single presentation related back to the formula and how that team leverages some of the formula values. So even as someone who's been onboarded into the company, it's something that you hear about from day one." (Interview 16, HR business partner)
	"Yesterday morning one of the new starters was actually let go after around two months. After several conversations, it did not come out of the blue, but part of the reasoning was indeed that there was not a full formula fit." (Interview 4, team lead tech support)
H. Internalizing mind-set	"Now, in the coming weeks we are expecting more new joiners to visit us. This week we had two and we organized a bunch of different trainings in which we just wanted to introduce them to the product that we are working with and give them insights on how we work and what our days look like." (Interview 4, team lead tech support)
	"However, I also like the fact that we really make sure, during the onboarding, to impose what we stand for." (Interview 9, team lead tech support)

III. Continuous Management
5. Embracing diversity

|	
I. Nurturing awareness	"As a HR business partner, I would really challenge managers on to think about why is it that you're promoting. And I think unconscious bias plays a lot into it and making sure that managers are trained with recognizing bias as well." (Interview 16, HR business partner)
	"I once followed a training on identifying bias – gender bias – it was some self-test that you can do, to find out about your biases. It is most important that you are aware of your biases." (Interview 10, team lead tech support)
	"Recently we have this so-called "Treehouse Initiative". It is a mission from the company's side and they want to help people to become empathetic despite the differences that we all have. Therefore, they want to create these safe sessions that you can enrol for. When you join these sessions, you can decide if you want to listen to the stories that other people tell or if you want to both listen but also tell your story. It is really like these safe sessions where you share personal stories and you uncover implicit biases or issues in the workplace" (Interview 5, team lead tech support)

J. Openly live diversity	"So our approach is to give people, first of all, a lot of freedom when it comes to diversity. Looking into every kind of activity, a direction we can look to keep working with our diversity." (Interview 19, HR business partner) "Therefore, what happened is that shortly after we created a new team, a workforce. We did not hire a completely new team but it is more like we have certain ambassadors now from different departments all over the world that said: "I want to be a DEI ambassador next to my work as a product owner, a developer – " anything. You could get engaged and start working with that team of ambassadors and think of certain projects that we wanted to start." (Interview 5, team lead tech support)

III. Continuous management
6. Continuous homogenization

K. Nurturing formula	"Another reason why we travel is spreading the formula. So, it is about just spreading how we work at the HQ." (Interview 6, team lead tech support) "We have different initiatives and activities in general during the year, not only when you staff. We keep iterating on, why we make certain choices, why we believe the formula is something that makes us stronger and efficient. You know, so we have different moments and there are regular talks and activities that we use to iterate on." (Interview 19, HR business partner)
L. Nurturing mind-set	"We place a lot of trust and responsibility in the subordinates. We also often tell them, if it is not a ground-breaking decision "Go make it if you are confident that it is a good idea. There is not even a need to inform me when you start approaching it." Therefore, in that sense it can be very loosely but still usually, because we are in such a close contact, there is a continuous feedback loop with continuous exchange of information." (Interview 2, team lead tech support) "You would basically be traveling all the time for a couple of reasons. One, because it is fun. Two, it is because to educate and to make sure and we are all along same. We come from the headquarter but also people coming into the headquarter." (Interview 6, team lead tech support)

IV. Corporate context
7. Diversifying context

M. Context valuing diversity	"Therefore, diversity, I see like get the right people in to have a broader group but then also making sure that we are all equal and equally treated and then also that everyone is included and feels like they can be themselves at work, whoever they are. Therefore, I think in that sense, we are very good on diversity." (Interview 7, team lead tech support) "However, instead of being afraid of that, [company name] is more embracing it and saying: "Let us listen to all these different perspectives and see what we can take out of it, to get to the best possible result. (…) It is just kind of like ingrained into our corporate culture. That is a very big part of it, the fact that we embrace diversity in every way." (Interview 12, product manager)
N. Context valuing diversity expression	"It was communicated from the beginning when there were - also when there were BLM demonstrations - that the board really stands behind the message and that everybody understands if people want to take time out of their working day to actually go to such demonstrations and participate." (Interview 5, team lead tech support) "The company has enabled these communities to spring up and exist and support each other, and there is support from the board and everybody else as well. And then we created some strategic pillars. For pride it is to feel safe, visible and heard." (Interview 13, HR business partner)

	IV. Corporate context 8. Homogenizing context
O. Homogeneity through shared practices (along formula)	"So you kind of you see people can embodying the formula and you start doing that yourself. Especially when you start in this company, you can really see the formula around you." (Interview 19, HR business partner) "Probably you are sick and tired to hear of this formula and other companies have some principles to stick to too. But for us, it's something we use because we really believe that working in this way allows us to be a successful company to work successfully together. So we make sure that all the people coming in there kind of embrace this culture as well." (Interview 19, HR business partner)
P. Homogeneity through shared mind-set	"For me what glues us together is a team mentality. Knowing that the person sitting next to you is like in the trenches with you per se." (Interview 17, senior support engineer) "I think, within [company name] we have so many like-minded people. I think everybody more or less has the same curiosity, same norms. More or less, that is why we are also so successful and everybody has a bit of a view but everybody collectively respects each other." (Interview 10, team lead tech support)

Although coding initially emphasized the emergence of categories, themes, and dimensions, distinctions quickly evolved in terms of a processual management model. These include the three process domains of "balanced staffing", "balanced onboarding" and "continuous management". A fourth domain labelled "corporate diversity context" represents the context in which the managerial processes are embedded. The individual domains may already be perceived in a simplified way by the dashed lines separating the disaggregated data structures. Therefore, figure 6 serves a more analytical purpose. It helps to understand how the emergent data structure is composed of first-order concepts, second-order themes, and overarching dimensions. Figure 7 translates this static, data-oriented model into a process model. It can be understood as the data structure in motion or a synthesis of a chronological management model. Unlike the traditional implementation of the Gioia method (Gioia, 2021; Nag et al., 2007), figure 7 focuses not on the theme-level but on the aggregate dimensions. This is achieved by taking into account the informational power of the dimensions, which are sufficiently fine-grained to form a strong and meaningful process model that describes the drivers for diversity success at the Dutch fintech under analysis.

Figure 7: Managing diversity successfully
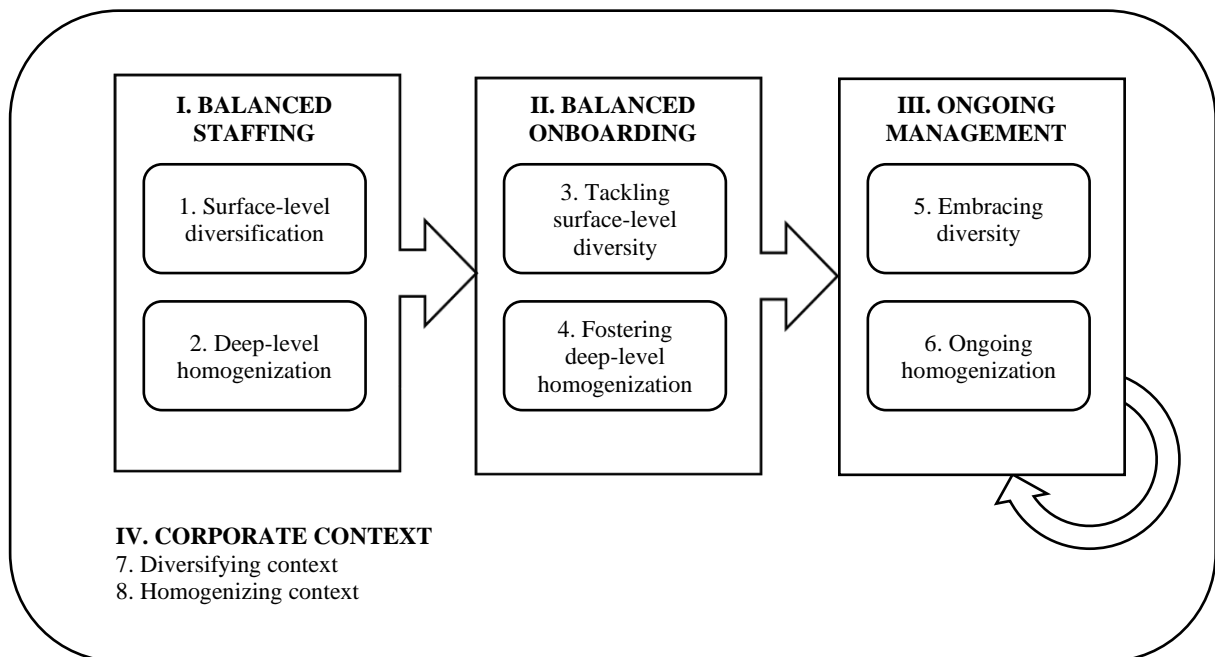
In the subsequent section, findings are described following the emerging management model (figure 7), starting with the balanced staffing approach (I), balanced onboarding (II), continuous management (III) and all underlying purposes. Furthermore, it is shown how a strong corporate context (IV) fosters and backs up managerial processes to achieve deep-level homogenization while demanding for surface-level diversity.

I. Balanced Staffing

The data reveals a broad range of hiring and staffing practices that follow two main objectives. On the one hand, staffing aims at achieving a high level of diversity at the surface-level (1). On the other hand, recruiting employees with a similarly constructive work-attitude has a homogenizing effect on the deep-level (2).

The company pays great importance to a diverse workforce, from which the Dutch unicorn expects higher performance through the complementary inclusion of different perspectives on work-related issues and problems (A). This includes diversity in all dimensions, including but not restricted to ethnicity, gender, age, national culture, religion, interests, disabilities and upbringing. In addition to the claim to complementarity arising from a creative tension, the pursuit of surface-level diversity also serves legitimization purposes. The unicorn attempts to create a workforce that is equally diverse as society itself (B). In order to achieve this goal, staffing is assessed and improved by specific diversity, equity and inclusion (DEI) working groups from all offices around the globe to gain accessibility to historically underrepresented groups. These efforts are supported by the annual quantitative survey of diversity at corporate level.

> *"Improving diversity is a top priority for us. We actively include a diverse group of people to sharpen our ideas, strengthening our team by considering all perspectives when making decisions. We proactively look for ways to add diversity to our teams. During the hiring process, our diverse hiring team assesses individuals based on the same performance, skills and formula fit criteria." (Annual report 2021)*

This is accompanied by staffing practices that address homogenization at the deep level. Those practices represent the realization of a *formula-fit* (C) based on the company's manifested action guidelines. The Dutch company has a strong corporate culture, which was captured and written down in key elements early on in the company's history. This culture is accompanied by managerial guidelines, which play a decisive role in the selection of new employees. Accordingly, executives receive workshops by HR in which the use of the corporate formula in

the hiring process is explained. This results in an active integration of formula-matching emphasis during early stage hiring process and late stage decision-finding, whether an individual is hired or not. The company prefers to hire individuals who may still need to learn some hard skills but who fits in with the company culture rather than the other way around. Accordingly, skill set is not a decisive factor in the hiring process.

> *"Instead, we make sure that also even when hiring people, we already look*
>
> *so strongly at: "Is that person a formula fit? Do they match with the corporate*
>
> *culture that we have envisioned?" We only want to work with people that are*
>
> *open to listening to different perspectives that are open to feedback, that are*
>
> *vocal in sharing their own opinion but that will also be very willing to listen*
>
> *to other opinions. That is a very important part within [company name]."*
>
> *(Interview 1, team lead tech support)*

In addition to the factual formula fit, there should also be a more general *mind-set fit* (D). This mind-set fit is based on the expectations of the hiring manager and is not guided by specific principles such as the corporate formula. Key to this is the use of assessment techniques to determine whether or not an individual fits the team's "vibe". This includes the assessment of work-ethics, openness, specific ways of communication, dealing with challenges and attitudes towards solving those.

> *"We actively try to find people with different perspectives - not mind-set, but*
>
> *yes, let us just leave it to a perspective - actively looking for people to sharpen*
>
> *ideas with different perspectives." (Interview 11, head of tech support*
>
> *Europe)*

II. Balanced Onboarding

After balanced staffing has already created a highly diverse workforce on the surface level and having achieved a certain homogeneity on a deeper level through formula- and mind-set fit, balanced onboarding (II) focuses on tackling surface-level diversity (3) and on fostering deep-level homogenization (4). Onboarding is essential in nurturing and making complementary use of heterogeneity and homogeneity, which may at first seem contradictory.

In order to tackle surface-level diversity, the Dutch unicorn leverages *awareness creation* (E). Creating awareness for diversity and consequently for different perceptions fosters a general understanding of difference within the company. This is achieved primarily through trainings and workshops during the onboarding process. In the course of such training sessions and workshops, new joiners learn how to deal with diversity along the corporate formula. This includes communication training and workshops on mindfulness with the aim of minimizing conflicts resulting from diversity. In addition to achieving general awareness, *sensitivity creation* (F) plays an important role during onboarding. The company explicitly recognizes that it operates in a very international environment, where employees' cultural diversity and resulting variations in actions and communication can be challenging if not addressed. This is realized by trainings and workshops on cultural differences that increase new joiners' cultural intelligence during onboarding. Furthermore, new joiners often get the chance to travel during onboarding, which enhances cultural sensitivity by gaining international experience.

> *"My manager made me aware of it at a very early point: 'You work in a very international environment here. I know that the companies you worked in before were in Germany with a completely German team. Now you are working in a Dutch company which is already different. However, you are*

not working in a Dutch company with Dutch people. You are working in a Dutch company with international people from everywhere. It is a different way of working. It is a different way of communicating. You need to be more mindful of that because there is more difference in how people perceive things.' " (Interview 1, team lead tech support)

The commitment to general awareness and cultural sensitivity is paralleled by onboarding activities fostering deep-level homogenization. The basis for this has already been created during staffing. It is further enhanced by special onboarding workshops on corporate culture and *formula points* (G). In addition to providing a basis for workshops and training sessions, the formula also serves as a reference for sanctions in the event of a lack of behavioral compliance. The aim is to intervene in the event of a poor formula fit and, in the worst case, a new joiner is dismissed during probation. Alongside the usual onboarding process, there is a special program in which students from advanced semesters go through a planned onboarding program that lasts for several months. During this time, participants not only familiarize themselves with the formula through workshops, but also learn the open and inclusive mind-set that is considered important for working in the diverse corporate environment. This is complemented by many social networking events and international travel during the onboarding procedure. These efforts explicitly serve to internalize the corporate vibe with the company's own idea of an inclusive *mind-set* (H).

"We host our introduction sessions to best onboard new team members, which are centered around sharing the foundational knowledge new joiners need to be set up for success at [company name]. Next to our

compliance onboarding modules, the program includes (...) board-led

formula talks." (Annual report 2021)

III. Continuous Management

The mechanisms that characterize continuous management pursue two goals. On one hand, diversity is embraced (5). This is achieved by nurturing awareness (I) and the opportunity to openly live out diversity (J). On the other hand, further homogenization is achieved on a more in-depth level (6). This is accomplished through mechanisms such as nurturing the corporate formula (K) and nurturing the corporate mind-set (L).

Management mechanisms that support *nurturing awareness* (I) include, for example, periodic trainings for team leads to combat unconscious and personal bias. The aim is to help executives to improve their understanding of diversity and to promote it, allowing for a climate of safety within the team. One objective, for instance, is to explain why diversity is important for the company. Another practical example of this is role-play training, in which an actor imitates a situation to which a team lead is supposed to react authentically. Afterwards, the behavior is analyzed and if necessary, recommendations provide fertile soil for improvement. In addition, regular masterclasses on diversity topics such as cultural awareness are held by external professionals. Such masterclasses are open to all employees and aim to create further awareness within teams. Frequent foreign assignments of team members enhance awareness for general and cultural diversity at the individual level. This is considered particularly important because work units such as tech support have a lot of international interaction as they work under the so called "follow the sun" model.

"We do not send people over for one or two days, sometimes three weeks, so they really dive into their day-to-day work over there and that, you see, takes of cause some time to adjust to it, but we have seen that people come back saying: "Wow, it was really good to see that, because it made me aware of how they deal with day-to-day situations or how they work."" (Interview 11, head of tech support Europe)

Another mechanism that embraces diversity besides nurturing awareness is the fact that a lot of *freedom and space is granted for diversity to be expressed* (J). Within the company, for example, a team of volunteer DEI ambassadors was formed with the aim of stimulating projects and ideas to address their concerns and consequently not only raise awareness for diversity, but also to create an environment to openly express diversity. This initiative has resulted in interest groups and interdisciplinary communities such as women rights, BIPoC, Asian, Spanish or LGBTQI+ communities.

In addition to embracing diversity, further homogenization mechanisms (6) have been identified. That includes the *continued nurturing of the corporate formula* (K), which has already played an essential role in the first two steps. The intensive exchange across borders and offices, which is realized through regular business trips, is an important factor. These international exchanges ensure that the corporate formula is carried from the headquarters to the branch offices, which leads to further homogenization at the corporate level. This is crucial for the company as teams are often spread all over the world. In addition, regular formula workshops are held, which are also attended by visitors from international offices. Another important homogenization mechanism identified is the sanctioning of a missing formula fit, where an individual is sanctioned after informal evaluation or after attention has been drawn to

the matter. Sanctioning can lead to homogenization through constructive discussions by adjusting the employee or, in severe cases, end in contract termination. This measure highlights the importance of the corporate formula and the associated emphasis on homogenization of the work force. Alongside the formula, however, *nurturing the mind-set* (L) also plays an important role in the continuous homogenization (6) of employees. It was possible to identify several mechanisms involved. The team leads use a variety of initiatives like the so-called treehouse initiative in order to nurture empathy and openness in their subordinates' mind-set. This includes informal catch-ups, in which misunderstandings are openly discussed. Frequent reference was made here to the spread of a 'common sense' through informal networking and open communication with the team. This common sense may be understood as an open and inclusive mind-set, which consists of basic values that are not reflected in the corporate formula. Informal but also formal networking events among employees result in mind-set spillover. Collective decision-making, guidance and mentoring have a compounding effect.

> *"Now, recently we have this so-called "Treehouse Initiative". It is an initiative from [company name]'s side and we want to help people to become empathetic despite the differences that we all have." (Interview 5, team lead tech support)*

IV. Corporate Context

During the interviews, it was repeatedly pointed out that the actions of team leads are guided by an all-encompassing context. Accordingly, it is not unexpected that the findings reveal an overarching corporate context (IV) in which all the management actions are embedded. This context acts as a guideline for managerial behavior, instructing and enabling action as well as

providing legitimization. Two basic functions of the corporate context emerged: Firstly, the context promotes diversity (7) via the valuation of diversity (M) and promoting the expression of diversity (N). Secondly, it stimulates the further homogenization (8) of the workforce and therefore the diverse work teams. This is achieved by shared practices along the corporate formula and policies (O) and a context established by a shared mind-set (P).

Through the analysis, a high contextual *valuation of diversity* (N) could be identified. Among other things, almost all of the interviewees expressed great respect for diversity. This is reflected in the favorable perception of special formal and informal communities within the company, which are formed and managed by certain communities of interest. The interviews also captured a strong sense of support for and empowerment of the open expression of diversity. The interview partners often cite the corporate formula, as a practical example. It has been mentioned frequently above and is considered to be a blueprint for the corporate culture. The results indicate that it is often used as a contextual legitimation and guiding principle for managerial actions and behavior. An important guiding principle in this eight-point construct is: *"We include different people to sharpen our ideas".* This guiding principle is repeatedly referred to in interviews as well as in corporate documents. It illustrates a context that promotes the inclusion of diversity by valuing different perspectives. Besides the valuation of diversity, the data indicates a *context that promotes the expression of diversity* (N). This is reflected in an emerging identity for diversity. The interviews showed that diversity is an important component of the company and its success. This is also reflected in the company documents. Moreover, participants frequently referred to a collective understanding of the importance of diversity and its positive effects. This sense of collective understanding is also expressed by messages from the board to every employee, in which the open expression of diversity is valued and promoted.

This translates back into a deeply engrained corporate context that promotes diversity expression. Furthermore, the city of Amsterdam as the location of the HQ was frequently mentioned as a contextual factor that promotes the expression of diversity within the workforce.

> *"I think, in terms of diversity on a cultural way we also really - I think cultural and also just - like even a bigger picture than just culture - you really get space and time to actually work on those things and really feel empowered to do things that you think are beneficial for the company." (Interview 7, team lead tech support)*

The data analysis revealed *shared practices* (O) as part of the homogenizing context. The interviewees also attributed a central role to the often-mentioned corporate formula and accompanying policies. The formula, as well as policies such as the "no blush" policy, are seen here as practical codes of action that create a collective context of homogeneous action. Accordingly, the company considers the corporate formula to have the following meaning:

> *"The Formula unites us, and empowers people to make decisions and to keep the speed. It's a call upon every individual employee to hold themselves accountable for the way they work." (Annual report 2018)*

The standardization of communication through the following formula point is also part of this: *"We talk straight, without being rude"*. It creates a homogenized corporate context that embeds, empowers and, thus, conditions all communication behavior throughout the firm. Another good example for this is the formula point: *"We don't hide behind email, instead we pick up the phone"*. It assists in creating a context in which open communication is conducted across the whole company. These measures at the action level are important in order to be

successful with the diverse workforce. This results in further communication unity and reduces digital miscommunication. Furthermore, a general understanding of a failure culture and its implementation should be mentioned here. A common understanding is that mistakes can and should be addressed openly. This applies in particular to intra-team incidents. The aim is to learn from openly addressing the issue so that mistakes do not happen again in the future. The interviewees also frequently mentioned this as a contextual factor that has a homogenizing effect. Often, such matters are addressed at informal meetings in one of the company's many coffee corners. Nevertheless, employees state that it is a very flexible working environment in which fixed work procedures hardly exist. Admittedly, this is more of a perception, as shared value understandings lead to certain behavior.

> *"The company is still a rather unstructured place. We have these general values of things that we want to be important for everyone working here. However, we rarely follow certain procedures in a very fixed way. It is very open. Everyone can also interpret a bit like how they would want to realize things." (Interview 12, team lead tech support)*

In addition to the context arising from shared practices, the data reveal a further category that belongs to the dimension of the homogenizing context. A *collective mind-set* (P) of employees and team members also has a unifying and homogenizing contextual effect. The individuals interviewed frequently mentioned shared mind-set characteristics such as openness, willingness to learn, and trust, which in their totality provide a homogeneous context for the behavior of individuals within their units and teams. Despite the superficial high level of diversity, this goes hand in hand with a high level of trust and a sense of belonging, which is also reflected with a "go with the flow" mind-set.

A Grounded Model of the Unicorn's Diversity Management

In essence, the Dutch fintech unicorn actively focuses on creating deep-homogeneity in a highly surface-diverse workforce. On one hand, the positive effects of diversity are recognized and embraced. On the other hand, homogenization of certain basic values and a shared understanding of how work should be done helps to create a common ground so that differences emerging from surface-diversity do not lead to uncontrollable conflicts. This is often referred to as the "corporate vibe" and represents a unifying element. Following this logic, the vibe may be seen as deep-homogeneity, which is utilized as an enabler for successfully exploiting surface-diversity. The distinction between surface-diversity for innovativeness in addition to creativity (diversity power) and deep-homogeneity for cohesion provides a more detailed understanding of how the organization operates successfully with a high perceived diversity among employees. At first glance, surface-diversity and deep-homogeneity appear to be opposites or even paradoxes. However, deep-homogeneity represents the basis for the successful exploitation of surface-diversity and is therefore by no means paradoxical. Both dimensional alignments can be found in management activities as well as in the corporate context.

In staffing, great importance is already attached to a high degree of diversity in terms of professional and social background, gender, age, sexual orientation, professional background or culture. Nevertheless, new employees should already inherit a common mind-set of openness, excellent communication skills, inclusiveness and empathy. Unless a person meets a reasonable minimum of these criteria, he or she will not be hired. This act of balancing the strive for surface-diversity and establishing deep-homogeneity continues throughout the next step. During balanced onboarding, surface-diversity is cultivated and strengthened through

diversity awareness trainings, sensitivity creation as well as cultural intelligence creation (see Minbaeva et al., 2021). This prepares new employees for a diverse work environment. Deep-homogeneity is fostered through internalization processes of corporate guidelines and the desired mind-set. In the absence of mind-set fit, dismissal may certainly occur during onboarding or even later, providing for deep-homogeneity to be maintained. Continuous management describes the ongoing steering of surface-diversity and deep-homogeneity. Here, diversity is embraced through nurturing awareness and the opportunity to live out diversity at the individual level. Nurturing awareness and the open expression of diversity contributes to a genuine diverse workforce and prevents overhomogenization and demotivation of individuals with deviating characteristics such as altering cultural background, sexual orientation, age or other factors. Nevertheless, a common ground must be maintained and preserved. Further homogenization is based on nurturing corporate guidelines and continuous training of the targeted mind-set. This is complemented by a strong corporate context, which promotes diversity on the one hand and homogenizes the workforce on the other. It helps to maintain the right balance, provides freedom to value and express differences, and unifies individuals in their basic values through shared practices and mind-set. The context is essential for management activities and embeds all corporate actions.

6.   Discussion

Born global companies like the analyzed Dutch fintech unicorn succeed in using diversity as a valuable resource for their business. While literature suggests that diversity may be seen as a mixed-blessing with positive and negative outcomes on team performance, few studies analyze how negative effects can be mitigated in order to fully utilize diversity's positive effects

(Minbaeva et al., 2021; Q. M. Roberson, 2019; Stahl & Maznevski, 2021; van Knippenberg et al., 2020). Considering this theoretical gap, the present study not only reveals deep-homogeneity as a driver for surface-diversity success, but also identifies managerial processes to effectively establish, nurture and balance deep-homogenization and surface-diversity for a creative tension. The emerging managerial model also considers a corporate context which embeds the identified managerial practices.

Deep-Homogeneity as a Fruitful Soil for a Broad Surface-Diversity

Past research often discussed different levels of diversity. This includes levels of socio-cultural diversity, which represent the classical foundation of IB research (Maznevski, 2020; Stahl & Maznevski, 2021; Zhan, Bendapudi, & Hong, 2015). However, socio-cultural diversity goes in conjunction with general diversity attributes like gender, age, education or sexual orientation and may also be divided into different levels (Shore et al., 2009), which enables for a more fine-grained understanding of diversity and its handling. With respect for this study, it can be stated that general diversity factors are concurrent with those of cultural diversity and, from a managerial perspective, should not be considered separately (van Knippenberg et al., 2004; van Knippenberg & Mell, 2016). Therefore, this study addresses a broader understanding of diversity, which opens up new avenues for understanding interindividual collaboration in international business research. Furthermore, the understanding of deep-homogeneity and surface-diversity underlying the model differs from existing assumptions about the composition of the different diversity levels (van Knippenberg & Mell, 2016; Zhan et al., 2015). In the case of deep-homogeneity, our analysis assumes personal attributes, behavior and a common mind-set defined by openness, being outspoken, respectfulness and ambition. These shared attributes represent the common basis and a fruitful soil for surface-diversity. Consequently, the results

of the study differ from previous studies, such as Stahl (2010) or van Knippenberg et al. (2004), which do not identify a distinctive effect in team performance between deep- or surface-level diversity as an input. This assumption is also supported by many other studies. In contrast, the present study suggests that there is a complementary tension between high surface-diversity and high deep-homogeneity. This has already been discussed by Barmeyer et al. (2021) in the light of cultural diversity without acknowledging different layers of diversity. However, complementarity applies also to general diversity and its different layers. Thus, it may be argued that deep-homogeneity is the key to successfully exploiting surface-diversity and vice versa. It may serve as a controlling mechanism between needed tension resulting from surface-diversity and identity threat, which may hinder performance (van Knippenberg et al., 2004; van Knippenberg et al., 2020).

The assumption of unity in diversity is already made by previous scholars like Klagge (1995). However, it is not sufficiently elaborated and detailed enough. Furthermore, managerial action leading to complementarity among diversity through unity was not considered here either. This also applies to a study by van Knippenberg, Haslam and Platow (2007), which only identifies the collective value understanding (diversity beliefs) of diversity within a work unit as desirable in order to accept and promote diversity. It misses the common ground for diversity complementarity or synergy. The present study deviates from this and identifies deep-homogenization as a source of unity among a surface-diverse workforce and, thus, as a driver for diversity success.

Management Activities and Corporate Context that cater for Deep-Homogeneity and Surface-Diversity

Besides the observation that deep-homogeneity and surface-diversity are crucial in dealing with general diversity, this study also examines managerial practices on how to achieve this state of complementarity. Following the need for empirically based managerial practices for diversity success (van Knippenberg et al., 2020), three consecutive managerial steps could be derived. Firstly, balanced staffing is considered as the initial source and driver that creates a fundamental co-existence of deep-homogeneity and surface-diversity. While extant literature on the management of diversity is scarce per se, the important role of staffing is highlighted in a literature review by Roberson (2019). It summarizes how organizations can achieve a more diverse workforce through recruitment, which is also discussed in terms of similarity attraction (Avery, McKay, & Volpone, 2013; Goldberg, 2005). Considering the IMOI+C model, balanced staffing can be understood as a mechanism that ensures deep-homogeneity and surface-diversity as input (Q. M. Roberson, 2019; Zellmer-Bruhn & Maloney, 2020). Secondly, balanced onboarding further optimizes the balance through tackling surface-diversity and fostering deep-homogenization. Previous studies have shown the relevance of onboarding for dealing with differences (Dokko & Jiang, 2017; Q. M. Roberson, 2019). The present study extends this view and also shows the relevance for reinforcing unity in the form of formula and mind-set internalization processes along the important corporate context. Furthermore, it is shown that continuous managerial action embraces diversity through nurturing awareness by conducting regular workshops and trainings. This is accompanied by the possibility to openly live out diversity, which may be connected to the creation of safe spaces and interest groups for psychological safety (Edmondson & Lei, 2014; Hajro, Gibson, & Pudelko, 2017), that may

mediate the relationship between diversity and performance (Singh, Winkel, & Selvarajan, 2013). Those interest groups are also important for staffing and onboarding since they work closely together with HR in order to guide diversity-orientation in hiring and staffing. Those processes may be essential to avoid identity threat, which is known for having a negative effect on diversity success (van Knippenberg et al., 2004). In addition, further deep-homogenization takes place via formula and mind-set nurturing, which also includes letting people go if deep-homogeneity is at risk due to missing formula or mind-set fit.

While prevailing literature mostly tends to neglect contextual factors of dealing with diversity (Minbaeva et al., 2021; Pudelko, 2020; Q. M. Roberson, 2019), the present study shows the considerable relevance of a corporate context that promotes deep-homogenization and at the same time paves the way for enhancing surface-diversity via shared appreciation of otherness (Hajro et al., 2017; van Knippenberg et al., 2007). Following this argumentation, a corporate context that diversifies and homogenizes at the same time embeds the aforementioned management practices. This context creates a fundamentally and shared understanding of the balance and forms the basis for diversity success. The two-fold mechanism of the corporate context may also help to create a common ground for psychological safety for those that are different (Hajro et al., 2017) and may also be identified as a contextual motivator. Considering the IMOI+C model, the described corporate context can be understood as the contextual mechanism embedding input, mediators and output (Maloney et al., 2016; Pudelko, 2020; Zellmer-Bruhn & Maloney, 2020).

Practical Implications, Limitations and Avenues for Further Research

The results give rise to several practical implications, which are particularly but not exclusively relevant for internationally oriented companies. Managers of such companies that are confronted with diversity on a regular basis, should understand that cultural diversity is accompanied by other more general diversity factors that should not be neglected. Thus, a more pervasive understanding of the various facets of diversity should be created. This also applies to the understanding that unity and diversity are not mutually exclusive or paradoxical. Managers should be aware of the unifying mechanism of deep-homogeneity, which serves as a driver of diversity success resulting in a complementary tension (see figure 8).

Figure 8: Deep-homogeneity and surface-diversity lead to a complementary tension
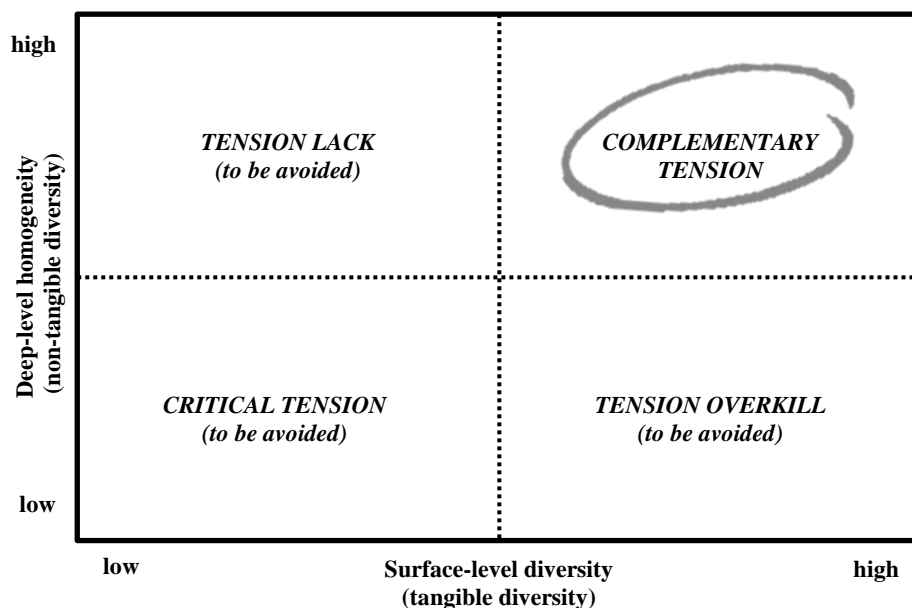
It may be argued that other dimensional combinations are not promising like high surface-diversity and low deep-homogeneity (tension overkill), low surface-diversity and low deep-homogeneity (critical tension) in addition to low surface-diversity and high deep-

homogeneity (tension lack). Based on the results of this study, I argue that those combinations should be avoided. The present study offers a contextualized three-stage managerial model with which deep-homogeneity can be utilized as a driver for surface-diversity success. However, this model not only offers implications for managers leading diverse units in born globals, but also has strategic HR implications. When recruiting new and diverse employees it is crucial for HR to know how to target them. Accordingly, it can be of great help in the staffing process to draw on the knowledge of DEI work and interest groups. Those groups may also serve as spaces for psychological safety (Singh et al., 2013). Furthermore, great importance should be attached to hiring suitable new colleagues. In this respect, it may be helpful to assess the candidate's mind-set and whether it matches the company's vision and the corporate culture it is aiming for. To maintain this balance between deep-homogeneity and surface-diversity, ongoing management practices such as unconscious bias training, awareness sessions or open communication help to embrace diversity. Lastly, the study reveals that a corporate context that promotes diversity and, at the same time homogenizes on a deep level, is essential for successfully exploiting surface-diversity. It hinders identity threat while allowing for the necessary tension from different perspectives (van Knippenberg et al., 2004; van Knippenberg & Mell, 2016). Here, respective corporate guidelines and their continuous application and consideration are crucial. These guidelines not only serve to manage perceived dissimilarities on a practical and daily basis, but should also be designed to continuously highlight and promote diversity and its many positive aspects.

This study is not without limitations. First of all, it represents a single case study of a Dutch fintech unicorn, which, even though it is a revelatory case, is in itself a methodological limitation (Yin, 2018). Thus, recommendations for action may only be derived for similarly

born global companies. A limitation can also be the concentration of the analysis on tech-oriented units, as these already bring various diversity factors with them. For example, software developers are mostly sourced outside the home country of the analyzed company. This is due to the high international demand on the labor market for such employees. However, this is true for many companies in the tech sector, which suggests that the limitation is not particularly severe. The company under review is headquartered in Amsterdam. The city can be viewed as a contextual factor that makes it possible to attract a very diverse workforce. Thus, the location may also be seen as a limitation for generalizability as this may be hard to achieve for companies in more rural areas. Furthermore, future studies should also quantitatively address the different layers of diversity as proposed in this study by analyzing attributes of deep-homogeneity in surface-diversity.

7.   Conclusion

Given the scarcity of prior research on the managerial and contextual drivers for diversity success, the present study on a Dutch fintech unicorn provides novel and meaningful insights into a complex and largely unexplored field. The results show how deep-homogeneity in surface-diversity forms a complementary tension. Furthermore, the contextualized three-stage managerial model gives important implications of how to create an environment in which diversity may be exploited complementary as an organizational capability. To summarize, the findings underpin the importance of creating deep-homogeneity in a diverse work environment in order to fully exploit surface-diversity benefits, which is crucial for born global companies. Concluding, the study provides a rich understanding of managerial and contextual processes and, thus, shows that drivers for diversity success are no fairytale narratives.

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V.   HOW TO ESTABLISH AND MAINTAIN DIVERSITY SUCCESS

IN THREE AND A HALF STEPS

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Abstract

Workforce diversity withholds many advantages. Innovativeness through radical ideas rarely arises in comforting uniformity. Diversity promotes openness and strengthens the potential to generate radical innovation stemming from conflicting opinions and different perspectives. Most companies have understood this. Nevertheless, a diverse workforce also harbors dangers, conflicts are seen as unproductive and do harm to the company's climate. There seems to be a trade-off due to which diversity is seen as a "double-edged sword". However, the trade-off can be defied: for managers it is crucial to have a strategic toolbox which helps to sharpen the positive side of the sword and dull the other. This is particularly relevant for managers in internationally oriented companies that are confronted with diversity on a regular basis. This paper will provide practical guidelines to manage workforce diversity successfully. We introduce three and a half steps to establish and maintain deep-homogeneity in surface-diversity, which is vital to exploit diversity's benefits while circumnavigating its drawbacks.

Keywords: managing diversity, international management

1.   Introduction – Diversity as a "Double-edged Sword"

Diversity is a widely discussed topic throughout all societal spheres. This extends to the world of business and, thus, the work of company leaders, managers, and employees. The global investment bank and financial service provider Citigroup, for example, is seen as a diversity role model by management consultancy McKinsey & Company. Employees are promoted solely based on their skill and potential regardless of any diversity attributes such as gender, ethnicity, race, sexuality, religion, age, culture or upbringing. Citigroup is putting equality, accountability and transparency at the center of strategic actions. According to the management consultancy's third diversity report, this also applies to companies such as Pentair or Lockheed Martin, a well-known and fairly innovative aerospace company that employs more than 110.000 people from all across the globe (McKinsey & Company, 2020). Why has diversity evolved to a megatrend in management? There are various reasons for this development such as socio-economic developments that shift demographics, which also apply for organizations and their workforces. Those trends include women's increased labor force participation around the world, technological innovations that accelerate the mix of workforce diversity in the virtual workplace, employee and employer migration or rising education (Barak & Travis, 2012). Furthermore, social movements such as "Black Lives Matter" or "#MeToo" are catalyzing corporate cultures of respect and support. As a consequence of these social trends and debates, diversity has evolved to a business imperative in its own and firms have recognized that diversity enhances employer attractiveness (Dauth, Schmid, Baldermann, & Orban, 2022). Another motive for the growing importance of diversity management is the evermore increased rate of globalization, which results in pressures for international talent acquisition (Minbaeva, Fitzsimmons, & Brewster, 2021; Morris, Snell, & Björkman, 2016). Managers should therefore

avoid taking a light-hearted, often cynical view of the growing importance of diversity (Dukach, 2022). It is not only important for acquiring and retaining talent, diversity also has performance-enhancing advantages (Stahl & Maznevski, 2021; van Knippenberg, Nishii, & Dwertmann, 2020). Scholars found it to be a fruitful soil for innovation and creativity due to the promotion of openness and deviating perspectives, resulting in better problem-solving skills (Bouncken, Brem, & Kraus, 2016; Joshi & Roh, 2009; Mathieu, Hollenbeck, Knippenberg, & Ilgen, 2017; Wang, Cheng, Chen, & Leung, 2019).

Nevertheless, it takes more than a diverse workforce to benefit from diversity. Workforce diversity is often described as a "double-edged sword" (González-Moreno, Díaz-García, & Sáez-Martínez, 2018; Milliken & Martins, 1996; Minbaeva et al., 2021; Stahl & Maznevski, 2021; Van Dijk, Van Engen, & van Knippenberg, 2012). It may have positive outcomes due to a larger pool of information, knowledge and deviating perspectives. At the same time, the inappropriate handling of diversity may result in unbridgeable tensions resulting from stereotyped thinking, unconscious bias, ongoing discussions, lack of trust and miscommunication (Roberson, 2019; Stahl, Maznevski, Voigt, & Jonsen, 2010; van Knippenberg & Mell, 2016). These organizational "party stoppers" result from categorical thinking (e.g. "all Germans wear Lederhosen and Dirndl" or "Italians are always late") paired with intergroup bias (e.g. "non-German employees are unstructured") and may hinder diversity's positive effects such as creativity and innovation (Van Dijk et al., 2012; van Knippenberg & van Ginkel, 2021). Consequently, it is crucial to effectively manage diversity in order to sharpen the advantageous side and dull the disadvantageous side of the aforementioned double-edged sword. Best practice insights from a Dutch fintech unicorn serve as a role model for successfully dealing with diversity. We show in three and a half steps how

deep homogeneity in surface diversity can be established and utilized as a driver for diversity success.

This paper aims to provide managers with an understanding of how to exploit diversity as a source for success. We explain why homogeneity and diversity are not mutually exclusive and by no means paradoxical. Subsequently we present three and a half steps which illuminate how successful management of diversity is realized. We argue that a balanced staffing, balanced onboarding, continuous management and an all-embedding corporate context serve as managerial trailblazers for diversity success. The final section wraps it all up.

2. Opening the Black Box of Diversity and Homogeneity

Diversity is a common buzzword and many managers only have a vague understanding of the subject. In the academic context, diversity is described as "compositional differences among people within a work unit" (Roberson, 2019, p. 70) and, thus, a variation of any attribute that distinguishes individuals from each other (van Knippenberg & Mell, 2016). This includes attributes of diversity such as age, gender, sexuality, work experience, upbringing or education. In globally oriented companies, diversity factors may involve the cultural background, which is often accompanied by other diversity factors that are reinforced by the socio-economic trends mentioned above (Maznevski, 2020). Generally, those attributes are not expected to change during the individuals' work in organizational groups (van Knippenberg & Mell, 2016). Furthermore, levels of diversity have to be distinguished (Phillips, Northcraft, & Neale, 2006; Shore et al., 2009; Zhan, Bendapudi, & Hong, 2015). Surface-level diversity often refers to visible attribute differences such as age, race, and gender, while deep-level diversity is understood to include knowledge, skills, and experiences (Carter & Phillips, 2017; Harrison,

Price, & Bell, 1998). However, the difference between surface- and deep-level diversity is not always clear. Surface diversity also includes invisible but easily tangible diversity differences (like culture, education or sexual orientation) while deep diversity includes rather intangible attributes such as a person's mind-set. Based on the aforementioned study of a Dutch fintech unicorn, we found that obvious diversity characteristics do not necessarily go hand in hand with deep diversity characteristics such as the individual's open mind-set, positivity or goal-orientation. We found that aligning to those deep diversity attributes across the organization creates a common ground amongst a surface diverse workforce. Deep homogeneity may serve as a harvesting tool for diversity success since it enables a workforce to exploit diversity. It hinders the spread of identity threat and intergroup bias while still allowing for social categorization, which is not bad per se (van Knippenberg, Haslam, & Platow, 2007). Thus, deep homogenization does not suppress differences, instead it creates a common ground to prevent bias and to raise awareness of differences by creating positive diversity connotations rather than identity threat. Consequently, homogeneity and diversity are not mutually exclusive. Here is how managers establish deep homogeneity in surface diversity in three and a half steps:

STEP 1 – How to get the right people through "Balanced Staffing"

The success of a team starts with the selection of its individual members. This is not any different for a manufacturing firm and its workforce than it is for a football team, for example (Ingersoll, Malesky, & Saiegh, 2017). A successful coach needs players with diverse skills and characteristics. At the same time, a successful team also needs a common ground for the various individual characteristics and diversity attributes. Hence, staffing plays an important role to turn diversity into success. More precisely, a balance between seeking for diversity on the surface and establishing homogeneity on a deeper level can be achieved by choosing the appropriate

people with the aspired attributes. During an effective and balanced staffing, hiring managers need to be both, diversity-striving and homogeneity-seeking.

Diversity at the surface level is established by an active appreciation and attraction of diversity. The hiring manager should already be aware that workforce diversity and the resulting information benefit may lead to higher performance (Stahl & Maznevski, 2021; van Knippenberg & Mell, 2016). In order to ensure diversity and its correct addressing, it makes sense to have different interest groups participate in the hiring process. Furthermore, a company should set a clear standard for which diversity characteristics should be addressed. Characteristics like gender, age, education, work experience or culture should be controlled to identify underrepresented individualities which may be important for organizational success. Regular anonymous diversity feedback surveys and an adapted diversity program with the involvement of representative interest groups are useful to achieve surface diversity.

High diversity carries the risk of tension. Thus, the aim for diversity as a hiring criterion should be balanced by an intensive screening of candidates to determine whether a person is a character-fit for the organization in two ways. Firstly, the individual's mind-set should be screened and compared with characteristics and attitudes such as openness, empathy or willingness to learn. Secondly, the applicants' behavior in critical assessment situations should be carefully scrutinized. Company guidelines can serve as a blueprint for how employees should be expected to behave. This includes, for instance, the directness of communication. Unless a person meets a reasonable minimum of these criteria, he or she should not be hired as the potential of friction resulting from tension is too big. However, some characteristics can be formed and developed, which is described in the next steps.

STEP 2 – How to get 'em going through "Balanced Onboarding"

The second step concerns the onboarding of new employees. While the selection process ensures that new joiners meet certain characteristics in terms of diversity but also mind-set, there is now the potential to further shape them in line with the company's philosophies and requirements (van Knippenberg, De Dreu, & Homan, 2004). In this light, two things are crucial in the onboarding process.

First, surface diversity must be promoted through awareness and sensitivity creation. This can be achieved primarily through onboarding trainings and workshops. The aim is to further sensitize new joiners to the importance and the positive effects of diversity and make them more aware and mindful of the topic (van Knippenberg et al., 2007). A company's onboarding program should therefore address diversity as a key element of the overall onboarding program. Behavioral training on different types of diversity, such as cultural awareness, as well as the presentation of internal initiatives and diversity communities have an important contribution in creating psychological safety (Hajro, Gibson, & Pudelko, 2017; Singh, Winkel, & Selvarajan, 2013). Psychological safety, which describes the perception that risks can be taken within a team or an organization without having to fear negative consequences, is important because it facilitates the contribution of other opinions, ideas and action (Edmondson & Lei, 2014). Speaking up and expressing a different perspective is way easier when you feel safe.

Besides the promotion of surface diversity, it is important to further foster deep-level homogenization. In this context, two things are essential. On the one hand, new-joiners should already be familiar with corporate guidelines. These may include practical communication

guidelines such as "pick up the phone instead of just relying on e-mail" or "don't beat around the bush". By communicating more directly, potential misunderstandings between people with culturally different ways of communicating can be prevented. On the other hand, new joiners should further familiarize with an open, empathetic and inclusive mind-set that is considered important for working a diverse corporate environment. This may be achieved by cognitive trainings. Lastly, even restrictive management decisions should not be categorically ruled out. If someone does not correspond to the desired mind-set and behavior or stands out due to unwillingness to embrace diversity, termination must eventually be considered to ensure the workforce's deep homogenization.

STEP 3 – *How to keep them going through "Continuous Management"*

After balanced staffing and onboarding, ongoing management activities continue to play an essential role in the successful management of a diverse workforce. As in the first two steps of the management model, it is also important to ensure a balance between surface diversity and deep homogenization in the day-to-day management of the workforce.

Unlike in the previous steps, diversity should be actively embraced here. In this regard, it is important to further nurture the appreciation of diversity and to promote its value. This may be achieved through continuous trainings for cultural intelligence as well as unconscious bias sessions. An inclusive management style also plays an important role (van Knippenberg & van Ginkel, 2021). Especially in internationally oriented companies, it is beneficial to encourage business trips to other offices abroad (Ng, Van Dyne, & Ang, 2009). Not only do these trips contribute to the transfer of knowledge and corporate culture from one office to the other, they also promote the employees' cultural intelligence and awareness (Maznevski, 2020; Ng, Van

Dyne, & Ang, 2019). Besides, encouraging the active expression of individual differences plays an important role in embracing diversity. The creation of interest groups (e.g. LGBTQ+, Asian, Arab, BIPoC, Women or any other interest communities) beyond task scope promotes psychological safety and can act as an idea hub for further diversity measures which may be reflected in staffing policies (see Step 1 – How to get the right people through "Balanced Staffing").

Alongside the embracing of diversity, continuous deep-level homogenization of the workforce must also be addressed during day to day business. This is done by further deepening the operational guidelines, which should be based on a corporate formula. As already indicated, these must include a vision of how to work in the company. These practical action and communication guidelines establish a general reference and are designed, for instance, to avoid cultural misinterpretations. It is important that these action recommendations are recognized and followed throughout the whole company to achieve full potential and to maintain a formula-fit. Constant reminding and refreshing of these action recommendations through workshops, trainings and board-led talks may also lead to a strong corporate identity, which in turn reduces intergroup bias and promotes elaboration. Apart from the behavioral guidelines, the third step also involves further homogenization of the employees' mind-set. This can be achieved through leadership such as mentoring activities (van Knippenberg & van Ginkel, 2021). Additionally, informal meetings and networking events can elicit mind-set spill over and assimilation (Dennissen, Benschop, & van den Brink, 2019). Furthermore, the implementation of initiatives targeting the development of the individuals' mind-set like empathy and openness may strengthen a common sense amongst the workforce. The constant nurturing of a common mind-set serves as a fruitful soil and enabler for a strong corporate identity which enhances

elaboration and, thus, innovation and creativity. Not despite the differences but because of them. A prime example for this is the German company Bosch, which has a strong corporate identity based on social responsibility that dates back to their founder Robert Bosch. Another brilliant example is the Dutch payments provider Adyen, which bases its corporate culture on different perspectives resulting from a highly diverse workforce.

STEP 3 AND A HALF – How to create a "Context"

The final piece of the puzzle in our managerial guide to creating and sustaining diversity success happens to be forgotten regularly. And unless it is entirely forgotten, this aspect often does not receive the adequate attention a manager should give it. The overall corporate context, which embeds all actions of all employees, represents an essential factor for diversity success (Zellmer-Bruhn & Maloney, 2020). There are many companies that adopt diversity initiatives such as mentoring or unconscious bias trainings, but sadly those initiatives often fail due to a corporate context that hinders diversity success (Ely & Thomas, 2020). The corporate context must be a source for motivation and collective identity while also leaving space for individual distinctiveness (van Knippenberg et al., 2007). The composition of a context that embraces diversity needs to be effective in two aspects.

First, similar to direct management practices, the context has to promote diversity. This is achieved by valuation, mutual respect and trust, which is related to psychological safety (Basit, 2017; Edmondson & Lei, 2014; Ely & Thomas, 2020). It is very important that those contextual factors are exemplified by top management. Furthermore, it is important that the context promotes the open expression of diversity. Due to its motivating nature, a strong sense of equality plays an important role here. Thus, companies cannot be successful if their diverse

workforce has a sense of inequality. This includes any form of difference: cultural, gender, educational or sexual orientation. Without a context of equality and trust, differences are suppressed, which leads to frustration. The proactive display of initiatives creates a climate of trust and equality which may lead to diversity expression and vice versa.

Second, the corporate context has to be a unifying element for the entire workforce. Thus, in addition to promoting diversity, it also serves to foster deep homogenization. This may be realized through a context of shared practices. This context may reflect the general implementation of the above-mentioned corporate guidelines, which specify how to communicate, interact and behave in specific situations. These should be lived and breathed throughout the entire organization. In addition, the mind-set of the individual also plays an important role. Collectively, mind-set similarity based on acceptance, willingness to learn, and openness creates a deep-level homogeneous work environment and mitigates identity threat and intergroup bias, which results in diversity success (van Knippenberg et al., 2004).

3.   Conclusion

Based on insights from research and practice, we suggest that deep homogeneity in surface diversity can be seen as a driving force for diversity success. As it serves as a common ground amongst individual differences, it mitigates identity threat and enhances the many advantages diversity withholds through elaboration (Stahl & Maznevski, 2021; van Knippenberg et al., 2004). Our three-and-a-half-step model provides a research-based and practically feasible approach to achieving deep homogeneity within surface diversity. Thus, we offer a managerial toolbox which is vital to exploit diversity's benefits while circumnavigating its drawbacks.

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EIDESSTATTLICHE VERSICHERUNG

Versicherung nach §9 Abs. 1b der Promotionsordnung des Fachbereichs Wirtschaftswissenschaften der Philipp-Universität Marburg vom 8. Juni 2009

Ich versichere an Eides statt, dass ich die vorgelegte Dissertation selbst und ohne fremde Hilfe verfasst, eventuelle Beiträge von Ko-Autoren dokumentiert, nicht andere als die in ihr angegebenen Quellen oder Hilfsmittel benutzt, alle vollständig oder sinngemäß übernommenen Zitate als solche gekennzeichnet sowie die Dissertation in der vorliegenden oder einer ähnlichen Form noch bei keiner anderen in- oder ausländischen Hochschule anlässlich eines Promotionsgesuchs oder zu anderen Prüfungszwecken eingereicht habe.

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