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Startup Teams and Early Internationalization
The Impact of Founder Team Diversity on Export Precocity and Export Intensity

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Abstract

German

Diese Masterarbeit untersucht den Einfluss der Diversität von Gründerteams auf die Internationalisierungsgeschwindigkeit (Export-Frühreife) und -intensität von Startups. Basierend auf Management- und Internationalisierungstheorien wird ein Framework entwickelt, das funktionale, nationale und sprachliche Diversität sowie die Teamgröße als Einflussfaktoren prüft. Die wissenschaftliche Eigenleistung liegt zum einen in der systematischen Ableitung und Neukombination von Metriken aus der Fachliteratur, um ein erweitertes Analysemodell für den Internationalisierungserfolg zu schaffen. Zum anderen wird dieses Modell durch ein spezifisches Forschungsdesign validiert, das Primärdaten einer Umfrage mit manuell vervollständigten Datensätzen europäischer Scale-ups zu einem hybriden Datensatz (N=20) zusammenführt. Die statistische Analyse mit Spearman's Rangkorrelationen zeigt, dass eine höhere sprachliche und nationale Diversität sowie eine größere Teamgröße mit einem schnelleren Markteintritt verbunden sind. Die Regressionsanalyse legt jedoch nahe, dass diese Zusammenhänge überwiegend durch die Teamgröße erklärt werden und daher als explorativ und nicht als schlüssig zu interpretieren sind. Ein Einfluss auf die Exportintensität konnte hingegen nicht nachgewiesen werden. Diese Ergebnisse unterstreichen die Notwendigkeit, künftige Forschungsarbeiten um mediatorische Variablen zu ergänzen, um die zugrunde liegenden Prozesse zwischen Teamcharakteristika und dem Export besser aufzuklären. Als explorative Pilotstudie liefert die Arbeit methodische Impulse für die quantitative Forschung im Bereich International Entrepreneurship und unterstreicht die Relevanz der Teamzusammensetzung für die frühe globale Expansion.

English

This Master thesis examines the impact of founding team diversity on internationalization speed (export precocity) and export intensity in startups. Drawing on management and internationalization theories, a framework is developed to test functional, national, and language diversity, as well as team size, as influential factors. The contribution of this thesis lies, on the one hand, in the systematic derivation and recombination of metrics from existing literature to establish an enhanced analytical model for internationalization success. On the other hand, this model is validated through a specific research design that merges primary survey data with manually supplemented datasets from European scale-ups into a hybrid dataset (N=20). Statistical analysis using Spearman's rank correlations indicates that greater language and national diversity, as well as larger team size, are associated with faster export entry. However, multiple regression results show these associations are largely explained by team size and should therefore be interpreted as exploratory rather than conclusive. In contrast, no significant impact on export intensity was observed. These results highlight the need for future research to incorporate mediating variables to better clarify the underlying processes between team characteristics and export. As an exploratory pilot study, this thesis provides methodological impulses for quantitative research in international entrepreneurship and highlights the strategic importance of team composition for early global expansion.

Table of Contents

List of Abbreviations

CEM — Categorization-Elaboration Model.

CEO — Chief Executive Officer.

DACH — Germany (D), Austria (A), and Switzerland (CH).

CES — Center for Economic Studies (report series).

DV / DVs — Dependent Variable / Dependent Variables.

EFT — Entrepreneurial Founding Team.

ETBF (ETBFs) — Entrepreneurial Technology-Based Firm(s).

Form F-1 — Form F-1 registration statement (U.S. SEC filing).

N — Sample size (e.g., N = 20).

r_s *(rs)* — Spearman's rho (Spearman rank correlation coefficient).

R^2 — Coefficient of determination (R-squared).

R&D — Research and Development.

RMSE — Root Mean Square Error.

List of Figures

List of Tables

1 Introduction

Global cross-border trade has grown significantly in recent decades, leading to an accompanied surge in international business research (Bui et al., 2025). While established frameworks, most notably the Uppsala model, traditionally depicted internationalization as a gradual, stage-based process—often described as 'rings in the water' (Johanson & Vahlne, 1977)—the rise of 'international new ventures' has challenged this incremental view. These firms engage in global activities from inception or shortly thereafter, often entering foreign markets within their first three years (Madsen & Servais, 1997; Oviatt & McDougall, 1994). This strategic path is academically significant, because startups typically operate with severe resource constraints (Freeman & Engel, 2007), making their rapid expansion a central research topic in international business literature. Consequently, it is essential to identify the internal drivers that allow these 'early international firms' (Zucchella et al., 2007) to overcome the ‘liability of newness’ (Freeman & Engel, 2007, p. 94) and high market risks. For young companies, the founding team is the most critical resource. Choi et al. (2019) demonstrate this importance by showing that the unexpected loss of a founder significantly reduces startup performance. Since the founders' attributes shape the strategic direction, their characteristics are central to the firm’s development and therefore justify a thorough investigation. However, as most startups are established by an entire team, the focus must expand to the collective characteristics of all members. Following the upper echelons theory (Hambrick & Mason, 1984), organizational outcomes are reflections of the top management team’s characteristics. This suggests that the interaction and diversity of these backgrounds are decisive for strategic choices, such as exporting to another country. This provides the foundation for this thesis to examine how the specific composition and diversity of founding teams influence the early internationalization process.

This thesis is designed as an explorative pilot study to evaluate the feasibility of research into founding team composition and its effects on early internationalization (van Teijlingen & Hundley, 2002). The contribution extends beyond the pilot character by systematically synthesizing existing literature to

derive key diversity parameters and developing a specialized research framework. This setting is subsequently tested through a survey of European startups, thereby providing both a methodological foundation and initial empirical insights for future large-scale studies in this field.

Organized into four subsequent parts, this thesis first identifies the research gap by analyzing literature on team composition and early internationalization, which leads to the definition of the research question and variables. Next, it outlines the research design, including the methodological approach and the development of the survey instrument. The following section presents the results of the survey and the corresponding statistical analysis. Finally, the findings are discussed by addressing each variable and its effects, followed by an evaluation of limitations and implications for further research.

2 Literature Review and Research Model

2.1 Scope and Review Methodology

This chapter provides a review of core literature on management team composition and early internationalization. Each study is analyzed based on its theory, methodology, findings and relevance to this thesis to provide a necessary and clear foundation for the subsequent discussion.

2.2 Literature About the Composition of Management Teams and Organizational Outcomes

2.2.1 The Upper Echelons Theory

In their article "„Upper Echelons: The Organization as a Reflection of Its Top Managers "Hambrick and Mason (1984) address the top management composition and the impact it has on organizational behavior. The authors create the thesis that organizational results – specified as strategic decisions and performance – at least partially can be predicted by characteristics of the top management (Hambrick & Mason, 1984, p. 195). Based on the 'dominant coalition" theory of Cyert and March (1963) Hambrick and Mason define the model of the upper echelons as not only the CEO, but more of a

coalition of ‘powerful actors’ that define the outcome of organizations (Hambrick & Mason, 1984, p. 193, p. 196).

The authors look critical towards the popular study of Lieberson and O’Connor (1972), who suggest that leaders have no significant impact on the performance of the company, because it is mostly influenced by environmental factors (Hambrick & Mason, 1984, p. 194). However, the authors point out methodological weaknesses in that research, which observes differences in CEOs of the same company (Lieberson & O’Connor, 1972; Hambrick & Mason, 1984, p. 194). The main argument is that CEOs are often promoted within the same company and groomed by the previous leaders, therefore a large difference is not to be expected (Hambrick & Mason, 1984, p. 194). Furthermore, the choice of dependent variables, i.e. ‘sales’ and ‘earnings’ as performance indicators, were criticized for being too easily influenced by other factors, such as size of the company and the industry the company operates in (Hambrick & Mason, 1984, p. 194). The authors draw the conclusion that the current research is not a definitive proof for the irrelevance of the top management, but a motivation to deepen the research with better methods (Hambrick & Mason, 1984, p. 194).

To get to that conclusion, Hambrick and Mason (1984) don’t collect empirical data themselves but analyze previous research as a conceptual paper. The authors identify first the deficits of previous theories, who described organizations as determined by outside factors and disconnected from actions of individuals (Hall, 1977; Hambrick & Mason, 1984, p. 195; Hannan & Freeman, 1977).

The core argument for the upper echelons theory is based on the previous work of March and Simon (1958), as well as Cyert and March (1963). They established that complex decisions are rarely the result of a ‚mechanical quest for economic optimization’, but of individual factors (Hambrick & Mason, 1984, p. 194).

The authors adopt that concept and add the idea that managers act with a specific ‘cognitive base’ and values, who act as a filter, that creates a ‘limited field of vision’, ‘selective perception’ of information and influence the interpretation of perceived stimuli (Hambrick & Mason, 1984, p. 195).

In accordance with Child (1972) the authors use the term ‘strategic choice’ to clarify that behavioral science has an impact on strategic decisions and therefore mirror the ‘idiosyncrasies’, i.e. individual values, experience, know-how, the managers have (Hambrick & Mason, 1984, p. 195).

A central methodological aspect of the paper is the transition from psychological aspects to more observable variables. Referring Weick (1969), the authors argue that cognition is difficult to measure and therefore suggest other variables. The first one is age, which suggests that youth correlate with growth, while older managers act more risk-averse (Alutto & Hrebiniak, 1975; Child, 1974; Hambrick & Mason, 1984, p. 198). The second one is functional background, which suggests that managers look at problems through the lens of their profession, which affects strategic decision making (Miles & Snow, 1978; Dearborn & Simon, 1958, Hambrick & Mason, 1984, p. 196). Third one is the education level of the managers and while Rogers and Shoemaker (1971) suggest that there is a positive correlation between educational level and innovation, Hambrick and Mason (1984) add that formal management education has more of an impact on administrative complexity than innovation (p. 201).

One of the most important contributions of the paper is to investigate the entire management team, rather than just the CEO, which is based on the concept of ‘Dominant Coalition’, which describes the group of ‘powerful actors’ (Cyert & March, 1963; Hambrick & Mason, 1984, p. 193). Based on the work of Janis (1972), the authors argue that homogeneous teams tend to make decisions quicker, while heterogenous teams tend to bring in a diversity of viewpoints which could be beneficial in particularly difficult times (Hambrick & Mason, 1984, p. 202).

The created model delivers an interesting new perspective on the understanding between group composition and individual characters and organizational outcome. Instead of only looking at environmental factors or a specific person, like the CEO, the upper echelons theory considers characteristics of groups and is therefore highly interesting for the thesis at hand.

2.2.2 Expansion of the Upper Echelons Theory

Following up on the previously reviewed paper from Hambrick and Mason (1984) the author Hambrick (2007) expands the established theory of the upper echelons theory. The goal of the paper is to review the theory after decades of empirical research, address criticism and expand it with relevant moderators.

The result is the confirmation of the basic assumption that 'organizational outcomes' and 'strategic choices' are partially predicted by characteristics of the top management (Hambrick, 2007, p. 334). The relevant new aspect of this theoretical refresh is the introduction of two new moderators, i.e. 'Managerial Discretion' and 'Executive Job Demands', that explain when and how strong executive properties influence company success (Hambrick, 2007, p. 335). Which concludes in this paper switching the focus from a direct causality to a more contingency-based model.

The author bases his research, just like in the original paper, on the Bounded Rationality theory of the Carnegie school (March & Simon, 1958). The premise is that leaders can't act rationally in complex situations, but make decisions on characteristics like experience, values and personality (Hambrick, 2007, p. 334).

Hambrick reacts to two main streams of scientific literature since publishing his theory in 1984. One is the empirical confirmation of several hundreds of studies, that show a link between demographics and strategy (Carpenter et al, 2004; Finkelstein & Hambrick, 1996; Hambrick, 2007, p. 334). Some specific examples include Barker and Mueller (2002) that showed that CEOs with certain characteristics, e.g. scientific background, invest more in research and development. Wiersema and Bantel (1992) that proved that top-management teams with higher education are more likely to make a strategic change. Michel and Hambrick (1992) is named specifically as well, for proving a link between team background and diversification strategy of a company.

While empirical studies seem to support the theory, some research criticized the methodological basis for the upper echelons theory. Lawrence (1997) and Priem et al. (1999) pointed out the 'black box'

problem, which shows demographic data as not precise ‘proxies’ for not directly observable processes. Meaning, the results are not explainable (Hambrick, 2007, p. 335).

To address those points the author is not using empirical data but instead continues to write a concept paper. Hambrick defends his use of demographic data with the argument that it is nearly impossible to find ‘psychometric’ data of top executives and that demographic data is objectively measurable (Hambrick, 2007, p. 336). This paper is therefore a theory evolution of the original one, towards a more contingency based model.

The central result of this work is to expand the upper echelons theory with moderators. ‘Managerial discretion’ is supposed to consider the ability of the top management to act within its environment. In rigid environments, e.g. regulated markets, and a high level of bureaucracy, it plays less of a role who the CEO is. This would also explain why some studies show strong, while others show weak effects of the CEO on outcome (Hambrick, 2007, p. 335). ‘Executive job demands’ is another moderating factor, which means that managers who face high demand, i.e. stress and time pressure, usually tend to use short cuts and deep-rooted behavior patterns (Hambrick, 2007, p. 337). Additionally, ‘behavioral integration’ is introduced, to refine the view on the management team. The idea is that its not enough to look at the average result of a team, but to also investigate whether the team acts as a unit, i.e. shares information and collaborates (Hambrick, 2007, p. 336).

While the 1984 version of the upper echelons theory creates the theoretical basis, the 2007 update delivers necessary refinements for research of startups and internationalization, because startups usually operate with managerial discretion, i.e. less bureaucracy and internationalization creates high executive job demand, because of the increased complexity and insecurity that comes with it.

2.2.3 Categorization-Elaboration Model and Team Diversity

Van Knippenberg, De Dreu and Homan (2004) address the until then inconsistent state of research, in which diversity in work groups is partially positive, partially negative and often has no significant effect on group performance (p. 1008). The primary goal of the paper is to overcome this stalemate by

developing a new framework called categorization-elaboration model (CEM). The model posits, that diversity is increasing performance primary through ‘elaboration of task-relevant information”, moderated by factors like ‘task requirements’, ‘task motivation’ and ‘task ability’ but is neglected by ‘social categorization’ and ‘intergroup bias’ (van Knippenberg et al., 2004, p. 1009, p. 1010). The authors switch the focus from a straight forward causality view to a deeper analysis of psychologically processed and contextual moderators, which steer the effects of diversity.

The authors identify two dominant, but contradicting streams in the to-date scientific literature. On one side, there is the social categorization perspective, that is primarily based on the social identity theory (Tajfel & Turner, 1986) and the self-categorization theory (Turner et al., 1987). That perspective predicts that diversity is leading to creations of sub groups, which creates ‘intergroup bias’ and disturbs the group cohesion as well as performance (van Knippenberg et al., 2004, p. 1009). This is also supported by the ‘similarity/attraction’ paradigm (Williams & O’Reilly, 1998), which states that similarities foster interhuman attraction (van Knippenberg et al., 2004, p. 1009). On the other side there is the ‘information/decision’-making perspective, which states that diverse groups have a broader pool of know-how, skills and perspectives, which leads to an increase in problem solving and creativity (van Knippenberg et al., 2004, p. 1010). Van Knippenberg et al. (2004) criticize, that prior research, e.g. Pelled et al. (1999) or Jehn et al. (1999), often simplify by suggesting that demographic diversity, e.g. age and gender, lead to social categories, while functional diversity, e.g. educational background, lead to better informational processing. To disprove that theory, the authors used analysis from Williams and O’Reilly (1998) who showed, that both kinds of diversity can have a positive, as well as a negative impact (van Knippenberg et al., 2004, p. 1013).

The authors used a theoretical-conceptional method to pin down existing empirical research. Instead of creating new primary data, they deconstruct the mechanisms of information processing and social categories by isolating ‘elaboration’ as a central moderator for performance impact (van Knippenberg et al., 2004, p. 1011). Elaboration is defined as the exchange, discussion and integration of relevant information and perspectives (van Knippenberg et al, 2004, p. 1011). They base their arguments on the

findings of information processing in groups, which shows, that groups make better decisions when information between group members are shared (Scholten et al., 2003; van Knippenberg et al., 2004, p. 1012). The categorization-elaboration model CEM works hereby as a contingency model, which means the outcome depends on other factors. It connects two opposite mechanisms, one is the cognitive side, i.e. elaboration, which means the useful exchange and processing of information. The other side is the emotional one, i.e. social categorization, which means the split of a team in smaller subgroups (van Knippenberg et al., 2004, pp. 1011-1012).

CEM differentiates itself from prior models by integrating an antagonistic pathway. Van Knippenberg et al. (2004) shows that social categorization cannot be looked at isolated, but as a factor that influences elaboration (p. 1012). When group members divide themselves in 'us' and 'them', the exchange of information is being disturbed. A major value proposition of the paper is the proposition of moderators. The authors argue that diversity only leads to a positive elaboration, if 'task motivation', i.e. the team members must have the motivation to solve the task, 'task requirements', i.e. the task must be complex enough to demand creativity and problem solving and 'task ability', i.e. the team must be able to understand diverse information and to integrate it, are given (van Knippenberg et al., 2004, p. 1013). Additionally, the concept of 'diversity mindset' is introduced, i.e. the believe system of the group towards the values of diversity, which is seen as a critical moderator (van Knippenberg et al., 2004, p. 1020). Contrary to prior research, e.g. Brewer (1979), the authors argue that social categorization not necessarily have a negative impact. A 'superordinate identity' can neutralize negative sub-groups effects or even support diversity (van Knippenberg et al., 2004, p. 1018).

The paper is relevant, because it not only gives a good overview of the state of scientific research regarding team diversity and organizational outcome, it also introduces a new method to understand under which conditions diversity can lead to success (van Knippenberg et al., 2004, p. 1012). For the present thesis this paper is the most robust theoretical framework to understand that diversity does not necessarily perform better.

2.2.4 Alternative Conceptualizations of Functional Diversity in Management Teams

In this empirical study Bunderson and Sutcliffe (2002) address the inconsistent research results of the impact of 'functional diversity' on the performance of the management team. The main scope of the paper is to deconstruct the diversity definition. The authors argue that, in previous research it was falsely claimed that functional diversity is a one-dimensional construct and offer instead two different concepts, i.e. 'dominant function diversity', which describes differences in the primary functional specialties of the team members, and 'intrapersonal functional diversity', which describes to which extent individual members have broad, functional experience (Bunderson & Sutcliffe, 2002, p. 875).

The authors place their work in the context of the previously reviewed upper echelons theory and the information processing perspective. They react to the findings that empirical evidence comes to contradicting results. While some studies claim to find positive effects on innovation and strategy (Bantel & Jackson, 1989). Others concluded that functional diversity could lead to negative effects on implementation speed and social integration (Pelled et al., 1999). Bunderson and Sutcliffe (2002) explain this discrepancy to methodological issues. The authors criticize that reducing functional diversity to just one dominant functional category for each person is not doing the complex careers of managers justice. They find academic support in the social categorization theory (Tajfel & Turner, 1986), to explain why specialists isolate themselves and why a broad experience of generalists makes communication easier (Bunderson & Sutcliffe, 2002, p. 881).

To test their hypotheses, the authors conducted an empirical study with 45 business unit management teams of a fortune 100 company (Bunderson & Sutcliffe, 2002, p. 881). To understand each individual career path, they analyze entire résumés of all team members (Bunderson & Sutcliffe, 2002). That made it possible to create indexes, one to measure dominant function diversity, based on the function with the longest experience and a separate one for intrapersonal functional diversity, to consider how many different functions a manager already had in their career (Bunderson & Sutcliffe, 2002, p. 883). The dependent variable, team performance, is measured through objective return on sales, while the mediator information sharing was conducted via online survey (Bunderson & Sutcliffe, 2002).

The results of the regression analysis confirm the differentiated approach, dominant function diversity shows a significant negative impact on information sharing (Bunderson & Sutcliffe, 2002, p. 886). Which means teams that consist of strict specialists, e.g. a pure engineer meets a pure salesperson, tend to share information less effectively. In contrast intrapersonal functional diversity leads to a positive effect on information sharing (Bunderson & Sutcliffe, 2002, p. 886). When team members are generalists and 'broadly experienced' they tend to communicate more effectively, because they share common knowledge. This paper differentiates itself from others, like Williams and O'Reilly (1998), by proving that diversity is neither the problem nor the solution, but depends on the kind of functional diversity that is available. It contradicts the assumption, that it is enough to simply put different kinds of experts in the room to create team synergy.

This paper offers an interesting addition to the upper echelons theory by providing nuance to the analysis of team composition and organizational results. While Hambrick (2007) explains, that experience matters, Bunderson and Sutcliffe (2002) go further and emphasize that how the experience is categorized has an impact on the processes. For startups, that want to go international, it could mean that a team of silo experts (dominant functional diversity) could potentially face communication barriers, while a team of generalists (intrapersonal functional diversity) probably can process the complex information of foreign markets.

2.3 Literature About Early Internationalization in Startup Teams

2.3.1 The Internationalization of Born Globals

In this concept paper Madsen and Servais (1997) analyze the phenomenon of 'born globals', i.e. companies that went international at or right after birth (Rennie, 1993; Knight and Cavusgil, 1996; Madsen & Servais, 1997, p. 561). The goal of the paper is the apparent contradiction between quick market entry of the born globals and the previous literature of internationalization in stages like the 'Uppsala internationalization model' (U-M) (Johanson & Vahlne, 1977; Madsen & Servais, 1997, p. 562). The central research question is whether born globals create a new phenomenon or can they be explained by adjusting existing research. The result of the paper is, that born globals are not a

revolutionary event, but a result of an evolutionary process (Madsen & Servais, 1997, p. 573). The authors argue that internationalization happens years before the actual legal inception of the company, through the careers and international networks of the actors (Madsen & Servais, 1997, p. 578).

The authors identify a research gap in literature. Rennie (1993) and Oviatt and McDougall (1994) show a significant increase in companies jumping over internationalization steps (Madsen & Servais, 1997, p. 562). Madsen and Servais (1997) first discuss the Uppsala model (U-M) from Johanson and Vahlne (1977), which describes internationalization as an incremental process, slowed down through lack of market know-how and 'psychic-distance' (p. 563). They argue that the U-M is not sufficient enough to explain the behavior of born globals (Madsen & Servais, 1997, p. 563). As an explanation the authors use changing market conditions, like specialization and niche markets, that force international new ventures to sell their products globally (Madsen & Servais, 1997, p. 565). Additionally, they integrate the 'Network Approach' after Johanson and Mattsson (1988) (Madsen & Servais, 1997, p. 571). The assumption here is that the market is a system between actors and their networks, in which companies are relying on external resources (Madsen & Servais, 1997, p. 571). The authors connect that theory with the idea of born globals, by arguing that those companies often rely on 'supplementary competences' of other actors in the network (Madsen & Servais, 1997, p. 578).

The authors use a concept approach to existing literature to create a future research model to study born globals (Madsen & Servais, 1997, p. 568). This model categorizes the independent variables that have an influence on born globals in three categories. First category is the founder, with 'past experience', 'ambition level' and 'motivation' as factors. Following up with the organization itself, with 'competence', 'routines' and 'corporate governance structure'. And last the environment, with 'market internationalization', 'high/low technology' and specialization as key factors (Madsen & Servais, 1997, p. 581). To illustrate that, the authors analyze nine case studies from different countries to guarantee heterogeneity (Madsen & Servais, 1997, p. 574).

The main result is that born globals can be explained by an 'evolutionary approach to the study' (Madsen & Servais, 1997, p. 573). Madsen and Servais (1997) show that the internationalization

process of the company often starts years before legal birth through the individual international experience of their entrepreneurs (p. 576). Another result is that born globals tend to be more dependent on the resources of other companies with complementary competences (Madsen & Servais, 1997, p. 578). Another insight is that born globals often have hybrid-governance structures in their distribution channels to compensate for their lack of resources (Madsen & Servais, 1997, p. 578). Additionally, the authors perceive that the geographical location of the company is often chosen by the background of the founders and their partners, rather than by physical distance (Madsen & Servais, 1997, p. 577).

For the present work the paper is crucial, because it includes founder characteristics, that influence the internationalization process and proves that internationalization doesn't process like 'rings in the water' but by previous experiences of the founders and other market conditions. International experience of the founders is a major independent variable to internationalization of young international enterprises (Madsen & Servais, 1997, p. 574).

2.3.2 The Drivers of the Early Internationalization of the Firm

This article investigates the dimension of time for the internationalization process of companies, particularly the 'precocity', i.e. the earliness of internationalization (Zucchella et al., 2007, p. 268). The authors focus on 'early international firms (EIFs)', i.e. firms that become international, either through export or any other means, within the first three years of their young life (Zucchella et al., 2007, p. 268). That can include, but is not exclusive to, born globals (see section 3.2.1). The goal of this paper is to create a framework based on scientific literature and to test it empirically with 144 small-medium-enterprises (Zucchella et al., 2007, p. 268). The main result is that the previous experience of the entrepreneur, particularly in international companies, and a niche strategy of the company are significant drivers for precocity (Zucchella et al., 2007, p. 268).

The study is in the context of international new ventures and born global firms (see section 3.2.1). But differentiates itself by introducing different time dimensions, i.e. precocity, which means how early the company goes global, speed (rapidity), that means the speed of the growth, and pace, which is the

rhythm by which the internationalization process is happening (Zucchella et al., 2007, p. 269). The authors choose precocity as their main dependent variable, because they assume that the factors that contribute to it are different than for speed (Zucchella et al., 2007, pp. 269-270). They base their work on the studies of the 'behavioral theories', like Aharoni (1971) and 'resource-based view' (Barney, 1991; Zucchella et al., 2007, p. 270). The developed framework is divided into four main drivers:

1. Entrepeneur-specific: international experience, education, language skills (Zucchella et al., 2007, p. 271) .
2. Business-specific: strategic focus on niche markets (Zucchella et al., 2007, p. 271)
3. Location-specific: affiliation to clusters and districts (Zucchella et al., 2007, p. 271).
4. Network-specific: formal agreements and social relationships (Zucchella et al., 2007, p. 271).

A sample of 144 Italian SMEs are being used for an empirical analysis, selected from a base of 600 contacted companies (Zucchella et al., 2007, p. 272). The dependent variable export precocity is defined as the number of years between birth of the company and the start of international sales, with a limit of three years as a definition for 'precocity' (Zucchella et al., 2007, p. 272). The authors analyzed the findings via correlation analysis, association analysis and a logistical regression to validate the independent variables (Zucchella et al., 2007, pp. 273-275).

The results show that factors like age and language skills of the entrepreneurs are strong drivers of early internationalization (Zucchella et al., 2007, p. 273). This supports the concept of 'Experiential Learning' from Johanson and Vahlne (1977), derived from Kolb (1984), who claim that know-how is deciding (Zucchella et al., 2007, p. 273). On the contrary, the general educational background and prior work experience of the entrepreneurs are not contributing to export precocity (Zucchella et al., 2007, p. 273). Additionally, a focused niche strategy shows a strong positive correlation with export precocity (Zucchella et al., 2007, p. 273). Contrary to other studies, the results show no significant importance of formal networks on companies going international early (Zucchella et al., 2007, p. 274). The authors argue that networks are potentially more relevant to performance, than time stamp of internationalization (Zucchella et al., 2007, p. 277).

For the thesis at hand, the research shows significant importance. It combines characteristics of founders, like the upper echelons theory previously, to the new dependent variable export precocity, i.e. the amount of time it takes for new ventures to start doing business outside their home country. It proves that entrepreneurial know-how and experience, next to environmental factors like a niche-market, have a major impact on export precocity (Zucchella et al., 2007, p. 277).

2.3.3 Export Propensity, Export Intensity and Firm Performance: The role of the Entrepreneurial Founding Team

The authors investigate the influence of the human aspects of the 'entrepreneurial founding team (EFT)' on the export orientation and related performance of the newly created venture (Ganotakis & Love, 2012, p. 693). To come to a conclusion the authors investigate a sample of 'entrepreneurial technology-based firms' (ETBFs) in the UK and test their hypotheses that different human characteristics, i.e. experience vs. education, affect different phases of export, i.e. export propensity, which represents the probability to export, vs. export intensity, which represents the success of export in percentage of export from total revenue (Ganotakis & Love, 2012, p. 693, p. 697). The main result is that the characteristics needed to enter a new market differ from the ones that affect success in those markets (Ganotakis & Love, 2012, p. 711). While commercial and managerial experience help to 'overcome the hurdle', the formal education, generic as well as specific, help to foster success, after the hurdle was taken (Ganotakis & Love, 2012, p. 693). Additionally, the relationship between export and productivity was clarified, productive companies tend to export more and higher levels of export increase future productivity (Ganotakis & Love, 2012, p. 693).

The authors connect two scientific streams with each other, the 'international business' literature, that describes internationalization as an incremental process (Johanson & Vahlne, 1977) and the 'international entrepreneurship' literature, that focuses on the 'human capital' of founders to examine the entrance and success in international markets (Ganotakis & Love, 2012, p. 694). Mostly, it is based on the 'human capital theory', which states that performance of an individual is based on how much that person invests in their skillset (Becker, 1964). Ganotakis and Love (2012) expand this approach,

by arguing that the effects on human capital differ on context (p. 696). They argue, based on theories of Reid (1981) and Gray (1997), that decisions made to export are based on risk perception (Ganotakis & Love, 2012, p. 697). Experience, in particular 'commercial and managerial experience' reduces the subjective perception of risk and insecurity and therefore fosters export propensity (Ganotakis & Love, 2012, p. 697).

In contrast, education is said to have a different effect. Based on Bantel and Jackson (1989) the authors argue that formal education increases the cognitive capabilities that lead to better problem-solving skills and information processing (Ganotakis & Love, 2012, p. 698). That means for export specifically, that 'business education' and 'technical education' help export intensity, meaning success after the actual foreign market entry (Ganotakis & Love, 2012, p. 698).

For the statistical analysis this work collects empirical data from a sample of 412 entrepreneurial technology-based firms (ETBFs) in the UK, mostly by conducting a survey (Ganotakis & Love, 2012, p. 701). Additionally, data from a FAME (Forecasting Analysis and Modeling Environment) database was used as a double check to minimize the common method bias, which describes the issue that arises when data is collected in the same way (Ganotakis & Love, 2012, p. 702).

The independent variables used are mostly based on entrepreneurial founding teams (EFT), which are 'general education', i.e. number of years of formal education, and 'general experience', i.e. number of years of work experience (Ganotakis & Love, 2012, p. 703). Specific human capital is divided into 'technical education' and 'business education' as well as 'commercial experience', 'managerial experience' and 'sector experience' (Ganotakis & Love, 2012, p. 703).

The dependent variables are export propensity, i.e. current status of export, and export intensity, i.e. revenue generated abroad (Ganotakis & Love, 2012, pp. 703-704).

Important control variables are firm age, firm size (employment), the number of founders, internal R&D, location factors and external financing (Ganotakis & Love, 2012, pp. 706-708).

The first result is, that a higher number of founders with commercial and managerial experience increases the probability for the company to export (export propensity) (Ganotakis & Love, 2012, p. 709). However, this had little effect on export intensity, which supports the assumption that experience reduces the perception of risks, but not export revenue (Ganotakis & Love, 2012, p. 709).

Strong drivers for export intensity, however, are the factors education, general as well as specific (Ganotakis & Love, 2012, p. 709). An additional year of business education in the founders team increases the export percentage by ca. 23 percentage points, technical education by ca. 9 percentage points (Ganotakis & Love, 2012, p. 709).

Productivity is also strongly influenced by experience (Ganotakis & Love, 2012, p. 710).

However, the amount of founders as well as firm size has no significant effect on export activities, when considering other factors (Ganotakis & Love, 2012, p. 710).

The most interesting aspect of the results is the recognition that prior experience helps to take the jump into a foreign market, while formal education guarantees success.

The paper from Ganotakis and Love (2012) is relevant for the topic of startup teams and early internationalization, because it looks at the entrepreneurial founding team as the major aspect for the internationalization analysis (Ganotakis & Love, 2012, p. 693). It delivers a differentiated explanation why some startups might go international very early on ('born globals'), but don't scale effectively, without having the necessary formal education (Ganotakis & Love, 2012, p. 711).

Only looking at how soon a startup is going international would therefore not create sufficient results to truly understand the internationalization process of young companies.

2.3.4 Social Capital, Knowledge, and the International Growth of Technology-based New Firms

Yli-Renko, Autio and Tontti (2002) develop and test in their study the connections between 'social capital', the knowledge pool of a company, which explains the international sales growth' of a company (Yli-Renko et al., 2002, p. 279). The primary goal of the authors is to investigate the role of

inter and intra-organizational relationships on the construction of 'distinctive knowledge base' and its influence on the international growth of technology-based new firms (TBNFs) (Yli-Renko et al., 2002, p. 279).

The authors hypothesize that internal social capital as well as external social capital supports the acquisition and creation of knowledge, which in consequence plays a key role for international growth (Yli-Renko et al., 2002, p. 279). Additionally, the authors investigate 'growth orientation' of the management as a key control variable, because it is being assumed, that the aspiration for growth has a direct impact on actual international sales of the company (Yli-Renko et al., 2002, p. 288).

The theoretical basis for this study is the syntheses of the 'social capital theory' and the 'knowledge-based view of the firm' (Yli-Renko et al., 2002, p. 279). The authors identify a dichotomy in existing literature to internationalization. The classic internationalization process theory (Eriksson et al., 1997; Hadjikhani, 1997; Johanson & Vahlne, 1990) looks at knowledge as a key regulator of resource commitment for internationalization efforts (Yli-Renko et al., 2002, p. 280). To the contrary, the 'new venture internationalization theory' (Oviatt & McDougall, 1997) looks at knowledge and knowledge intensity of the firm's resources as an 'enabling resource', which allows an early and quick internationalization of the firm (Yli-Renko et al., 2002, p. 280). The authors suggest that those views are complimentary and integrate those two perspectives into one framework (Yli-Renko et al., 2002, p. 282).

'Social capital' is being defined as a resource, which originates from stable networks of relationships, that can be mobilized by companies (Bourdieu & Wacquant, 1992; Yli-Renko et al., 2002, p. 282). The authors derive from that, that 'internal social capital', i.e. relationships within the company, increase the efficiency of internal communication and technological learning (Yli-Renko et al., 2002, p. 283). 'External social capital' on the other hand describes the contacts management has to other stakeholders, which creates access to external information and increases learning of foreign markets (Yli-Renko et al., 2002, p. 284).

The authors conducted an empirical analysis, based on a set of Finnish companies in the electronic industry, with the argument that this sector strongly requires technology and knowledge (Yli-Renko et al., 2002, p. 289). To collect data surveys were conducted in two waves, which lead to a finale sample of 56 companies (Yli-Renko et al., 2002, p. 289).

The central dependent variable for this study is international sales growth, which is calculated by the difference of international sales between the two surveys, i.e. five years, to represent organic growth internationally (Yli-Renko et al., 2002, p. 292).

The central independent variables are

- Internal social capital, measured by quality of cooperation between individuals and departments within the company (Yli-Renko et al., 2002, p. 293).
- External social capital, measured by the quality of contacts founders, management and sales have to international stakeholders (Yli-Renko et al., 2002, p. 293). Networks are being seen as chances for market entry (Yli-Renko et al., 2002, p. 285).
- Customer and supplier involvement, measured by the proportion of customers and suppliers, that have tight cooperations with the organization (Yli-Renko et al., 2002, p. 293).

Mediating variables are knowledge, divided into

- Knowledge-intensity, which is a ‘perceptional measure’ based on statements to knowledge intensity of products and technological expertise (Yli-Renko et al., 2002, p. 292).
- Foreign market knowledge, measured by how much information is available about competitors, customers and partners abroad (Yli-Renko et al., 2002, p. 292).

Control variables are Growth orientation, measured by how important it is for the company to go international, firm size and firm age (Yli-Renko et al., 2002, p. 294).

The results prove the assumption that social capital and knowledge play a significant role for international growth, but with differentiated pathways:

1. Internal social capital has a significant positive influence on knowledge-intensity, but no significant influence on foreign market knowledge (Yli-Renko et al., 2002, p. 297). This suggests that internal know-how mostly fosters technological knowledge.
2. External social capital shows a significant effect on foreign market knowledge (Yli-Renko et al., 2002, p. 297). This proves that personal networks are relevant to gain market knowledge.
3. Knowledge-intensity and foreign market knowledge both show a positive impact on international sales growth (Yli-Renko et al., 2002, p. 297).
4. Supplier involvement showed a negative impact on foreign market knowledge, which is in contrast to the hypotheses of the authors (Yli-Renko et al., 2002, p. 297).

The study differentiates itself through empirical evidence, that knowledge does not only regulate commitment, but has an 'enabling role' to organic international growth (Yli-Renko et al., 2002, p. 301).

The reviewed paper from Yli-Renko et al. (2002) delivers a profound argument for the relevance of management contacts to the buildup of external social capital. It works as a driver for foreign market knowledge and ultimately international sales growth (Yli-Renko et al., 2002, p. 300). The authors point out that those networks are particularly relevant because they 'open doors in markets' (Yli-Renko et al., 2002, p. 285).

Furthermore, the study legitimizes the method of perceptive data by asking the subjects to answer subjectively for complex structures, such as knowledge-intensity, because it can be difficult to gather objective data (Yli-Renko et al., 2002, p. 302). The division of knowledge-intensity, i.e. technical know-how and foreign market knowledge, allows a differentiated approach by investigating whether export success was accomplished by technical expertise or through network-based variables (Yli-Renko et al., 2002, p. 283).

2.4 Summary and Research Gap

Two distinct streams of literature can be identified as the foundation for this research. The management literature provides a comprehensive overview of team characteristics and their strategic implications for organizations. For instance, Hambrick (2007) demonstrates how top management team diversity shapes strategic choices and firm outcomes through the lens of the upper echelons theory. Building on the underlying psychological processes, van Knippenberg et al. (2004) explains the dual nature of diversity: while 'information elaboration' can enhance performance, 'social categorization' processes may hinder it. Furthermore, Bunderson (2002) specifies how functional diversity, in particular, affects collective learning and information processing within teams. However, while these management perspectives offer interesting insights into team composition and its effects, they overlook teams in a startup context and early internationalization as a metric.

The second stream, the international business literature, focuses on the drivers and outcomes of early internationalization. While Madsen and Servais (1997) as well as Zucchella (2007) provide a good understanding of the time to market aspect, i.e. export precocity, they mainly focus on the individual experience or 'international mindset' of the entrepreneur instead of objective team diversity. On the other hand, Ganotakis and Love (2012) and Yli-Renko et al. (2002) show what drives export intensity. Ganotakis and Love (2012) highlight the importance of functional human capital, e.g. commercial or technical experience, but measures it as the presence of certain skills or years of experience, not as a diversity count of different professions within the team. Yli-Renko et al. (2002) show how international experience helps with knowledge acquisition, but also neglects the structural team composition.

Three gaps can be identified here. First, while international business research considers team traits, it typically focuses on either a qualitative 'mindset' (Madsen & Servais, 1997; Zucchella, 2007) or the total amount of experience (Ganotakis & Love, 2012). None of these studies use objective counts to measure the variety of nationalities, languages, or professions. Even though Yli-Renko et al. (2002)

explain how important international knowledge acquisition is for export efforts, the number of languages as a structural variable is not considered in current literature.

Second, most papers focus on either the speed at which startups start to export (Madsen & Servais, 1997; Zucchella, 2007) or measure the export success/intensity (Ganotakis & Love, 2012). Both dimensions can be influenced by team composition, yet they have not been tested against the same variables simultaneously.

Finally, since many existing papers remain theoretical, there is a general lack of empirical research and a need for more quantitative data to test these concepts in the real-world startup context.

2.5 Research Question and Conceptual Framework

The following research question arises from the previously mentioned gaps:

To what extent does international and functional diversity in startup teams affect export precocity and export intensity?

Answering this question requires a set of originally combined variables that demonstrate how team composition affects the internationalization efforts of startups.

Independent Variables:

- Number of nationalities: Counts how many different nationalities are represented in the team to demonstrate the capacity to overcome psychic distance (Madsen & Servais, 1997).
- Number of languages: Measures the number of languages spoken within a team, which serves as a necessary tool to create international relationships (Yli-Renko et al., 2002).
- Number of functional backgrounds: Counts how many different functional backgrounds are represented in the team—including formal education and informal work experience—to reflect the team's combined know-how (Ganotakis & Love, 2012).

Dependent Variables:

- Export precocity: Measures the speed at which a startup enters a foreign market after inception (Zucchella, 2007).
- Export intensity: Measures the revenue generated through export as a percentage of total sales (Ganotakis & Love, 2012).

Control Variable:

- Team size: Counts the number of founding members to ensure that observed effects are not merely a result of having more 'available hands' (Ganotakis & Love, 2012).

3 Research Design

3.1 Approach and Tools

The approach is to use an explorative pilot study to answer the research question and test the feasibility of the research model (van Teijlingen & Hundley, 2002). In order to achieve that, a questionnaire was prepared with SoSci Survey and sent via cold approach to approximately 2253 publicly known email addresses of relevant startups in the European Union. Additionally, the data of eight startups were manually filled in with information gathered from publicly available sources, in order to increase the sample size to a viable minimum. For the manually collected cases, all source references are documented in Appendix A and fully listed in the reference section. The collected data was then statistically analyzed with JASP.

3.2 Questionnaire

Based on the previously defined variables, the following questions were being used to ask startups for the necessary information.

Control variables and additional information:

- ‘What is the name of your startup (optional)?’
- ‘Which industry are you in?’
- ‘When was your startup founded?’
- ‘In which country was your startup founded?’
- ‘How many people were part of the founding team?’

Independent Variables:

- ‘How many different nationalities in total are represented in the founding team?’
- ‘Which languages are being spoken in total by members of the founding team?’
- ‘How many distinct professional backgrounds are represented in your founding team?’

Dependent Variables:

- ‘How much of your total revenue (in percentage) comes from export?’
- ‘When did your startup begin exporting, and to which countries?’

4 Results

4.1 Data Pool

Of the 2,253 emails sent to European startups, 16 surveys were completed, representing a response rate of 0.71%. Although four of these responses were unusable, the addition of eight manually collected data sets resulted in a final sample size of $N = 20$ for further analysis.

4.2 Statistical Analysis

4.2.1 Spearman Correlation Matrix

The first step to investigate the results of the survey is to conduct a bivariate statistical correlation analysis. Based on the sample size ($N = 20$) and the accompanied fragility of the data, the correlation was done with the correlation coefficient of spearman (*rho*) (De Winter et. Al, 2016). The results of the correlation matrix can be found in Table 1.

Table 1 Spearman Correlation Matrix of Founder Team Diversity and Internationalization Metrics

Spearman's Correlations			Spearman's rho	p
TeamSize	-	Nationalities	0.220	.352
TeamSize	-	Languages	0.107	.654
TeamSize	-	FunctionalBackgrounds	0.403	.078
TeamSize	-	ExportPrecocity	-0.575*	.031
TeamSize	-	ExportIntensity	-0.040	.866
Nationalities	-	Languages	0.624**	.003
Nationalities	-	FunctionalBackgrounds	0.200	.398
Nationalities	-	ExportPrecocity	-0.528	.052
Nationalities	-	ExportIntensity	-0.132	.580
Languages	-	FunctionalBackgrounds	0.178	.453

Spearman's Correlations			Spearman's rho	p
Languages	-	ExportPrecocity	-0.556*	.039
Languages	-	ExportIntensity	0.093	.696
FunctionalBackgrounds	-	ExportPrecocity	-0.383	.177
FunctionalBackgrounds	-	ExportIntensity	0.152	.523
ExportPrecocity	-	ExportIntensity	0.043	.884

* p < .05, ** p < .01, *** p < .001

4.2.1.1 *Effects on Export Precocity*

The most interesting correlation is shown between the international diversity of the team members and export precocity. The analysis shows a moderate negative correlation between the number of languages spoken and export precocity (r_s = -0.556, p = 0.039), indicating that more languages are associated with faster export entry (see Figure 1). This shows that the previously stated assumption that language skills within the founding team increase the speed of the startup to enter a foreign market seems to be true, as demonstrated here by the negative correlation between those variables. The amount of different nationalities has also quite a high impact on export precocity, but is slightly below the statistical significance, which can be explained by the small sample size and is therefore still considered a strong indicator (r_s= -0.528, p = 0.052) (see Figure 2). Unsurprisingly, the correlation between nationalities and languages spoken is the highest (r_s = 0.624, p = 0.003).

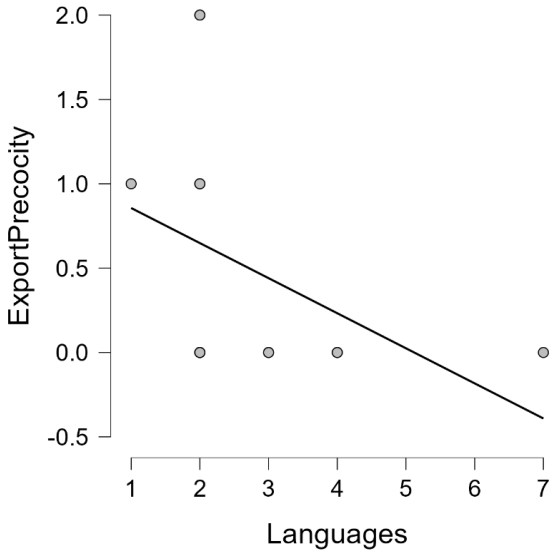

Figure 1 Correlation Between Languages and Export Precocity

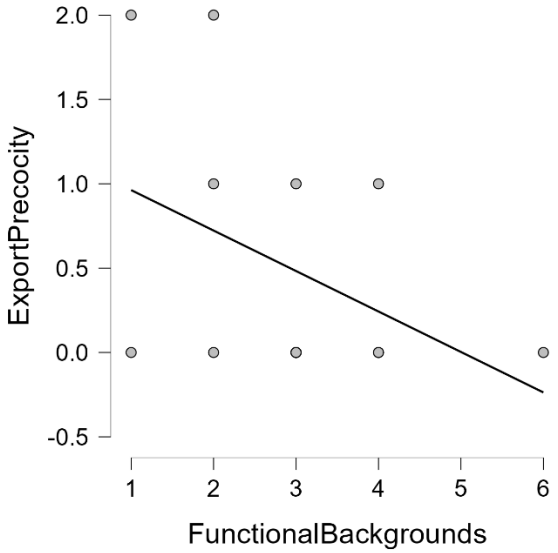

Figure 2 Correlation Between Functional Diversity and Export Precocity

A significant relationship also exists between team size and export precocity (r_s = -0.575, p = 0.031). Larger teams start exporting quicker (see Figure 3).

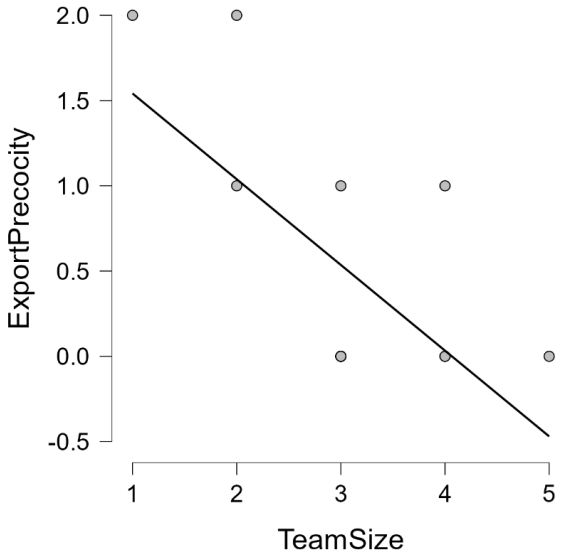

Figure 3 Correlation Between Team Size and Export Precocity

4.2.1.2 Effects on Export Intensity

Contrary to the speed of which startups start to export, no statistically significant relationships were observed between any of the team characteristics and export intensity in this dataset. The amount of nationalities show a low impact on foreign sales (r_s = -0.132, p = .580), as well as the amount of languages spoken (r_s = -0.093, p = .696) (see Figure 4). The functional diversity of the founding team also doesn't show a statistically relevant impact on export intensity (r_s = 0.152, p = .523) (see Figure 5). The previously stated assumption that language skills increase external social capital and therefore international sales, as shown by Yli-Renko et. al (2002), is therefore not proven. And the idea that functional diversity has an impact on international sales, as previously assumed, is not shown to be true by the data set at hand.

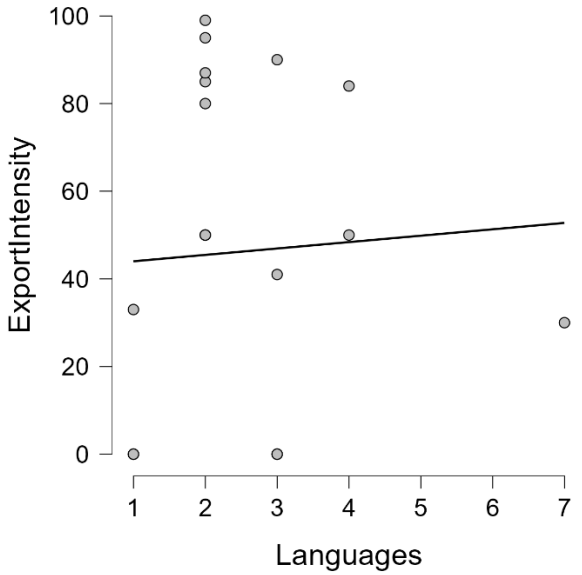

Figure 4 Correlation Between Languages and Export Intensity

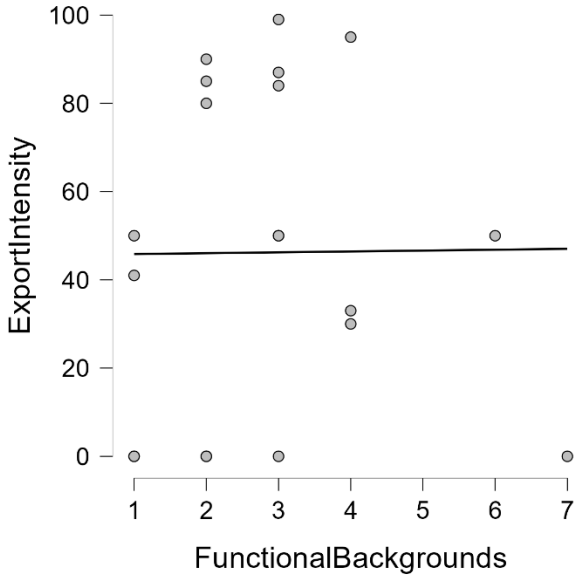

Figure 5 Correlation Between Functional Diversity and Export Intensity

4.2.2 Regression Analysis

4.2.2.1 Model Summary and Coefficient of Determination (R^2)

To see how much impact languages and team size have on export precocity exactly, a further multiple regression analysis is being conducted. In addition to the dependent variable export precocity the two

predicators team size and languages are being used, since they have shown the most significant correlation in the previous analysis.

Table 2 Model Summary of Regression Between Languages, Team Size and Export Precocity

Model	R	R^2	Adjusted R^2	RMSE
M_0	0.000	0.000	0.000	0.760
M_1	0.701	0.492	0.399	0.589

Note. M_1 includes Languages, TeamSize

Table 2 shows how much of the dependent variable export precocity can be explained by the covariates languages and team size. The adjusted coefficient of determination R^2 shows a strong 0.399, around 40%, which means with just two variables nearly half of all variations regarding export speed between the startups can be explained (see Table 2). That is a strong result, which gives a clear confirmation how important team composition is on export precocity and can therefore not be ignored when investigating the concept of born globals.

4.2.2.2 Including Control Variables

In order to investigate the independent impact of the two variables team size and languages, a final analysis regarding the coefficients was conducted.

Table 3 Coefficients Table of Languages and Team Size

Model		Unstandardized	Standard Error	Standardized	t	p
M_0	(Intercept)	0.500	0.203		2.463	.029
M_1	(Intercept)	2.227	0.553		4.030	.002

Model		Unstandardized	Standard Error	Standardized	t	p
	Languages	-0.125	0.114	-0.246	-1.099	.295
	TeamSize	-0.452	0.170	-0.593	-2.652	.022

Table 3 shows with the unstandardized regression coefficient (β) value -0.125 for languages, that one more language in the team decreased the time to export by 0.125 years, around 1.5 months. When the founders have one more team member, however, the export time is decreased by 0.452 years, around 5.5 months, which is a significant difference.

The standardized regression coefficient (β) shows which variable is the stronger predicator for the dependent variable. In that case team size has a significant higher impact on the dependent variable with a value of -0.593 compared to languages with a value of -0.246 (see Table 3).

Additionally, the statistical significance ($p < 0.05$) is not available for languages with merely $p = 0.295$, but strongly available for team size with $p = 0.022$ (see Table 3).

The team size variable was also tested and showed similar results (see Table 4, Table 5).

Table 4 Summary of Regression Between Nationalities, Team Size and Export Precocity

Model	R	R^2	Adjusted R^2	RMSE
M_0	0.000	0.000	0.000	0.760
M_1	0.704	0.496	0.405	0.586

Note. M_1 includes TeamSize, Nationalities

Table 5 Coefficients Table of Nationalities and Team Size

Model		Unstandardized	Standard Error	Standardized	t	p
M_0	(Intercept)	0.500	0.203		2.463	.029
M_1	(Intercept)	2.164	0.535		4.046	.002
	TeamSize	-0.437	0.173	-0.573	-2.525	.028
	Nationalities	-0.197	0.171	-0.261	-1.150	.275

The adjusted R^2 = 0.405 in Table 5 shows that those two variables can explain already around 40.5% of the results. However, when corrected for team size, the nationality variable shows with p = 0.276 no significance, compared to team size with p = 0.028 (see Table 5).

4.2.3 T-test

Table 6 Independent Samples T-Test for Industry Types and Export Precocity

	t	df	p
ExportPrecocity	-0.697	12	.499

Note. Student's t-test.

To reduce the risk of the results being influenced too heavily by the industries, digital startups versus physical ones, first, two groups are created, i.e. ‘digital’ and ‘physical’ for the chosen industries. Second, an independent samples T-Test is conducted (see Table 6).

The results show that contrary to the expected results of digital startups being quicker to scale and enter foreign markets, the small sample size of N = 20 does not confirm that. Since t = -0.697, i.e. it is

close to 0, the differences between the industries is small and not relevant enough to draw conclusions from. The value for $p = 0.499$ indicates further that there is no statistically significant difference between the two industry groups with respect to export precocity.

4.2.4 Descriptive Analysis: Export Countries

To further identify potential patterns and trends within the data set a descriptive analysis was conducted in addition to the correlation and regression models shown prior.

Table 7 Top 5 Countries for Export

Rank	Country	Times chosen
1.	USA	8*
2.	Germany	7*
3.	UK	6*
4.	Austria	5*
5.	Switzerland	5*

Table 7 ranks the top five countries for export within the first two years, originated from the dataset. Since nearly all of the companies come from the DACH-region, the choice to export in a neighboring country, shows a low 'psychic distance', which states a close cultural connection between domestic and foreign country (Sousa & Lengler, 2009).

However, considering that USA is the number one picking most of the time, it shows the attractiveness of the largest single economy in the world, with a particularly strong technology industry and strong advantages in legal protection, financing, collaboration and innovation potential (Cannone & Ughetto, 2015).

5 Discussion

5.1 Summary

The results of this explorative pilot study revealed that there is no verifiable link between any of the founding team characteristics and export intensity. Meaning that neither the amount of different

nationalities, languages, functional backgrounds, nor team size of the founding team have an effect on how much of the total revenue is being generated outside of the home market.

In contrast, some team characteristics seemed to influence the time to foreign market. The amount of nationalities, languages and team size showed a significant impact on how quickly a startup enters a foreign market.

The analysis of the coefficient showed however, that the previous correlative impact of languages and nationalities on export precocity was being heavily influenced by team size, which had a more significant impact on export speed. It seems larger teams have a better capability to scale internationally early, even when controlling for the languages or nationalities variables.

At last, the industry was being considered and looked into as a possible factor for startup internationalization. The results hinted, however, at a fairly low significance, when it comes to the speed of foreign market entries. Whether the startup was selling digital or physical products, the effects on internationalization are not significant enough to draw conclusions from.

5.2 Critical Analysis of the Findings

5.2.1 Export Precocity

The results show that diversity factors don't play a huge role on the startups capabilities to export early. While the amount of languages, as well as nationalities, show an impact, which demonstrates a strong effect, considering the small sample size, they lose significance compared to the size of the founding team. A possible explanation could be found in the scientific literature.

Hambrick (2007) elaborates that without 'behavioral integration' a diverse team doesn't provide any benefit (p. 336). If team members don't collectively work on the same goal, what benefit would diversity give them after all. A homogenous group of people that share expertise and work and contribute towards the same goal, will benefit from a larger team size, but not necessarily from new perspectives, that are irrelevant for the task.

To explain why functional diversity shows no impact, the work of Ganotakis & Love (2012) could provide a related explanation. Human capital, neither through number of years of formal education and work experience (general), nor through technical or business education (specific) has shown significant relevance on the probability of the firm to export (p. 709). The authors argue that actual managerial experience plays a more significant role for the decision to export, since it provides the managers with the appropriate skillset to navigate through complex environments (Ganotakis & Love, 2012, p. 709, p. 711). While the question in the survey was purposefully open for both kinds of experiences, formal ones through education and informal ones through practical experience, most answers seemed to include only the formal one, which provided evidence for Ganotakis and Love's (2012) claim, that it is the managerial experience, that drives internationalization.

According to van Knippenberg et al. (2004) diverse groups can also create 'social categorization', which might impact team performance negatively (p. 1009). Supported by Dearborn and Simon (1958) that mention a selective perception of managers, that have a narrow view on their own subject area. Though the paper is neither specifically addressing startups nor export precocity, that could give another interesting explanation why functional diversity doesn't show the expected impact on export precocity.

Bunderson and Sutcliffe (2002) could give another interesting explanation for the lack of correlation between functional diversity and export precocity. The researchers argue that functional diversity could lead to 'social categorization' that can impact information sharing (Bunderson & Sutcliffe, 2002, p. 882). A biology researcher and a business manager, while on paper contribute more by bringing more functional skills to the table, might not be able to communicate better with each other than a set of e.g. software developers that, so to say, 'speak the same language', which ultimately hinders them to come to a conclusion sooner.

Ibeh (2003) argues that competencies are a major driver for internationalization success of entrepreneurs (p. 64). Different functional or international characteristics don't matter if they can't be translated into relevant competences, such as international market knowledge.

5.2.2 Export Intensity

Unlike the export speed, the export success, measured in percentage of revenue generated in foreign markets, doesn't show to be affected by any of the variables.

The idea that language skills or nationalities provide social capital which in return drives international growth, like described by Yli-Renko et al. (2002), could not be proven. Pure language skills or diversity in nationality do not seem to necessarily increase external social networks, which can be a factor to create social capital, which has significant effects on international growth (Yli-Renko et al., 2002, p. 279).

According to Ganotakis and Love (2012), formal education should have a positive impact on export intensity. This is, however, not proven by the results of the survey that show no statistical significance here. However, Ganotakis and Love (2012) investigated 'entrepreneurial technology-based firms' (ETBFs), which could also be significantly older than young startups (p. 695).

The explanation given by Bunderson and Sutcliffe (2002) works also for the impact of functional diversity on export revenue. A heterogenous team can have trouble sharing information and therefore is less efficient in achieving its goals, i.e. increase revenue in a foreign market.

Behavioral integration (Hambrick, 2007) plays a factor for export intensity as well, since different characteristics within the team are irrelevant, if they are not being utilized in the decision making process (p. 336).

Ibeh (2003) arguments overlap to export intensity as well. Diversity in teams is not relevant, if they can't improve the necessary competencies for products and markets (Ibeh, 2003, p. 64).

5.3 Limitations and Further research

The limited sample of only N = 20 stands out as the most major limitation of this research. While some results already show an interesting correlation, it is too small of a sample to disregard other

research variables, like impact of functional diversity, for not delivering the promising results, simply because the small sample size allows for too small of a statistical significance. In particular, diversity in languages and nationalities could have had fewer outliers and therefore shown a higher statistical significance, if the sample size was larger. Collecting more data would be the first requirement for further research.

Combining formal education and informal work experience, does not help with understanding the effects on the DVs. Separating functional diversity into different categories, similar to Ganotakis and Love (2012), could improve future results, since formal education and specific as well as general managerial experience have different potentials.

Additionally, objective team characteristics in themselves do not inherently provide value unless they translate into actual competencies (Ibeh, 2003, p. 54). Future research needs to therefore move away from static team demographics and investigate how those variables – specifically by providing access to diverse 'international contact networks' – improve the ‘export-entrepreneurial orientation’, which then subsequently leads to successful export (Ibeh, 2003, p. 53, p. 64). This approach would offer the explanatory link needed to clarify the complex relationship between team diversity and internationalization.

Future research should also introduce ‘behavioral integration’ as a mediating variable (Hambrick, 2007). By moving beyond demographic ‘proxies’ to examine the actual individual interaction and information exchange within the team, studies could explain the specific mechanism of why some startups successfully leverage diversity, while others do not (Hambrick, 2007, p. 335).

5.4 Conclusion

The purpose of this thesis was to review the relevant literature on startup teams and early internationalization and to synthesize these theories into a new empirical setting. The methodological core of this thesis was the development and execution of a specifically designed survey. This process

generated a dataset of 20 startups, enabling the exploratory validation of theoretical concepts in a practical setting.

In light of this study, the research question ‘To what extent does international and functional diversity in startup teams affect export precocity and export intensity?’ can be answered as follows: The results show limited direct effects, but rather imply that mediating factors play a crucial role between founding team characteristics and export performance.

The primary contribution of this work lies in the specific configuration and operationalization of the variables: International and functional diversity were explicitly examined in relation to export precocity and intensity and empirically tested. Thus, serving as an explorative pilot study, this thesis provides a practical foundation for future research to build upon these findings and examine the nuanced team dynamics that mediate early internationalization.

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7 Appendix A: Sources for Manual Data Sets

Air Up: Food Innovation Camp (n.d.); HfG Offenbach (n.d.); Munich Startup (n.d.); North Data (n.d.); StartupValley (n.d.); Swisspreneur (n.d.); Technische Universität München (2020); The Grocer (n.d.); Tracxn (n.d.).

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