Shifting Perspectives –
Towards a Better Understanding and a More Effective Promotion of Women Entrepreneurship in Sub-Saharan Africa

Shifting Perspectives – Towards a Better Understanding and a More Effective Promotion of Women Entrepreneurship in Sub-Saharan Africa

Von der Fakultät Wirtschaftswissenschaften

der Leuphana Universität Lüneburg

zur Erlangung des Grades

Doktorin der Philosophie

– Dr. phil. –

genehmigte Dissertation von Kathrin Wolf

geboren am 16.01.1988 in Duisburg

Eingereicht am: 20.03.2019

Mündliche Verteidigung (Disputation) am: 05.06.2019

Erstbetreuer und Erstgutachter:	Prof. Dr. Michael Frese, Leuphana Universität Lüneburg & Business School, National University of Singapore
Zweitgutachterin:	Prof. Dr. Amanda Bullough, University of Delaware
Drittgutachterin:	Prof. Dr. Nina Keith Technische Universität Darmstadt

Erschienen unter dem Titel:	Shifting Perspectives – Towards a Better Understanding and a More Effective Promotion of Women Entrepreneurship in Sub-Saharan Africa
Druckjahr:	2019
Veröffentlicht im:	Onlineangebot der Universitätsbibliothek unter der URL: http://www.leuphana.de/ub

Acknowledgements

I would like to take the opportunity to thank the individuals who have contributed to the completion of this dissertation. First of all, I would like to thank my supervisor Michael Frese for his continuous support and confidence in my scholarly work during the last years. His enthusiasm for the research questions I pursued and his numerous ideas and solutions for whatever problems I encountered encouraged me to persist. I also thank Prof. Dr. Amanda Bullough and Prof. Dr. Nina Keith for serving as members of my committee despite their busy schedules and a narrow timeframe for the evaluation of my dissertation.

I am very grateful to the World Bank Africa Gender Innovation Lab and the Women Entrepreneurship Development Project for the close collaboration that allowed me to conduct my research in such an exciting setting. Special thanks go to Markus Goldstein, Salman Alibhai, Niklas Buehren, Sreelakshmi Papineni, and Francesco Strobbe. I would like to thank Mona Mensmann who made me start this adventure and who supported me as a friend, colleague, and advisor throughout my PhD. I also thank Konjit Hailu Gudeta for mobilizing her vast network in Ethiopia and helping me out in virtually every situation. I thank Regina Müller for her unlimited assistance with all organizational and administrative matters I can think of.

I also want to thank my family for their understanding and support in busy times. I am very grateful to Michael Brossmann for his faith in me and for straightening my ideas when they got confused. This dissertation would not have been possible without him.

Finally, I want to thank the numerous people who have been of great help at some stage of my research, either by collecting data, transcribing videos, providing translations, coding data, managing processes on-site, providing valuable feedback, or printing this dissertation. Special thanks go to (in alphabetical order): Girum Abebe and his team at the Ethiopian Development Research Institute, Michael Abrham, Yordanos Asrat, Nadia Beit Saeid, Sara Beit Saeid, Rekik Bekele, Mahder Birara, Tabea Brüning, Bruk Degie Kassa, Ines Feismann, Eyob Firdawok, Rebecca Funken, Endale Geberemedehen, Weldemariam Gebremichael, Mesgna Gebretensae, Nebiyat Gidey, Bethelhem Haile, Tirhas Haile, Kedir Hussein, Anne Hebekeuser, Surafel Kifle, Tekleberhan Redi, Abiy Samuel Tibebu, Muriel Schockenhoff, Tessema Sebsebe Mekonen, Henok Sinku, Kelemework Tadesse, Michael Terefe, Bianka Troll, Daniel Verch, Hiwot Wendimagegn Mammo, Kidus Wendimagegn Mammo, Sofanit Woldegiorgis, and Hannah Wolf.

Preface

When I was offered the opportunity to start my PhD almost four years ago, I was thrilled by the idea to implement personal initiative (PI) training for women entrepreneurs in Ethiopia and evaluate its effectiveness by conducting a randomized controlled trial (RCT). I already had a keen interest in the field of development economics and its rigorous research methods for a while and was excited to be part of such an endeavor now. With some initial evidence pointing to the effectiveness of PI training, Michael's and my plan was to devote my PhD to the investigation of when (i.e. under which conditions) and how (i.e. via which mechanisms) PI training leads to entrepreneurial success. Over more than two years, I thus invested most of my time and energy in the implementation and evaluation of PI training in Addis Ababa, Ethiopia. During numerous field trips, we gathered information, trained trainers, arranged stakeholder meetings, prepared enumerators, collected data, and tackled various challenges.

However, as Chapter 4 of this dissertation reveals, things turned out quite differently than expected. The RCT showed that PI training had neither increased women entrepreneurs' business success nor led to any other meaningful outcomes. Whereas I found the lack of impact incredibly interesting from an implementers' perspective (after the first wave of disappointment had passed), it certainly was not compatible with the idea to devote three chapters of my dissertation to an in-depth analysis of the training's effects. Fortunately, by that time, Michael had already encouraged me to set up a study to pursue a research question that had emerged from my field visits: How do husbands influence women entrepreneurs' success? This way, Chapter 2 and 3 of this dissertation developed while we were still (optimistically) waiting for the follow-up data to come in. Yet, there was still another chapter to be written. After all the efforts invested in the implementation and evaluation of PI training, completely dropping the training experiment from the dissertation did not seem right to me. Moreover, it felt like hiding unfavorable results. Thus, I decided to stick to the RCT as basis for my third article and look into the reasons behind the lack of impact. Chapter 4 constitutes the result of this decision.

In short, although this dissertation looks very differently from what I expected when I drafted my initial research proposal, I am very glad about the way it looks like today. I further hope that this dissertation encourages other young scholars to report research that seems unfavorable at first sight, but might in fact stimulate the development of their research area.

Abstract

In sub-Saharan Africa, women own or partly own one third of all businesses, thereby having a large potential to contribute to the economic development and societal well-being in this region. However, women-owned businesses tend to lag behind men-owned businesses in that they make lower profits, grow more slowly, and create fewer jobs. To identify reasons for this gap and effective means to promote women entrepreneurs, large parts of the entrepreneurship literature have compared male and female entrepreneurs with regard to individual characteristics, paying only limited attention to the underlying environmental conditions. This is problematic as women entrepreneurs operate under different conditions than men, with particularly pronounced differences in sub-Saharan Africa.

Against this backdrop, the goal of this dissertation is to contribute to a more profound understanding of women entrepreneurship in sub-Saharan Africa and its promotion through training by examining critical context factors. Specifically, I analyze two context factors that influence women's entrepreneurial performance and the success of training interventions: 1) women entrepreneurs' husbands and 2) the entrepreneurship trainer. These analyses are embedded in considerations of the cultural, social, and economic conditions women entrepreneurs in sub-Saharan Africa are facing.

In Chapter 2, I conduct a systematic literature review on spousal influence in entrepreneurship and identify six recurrent types of influence. Complementing the literature originating from Western settings, I develop propositions on how the sub-Saharan context affects husbands' influence on women entrepreneurship in this region. In Chapter 3, I build on a cultural theory and an economic theory of the household to develop and empirically test a theoretical model of husbands' constraining and supportive influences on women entrepreneurship in sub-Saharan Africa. The empirical results point to three distinct types of husbands that differ significantly in their impact on women entrepreneurs' business success. In Chapter 4, I explore the influence of the trainer on the effectiveness of entrepreneurship training in sub-Saharan Africa by drawing on an unsuccessful training implementation. Qualitative analyses indicate that the use of adequate teaching methods is critical towards training success. Overall, this dissertation makes an important contribution towards a better understanding of women entrepreneurs in sub-Saharan Africa and their promotion by shifting the perspective from a purely individualist to a more contextualized view of women entrepreneurship.

Zusammenfassung

Ein Drittel aller Unternehmen in Subsahara-Afrika wird von Frauen geführt. Diese weisen damit ein großes Potential auf, zur wirtschaftlichen und sozialen Entwicklung in der Region beizutragen. Im Vergleich zu Unternehmen von Männern sind Unternehmen von Frauen allerdings oft weniger profitabel, wachsen langsamer und generieren weniger Arbeitsplätze. Um Gründe für diese Differenz zu identifizieren und Unternehmerinnen effektiv zu unterstützen, haben große Teile der Entrepreneurship-Literatur Unternehmerinnen und Unternehmer in Bezug auf individuelle Merkmale verglichen, aber den zugrunde liegenden Rahmenbedingungen nur begrenzte Aufmerksamkeit gewidmet. Dies ist problematisch, da sich die Bedingungen, unter denen Unternehmerinnen und Unternehmer arbeiten, insbesondere in Subsahara Afrika stark voneinander unterscheiden.

Vor diesem Hintergrund ist das Ziel dieser Dissertation, durch die Untersuchung bedeutsamer Kontextfaktoren zu einem besseren Verständnis von weiblichem Unternehmertum in Subsahara-Afrika sowie seiner Förderung durch Training beizutragen. Konkret analysiere ich zwei Kontextfaktoren, welche die unternehmerische Leistung von Frauen und den Erfolg von Trainingsmaßnahmen maßgeblich beeinflussen: 1) die Rolle der Ehemänner von Unternehmerinnen sowie 2) die Rolle von Trainern und Trainerinnen in Unternehmertrainings. Meine Analysen berücksichtigen dabei die kulturellen, sozialen und wirtschaftlichen Bedingungen, unter denen Frauen in Subsahara-Afrika ihre Unternehmen führen.

In Kapitel 2 verfasse ich einen systematischen Überblick über die Literatur zu den Einflüssen des Ehepartners auf die unternehmerische Aktivität und Leistung von Unternehmern und Unternehmerinnen und stelle sechs wiederkehrende Arten von Einflüssen heraus. Um die größtenteils auf westlichen Gesellschaften beruhende Forschung zu ergänzen, erarbeite ich Vorschläge dazu, wie sich der Einfluss des Ehemanns in Subsahara-Afrika entfaltet. In Kapitel 3 stütze ich mich auf eine Kultur- und eine haushaltsökonomische Theorie, um ein theoretisches Modell zu entwickeln, das die positiven und negativen Einflüsse erklärt, die Ehemänner in Subsahara-Afrika auf Unternehmerinnen nehmen. Empirische Analysen zeigen drei Typen von Ehemännern auf, die sich in ihrem Einfluss auf den Geschäftserfolg von Unternehmerinnen signifikant voneinander unterscheiden. In Kapitel 4 nutze ich eine erfolglose Trainingsimplementierung, um den Einfluss von Trainern und Trainerinnen auf die Effektivität von Unternehmertrainings in Subsahara-Afrika zu

untersuchen. Qualitative Analysen deuten darauf hin, dass die Verwendung adäquater Lehrmethoden entscheidend für den Trainingserfolg ist.

Insgesamt leistet diese Dissertation einen wichtigen Beitrag zu einem besseren Verständnis von weiblichem Unternehmertum und seiner Förderung in Subsahara-Afrika, indem sie die Perspektive von einer rein individualistischen zu einer kontextualisierten Sichtweise verlagert.

Table of Contents

List of Tables

List of Figures

List of Appendices

1. General Introduction

1.1 The Importance of Women Entrepreneurship in Sub-Saharan Africa

Entrepreneurs are individuals who discover, evaluate, and exploit opportunities to create new products and services (Shane & Vekataraman, 2000). Without entrepreneurs, there would be low productivity growth, few new jobs, and little innovation around the globe (Audretsch & Thurik, 2001; Kritikos, 2014; van Praag & Versloot, 2007). In contrast to the masculine connotation of entrepreneurship (Ahl, 2006; Bruni, Gherardi, & Poggio, 2004; Gupta, Turban, & Bhawe, 2008), many entrepreneurs are women, particularly in sub-Saharan Africa. Recent data shows that sub-Saharan Africa is the region with the highest rates of female participation in entrepreneurship, with one third of businesses owned or partly owned by women (AfDB, OECD, & UNDP, 2017; Campos & Gassier, 2017; Kelley et al., 2017). Thus, women entrepreneurs constitute important drivers of economic development and societal well-being in this region (Brush & Cooper, 2012; Kelley et al., 2017; Minniti, 2010; Rindova, Barry, & Ketchen, 2009). Importantly, women entrepreneurs do not only contribute to the regions' development on a macro-economic level, but also play a crucial role in tackling poverty at the household level (AfDB, 2015; Minniti & Naudé, 2010). First, they increase and diversify household income (Nichter & Goldmark, 2009), making the household more resilient in case of unforeseen expenses or losses, for example due to a family member needing medical treatment or the husband losing his job. Second, they are more likely than men to invest their income in the well-being of their families and communities (Doss, 2013; Duflo, 2012; World Bank, 2011; Yoong, Rabinovich, & Diepeveen, 2012). Research has demonstrated, for example, that women's economic power is positively related to the share of expenditures for food and education and negatively related to expenditures for alcohol and tobacco (e.g. Doss, 2006; Fafchamps, Kebede, & Quisumbing, 2009; Hoddinott & Haddad, 1995; Quisumbing & Maluccio, 2000).

In the light of women entrepreneurs' positive impact on development, it is unfortunate that women entrepreneurs lag behind their male counterparts with regard to the performance of their businesses. Compared to male-owned businesses, women-owned businesses tend to make lower profits and sales, have fewer employees, and grow more slowly (Campos & Gassier, 2017; Klapper & Parker, 2010). This is not only true for sub-Saharan Africa, but also applies to middle- and high-income countries (cf. Jennings & Brush, 2013, for a detailed overview of studies documenting the difference). In search of explanations for the

performance gap between women- and men-owned businesses and suitable means to reduce it, large parts of the entrepreneurship literature have compared male and female entrepreneurs with regard to individual characteristics and looked into potential shortcomings of women entrepreneurs (Ahl, 2006; Dimov, 2007; Henry, Foss, & Ahl, 2016; Hughes, Jennings, Brush, Carter, & Welter, 2012). One stream of literature, for example, has investigated whether differences in risk perceptions, fear of failure, and self-confidence explain why women entrepreneurs tend to run smaller businesses than men (Brindley, 2005; Kelley, Brush, Greene, Litovsky, & GERA, 2013; Langowitz & Minniti, 2007; Watson & Newby, 2005; Watson & Robinson, 2003). Other scholars have argued that the performance gap is due to women entrepreneurs having lower growth aspirations (e.g. Cliff, 1998; Justo, DeTienne, & Sieger, 2015; Morris, Miyasaki, Watters, & Coombes, 2006), and choosing less profitable sectors than men (e.g. Anna, Chandler, Jansen, & Mero, 2000; Bardasi, Sabarwal, & Terrell, 2011; Kelley et al., 2017). Although this research has substantially advanced our understanding of women entrepreneurship, it pays limited attention to the underlying environmental conditions which might drive differences between male and female entrepreneurs (Campos & Gassier, 2017; Henry et al., 2016).

1.2 The Need to Contextualize Women Entrepreneurship in Sub-Saharan Africa

This dissertation builds on the conviction that women entrepreneurship in sub-Saharan Africa can be better understood and promoted when its context is taken into account (Welter, 2011; Zahra, Wright, & Abdelgawad, 2014). Context refers to the situational opportunities and constraints that directly or indirectly affect behavior (Johns, 2006). Scholars widely agree that context is multi-faceted and typically differentiate between context at a higher level, comprising a whole set of situational features with regard to the spatial, temporal, social, or institutional environment, and more specific context factors at a lower level. Importantly, context at the higher level (e.g. the political and legal system) influences behavior (e.g. women working outside the home) via context at a lower level (e.g. changes in the family law; Hallward-Driemeier & Gajigo, 2015) (Hackman, 2003; Johns, 2006; Welter, 2011).

Entrepreneurship scholars have repeatedly argued for the need to contextualize entrepreneurship in order to explain entrepreneurial activities and outcomes (Ahl, 2006; Brush, de Bruin, & Welter, 2009; de Bruin, Brush, & Welter, 2007; Welter, 2011; Zahra & Wright, 2011; Zahra et al., 2014) and research has demonstrated that context can be extremely powerful (e.g. Autio, Kenney, Mustar, Siegel, & Wright, 2014; Baughn, Chua, & Neupert,

2006; Bjørnskov & Foss, 2013; Bullough & Renko, 2017; Welter & Smallbone, 2003; Wennberg, Pathak, & Autio, 2013). The ways in which context can influence behaviors are manifold. Context can, for example, restrict the behavioral options, change the consequence of a behavior into its cause, or turn a positive into a negative influence (Johns, 2006). A study with Ugandan entrepreneurs, for instance, revealed that due to specific kinship ties in the entrepreneurs' community, the costs of kinship support outweighed its benefits, leading to an overall negative instead of positive effect of kinship support on entrepreneurs' business performance (Khayesi, George, & Antonakis, 2014).

To understand women entrepreneurship, the need to consider context factors is particularly high as women entrepreneurs usually operate under different conditions than men (Brush et al., 2009; Brush, Edelman, Manolova, & Welter, 2018). For example, women entrepreneurs rely to a higher degree on policies and programs for child care (D. R. Williams, 2004), have less access to financial and equity capital (Brush, Greene, Balachandra, & Davis, 2018; Coleman & Robb, 2009), or face stereotypes when entering high technology sectors (Marlow & McAdam, 2012). These conditions are shaped by the larger social, cultural, political, and economic environment, in which women entrepreneurs are embedded. In the case of sub-Saharan Africa, the differences between conditions for men and women are particularly pronounced (OECD, 2019). Despite recent improvements with regard to women's legal rights, for example, women entrepreneurs in sub-Saharan Africa still face discrimination before both statutory and customary law (AfDB, 2015; World Bank, 2019b), making it difficult for them to buy property and use it as collateral to obtain loans. Moreover, they often live under traditional belief systems that prescribe and restrict their role in the society (Boudet, Petesch, Turk, & Thumala, 2013; Campos & Gassier, 2017; OECD, 2019), affecting the time and energy they can devote to their business (Amine & Staub, 2009).

However, in spite of the impact of such conditions, research addressing the multiple and diverse contexts of entrepreneurship remains limited (Henry et al., 2016; Zahra & Wright, 2011). Seeking to identify generalizable relationships, entrepreneurship scholars still have the tendency to take context for granted or underestimate its influence on the outcomes and relationships of interest (Gartner, 1995; Henry et al., 2016; Welter, 2011). In many studies, information on context is missing (Zahra, 2007) or the influence of context is 'controlled away' rather than systematically assessed (Zahra & Wright, 2011; Zahra et al., 2014). These practices impede the development of a richer understanding of the entrepreneurial phenomenon under study and neglect that the recognition of contextual boundaries is crucial

to theory building (Whetten, 1989). With regard to women entrepreneurship, the omission of the conditions under which women entrepreneurs operate might lead to research that produces a distorted view of 'female (under)performance' and hampers the identification of effective means to promote women entrepreneurs.

1.3 Goal of This Dissertation

With this dissertation, I seek to contribute to a profound understanding of women entrepreneurship in sub-Saharan Africa and its promotion through training, by examining critical context factors. Specifically, I analyze two context factors at a lower level that influence women's entrepreneurial performance and the success of training interventions and that are of key theoretical and practical relevance: 1) women entrepreneurs' husbands and 2) the entrepreneurship trainer. These analyses are embedded in considerations of context at the higher level, as I take into account the cultural, social, and economic conditions women entrepreneurs in sub-Saharan Africa are facing. Overall, I thus seek to shift the perspective from a purely individualist to a more contextualized view of women entrepreneurship (Ahl, 2006; de Bruin et al., 2007; Heckman, Stixrud, & Urzua, 2005; Henry et al., 2016; Jennings & Brush, 2013). In line with the two context factors under study, this dissertation is structured in two parts.

In the first part (Chapter 2 and 3), I seek to investigate the role of women entrepreneurs' husbands. It is now widely acknowledged that entrepreneurial decisions, processes, and outcomes are embedded in the family system (Aldrich & Cliff, 2003; Dyer, Nenque, & Hill, 2014; Stafford, Duncan, Danes, & Winter, 1999). Scholars have argued that for women entrepreneurs, family factors are particularly influential as the domains of business and family are more intertwined than for men (Brush et al., 2009; Gudeta & van Engen, 2017; Jennings & Brush, 2013). In many sub-Saharan families, husbands play a unique role in that they are considered the head of the household and constitute the main decision maker (Boudet et al., 2013; OECD, 2019). As such, it is likely that they have a say in many decisions that affect the way women entrepreneurs run their business. The entrepreneurship literature has pointed out that husbands can have both positive and negative effects on women entrepreneurship (Danes, Matzek, & Werbel, 2010). However, little is known about how these effects unfold and interrelate in sub-Saharan Africa. Against this backdrop, I seek to develop a nuanced view of husbands' influence in sub-Saharan Africa by addressing the following question:

1) How do husbands influence women's entrepreneurial activity and business performance in the light of sub-Saharan Africa's cultural, social, and economic context?

In the second part (Chapter 4), I aim to examine how women entrepreneurs in sub-Saharan Africa can be successfully promoted through entrepreneurship training. More specifically, I seek to explore one context factor that might explain why entrepreneurs often do not benefit from entrepreneurship training (Cho & Honorati, 2014; Grimm & Paffhausen, 2015; McKenzie & Woodruff, 2014): the entrepreneurship trainer. In sub-Saharan Africa, many entrepreneurship trainings are provided by post-secondary education institutes (UNESCO, 2016b; World Bank, 2018a) which face large difficulties in ensuring teacher quality (African Union, 2007; Béteille & Evans, 2018; World Bank, 2018c). This bears the risk that teachers who deliver entrepreneurship training lack the required skills and knowledge to do so effectively. A delivery by potentially weak trainers may be problematic as the education literature has demonstrated that teachers have a powerful impact on student achievement (Hattie, 2008). Nevertheless, the entrepreneurship trainer has only received very limited attention by the entrepreneurship literature to date. Although it is likely that the entrepreneurship trainer affects the training success for both men and women in a similar manner, the exploration is of particular relevance for women entrepreneurs in sub-Saharan Africa as they are in higher need of external support structures to gain the knowledge, networks, and self-confidence, that are granted to men via other channels. Against this backdrop, I aim to provide insights that help to improve the effectiveness of women's entrepreneurial promotion by exploring the following question:

2) How do entrepreneurship trainers influence the effectiveness of entrepreneurship training in sub-Saharan Africa?

1.4 Outline of This Dissertation

Chapter 1 provides a general introduction to this dissertation. In Chapter 2, I seek to shed light on the spousal context of women entrepreneurship in sub-Saharan Africa. In a first step, I conduct a systematic literature review of spousal influence on entrepreneurial activity and performance. I find that spouses can have both positive and negative effects (Danes et al., 2010; Van Auken & Werbel, 2006) and identify six recurring types of influence. The literature review also reveals that existing research is largely based on samples of North

American and Western European entrepreneurs. I argue that the applicability of this research to women entrepreneurs in sub-Saharan Africa is problematic as the environments in which women entrepreneurs operate are fundamentally different (Webb, Pryor, & Kellermanns, 2015). In a second step, I therefore examine the implications of the identified influences for women entrepreneurs in sub-Saharan Africa, focusing on the resource-scarce entrepreneurial ecosystem, the patriarchal society, and the high degree of work-family integration that characterize this region. Specifically, I develop propositions on how these three critical context dimensions may directly and indirectly affect spousal influence on women entrepreneurship. Overall, my propositions suggest that husbands in sub-Saharan Africa may have more influence and that the impact of their influence on women's entrepreneurial activities and performance may be higher than in Western contexts. This way, the chapter provides important insights into husbands' role for women entrepreneurs operating in sub-Saharan Africa.

In Chapter 3, I address the need for a theoretical model of spousal influence in sub-Saharan Africa, which emerged from the literature review in Chapter 2. Specifically, I build on a cultural theory (Eagly & Wood, 2012; W. Wood & Eagly, 2002) and an economic theory of the household (Chiappori, 1988, 1992) to propose a theoretical model of husbands' influence in sub-Saharan Africa that consists of two dimensions: Husbands as constraints and husbands as resource providers for their wives' business. I further suggest that these two dimensions produce four distinct profiles of husbands' influence: The Opponents, the Copreneurs, the Regulators, and the Indifferent. I test these profiles empirically using a latent profile approach (Stanley, Kellermanns, & Zellweger, 2016; Wang & Hanges, 2011). The findings support three of the four postulated profiles and demonstrate that profiles are related to husbands' gender role beliefs and their contribution to the family income. They also indicate that women entrepreneurs run the most successful businesses when married to husbands who provide resources for the business, suggesting that husbands' positive function is stronger than expected from parts of the literature. Hence, this chapter sheds light on how different types of husbands influence women entrepreneurs' business success in sub-Saharan Africa.

In Chapter 4, I shift the focus from the family context to the context of entrepreneurship training. I use the example of personal initiative (PI) training, an action-oriented training for entrepreneurs (Frese, Gielnik, & Mensmann, 2016; Glaub, Frese, Fischer, & Hoppe, 2014), to shed light on whether and how trainers influence the

effectiveness of entrepreneurship training in sub-Saharan Africa. More specifically, I draw on a randomized controlled field experiment with 2.001 women entrepreneurs in Addis Ababa, Ethiopia, which revealed that PI training failed to increase women entrepreneurs' personal initiative and business success. Follow-up analyses suggest that women entrepreneurs trained by one particular trainer show higher personal initiative after the training than women entrepreneurs trained by other trainers. Using video data from the training, trainer interviews, and field observations, I examine qualitatively whether this trainer differs from the other trainers and explore the trainer behaviors and characteristics that might have contributed to this trainer's influence on participants' personal initiative. The findings indicate that s/he[1] differs from other trainers in his/her teaching behavior by making teaching and learning visible (Hattie, 2008) and ensuring the adequate development of participants' mindset of personal initiative (Mensmann & Frese, 2017). Thus, this chapter leads to a better understanding of the context factors that contribute to the effective promotion of women entrepreneurs in sub-Saharan Africa.

Chapter 5 concludes this dissertation. I discuss the Chapters 2, 3, and 4 and highlight the theoretical and practical implications of this dissertation.

[1] I use 's/he', 'his/her', and 'him/her' throughout this article to preserve the anonymity of all trainers.

2. Why Husbands Matter: Review of Spousal Influence on Women Entrepreneurship in Sub-Saharan Africa[2]

Abstract

This article is supposed to advance our understanding of successful women entrepreneurship in sub-Saharan Africa by examining how husbands contribute to women's entrepreneurial activity and performance. Little is known about husbands' influence in this region although sub-Saharan women entrepreneurs are deeply embedded in their families and important drivers of social and economic development. Based on a systematic literature review identifying six recurring types of supportive and constraining spousal influence, we[3] explore the implications for women entrepreneurship in sub-Saharan Africa. We argue that sub-Saharan Africa differs substantially from the context of previous research and derive propositions of how spousal influence is affected by resource-scarce entrepreneurial ecosystems, patriarchal societies, and work-family integration. Our propositions illustrate the importance of contextualizing spousal influence and highlight that husbands are critical stakeholders for women entrepreneurs in sub-Saharan Africa.

[2] This chapter has been published as: Wolf, K. & Frese, M. (2018). Why husbands matter: Review of spousal influence on women entrepreneurship in sub-Saharan Africa. *Africa Journal of Management*. https://doi.org/10.1080/23322373.2018.1428019

[3] I use the term 'we' throughout the Chapters 2, 3, and 4 because Michael Frese contributed as co-author to each of these chapters.

2.1 Introduction

Dawit is married to Hiwot who runs a small shop in Addis Ababa, the capital of Ethiopia. He considers himself a modern man and believes that a successful marriage is based on love and respect. In general, he endorses his wife's business activities. "I encourage her. I also show her how things are done. This way, she can take responsibility," he says. Thinking about what might help his wife to be a successful entrepreneur, he hesitates: "I don't know. Maybe giving her more time?" Dawit also appreciates that Hiwot contributes to the family income. At the same time, he emphasizes, "What I do not want, and what most men do not want, is for this money leaving her the power to dominate a man. She lives in my house and therefore has to act as inferior."

Like Hiwot, many women in sub-Saharan Africa run their own business. According to the latest Global Entrepreneurship Monitor, women entrepreneurship rates in sub-Saharan Africa are the highest in the world (Kelley et al., 2017), with women being twice as likely to start a business than elsewhere (AfDB et al., 2017). Like Dawit, many men in sub-Saharan Africa are, in one way or another, involved in their wives' businesses and have hopes, ideas, and concerns related to their wives' entrepreneurial activities. Nevertheless, little is known about spousal attitudes, expectations, and behaviors regarding women entrepreneurship in sub-Saharan Africa to date. This gap needs to be addressed for the following reasons.

First, women entrepreneurs are important drivers of economic development, particularly in less developed regions of the world (Brush & Cooper, 2012; Kelley et al., 2017; Minniti, 2010). In addition, they do not only increase and diversify household income (Nichter & Goldmark, 2009), but they are also more likely than men to invest in the well-being of their families and communities (Doss, 2013; Duflo, 2012; Yoong et al., 2012). Research has demonstrated that women's economic power is related to the height for weight index of girls in South Africa (Duflo, 2003), expenditures on food and education in Ghana (Doss, 2006), and child nutrition in Ethiopia (Fafchamps et al., 2009). Thus, promoting women entrepreneurship may contribute to poverty alleviation in sub-Saharan Africa (Bruton, Ketchen Jr., & Ireland, 2013; Minniti, 2010).

However, we still lack comprehensive knowledge on why women entrepreneurs, compared to their male counterparts, lag behind in entrepreneurial activity and performance (Amin, 2010; Kelley et al., 2017; Minniti & Naudé, 2010). Experts have estimated that closing the gender gap in agricultural productivity, for example, would result in a 100 million US Dollar increase in total gross domestic product (GDP) in Malawi, a 105 million US Dollar

increase in Tanzania, and a 67 million US Dollar increase in Uganda (UN Women, UNDP, UNEP, & World Bank, 2015). Traditionally, entrepreneurship research has looked at individual factors to explain gender differences (Ahl, 2006; Dimov, 2007; Hughes et al., 2012), suggesting that women entrepreneurs lack business skills (Kelley, Brush, Greene, Litovsky, & GERA, 2013), are less competitive and more risk-averse (Berge, Bjorvatn, & Tungodden, 2015; Croson & Gneezy, 2009; Fletschner, Anderson, & Cullen, 2010), or do not aim to grow their businesses to the same extent as men (Justo et al., 2015; Morris et al., 2006). Although these insights are useful, this body of literature has neglected factors that go beyond individual characteristics (Dimov, 2007). Only recently, entrepreneurship scholars have started to address this bias by investigating how entrepreneurial processes, decisions, and outcomes are affected by family (Aldrich & Cliff, 2003; Dyer et al., 2014; Stafford et al., 1999; Steier, 2009b). Women entrepreneurship scholars have asserted that for women entrepreneurs, family-related factors are even more relevant than for men (Brush et al., 2009; Jennings & Brush, 2013).

In regions such as sub-Saharan Africa, where formal institutions are often weak or dysfunctional (AfDB et al., 2017; Webb et al., 2015), women entrepreneurs may be even more likely to turn to their families for support than elsewhere. Examples for formal institutional voids are poorly developed infrastructures, insufficient capital and labor markets, or inefficient laws and regulations. In these contexts, family constitutes a valuable alternative since it offers the trust, solidarity, and resources that formal institutions fail to provide (Khavul, Bruton, & Wood, 2009; Webb et al., 2015). Family members may, for example, help out when entrepreneurs struggle to find skilled labor, rely on an advance to launch a new product, or need a ride to the market. Accordingly, the family plays a critical role in creating an enabling environment for women entrepreneurs in sub-Saharan Africa (Amine & Staub, 2009).

With this literature review, we seek to highlight the importance and function of women entrepreneurs' familial context in sub-Saharan Africa. More specifically, we aim to take stock of the current state of research and its relevance to the sub-Saharan context regarding the most influential member of the nuclear family: women entrepreneurs' husbands. Husbands are key stakeholders in women entrepreneurs' businesses due to the economic bonds of marriage and the joint responsibility for the family (Heck et al., 2006; Jang & Danes, 2013). As the initial case of Dawit and Hiwot indicates, husbands may influence their wives' entrepreneurial activity and performance in both positive (e.g. by sharing know-how) and

negative ways (e.g. by expecting subordination). To shed light on spousal influence on women in entrepreneurship in sub-Saharan Africa, we address the following two questions: What do we know about spousal influence on entrepreneurial activity and performance to date? And what are the implications for spousal influence on women entrepreneurship in sub-Saharan Africa?

To answer these questions, we proceed as follows. In a first step, we conduct a systematic literature review of spousal influence on entrepreneurial activity and performance and identify recurring types of influence. This review is based on the entrepreneurship literature that predominantly results from research conducted in North America and Western Europe. In a second step, we apply a context lens (Welter, 2011) to examine the implications of these finding for women entrepreneurship in sub-Saharan Africa. We argue that spousal influence on women's entrepreneurial activity and performance deviates from what we know based on previous findings due to the spatial, institutional, and social context in which sub-Saharan women entrepreneurs operate. Against this backdrop, we derive propositions for spousal influence on women entrepreneurship in sub-Saharan Africa.

2.2 Literature Review

2.2.1 Procedure of Literature Review

We conducted a systematic literature review to get a thorough overview of the current state of research on spousal influence in entrepreneurship. We searched for articles in the leading entrepreneurship and management journals (Journal of Business Venturing; Entrepreneurship Theory and Practice; Journal of Small Business Management; Small Business Economics; all Academy of Management Journals) including management journals focusing on our target region sub-Saharan Africa (Africa Journal of Management). Since this review's topic is at the interface of entrepreneurship and family, we also incorporated the main family business journal (Family Business Review). Within these journals, we searched for articles that included one of the following terms: 'spous*', 'husband*', 'wife', or 'wives'. For the management journals, we used these terms in conjunction with 'entrepreneur*'. We decided against specifying spousal influence any further (e.g. by using the term 'support') to capture all relevant articles and go beyond the types of influences we had possibly in mind. Book reviews, editors' notes, conference abstracts, and interviews were not taken into account. This search yielded 920 articles published between 1980 and 2017.

We scanned the abstracts of all 920 articles to identify relevant articles. We included articles in our review that addressed direct or indirect influences from spouses or family on entrepreneurial activity or performance, irrespectively of entrepreneurs' and spouses' gender and the stage of the entrepreneurial process (Baron, 2007). We excluded articles that explicitly referred to other types of family influence such as father-son relationships. Applying these strategies resulted in 42 articles (cf. Table 2.1).

2.2.2 Results of Literature Review

Table 2.1 displays the 42 articles that form the basis for our literature review. Figure 2.1 illustrates the six different types of spousal influence on entrepreneurial activity and performance that recurred in the literature.

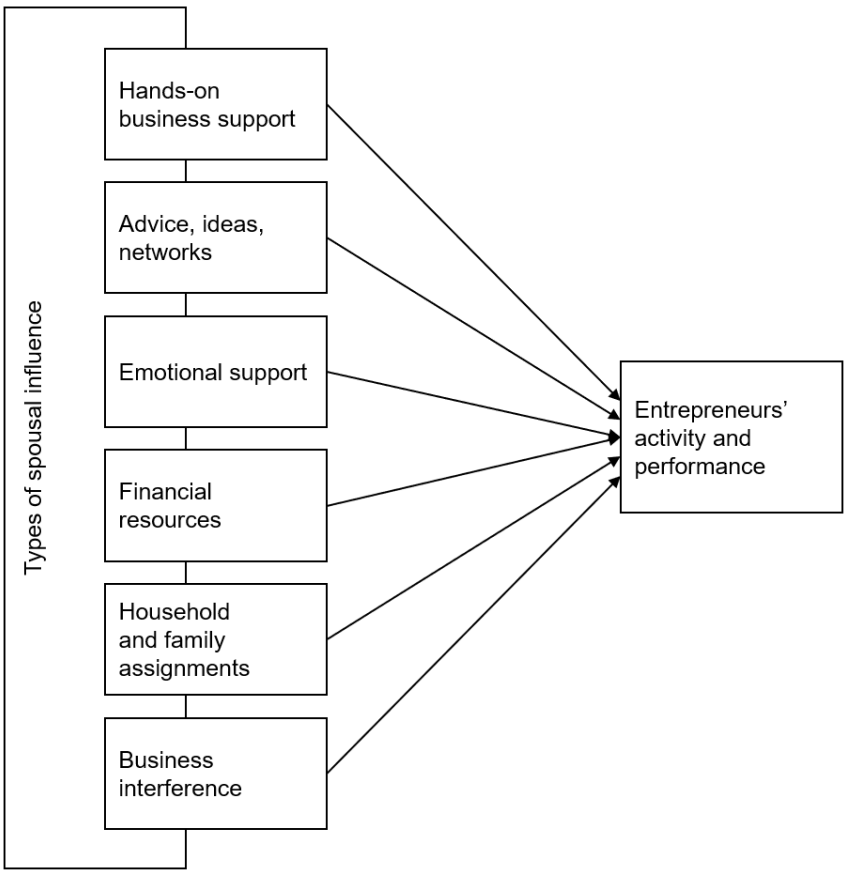


Figure 2.1. Different types of spousal influence based on the literature review.

Table 2.1. Results of the literature review on spousal influence in entrepreneurship.

Study	Journal	Type of article	Region	Types of spousal influence
Anderson, Jack, & Drakopoulou Dodd, 2005	FBR	Empirical (quantitative and qualitative)	Scotland	Advice, ideas, networks; Financial resources
Au & Kwong Kwan, 2009	ETP	Empirical (quantitative)	China	Interference
Beach, 1993	FBR	Empirical (qualitative)	USA	Hands-on business support; Household and family assignments
Bird & Wennberg, 2016	JBV	Empirical (quantitative)	Sweden	Hands-on business support; Advice, ideas, networks; Financial resources
Brown, Farrel, & Sessions, 2006	SBE	Empirical (quantitative)	Great Britain	Advice, ideas, networks
Bruce, 1999	SBE	Empirical (quantitative)	USA	Advice, ideas, networks
Brüderl & Preisendörfer, 1998	SBE	Empirical (quantitative)	Germany	Hands-on business support; Emotional support
Carr, Cole, Kirk Ring, & Blettner, 2011	ETP	Empirical (quantitative)	USA	Hands-on business support; Advice, ideas, networks
Danes & Olson, 2003	FBR	Empirical (quantitative)	USA	Hands-on business support; Interference
Danes, Rueter, Kwon, & Doherty, 2002	FBR	Empirical (quantitative)	USA	Interference
Davis & Harveston, 2001	JSBM	Empirical (quantitative)	USA	Interference
Dyer & Mortenson, 2005	FBR	Empirical (qualitative)	Lithuania	Hands-on business support
Dyer, 2006	FBR	Conceptual		Advice, ideas, networks; Financial resources; Interference
Dyer, Dyer, & Gardner, 2012	FBR	Empirical (quantitative)	USA	Hands-on business support
Dyer, Nenque, & Hill, 2014	JSBM	Conceptual and empirical (quantitative)	USA	Advice, ideas, networks; Financial resources
Eddleston & Powell, 2012	ETP	Empirical (quantitative)	USA	Household and family assignments

Table 2.1. Continued.

Study	Journal	Type of article	Region	Types of spousal influence
Gras & Nason, 2015	JBV	Empirical (quantitative)	India	Advice, ideas, networks
Henley, 2004	SBE	Empirical (quantitative)	UK	Financial resources
Hormiga, Batista-Canino, & Sánchez-Medina, 2011	JSBM	Empirical (quantitative)	Portugal, Spain	Hands-on business support; Emotional support
Hsu, Wiklund, Anderson, & Coffey, 2016	JBV	Empirical (quantitative)	USA	Household and family assignments
Jennings & McDougald, 2007	AMJ	Conceptual		Hands-on business support; Household and family assignments
Khavul, Bruton, & Wood, 2009	ETP	Empirical (qualitative)	Kenya, Uganda	Interference
Khayesi, George, & Antonakis, 2014	ETP	Empirical (quantitative)	Uganda	Financial resources
Lin, Picot, & Comtpon, 2000	SBE	Empirical (quantitative)	Canada	Advice, ideas, networks; Financial resources
Miller, Steier, & Le Breton-Miller, 2016	ETP	Conceptual		Advice, ideas, networks; Financial resources
Özcan, 2011	SBE	Empirical (quantitative)	USA	Advice, ideas, networks
Patrick, Stephens, & Weinstein, 2016	SBE	Empirical (quantitative)	USA	Household and family assignments
Pistrui, Welsch, & Roberts, 1997	FBR	Empirical (quantitative)	Romania	Advice, ideas, networks; Financial resources
Powell & Eddleston, 2013	JBV	Empirical (quantitative)	USA	Hands-on business support; Emotional support
Powell & Eddleston, 2016	JSBM	Empirical (quantitative)	USA	Hands-on business support; Emotional support; Household and family assignments
Rodriguez, Tuggle, & Hackett, 2009	FBR	Empirical (quantitative)	USA	Advice, ideas, networks; Financial resources
Shabbir & Di Gregorio, 1996	JBV	Empirical (qualitative)	Pakistan	Hands-on business support
Sharma, 2004	FBR	Review		Interference

Table 2.1. Continued.

Study	Journal	Type of article	Region	Types of spousal influence
Sieger & Minola, 2017	JSBM	Empirical (quantitative)	multiple[a]	Financial resources
Sorenson & Bierman, 2009	FBR	Intro to Special Issue		Hands-on business support; Advice, ideas, networks; Financial resources
Sorenson, 1999	FBR	Empirical (quantitative)	USA	Interference
Sorenson, Goodpaster, Hedberg, & Yu, 2009	FBR	Empirical (quantitative)	USA	Advice, ideas, networks
Thébaud, 2016	ETP	Empirical (quantitative)	USA	Household and family assignments
Van Auken & Werbel, 2006	FBR	Conceptual		Hands-on business support; Emotional support; Household and family assignments; Interference
Webb, Pryor, & Kellermanns, 2015	AJOM	Conceptual		Advice, ideas, networks
Welsh, Memili, Kaciak, & Ochi, 2014	JSBM	Empirical (quantitative)	Japan	Emotional support; Financial resources
Williams, 2004	ETP	Empirical (quantitative)	multiple[b]	Household and family assignments

Note. FBR = Family Business Review; ETP = Entrepreneurship Theory and Practice; JBV = Journal of Business Venturing; SBE = Small Business Economics; JSBM = Journal of Small Business Management; AMJ = Academy of Management Journal; AJOM = Africa Journal of Management.
[a] Argentina, Austria, Brazil, China, Finland, France, Germany, Greece, Hungary, Ireland, Japan, Mexico, the Netherlands, Portugal, Russia, Singapore, South Africa, Switzerland, United Kingdom. [b] Belgium, Denmark, France, Greece, Ireland, Italy, Portugal, Spain.

Spouses may provide hands-on business support. One way in which spouses influence entrepreneurial activity and performance is by providing hands-on business support. Spouses may assume a formal role in the business, adopt certain responsibilities on a regular basis, or help out when the business gets particularly demanding. Based on qualitative interviews with home-based businesses, Beach (1993) highlighted the important role of spouses as providers of practical business support. The author found that spouses contributed considerably to sustaining both family and business life, regardless of whether they were male or female. Dyer and Mortensen (2005) suggested that family members' willingness to spend long hours in the business was related to business effectiveness.

Sorenson and Bierman (2009) conceptualized spousal support as type of social family capital and emphasized its unique value based on its intangible and inimitable character. Building on the network approach to entrepreneurship, Brüderl and Preisendörfer (1998) found that active support from spouses or life-partners, referred to as strong ties, was more important with regard to the survival and growth of new businesses than support from weak ties. Bird and Wennberg's (2016) results indicated that immigrant entrepreneurs relied on active support from family members. A study by Carr, Cole, Ring, and Blettner (2011) revealed that family support was a more important predictor of business performance than their newly developed measure of internal social capital. Hormiga, Batista-Canino, and Sánchez-Medina (2011) also provided empirical evidence for the positive effect of practical help from close relations on business success.[4] The authors suggested that support from family members in the start-up phase might be able to compensate for financial constraints.

Other studies have drawn on the main-effect model of social support theories (Cohen & Wills, 1985; Uchino, 2009) to argue for a positive effect of spousal support on entrepreneurial outcomes (Powell & Eddleston, 2013, 2016). These studies suggest that hands-on support does not only buffer negative effects, for example resulting from work-family conflict (Jennings & McDougald, 2007), but also directly relates to positive outcomes. In line with that reasoning, Van Auken and Werbel's (2006) conceptual model proposed that spousal commitment leads to practical support which in turn facilitates financial business performance. Based on a sample of 253 owners of small and medium-sized enterprises, Powell and Eddleston (2013) provided partial support for the main-effect model. Importantly, their findings pointed to the possibility of differential effects for women and men by showing

[4] Since the authors use a measure that incorporates both practical and emotional business support, the findings cannot be clearly attributed to practical support.

that practical business support was positively related to economic business performance for female but not for male entrepreneurs. However, the authors could not find evidence for corresponding gender differences in a subsequent sample (Powell & Eddleston, 2016).

Only one of the reviewed articles focusing on practical support investigated women entrepreneurs in developing countries: Shabbir and Di Gregorio (1996) developed a framework of the goals, advantages, and constraints faced by women entrepreneurs in Pakistan. Based on qualitative interviews, they concluded that family and husband support were key structural factors determining the success of women's start-up endeavors.

Overall, both conceptual and empirical work suggest that spouses' practical support is positively related to entrepreneurial activity and performance. However, Dyer, Dyer, and Gardner (2012) found no effect of spousal support on business performance. The authors proposed that entrepreneurs might not have been open for spousal advice and spouses might have lacked the required education and skills to provide effective support. Other research indicated that hands-on support in the business could also lead to negative effects. Danes and Olson (2003) showed that couples were likely to face tensions when wives worked in men-owned businesses. High tensions, in turn, impeded business success (Danes & Olson, 2003).

Spouses may give advice, contribute ideas, and share their networks. Conceptual articles included in this review suggest that spouses' or other family members' expertise and experience can be important assets when made available to entrepreneurs (Dyer, 2006; Dyer et al., 2014; Miller et al., 2016; Sorenson & Bierman, 2009). One way in which spouses can do so is by granting entrepreneurs access to their networks. Miller and colleagues (2016) suggested, for example, that individuals would be more likely to share their contacts with family members than with people outside the family due to trustful family relationships. Rodriguez, Tuggle, and Hackett (2009) argued that the positive effect of a married head of the household on new venture creation was due to an extended family network.

A second way in which spouses' expertise and experience can contribute to entrepreneurs' performance is through advice or ideas (Webb et al., 2015). Carr et al. (2011) studied this type of influence by measuring the extent to which family members share information with each other. Pistrui, Welsch, and Roberts (1997) showed that Romanian entrepreneurs relied heavily on spouses for advice. Scottish entrepreneurs studied by A. R. Anderson, Jack, and Dodd (2005) expressed the value of professional advice from family members. Sorenson, Goodpaster, Hedberg, and Yu (2009) demonstrated that families who engaged in open and collaborative dialogue and joint problem solving were successful in

establishing family norms, cultivating family social capital, and increasing business performance. Gras and Nason (2015) argued for the existence of spillover benefits of business experience within Indian households based on a positive influence of the share of family members occupied in the same sector as the focal business. Özcan (2011) provided partial support for the spillover of entrepreneurial experience and education among couples in the United States. The study revealed that spouses' entrepreneurial experience increased only women's but not men's likelihood of starting a business. In contrast, spouses' educational background influenced men's but not women's start-up behavior. In line with Özcan (2011), Bruce (1999) showed that women were more likely to enter into entrepreneurship when their spouses had been entrepreneurs in prior years. A study by Lin, Picot, and Compton (2000) found the same tendency for both men and women and Brown, Farrel, and Sessions (2006) suggested that high degrees of employment type matching in the case of self-employment were motivated by transfers of specialized human capital. On the other hand, Bird and Wennberg (2016) and Rodriguez and colleagues (2009) found no indication that entrepreneurs benefitted significantly from their family members' or spouses' formal education. Altogether, these studies suggest that spousal expertise, experience, and networks have the potential to benefit their partners' entrepreneurial activity and performance but might depend on additional criteria, such as the quality of the advice or entrepreneurs' responsiveness. Furthermore, it is important to note that most of the reviewed studies only assume, but do not examine, the spillover mechanisms underlying the hypothesized effects between spouses' experience or expertise and entrepreneurial outcomes. We will discuss the implications of this observation in more detail below.

Spouses may offer emotional support. Beyond practical assistance and counseling, spouses may support entrepreneurs emotionally. Emotional support refers to behaviors that express "encouragement, understanding, attention, and positive regard" (Powell & Eddleston, 2013, p. 265; 2016, p. 3). These behaviors have the potential to boost entrepreneurs' self-confidence and self-efficacy (Van Auken & Werbel, 2006). Although the reviewed studies highlight the relevance of emotional support, they provide only limited insights towards its impact on entrepreneurial activity and performance since they tend to mix measures of emotional support with other types of support (e.g. Brüderl & Preisendörfer, 1998; Hormiga et al., 2011; Powell & Eddleston, 2013; Welsh, Memili, Kaciak, & Ochi, 2014). While certain forms of support may go hand in hand, empirical research pointed out that it might be worthwhile to separate different support behaviors by showing that emotional support was related to strategic planning and entrepreneurial success, whereas more practical support for

the business was associated with entrepreneurs' commitment as business owner and satisfaction with business success (Powell & Eddleston, 2016).

Spouses may provide financial resources. There is agreement in the reviewed literature that financial resources provided by family members may constitute an important competitive advantage for entrepreneurs. Family financial resources can be relatively easily mobilized (Miller et al., 2016; Sorenson & Bierman, 2009) and can serve as a safety net in times of economic instability or after failures (Dyer, 2006; Dyer et al., 2014). Rodriguez and colleagues (2009) provided empirical support for the positive effect of family financial resources by showing that household wealth was strongly related to business creation. The authors suggested that differences in wealth also accounted for gaps in entrepreneurial activity among different ethnic groups. Further research pointed to the importance of financial family support in the start-up phase (A. R. Anderson et al., 2005; Pistrui et al., 1997). Bird and Wennberg (2016) showed that financial family resources increased immigrant entrepreneurs' likelihood to survive as entrepreneurs compared to exiting to unemployment. Importantly, spouses' financial resources might stimulate entrepreneurial activity even when they are not directly invested in the businesses. Scholars argued that the financial security resulting from a spouse who earns a steady household income explained why entrepreneurs were less likely to quit (Lin et al., 2000) and women more likely to start a business (Henley, 2004).

In contrast to the predominantly positive evidence, Dyer (2006) also pointed to the risks associated with family involvement in entrepreneurs' finances. He argued that family members might not only provide financial support for the business but also demand financial resources *from* the business to meet family needs. Khayesi, George, and Antonakis (2014) showed that entrepreneurs' family network size in Uganda was related to obtained resources but also implied costs with the latter being particularly detrimental to business performance. Based on a sample of Japanese women entrepreneurs, Welsh et al. (2014) suggested that family members' provision of financial support might increase family expectations and interference.[5] Similarly, Sieger and Minola (2017) claimed that financial support from the family might implicate economic and non-economic obligations, thereby reducing entrepreneurial intentions. Their cross-cultural analysis provided support for this reasoning, revealing a negative relationship between the availability of financial family support and entrepreneurial intentions (Sieger & Minola, 2017). However, since the authors used a sample of students, the negative relationship between family financial support and entrepreneurial

[5] Since the authors use a measure that incorporates both financial and moral business support, the findings cannot be clearly attributed to financial support.

intentions might predominantly apply to the parent-child relationship and might not be generalizable to spouses. We will revisit the diversity of family influence below.

Spouses may assign household and family tasks to entrepreneurs. The way in which household and family tasks are distributed between spouses has an important impact on entrepreneurs' activity and performance. Whereas the extent of household and family responsibilities may push spouses, particularly women, into entrepreneurship in the first place (Patrick et al., 2016; Thébaud, 2016), it can have constraining effects on their entrepreneurial performance. Cross-cultural research showed that the time spent for child care decreased the lifespan of businesses for both men and women (D. R. Williams, 2004). Other research revealed that time and energy demands of family life increased exit intentions of entrepreneurs, particularly for married women (Hsu et al., 2016). The reviewed literature points out that spouses who require their partners to do the majority of household and child care activities may increase the potential of work-family conflict and restrict their partners' chances to successfully run the business (Jennings & McDougald, 2007; Van Auken & Werbel, 2006). Van Auken and Werbel (2006) suggested that men were particularly likely to pass family time demands to their spouses. By implication, spouses who ease the burden of entrepreneurs' household and family duties increase spouses' satisfaction with work-family balance (Eddleston & Powell, 2012) and enable their partners to invest more time and energy in the business (Beach, 1993) which might in turn increase business success. Powell and Eddleston (2016) found support for this notion, showing that family support at home did not only have a positive effect on entrepreneurs' satisfaction with the business but also on business performance.

Spouses may interfere in the business. Spouses' involvement in the business can create a sense of common understanding, lead to spousal commitment, and help to align business and family goals (Van Auken & Werbel, 2006). However, the existence of multiple decision makers is typically linked to conflict (Van Auken & Werbel, 2006). The reviewed literature provides some support for this reasoning, showing that wives' involvement as major decision maker in men-owned farm businesses increased tensions regarding role clarity and decision authority (Danes & Olson, 2003). Similarly, a study by Davis and Harveston (2001) illustrated the conflict potential of family members being involved in business-related decision-making but not in daily operations. In addition, the authors found that close interactions between those family members involved in the business increased the extent of conflict, suggesting that the likelihood of severe conflict between spouses might be

particularly high (Davis & Harveston, 2001). Other research pointed out that family members might not only demand a say in important business decisions but also draw on physical business assets for family use (Dyer, 2006). A study with Chinese entrepreneurs indicated that entrepreneurs who feared that spouses would interfere in the business and evoke conflict tended to seek start-up capital outside the family (Au & Kwan, 2009). Similarly, Khavul and colleagues (2009) showed that East African entrepreneurs were inclined to partner with non-family members to counterbalance the obligations resulting from the involvement of close family members. Their findings also revealed that women entrepreneurs were more likely than men to rely on community ties to prevent family members from interference.

If interference results in conflict, this is problematic in that conflict, as suggested by the reviewed literature, detracts attention and energy from entrepreneurial activities and threatens business success (Sharma, 2004; Van Auken & Werbel, 2006). However, whether or not conflict eventually impedes entrepreneurial performance also depends on how conflict is managed. Danes, Rueter, Kwon, and Doherty (2002) showed that farm business couples' mutual involvement in financial decision-making led to more collaborative conflict management in situations of disagreements. Collaborative conflict management is characterized by a team-oriented, cooperative, and rational approach towards the joint resolution of conflict (Sorenson, 1999). In contrast to strategies that are more competitive, manipulative, or avoiding in nature, collaborative conflict management has been shown to be associated with business success (Danes et al., 2002; Sorenson, 1999).

2.2.3 Taking Stock: What Do We Know About Spousal Influence on Entrepreneurial Activity and Performance to Date?

We conducted a systematic literature review to take stock of the current state of research with respect to spouses' role in entrepreneurship. The literature review demonstrates that spouses influence entrepreneurial activity and performance in numerous ways. Particularly, the literature review suggests that spouses can be resources as well as constraints. This finding is in line with previous research postulating the existence of both enabling and constraining spousal resources (Danes et al., 2010; Van Auken & Werbel, 2006). Spouses who provide practical support, share advice or ideas, expand entrepreneurs' networks, encourage and comfort their partners in difficult times, or help out with financial resources may exert a mainly positive influence on entrepreneurial outcomes. At the same time, spouses who burden their partners with domestic responsibilities or interfere in their businesses, for example by controlling business decisions or drawing on business resources, may have a

mainly negative influence on entrepreneurial outcomes. However, the literature review has also illustrated that seemingly positive influences can turn out detrimental under certain conditions (Dyer, 2006). Khavul et al. (2009), for example, have shown that drawing on principally valuable family resources bore the risk of family obligations that threatened the business success of East African entrepreneurs. As a result, we caution against a simplified conception of spousal influence and encourage scholars to carefully examine under which conditions certain assets turn into liabilities and vice versa (Dyer, 2006).

The purpose of this literature review was also to identify existing knowledge gaps. Overall, the review discloses that the share of relevant studies is only a small fraction of the literature (4.6 %). In addition, a large part of the presented studies relies on some problematic assumptions. First, many studies assume that the effects under investigation apply to all types of family relationships, regardless of whether the relationship involves parents and children, siblings, or spouses. This is questionable since the dynamics between spouses are likely to differ from those between parents and children, for example due to different degrees of dependency or the relationship's voluntariness. Although we tried to restrict our review to studies for which we considered it possible that the described family influence includes spouses, the review entails studies that remain vague in this regard. We noted earlier that Sieger and Minola (2017) revealed a negative relationship between entrepreneurial intentions of a student sample and the availability of family resources. These findings might not be replicable in a sample of spouses. We suggest that future research acknowledges the uniqueness of certain family relationships and explicitly draws distinctions between them. A positive example in this regard is the work by Danes and Olson (2003) which acknowledges the particularities of gender roles in business-owning couples.

Second, many studies theorize about effects of family *processes* and resource *transactions* while measuring effects of structural family *characteristics* and *stocks* of resources. However, the availability of certain family resources says only little about whether, how, and under which conditions resources are actually shared between family members (Danes et al., 2010). Similarly, structural family characteristics, such as marital status or husbands' self-employment status, do not automatically imply that spouses' experience or expertise is made available to entrepreneurs. Unfortunately, these assumptions are rarely tested or discussed.

Third, many studies implicitly suggest that spousal influence on entrepreneurship is a universal phenomenon, independent from the context in which both entrepreneurs and

spouses are embedded. This assumption underestimates the influence of context and neglects that context sets boundaries for theoretical generalizations (Baumol, 1990; Welter, 2011; Whetten, 1989; Zahra, 2007). In fact, the reviewed literature is largely based on samples of North American and Western European entrepreneurs and little is known about spousal influence on entrepreneurship in other parts of the world (cf. Table 2.1). This is worrisome since entrepreneurs in less developed regions like sub-Saharan Africa operate in vastly different economic, social, and cultural environments, which are likely to influence spousal dynamics in entrepreneurship. We address this limitation in the next section.

2.3 Implications for Women Entrepreneurship in Sub-Saharan Africa

This review is motivated by the necessity to take into account spousal influence on women entrepreneurship to gain a better understanding of the factors that may promote or hamper women's entrepreneurial activity and performance in sub-Saharan Africa. While the literature review identified different types of spousal influence and shed light on their effects on entrepreneurial outcomes, it also revealed that these effects have been largely observed in North American and Western European settings. We use a context lens to argue that entrepreneurs in North America or Western Europe operate in environments that are fundamentally different from those in less developed regions, such as sub-Saharan Africa (Webb et al., 2015). In addition, research has shown that families matter in entrepreneurship, but that they do so in different ways depending on the institutional context in which they are embedded (Steier, 2009a). A context lens considers the situational and temporal opportunities and boundaries of entrepreneurship rather than taking context for granted (Welter, 2011). In line with such a lens, we suggest that the literature review's findings might be only partially applicable to women entrepreneurship in sub-Saharan Africa (Zoogah, Peng, & Woldu, 2015).

To address this discrepancy, we aim to contextualize the findings of our literature review. For this purpose, we build on the 'where' dimension of context to develop propositions concerning how the spatial, institutional, and social sub-Saharan context may directly and indirectly affect spousal influence on women entrepreneurship (Welter, 2011; Whetten, 1989, 2009). More specifically, we focus on resource-scarce entrepreneurial ecosystems (spatial context), patriarchal societies (institutional context), and work-family integration (social context) since these contexts distinguish sub-Saharan women entrepreneurs from the mainstream entrepreneur addressed by large parts of the reviewed literature. We relate these context dimensions to the types of spousal influence identified in the literature

(cf. Table 2.2). In line with Welter (2011), we acknowledge that contexts can have both stimulating and inhibitory effects.

2.3.1 Resource-Scarce Entrepreneurial Ecosystems

Entrepreneurs in sub-Saharan Africa, whether male or female, typically operate in less favorable environments than entrepreneurs in North America or Western Europe (Diomande, 1990; GERA, 2017). Public and private institutions often do not function as they are supposed to, the infrastructure is less developed, the macroeconomic environment tends to be unstable, and health care and basic education are frequently missing or of low quality (AfDB et al., 2017; World Economic Forum, 2017a).

One of the largest barriers to entrepreneurs operating in the sub-Saharan region is the availability of and access to financial resources (Beck & Cull, 2014; Klapper & Singer, 2015). Many entrepreneurs struggle to obtain sufficient capital to start or develop their businesses regardless of whether they have identified promising opportunities (Chliova, Brinckmann, & Rosenbusch, 2015). Even if these resources are principally available, the corresponding conditions, particularly the required collateral, might make it impossible for many entrepreneurs to gain access to the financial products they need (Herrington & Kelley, 2013). As a consequence, entrepreneurs rely heavily on personal savings or the financial resources of family and friends (Daniels, Herrington, & Kew, 2016; Steier, 2003).

A second key constraint of the entrepreneurial ecosystem in sub-Saharan Africa is the lack of basic education and training (AfDB, OECD, & UNDP, 2016; Herrington & Kelley, 2013). Only 23 % of adolescents in sub-Saharan Africa complete upper secondary education and even for those enrolled, learning outcomes are often poor due to high pupil-teacher ratios and untrained teachers (UNESCO, 2015, 2016a).

In addition, few education systems offer entrepreneurship education or encourage behavior critical for successful entrepreneurs, for example creative thinking or personal initiative (Frese, 2007; GERA, 2017; Herrington & Kelley, 2013; Sarooghi, Libaers, & Burkemper, 2015).[6] Despite an increasing number of initiatives to promote entrepreneurship at a later stage (World Bank, 2018a), only a small share of entrepreneurs, particularly in rural areas, will benefit from such opportunities in the course of their entrepreneurial career. As a consequence, most entrepreneurs lack basic education, an entrepreneurial mindset, and professional support structures when entering into entrepreneurship. In many cases,

[6] A notable exception is the ‘Educate!’ model in Uganda and Rwanda that integrates entrepreneurship-focused education in the curriculum for 16 to 18 year-old students (“Educate!,” 2017).

individuals are pushed into entrepreneurship without any relevant expertise or experience (GERA, 2017). At the same time, low-quality educational systems fail to develop a skilled labor force, making it difficult for entrepreneurs to find suitable employees (AfDB et al., 2017).

In the light of the importance of financial and human capital for successful entrepreneurship (Alvarez & Barney, 2014) and the few resources available (Khavul et al., 2009), spousal support should be particularly valuable to entrepreneurs in sub-Saharan Africa (Webb, Bruton, Tihanyi, & Ireland, 2013). If skilled and reliable labor is unavailable, hands-on support from spouses is critical to keep the business up and running. Spouses may help to build equipment, take care of orders, or negotiate with suppliers. They may also assist when daily operations get very demanding.

In addition, spouses' expertise and experience take on greater significance when entrepreneurs' human capital is low. Spouses who give advice encourage entrepreneurial learning, particularly when they provide feedback that is task-related (Kluger & DeNisi, 1996) and actionable (Cannon & Witherspoon, 2005). This way, spouses help to correct entrepreneurial behavior and contribute to improved performance (Locke & Latham, 1990). Spouses might also provide additional ideas, helping entrepreneurs to stay ahead of their competitors, or come up with creative problem-solving strategies when needed. Jamali (2009) observed that many entrepreneurs in developing countries searched for opportunities with their spouses. Other studies have shown that knowledge and idea sharing increases idea generation when individuals carefully process and reflect on ideas exchanged (Paulus & Yang, 2000). Finally, informal networks are particularly relevant when institutional support structures are scarce. Spouses may extend and diversify entrepreneurs' networks by granting them access to their contacts (Rodriguez et al., 2009). Meta-analytical research demonstrates that network diversity is particularly important for entrepreneurial success (Stam, Arzlanian, & Elfring, 2014).

Spouses might not only partly compensate for low levels of human capital among sub-Saharan entrepreneurs, but also make up for the lack of financial resources. Given the difficulties in accessing credit from formal financial institutions, informal sources of finance are crucial (International Finance Corporation, 2011). Spouses who provide financial resources enable entrepreneurs to maintain ongoing operations, invest in new ideas, or take corrective actions as needed. Financial support from spouses also protects entrepreneurs

against external shocks that might threaten the viability of their businesses (Cooper, Gimeno-Gascon, & Woo, 1994).

In the light of the numerous challenges resulting from the resource-scarce environment in which many sub-Saharan entrepreneurs operate, spouses' emotional support might contribute to safeguarding entrepreneurs' self-efficacy. As stipulated by social learning theory, verbal persuasion is an important strategy to convince individuals that they possess the required capabilities to overcome the barriers they are facing (Bandura, 1982). Emotionally supportive spouses may, for example, encourage entrepreneurs to improve a new product after receiving complaints from customers rather than blaming entrepreneurs for the low quality. Entrepreneurial self-efficacy, in turn, ensures that entrepreneurs keep investing energy in entrepreneurial actions (Rauch & Frese, 2007; Townsend, Busenitz, & Arthurs, 2010).

Taken together, we suggest that the effect of spousal support on entrepreneurial activity and performance is magnified within resource-scarce entrepreneurial ecosystems in sub-Saharan Africa. Whether by providing hands-on support, feedback or ideas, contacts, encouragement, or financial means, spouses' support might matter significantly in settings in which alternative resources are scarce. We make the following proposition:

> ***Proposition 1:*** *Resource-scarce entrepreneurial ecosystems enhance the positive effect of husbands' provision of hands-on business support, advice, ideas, and networks, emotional support, and financial resources on entrepreneurial activity and performance.*

2.3.2 Patriarchal Societies

Most women entrepreneurs in sub-Saharan Africa live and work in patriarchal societies (Titi Amayah & Haque, 2017). In these societies, power is unequally distributed, with men dominating societal institutions and holding authority over women (Milazzo & Goldstein, 2017). Patriarchy is no universal phenomenon but emerges from the interaction between the biological specialization of the sexes and socio-cultural context (W. Wood & Eagly, 2002). While the roots of patriarchal societies are complex and beyond the scope of this article, it follows that societies vary in their extent of patriarchy (W. Wood & Eagly, 2002). In sub-Saharan Africa, patriarchal power structures are still more pervasive than in other regions of the world, manifesting in high levels of gender inequality across multiple domains (AfDB, 2015; UNDP, 2016; World Economic Forum, 2017b). As suggested by social role theory, social structures shape gender role beliefs in that male and female

characteristics are inferred from the tasks men and women typically perform (Eagly & Wood, 2012; W. Wood & Eagly, 2002). In patriarchal societies, women typically take care of household and family, whereas men are the primary family providers (W. Wood & Eagly, 2002). As a consequence, women are assumed to be communal and nurturing individuals which qualifies them to be good caretakers, whereas men are thought to be assertive and agentic which equips them for income generating activities (Eagly & Wood, 2012). Many of the characteristics attributed to men are, at the same time, associated with successful entrepreneurship (Ahl, 2006; T. Baker, Aldrich, & Liou, 1997; Gupta et al., 2008; Gupta, Turban, Wasti, & Sikdar, 2009), leading to the perception that only men can succeed as entrepreneurs, whereas women lack the required skills to do so (Eagly & Karau, 2002; Eagly & Wood, 2012).

Against this backdrop, husbands of women entrepreneurs in sub-Saharan Africa may be convinced that their effort and expertise is needed to successfully run their wives' businesses. Engaging in their wives' business activities or giving advice may allow husbands to conform with self-standards resulting from gender role beliefs and meet expectations of others (Eagly & Wood, 2012). In addition, husbands may be likely to support their wives' businesses financially since contributing financial resources is consistent with sub-Saharan men's role as main providers. In contrast, offering emotional support in the form of encouragement or positive regard may contradict the masculine self-concept and is rather ascribed to women (Eagly & Wood, 2012; W. Wood & Eagly, 2002). Therefore, women entrepreneurs' husbands in sub-Saharan Africa may be less inclined to provide emotional support than husbands in less patriarchal settings. We propose:

> ***Proposition 2a:*** *Patriarchal societies have a positive effect on husbands' provision of hands-on business support, advice, ideas, and networks, and financial resources.*

> ***Proposition 2b:*** *Patriarchal societies have a negative effect on husbands' provision of emotional support.*

In the light of men's and women's gender-specific roles in patriarchal societies, sub-Saharan women entrepreneurs may constitute a serious threat to their husbands' identity as breadwinners, particularly when women become more successful than their husbands (Amine & Staub, 2009). A cross-cultural study with men from twenty mostly developing countries revealed that men perceive income generation as the most important characteristic of a good husband (Boudet et al., 2013). Furthermore, men clearly expressed their discomfort with

women's contribution to the household income and related gains in economic power (Boudet et al., 2013). The severity of threats to men's breadwinner role becomes evident when considering their reactions to such threats. Research conducted in Asia has shown that men responded with domestic violence when women gained economic power through increased access to finance (Bates, Schuler, Islam, & Islam, 2004) or improved property rights (S. Anderson & Genicot, 2015). The evaluation of a cash transfer program in Kenya revealed that women's improved economic status led to increased tensions and conflict with their husbands (Merttens et al., 2012).

To counteract these threats, husbands in sub-Saharan Africa might interfere in their wives' business to a particular high degree. Scholars drawing on identity control theory (Burke, 2007) have shown that spouses who face threats to their self-identity increased control over their partners in the attempt to reaffirm their self-identity and regain the perception of control over their environment (Stets & Burke, 2005). Thus, interfering in their wives' business, for example by demanding decision-making power, might convey this sense of control and enable husbands to cope with their wives' entrepreneurial activities.

In addition, we suggest that husbands in patriarchal societies will be more likely to assign household and family tasks to their wives. For many men in patriarchal societies, engaging in housework contradicts their male gender roles and indicates weakness (Thébaud, 2010). Time-use data provides empirical support for this suggestion, showing that women in developing countries spend, on average, three hours more per day than men on household and family tasks (United Nations, 2015). When men feel threatened in their role as main providers, they are even less inclined to engage in behavior associated with female gender roles (Boudet et al., 2013). In Ghana, for example, women do more than 80 % of the housework even when they provide the lion share of household income (World Bank, 2011). We propose:

> ***Proposition 2c:*** *Patriarchal societies have a positive effect on husbands' interference in their wives' business and husbands' assignment of household and family tasks to their wives.*

We further suggest that patriarchal societies do not only affect whether husbands provide support or impede their wives, but also moderate the identified positive and negative effects of spousal influence on entrepreneurial activity and performance. We have suggested before that resource-scarce entrepreneurial ecosystems enhance the positive effect of various

forms of spousal support on entrepreneurial activity and performance, regardless of whether entrepreneurs are male or female. The underlying reasoning was that spousal support proves particularly powerful when entrepreneurs' resources and alternative support structures are limited. Turning to women entrepreneurs, we apply the same line of reasoning to propose that patriarchal societies strengthen the positive effect of spousal support on women's entrepreneurial activity and performance. In other words, we suggest that women entrepreneurs especially benefit from spousal support since they possess relatively fewer resources than men that can nurture entrepreneurial activity and performance. Certainly, this proposition rests on the assumption that husbands *do* provide any support (cf. Proposition 2a). The findings of a study in the Dominican Republic, a patriarchal country outside of sub-Saharan Africa (Raynolds, 2002), provided initial evidence for the relevance of spousal support for women entrepreneurs, showing that family employment positively affected performance outcomes of women-owned but not men-owned businesses (Cruz, Justo, & De Castro, 2012). We suggest that patriarchal power structures restrict women entrepreneurs' access to resources in the three following ways.

First, women entrepreneurs cannot devote the same amount of time to their business as men since they have to allocate their time between business and domestic tasks. Although the hours spent for income generation by men and women have started to converge, women continue to bear the main responsibility for housework and child care (United Nations, 2015; World Bank, 2011). This is the case around the globe but even more so in patriarchal societies, where women's household and family obligations are particularly demanding (cf. Proposition 2c) and lead to severe time constraints (Amine & Staub, 2009; Duflo, 2012). A study on Tanzanian entrepreneurs showed that women entrepreneurs invested ten hours less per week in their business than men (Berge et al., 2015), indicating that women's additional workload at home drains resources from the business (Edwards & Rothbard, 2000).

Second, women entrepreneurs in sub-Saharan Africa are less likely to have the same level of education and work experience as their male counterparts. In fact, sub-Saharan Africa remains the region with the biggest barriers to primary and secondary education for girls to date (UNESCO, 2016a), comprising 13 of the 18 countries with fewer than 90 girls for every 100 boys enrolled in primary education and even larger gaps for secondary education (UNESCO, 2015). The gender gap has its roots in the patriarchal family system, where preference is given to the education of sons when family resources are not sufficient to afford education for all children and enrollment conflicts with girls' gender roles (UIS & UNICEF,

2015). Even if girls are enrolled, they are more likely to drop out of school due to early pregnancy or marriage, long walking distances, lack of private sanitation facilities, or intimidation, physical abuse, or sexual harassment by teachers and schoolmates (UIS & UNICEF, 2015). Having reached a marriageable age often marks the end of education and the beginning of women's marital duties, including their responsibility to bear children and run the household (Delprato, Akyeampong, Sabates, & Hernandez-Fernandez, 2015). Evidently, there remains little time to gain work experience. Once they are married, women in patriarchal societies are less likely to enter into employment given that being a successful wife is primarily associated with motherhood (W. Wood & Eagly, 2002) and flexible work arrangements or supportive policies such as paternity leave are the exception rather than the rule (Amin, Islam, & Sakhonchik, 2016). Without relevant work experience, women usually also lack the opportunity to build a heterogeneous network that they can draw on as entrepreneurs (Cromie & Birley, 1992; Renzulli, Aldrich, & Moody, 2000). In extreme cases, husbands may even further prevent their wives from developing a professional network by restricting their mobility (Field, Jayachandran, Pande, & Rigol, 2016).

Third, in a setting where access to financial resources is already challenging, women entrepreneurs report particularly high constraints (Amine & Staub, 2009). It is estimated that around 70 % of women who own formal small or medium-sized enterprises in developing countries lack access to the financial markets and products that meet their respective needs (World Bank, 2018b). The constraints women face include difficulties in completing loan applications, lack of adequate collaterals and credit histories, and gender discrimination by authorities and officials (Demirguç-Kunt, Klapper, & Singer, 2013; International Finance Corporation, 2011; World Bank, 2015). For example, only one country in sub-Saharan Africa prohibits discrimination concerning access to credit based on gender or marital status by law (World Bank, 2015). All of the constraints are, in one way or another, associated with the patriarchal power structures maintained in many sub-Saharan societies. Women's challenge to offer adequate collaterals, for instance, is partly related to property rights traditionally favoring men over women in that property is listed in the husband's name alone (Milazzo & Goldstein, 2017). Despite a range of legal reforms in recent years, many regions in sub-Saharan Africa adhere to customary law, determining women's property rights regardless of changes in the statutory legal system (World Bank, 2015). Without any assets to seize in case of noncompliance, financial institutions shy away from lending to women entrepreneurs (Demirguç-Kunt et al., 2013). Against the background of the resource constraints faced by women entrepreneurs in patriarchal societies, we propose:

Proposition 2d: *Patriarchal societies enhance the positive effect of husbands' provision of hands-on business support, advice, ideas, and networks, emotional support, and financial resources on entrepreneurial activity and performance.*

Finally, we suggest that in patriarchal societies, the negative effect of husbands' interference in the business may be weakened. The literature review has shown that spouses' interference in the business can induce conflict (Au & Kwan, 2009; Danes & Olson, 2003; Davis & Harveston, 2001), which then impedes business success unless conflict is managed well (Sharma, 2004; Van Auken & Werbel, 2006). In patriarchal societies, husbands who claim authority might be more acceptable, thereby reducing the likelihood of conflict compared to less patriarchal settings. Research across twenty mostly developing countries has illustrated that women's and men's perception of gender responsibilities and privileges are surprisingly similar (Boudet et al., 2013). Thus, women entrepreneurs may be less reluctant when losing autonomy in their business. We propose:

Proposition 2e: *Patriarchal societies reduce the negative effect of husbands' interference in their wives' business on entrepreneurial activity and performance.*

2.3.3 Work-Family Integration

Women entrepreneurs in sub-Saharan Africa are typically deeply embedded in their families (Aldrich & Cliff, 2003; Webb et al., 2015). Previous research has theorized that the level of family embeddedness is particularly high in environments, in which formal institutions are less developed or malfunctioning (Webb et al., 2015). This research has suggested that formal institutional voids entail that entrepreneurs turn increasingly to their families. One of the consequences of being deeply embedded in the family is that family and business life are closely intertwined (Aldrich & Cliff, 2003; Webb et al., 2015). While managing work and family life is challenging for women entrepreneurs around the world (Jennings & McDougald, 2007), qualitative research has illustrated that women entrepreneurs in sub-Saharan Africa often have no other choice than fully integrating both spheres due to their multiple burdens resulting from gender role beliefs and normative expectations (Gudeta & van Engen, 2017). Operating the business from home further increases the level to which boundaries between business and family become blurred (Desrochers, Hilton, & Larwood, 2005). A study in Tanzania revealed that twice as many women entrepreneurs as men ran their business in the immediate vicinity of their home (Berge et al., 2015).

From a psychological perspective, the integration of work and family domains may imply that women entrepreneurs' businesses become a part of family life. As husbands are expected to provide for the family, they might also develop a certain degree of commitment to the business and be more likely to take supportive measures (Meyer & Herscovitch, 2001; Van Auken & Werbel, 2006). Family business research has shown that committed family members are more likely to actively support the business (Zahra, Hayton, Neubaum, Dibrell, & Craig, 2008).

From a practical point of view, husbands may have simply more opportunities to influence their wives' business when boundaries between business and family are blurred. Husbands may be able to help out with preparing deliveries or ordering new supplies between dinner and bedtime. They may also witness the challenges and difficulties their wives face and help to develop solutions or encourage their wives to keep going. This reasoning is in line with previous research suggesting that high levels of business-family integration increase work-related communication, knowledge sharing, and joint problem solving among family members (Clark, 2002; Webb et al., 2015). In the light of higher spousal commitment and greater accessibility of the business, we suggest that husbands may be more likely to provide hands-on support, share advice and ideas with their wives, or support them emotionally or financially. At the same time, the close proximity between husbands and women's business, both psychologically and practically, may not only increase husbands' support but also the degree to which husbands interfere in the business. We propose:

> ***Proposition 3a:*** *Work-family integration has a positive effect on husbands' provision of hands-on business support, advice, ideas, and networks, emotional support, and financial resources.*

> ***Proposition 3b:*** *Work-family integration has a positive effect on husbands' interference in their wives' business.*

In addition to the higher potential of spousal interference, the strong integration of business and family bears further risks. First, it may increase the temptation of intermingling financial resources. Previous research provides support for this reasoning, showing that couples who share both business and family responsibilities are less likely to keep separate business and household accounts than couples for whom business and family domains are less intertwined (Muske et al., 2009). Keeping separate accounts is considered as one of the key accounting practices to ensure a healthy business but has not yet been adopted by many

entrepreneurs in developing countries (Drexler, Fischer, & Schoar, 2014; Giné & Mansuri, 2014; Valdivia, 2015). In view of the integration of work and family, women entrepreneurs might be particularly inclined to use parts of the provided resources to cover other expenses, such as buying new school books, paying the latest medical bill, or buying a wedding gift for a close relative.

Second, the strong overlap of work and family life might exacerbate the adverse effect of household and family demands on entrepreneurial success. We base this proposition on work-family border theory (Clark, 2000) and boundary theory (Ashforth, Kreiner, & Fugate, 2000) and argue that household and family demands may be more likely to spillover to the business domain when entrepreneurs operate in a context where boundaries between business and family are extremely permeable. Empirical research has shown that high levels of work-family integration were positively related to work distractions (Desrochers et al., 2005). We propose:

> ***Proposition 3c:*** *Work-family integration reduces the positive effect of husbands' provision of financial resources on entrepreneurial activity and performance.*

> ***Proposition 3d:*** *Work-family integration enhances the negative effect of assigned household and family tasks on entrepreneurial activity and performance.*

Table 2.2. Proposed effects of sub-Saharan context dimensions (CD) on spousal influence (SI) and on the relationship between spousal influence (SI) and women's entrepreneurial activity and performance (EAP).

	Context dimension (CD)		
Type of spousal influence (SI)	**Resource-scarce entrepreneurial ecosystems**	**Patriarchal societies**	**Work-family integration**
Spouses may provide hands-on business support	Moderating effect: CD enhances positive effect of SI on EAP (P1)	Positive effect of CD on SI (P2a); Moderating effect: CD enhances positive effect of SI on EAP (P2d)	Positive effect of CD on SI (P3a)
Spouses may give advice, contribute ideas, and share their networks	Moderating effect: CD enhances positive effect of SI on EAP (P1)	Positive effect of CD on SI (P2a); Moderating effect: CD enhances positive effect of SI on EAP (P2d)	Positive effect of CD on SI (P3a)
Spouses may offer emotional support	Moderating effect: CD enhances positive effect of SI on EAP (P1)	Negative effect of CD on SI (P2b); Moderating effect: CD enhances positive effect of SI on EAP (P2d)	Positive effect of CD on SI (P3a)
Spouses may provide financial resources	Moderating effect: CD enhances positive effect of SI on EAP (P1)	Positive effect of CD on SI (P2a); Moderating effect: CD enhances positive effect of SI on EAP (P2d)	Positive effect of CD on SI (P3a); Moderating effect: CD reduces positive effect of SI on EAP (P3c)
Spouses may assign household and family tasks to entrepreneurs	No effect	Positive effect of CD on SI (P2c)	Moderating effect: CD enhances negative effect of SI on EAP (P3d)
Spouses may interfere in the business	No effect	Positive effect of CD on SI (P2c); Moderating effect: CD reduces negative effect of SI on EAP (P2e)	Positive effect of CD on SI (P3b)

Note. CD = Context dimension; SI = Type of spousal influence; EAP = Entrepreneurial activity and performance; P = Proposition.

2.4 Applying a Context Lens: Spousal Influence on Women Entrepreneurship in Sub-Saharan Africa

In this article, we applied a context lens (Welter, 2011) and developed propositions for spousal influence on women entrepreneurship in sub-Saharan Africa based on the findings of a systematic literature review. Specifically, we focused on how resource-scarce entrepreneurial ecosystems, patriarchal societies, and work-family integration may affect spousal influence on women's entrepreneurial activity and performance. We proposed that operating in a resource-scarce entrepreneurial ecosystem increases the power of spousal influence by strengthening positive effects of various types of support. We argued that being embedded in patriarchal societies similarly strengthens the positive effect of spousal support and reduces the negative effect of husbands' interference in the business. Importantly, we also proposed that husbands in patriarchal societies are generally more likely to exert influence on their wives' business, with the exception of emotional support. We suggested that likewise, high levels of work-family integration make husbands more likely to provide support and interfere. In addition, we postulated that work-family integration reduces the positive effect of husbands' financial support and increases the negative effect of household and family demands on women's entrepreneurial activity and performance.

Taken together, our propositions illustrate that the spatial, institutional, and social characteristics of the sub-Saharan context may affect to which degree husbands exert influence on women entrepreneurs in the first place and how their influence then impacts women's entrepreneurial activity and performance. Overall, our propositions suggest that husbands in sub-Saharan Africa exert more influence and that the impact of their influence on women's entrepreneurial activities and performance is higher than in Western contexts.

In addition, our findings illustrate that different dimensions of context may have distinct effects on spousal influence and that there is not *one* 'sub-Saharan context'. In some cases, context effects might be mutually reinforcing, in other cases different context dimensions might have reverse effects. As previously noted by Welter (2011, p. 174) "contextualizing theory thus needs to apply a multi-context perspective" to account for the complex multiplicity of contexts. In this article, we concentrated on three critical context dimensions to illustrate that women entrepreneurs in sub-Saharan Africa operate under conditions that are fundamentally different from those in North America or Western Europa and that these differences matter (Brush et al., 2009).

2.5 Directions for Future Research and Limitations

2.5.1 Future Research

Our review is only the starting point for a better understanding of women entrepreneurship in sub-Saharan Africa. There are several interesting avenues for future research. First and foremost, empirical research is needed to test, refine, and complement our propositions. We echo previous calls for research testing the relevance of existing practical and theoretical knowledge in the field of entrepreneurship in the sub-Saharan context (George, Corbishley, Khayesi, Haas, & Tihanyi, 2016; Zoogah et al., 2015). Women entrepreneurs in this region are numerically, economically, and socially far too important to be treated as kind of exception. In addition to the overall extension of research in the sub-Saharan region, cross-cultural research designs might be a promising strategy to increase our understanding of context dynamics in women entrepreneurship. Baughn, Chua, and Neupert (2006), for example, examined the relationship between normative support for women entrepreneurship and women's participation in entrepreneurship across different countries. Future research could build on their work and look into the respective mechanisms that translate normative support into entrepreneurial activity in each country.

Second, future research should address the complexity of spousal influence. It was the purpose of our review to shed light on the manifold ways in which spouses exert influence on their wives' entrepreneurial behavior and performance. However, this does not imply that the identified types of spousal influence are independent from each other. On the contrary, we assume that different types of spousal influence co-occur and interact. A husband who assists his wife by redecorating her restaurant might simultaneously share his ideas on how to diversify the menu or call one of his old colleagues to find a replacement for an unreliable supplier. While painting the tables, he might cheer his wife up when she expresses her disappointment about the rejection of her loan application. He might also claim a say in how she invests her last months' profits given the time he spent for the restaurant's renovation. Future research should explore how the different types of influence interrelate, which types are most powerful, and which influences vanish in the presence of others. It is debatable, for example, to which degree women entrepreneurs are able to benefit from husbands' ideas to develop the business when, at the same time, they are overloaded with household and family assignments.

Third, future research should extend our efforts and identify additional types of spousal influence relevant to entrepreneurs in general, and women entrepreneurs in sub-

Saharan Africa in particular. For the purpose of this review, we restricted our review to the most influential entrepreneurship, management, and family business journals. However, other fields of research (e.g. development economics, anthropology, psychology, or family science) might further enrich our knowledge on spousal dynamics in entrepreneurship. In addition, further research is needed to look at the identified influences in more depth, particularly with regard to their quality. The utility of spousal practical support, for example, is likely to depend on spouses' task-related know-how and the effectiveness of emotional support may hinge on spouses' empathy.

Finally, we encourage future research to take into account women entrepreneurs' capability to mobilize and shape spousal influence. Successful entrepreneurs are active agents who engage in change-oriented behavior that seeks to improve the fit between one's personal needs and the environment (Fay & Frese, 2001; Frese, 2009). In line with this reasoning, future research should study the role of women entrepreneurs in securing and making effective use of desired resources (T. Baker & Nelson, 2005) and overcoming any barriers created by their husbands (Kapinga & Montero, 2017).

2.5.2 Limitations

As with any research, our review is not without its limitations. First, we might have missed relevant studies that do not contain our search terms but would have contributed to our review. In particular, we might have missed studies on family influence that do not literally refer to spouses, husbands, or wives. However, we decided against broadening our search criteria any further (e.g. by using 'family' in conjunction with 'entrepreneur') since this would have exceeded the manageable amount of studies to be screened. One possible solution to narrow down the number of results would have been to combine 'family' with specific influences such as 'support'. We purposely opted against this approach since we did not want to introduce any bias due to the predetermination of certain types of influence.

Second, our review is mainly driven by an economic perspective in that we compile research that addresses how spouses contribute to their partners' entrepreneurial activity or performance. Nevertheless, we acknowledge that women entrepreneurs might pursue goals that go beyond economic gains (Jennings & Brush, 2013). Previous research has shown, for example, that women entrepreneurs are more likely than men to engage in social and environmental entrepreneurship, indicating that they also value non-economic outcomes (Hechavarria, Ingram, Justo, & Terjesen, 2012). Other studies have suggested that striving for effective work-family management is one of the main drivers of women entering into

entrepreneurship (Collins-Dodd, Gordon, & Smart, 2004; Heilman & Chen, 2003; Thébaud, 2015). Empirical research showed that Ghanaian women with greater domestic obligations were particularly likely to enter into entrepreneurship, whereas there was no comparably strong effect for men (Lain, 2016). Finally, spousal influence is likely to affect not only business-related but also family-related outcomes such as the spousal relationship (Amarapurkar & Danes, 2005) or the effectiveness of the family (Dyer & Dyer, 2009).

Third, our review might create the impression that we refer to sub-Saharan Africa as if it was a homogenous mass. For the purpose of our article, we contrast sub-Saharan Africa with more industrialized regions like North America and Western Europe because we are interested in the overarching differences between these regions. Nevertheless, we are fully aware of the enormous diversity *within* the sub-Saharan region, consisting of 46 countries (United Nations Development Programme (UNDP), 2017) and numerous ethnicities, which differ substantially with regard to geography, demography, history, religion, culture, political, and economic development. Our review constitutes only a starting point of "bringing Africa in" (George et al., 2016, p. 377) and we encourage future research to provide a more nuanced view of sub-Saharan Africa by exploring in which localities our propositions hold and in which they lose validity.

2.6 Conclusion

This article illustrates the importance of spousal influence on women entrepreneurship in sub-Saharan Africa. The reviewed literature suggests that husbands may be both lubricants and brakes for women entrepreneurs. However, without taking into account the unique context of women entrepreneurs in sub-Saharan Africa, these findings are only of limited use to better understand and promote women entrepreneurship in this region. Our propositions demonstrate that the spatial, institutional, and social contexts in which women entrepreneurs in sub-Saharan Africa operate considerably shape the extent and impact of spousal influence. They reveal that husbands are important stakeholders for women entrepreneurs in sub-Saharan Africa who deserve further attention.

3. Help or Hindrance? Husbands' Influence on Women Entrepreneurs' Business Success in Sub-Saharan Africa: A Latent Profile Analysis[7]

Abstract

Husbands are often held to be obstacles towards women entrepreneurship in sub-Saharan Africa. In this study, we challenge this preconception and argue that different types of husbands exist and that husbands also support their wives' business with own resources when this investment has the potential to increase the family income. Building on both cultural and economic theory, we consider the unique context of sub-Saharan Africa and propose a theoretical model of husbands' influence that consists of two dimensions: Husbands as constraints and husbands as resource providers for their wives' business. The two dimensions result in four distinct profiles of husbands that are hypothesized to differentially predict women entrepreneurs' business success. Based on interviews with 192 husbands (one wave) and women entrepreneurs (two waves) in Ethiopia, latent profile analysis identifies three out of the four postulated profiles: The Indifferent, the Copreneurs, and the Regulators. Husbands' gender role beliefs and their own contribution to the family income differentiate between the profiles. Our findings indicate that husbands' support function is of particular value for women' entrepreneurs business success, even in the presence of constraining behavior. We conclude that husbands may make a difference in otherwise resource-scarce environments and deserve more attention towards a better understanding of successful women entrepreneurs.

[7] This chapter has been submitted to the *Journal of Business Venturing* and is in the first round of revise and resubmit as Wolf, K. & Frese, M. (2018). Help or hindrance? Husbands' influence on women entrepreneurs' business success in developing countries: A latent profile analysis.

3.1 Introduction

In sub-Saharan Africa, women own or partly own one third of all businesses (World Bank, 2019c). However, we still lack a comprehensive understanding of the factors enhancing and constraining women entrepreneurship in this part of the world. This is surprising given that successful women entrepreneurs are critical towards economic growth and empowerment in sub-Saharan Africa (Brush & Cooper, 2012; Kelley et al., 2017; Minniti, 2010). One of the most prevalent sources of influence on women entrepreneurs is their family (Brush et al., 2009; Jennings & Brush, 2013). Scholars have argued that entrepreneurial decisions, processes, and outcomes are inevitably embedded in the family system (Aldrich & Cliff, 2003; Stafford et al., 1999) and that for women entrepreneurs, family and entrepreneurial activities are particularly intertwined (Brush et al., 2009; Gudeta & van Engen, 2017; Jennings & Brush, 2013). Within the sub-Saharan family, husbands play a unique role in that they are usually the head of the household (Boudet et al., 2013; OECD, 2019). As such, they are likely to have a strong impact on whether and how their wives exploit entrepreneurial opportunities and grow their business (Wolf & Frese, 2018). Yet, little is known about the numerous ways in which husbands may influence their wives' entrepreneurial activities.

Irrespective of the limited research available, the common idea among relevant scholars and practitioners seems to be that in sub-Saharan Africa, husbands are barriers to women's economic empowerment in general and women's entrepreneurial success in particular (Dover, 2014). Husbands are frequently conceptualized as one of the main sociocultural challenges faced by women entrepreneurs (Amine & Staub, 2009; World Bank, 2011), whereas their support role receives only limited attention (World Bank, 2008). Often, they are readily associated with assertive behavior and resistance towards changes in traditional family relations (Connell, 2005). The underlying reasoning of this preconception is related to the prevailing patriarchal culture in many sub-Saharan countries (World Economic Forum, 2017b) from which husbands are assumed to derive traditional gender role beliefs that lead to behavior that might negatively affect their wives' business (W. Wood & Eagly, 2002). A common observation in patriarchal societies is, for example, that men tend to hold important offices, which then easily leads to the belief that only men command corresponding leadership skills. As a consequence, husbands with such a belief might expect to have the exclusive decision-making power over their wives' business and restrict their wives' entrepreneurial autonomy.

In this study, we challenge the preconception of the predominantly constraining husband by proposing a theoretical model that combines two theories: The first theory is a cultural theory according to which husbands constrain their wives' entrepreneurial activities due to own and others' expectations resulting from female and male roles in a patriarchal culture (Eagly & Wood, 2012; W. Wood & Eagly, 2002). The second theory is an economic theory of the household (Chiappori, 1988, 1992), suggesting that husbands provide resources for their wives' entrepreneurial endeavor as it enhances the economic well-being of the family. We challenge the preconception of the predominantly constraining husbands for two reasons. First, it is biased in that it classifies husbands as obstacles in general and does not differentiate between various types of husbands. People differ in the facets of gender roles they adopt as well as in the extent to which they incorporate them (Eagly & Wood, 2012). As a result, even in a patriarchal environment husbands vary in their gender role beliefs and the behavior that follows (Witt & Wood, 2010). Second, cultural theory alone is not sufficient to explain husbands' influence because it fails to notice that families in sub-Saharan Africa constitute an economic unit (Webb et al., 2015), seeking to allocate resources in a way that maximizes the family's economic well-being (Baland & Ziparo, 2017). We thus propose that husbands invest their own financial, social, and human capital resources in their wives' business when this investment has the potential to increase the family income.

Building on both cultural and economic theory, we propose a theoretical model of husbands' influence in sub-Saharan Africa that consists of two dimensions: Husbands as constraints and husbands as resource providers for their wives' business. We further suggest that these two dimensions produce four distinct profiles of husbands' influence which are associated with husbands' gender role beliefs and husbands' own contribution to the family income and which differentially relate to women entrepreneurs' business success. Our study empirically tests these profiles to provide a more nuanced picture of husbands' influence than previous research has offered. Using a latent profile approach we are able to simultaneously consider the different ways in which husbands may influence their wives' business, thereby contributing to a better understanding of what 'types' of husbands exist and how husbands of these types, instead of isolated behaviors, may impact their wives' business success (Stanley et al., 2016; Wang & Hanges, 2011).

In addition, we contribute to the entrepreneurship literature by proposing a theoretical model that takes into account the reality of the vast number of entrepreneurs operating in sub-Saharan Africa (GERA, 2017; Reynolds, 2012). Only recently, scholars have called for more

empirical and conceptual research to explain entrepreneurial phenomena in the African context (George et al., 2016; Zoogah et al., 2015). So far, most of the entrepreneurship literature has addressed the role of the family in middle- and high-income countries, often in the context of family businesses. For example, one prominent stream of literature has argued that family members are willing to take economic risks or accept losses in order to preserve the socioemotional wealth of the family (Berrone, Cruz, & Gomez-Mejia, 2012; Gomez-Mejia, Cruz, Berrone, & De Castro, 2011; Gomez-Mejia, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007). Socioemotional wealth captures the family's affective endowment and includes the desire to control and influence the business, to maintain a strong family identity, and to ensure the continuation of the family dynasty (Berrone et al., 2012). However, families in sub-Saharan Africa are embedded in very different, oftentimes extremely challenging environments (George et al., 2016; Webb et al., 2015) and may not be able to 'afford' prioritizing affective over economic considerations, which calls the validity of such motives for husbands' influence into question.

Furthermore, we add to the emerging literature on entrepreneurship and poverty alleviation (Bruton et al., 2013; Sutter, Bruton, & Chen, 2019) by investigating how husbands foster and hamper women entrepreneurship in sub-Saharan Africa. In view of women entrepreneurs' positive influence on the development of their families, communities, and countries (AfDB, 2015; Brush & Cooper, 2012; Minniti, 2010), it is critical to design effective means to support women entrepreneurs. To this end, large parts of the entrepreneurship research have focused on women entrepreneurs' shortcomings, implicitly adopting a 'women must change' attitude (Ahl, 2006; Hughes et al., 2012). However, less attention has been paid to the contextual conditions that may enhance or constrain women entrepreneurs (Brush et al., 2009; Brush, Edelman, et al., 2018; Welter, 2011). With our study, we thus seek to complement existing research and contribute to a better knowledge base for the effective promotion of women entrepreneurs.

3.2 Theoretical Background

3.2.1 A Cultural Theory: Husbands as Constraints

The first theory we use to build our theoretical model is a cultural theory. Specifically, we draw on social role theory (Eagly, 1987; Eagly & Wood, 1991, 2012) to argue that husbands in sub-Saharan Africa may engage in behavior that constrains the success of their wives' business. Social role theory postulates that people form gender role beliefs because

they observe sex-specific behavior in a certain sociocultural context and infer that men and women have corresponding dispositions (Eagly & Wood, 2012). Accordingly, gender role beliefs are perceptions, or stereotypes, about female and male attributes. In a patriarchal culture, characterized by an unequal distribution of power and a strong division of labor between men and women, husbands are likely to form traditional gender role beliefs that associate women primarily with nurturing skills and men with leadership skills and agentic qualities (Eagly & Wood, 2012; Powell, Butterfield, & Parent, 2002; W. Wood & Eagly, 2002). When gender role beliefs are incorporated in self-concepts, people are likely to regulate their behavior to correspond to these beliefs and to meet own and others' expectations (Witt & Wood, 2010; W. Wood, Christensen, Hebl, & Rothgerber, 1997). Thus, husbands who have internalized traditional gender role beliefs may seek opportunities to demonstrate their leadership and breadwinning skills. Three constraining behaviors result from this reasoning (cf. Appendix A for a tabular overview of relevant studies):

First, husbands may constrain women entrepreneurs' business success by restricting their wives' autonomy over their wives' business and daily life. Autonomy is important in the context of entrepreneurship as successful entrepreneurs require the freedom to develop and pursue new ideas, make key decisions, and act independently (Lumpkin, Cogliser, & Schneider, 2009; Lumpkin & Dess, 1996). Research showed that women entrepreneurs in Kenya and Uganda were inclined to look for business partners outside the family to prevent family members from interfering in their business (Khavul et al., 2009). In Tanzania, husbands appeared to be in charge although the businesses were owned by their wives (Berge et al., 2015). Even in entrepreneurial teams and dual-career couples in less traditional contexts, men typically occupy the position of the primary decision maker whereas women adopt roles behind the scenes (Ezzedeen & Ritchey, 2008; Kirkwood, 2009; Marshack, 1994; Ponthieu & Caudill, 1993; Rappaport, 1995). Research also showed that business performance can suffer from such an arrangement (Hedberg & Danes, 2012). If husbands feel threatened in their identity as breadwinners by their wives' entrepreneurial involvement (Amine & Staub, 2009; Dover, 2014), they might also seek dominance over their wives beyond the business domain to regain a sense of control over their environment (Stets & Burke, 2005). Studies conducted in Asia and Africa, for example, have demonstrated that women who challenged their husbands' breadwinner role by gaining economic power were increasingly exposed to marital conflict (S. Anderson & Genicot, 2015; Merttens et al., 2012) and domestic violence (Bates et al., 2004).

Second, husbands may contribute to the unequal allocation of household and family duties in that they assign corresponding duties disproportionately to their wives (Van Auken & Werbel, 2006). Believing that women are better equipped to take care of these tasks than men, there is no reason for men to change this arrangement (Ezzedeen & Ritchey, 2008; Klapper & Parker, 2010; McGowan, Redeker, Cooper, & Greenan, 2012). Research has shown that in spite of help from other family members or maids, women in sub-Saharan Africa spend four times more time on household and family duties than men (OECD, 2019), even when they are substantially involved in income-generating activities themselves (Berniell & Sánchez-Pàramo, 2011). A study in a patriarchal setting outside of sub-Saharan Africa found that by and large husbands did not tolerate any neglect of domestic duties caused by their wives' entrepreneurial activities (Al-Dajani & Marlow, 2010). Due to the high workload of household- and family duties, women entrepreneurs may not be able to devote the time and attention needed to their business (Amine & Staub, 2009; Jennings & McDougald, 2007). The job demands-resources model (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001) suggests that time-consuming demands in one domain negatively influence task fulfillment in other domains when compensating resources are lacking (Geurts et al., 2005). Empirical research in Western countries provided evidence for the adverse effect of time constraints in the absence of resources (Allen, Herst, Bruck, & Sutton, 2000), showing, for example, that the time spent for child care decreased the lifespan of the business (D. R. Williams, 2004).

Third, women entrepreneurs' business involvement may lead to conflict between spouses. Potential sources of conflict are manifold: Women who are occupied with business tasks might neglect household and family duties (Jennings & McDougald, 2007), husbands' interference might increase dissent on business-related matters (Danes & Olson, 2003; Davis & Harveston, 2001), and even disagreements unrelated to the business might spill over from the family to the business as both domains strongly overlap in sub-Saharan Africa (Gudeta & van Engen, 2017). Thus, it is critical how couples manage emerging conflict (Amarapurkar & Danes, 2005; Danes, Leichtentritt, Metz, & Huddleston-Casas, 2000). Whereas collaborative conflict management may stimulate problem-solving and can even have positive effects on business performance (Danes et al., 2002; Klotz, Hmieleski, Bradley, & Busenitz, 2014), destructive conflict management may reduce energy levels and detract attention away from the business (Danes et al., 2000; Danes, Zuiker, Kean, & Arbuthnot, 1999; Danes & Olson, 2003; Eddleston & Kellermanns, 2007; Sorenson, 1999). Research has shown that destructive conflict styles are typically used by couples with traditional gender role ideologies (Kluwer,

Heesink, & Van De Vliert, 1997). These couples seem less likely to openly discuss private and professional goals or negotiate solutions when facing disagreements (Jang & Danes, 2013; Van Auken & Werbel, 2006).

3.2.2 An Economic Theory of the Household: Husbands as Resource Providers

The second theory we use to build our theoretical model takes an efficient cooperative household model as its starting point (Browning & Chiappori, 1998; Chiappori, 1988, 1992), which suggests that family resources are allocated in a way that the family reaches the highest income possible, with no alternative scenario being preferred by all family members (Baland & Ziparo, 2017; Zou, 2015). The underlying assumption is that family members have a good knowledge of the resources available and care about each other, thus make sure that no resources are wasted (Baland & Ziparo, 2017). Accordingly, we argue that husbands seek to maximize the family's economic well-being and are ready to invest their own resources in their wives' business when this investment yields benefits for the family income. Recent research based on three different datasets from India, Sri Lanka, and Ghana provided support for the efficient cooperative household model, showing that both men and women invested financial resources in the higher-performing household business in order to optimize family income (Bernhardt, Field, Pande, & Rigol, 2017).

Given that families in sub-Saharan Africa are often embedded in challenging environments and struggle to respond to their members' daily needs, increasing the family income plays an even more vital role than in the Western world (Banerjee & Duflo, 2007; Collins, Morduch, Rutherford, & Ruthven, 2010). Thus, the family "operates in an important economic support role where the household becomes the enterprise in a collective effort to escape poverty" (Webb et al., 2015, p. 116). Indeed, research has shown that entrepreneurship in developing countries often constitutes a livelihood strategy with the primary objective of ensuring the family's economic well-being (Karlan & Zinman, 2011; Kevane & Wydick, 2001; Vial & Hanoteau, 2015). Empirical findings also indicate that the likelihood of allocating resources in an efficient way is particularly high in constrained environments as families cannot afford to waste resources due to inefficiencies (Akresh, 2005; Zou, 2015). Further research suggested that efficient family behavior was related to husbands who were cooperative regarding women's business (de Mel, McKenzie, & Woodruff, 2009a). Against this backdrop, we propose that husbands in sub-Saharan Africa may provide resources for their wives' business in the three following ways when this investment has the potential to increase the family income (cf. Appendix A for a tabular overview of relevant studies):

First, husbands may provide financial resources. Financial resources include both monetary and physical assets (Danes, Stafford, Haynes, & Amarapurkar, 2009) and are critical for entrepreneurial success because they increase entrepreneurs' flexibility, control, and range of strategies to develop and protect the business (Alsos, Isaksen, & Ljunggren, 2006; Cooper et al., 1994; Marlow & Patton, 2005). Meta-analytical evidence has shown that releasing capital constraints via microcredit has a positive effect on business growth and profitability in challenging contexts (Chliova et al., 2015). In sub-Saharan Africa, husbands' financial support may be critical as many women have difficulties in accessing formal finance due to high requirements with regard to collaterals and credit histories, complicated loan application procedures, or gender discrimination by authorities (Demirguç-Kunt et al., 2013; International Finance Corporation, 2011; OECD, 2019; World Bank, 2015). Experts estimate that at least 70 % of women entrepreneurs in developing countries, many of them situated in sub-Saharan Africa, lack access to financial institutions and financial services tailored to their needs (World Bank, 2018b). In contrast, men are often more likely than women to have assets at their disposal, which enable them to make financial contributions to their wives' business even when their own income is limited (Marlow & Patton, 2005; Milazzo & Goldstein, 2017; World Bank, 2011).

Second, husbands may contribute social resources, that is, invest time and effort to support their wives' business (Matzek, Gudmunson, & Danes, 2010). Scholars have widely acknowledged the critical role of various forms of social resources for entrepreneurs (e.g. Blenkinsopp & Owens, 2010; Kim, Longest, & Aldrich, 2013; Rauch, Rosenbusch, Unger, & Frese, 2016; Stam, Arzlanian, & Elfring, 2014). Matzek and colleagues (2010), for example, demonstrated that spouses' working hours and task-involvement in the business improved business performance. Other research has built on the main effect model of social support theories (Cohen & Wills, 1985; Taylor, 2011) to point out that support from family members does not only buffer negative effects of stressful events (Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005), but also has a direct positive effect on entrepreneurial outcomes, such as strategic planning or business performance (Powell & Eddleston, 2016). In view of women's domestic burden and the limited availability of institutional support systems in many sub-Saharan countries, women entrepreneurs may rely on their families' manpower to an even larger extent than men. Empirical research from a similarly patriarchal setting supports this notion, showing that women entrepreneurs in the Dominican Republic benefitted to a higher degree from family support than their male counterparts (Cruz et al., 2012).

Third, husbands may draw on their human capital to promote their wives' business. Human capital comprises a number of attributes including skills, knowledge, education, and experience and is positively related to entrepreneurial success (Unger, Rauch, Frese, & Rosenbusch, 2011; Van der Sluis, Van Praag, & Vijverberg, 2005). The literature asserts that family members' human capital constitutes a competitive advantage as intangible resources are particularly difficult to mimic (Sirmon & Hitt, 2003). An example of how husbands can make use of their human capital in support of their wives' business is by sharing their professional expertise and counseling their wives with regard to strategic decisions (Matzek et al., 2010). In sub-Saharan Africa, intra-family flows of human capital may be valuable because women are generally less likely than men to receive relevant higher education (UNESCO, 2015, 2016a) or to gain entrepreneurial expertise through work experience or professional training (International Finance Corporation, 2011). Husbands' entrepreneurial experience may be particularly useful as it enables them to share task-related knowledge with their wives. Meta-analytical findings revealed that task-related human capital was more pivotal for entrepreneurial performance than unspecific human capital (Unger et al., 2011). Research from Asia has shown that the entrepreneurial experience of household members has a positive effect on business success, pointing to the value of human capital spillover within the household (Gras & Nason, 2015).

3.2.3 A Theoretical Model: Four Distinct Profiles of Husbands' Influence

In this study, we propose a theoretical model that builds on cultural theory and economic theory of the household to provide a more comprehensive understanding of husbands' constraining and supportive behavior towards women entrepreneurship than previous research has offered. Drawing on cultural theory, we argued that husbands may constrain their wives' business as a result of own and others' expectations derived from sex-specific roles in patriarchal cultures. Based on economic theory of the household, we suggested that husbands may support their wives by investing own financial, social, and human capital resources in their wives' business when this contributes to the economic well-being of the family. By integrating both theories, we propose a theoretical model with two dimensions of husbands' influence: Husbands as constraints and husbands as resource providers. We assume that husbands' traditional gender role beliefs and their pursuit of the economic well-being of their family are complementary but largely independent motivations. Accordingly, husbands can in principle simultaneously behave in constraining and supportive ways. For example, a husband with traditional gender role beliefs might restrict the time his

wife can devote to her business by refusing to take over certain household responsibilities. However, he might still acknowledge the importance of his wife's business to pay his children's school fees and therefore advance some money so that she can repair her copying machine and carry out her orders without delay. Thus, based on these two dimensions, we postulate that there are four distinct profiles of husbands' influence (Figure 3.1):

The first profile includes husbands who show high levels of constraining behavior and provide low levels of resources. Husbands of this profile are labeled 'the Opponents' as they try to enforce traditional family roles and seek control over their wives and their wives' business. There is only little incentive for them to invest own resources into their wives' businesses, as their own income-generating activities constitute a more productive way to provide for the family.

The second profile includes husbands who show low levels of constraining behavior and provide high levels of resources. Husbands of this profile are not concerned about traditional role allocations, and therefore respect their wives' autonomy, contribute to domestic duties, and address conflicts constructively. As their own contribution to the family income is limited, they provide high resources for their wives' business and consider the business as a joint effort to ensure the family's economic well-being. In line with the literature on entrepreneurial couples who run their business in a collaborative way, we label these husbands 'the Copreneurs' (Barnett & Barnett, 1988; Marshack, 1993; Muske & Fitzgerald, 2006).

The third profile includes husbands who show high levels of constraining behavior and provide high levels of resources. Husbands of this profile are labeled 'the Regulators'. Constraining and supportive behaviors co-occur because husbands have very traditional gender role beliefs and their own contribution to the family income is rather low. These husbands may exert dominance and insist on traditional family roles to hold their ground but may be willing to invest their own resources in their wives' business as they are well-aware of its value for the family income.

The fourth profile includes husbands who show low levels of constraining behavior and provide low levels of resources. These husbands do not have strong traditional gender role beliefs that oppose their wives' entrepreneurial involvement. In addition, they rather focus on their own-income generating activities and do not believe that investing resources in their wives' business leads to higher family income. As a consequence, they do not pay much attention to their wives' business and are therefore labeled 'the Indifferent'. In sum, we state:

Hypothesis 1*: There are four distinct profiles of husbands' influence on women entrepreneurs' business: The Opponents (a), the Copreneurs (b), the Regulators (c), and the Indifferent (d).*

We further test the theoretical assumptions leading to the postulation of the four profiles by examining husbands' gender role beliefs and husbands' contribution to the family income as antecedents of husbands' profile membership (cf. Figure 3.1). We built on social role theory (Eagly, 1987; Eagly & Wood, 2012) to argue that husbands with traditional gender role beliefs may be more likely to engage in constraining behavior. We thus state:

Hypothesis 2*: Husbands with traditional gender role beliefs are more likely to belong to the Opponents or Regulators than to the Copreneurs or Indifferent.*

Based on the efficient cooperative household model (Chiappori, 1988, 1992), we proposed that husbands whose resources yield higher benefits for the family income when invested in their wives' business may be ready to support their wives' business. We argue that this is particularly the case for husbands who contribute a relatively low share to the overall family income as these husbands see only little gains from investing resources in their own income-generating activities. We state:

Hypothesis 3*: Husbands with a low contribution to the family income are more likely to belong to the Copreneurs or Regulators than to the Opponents or Indifferent.*

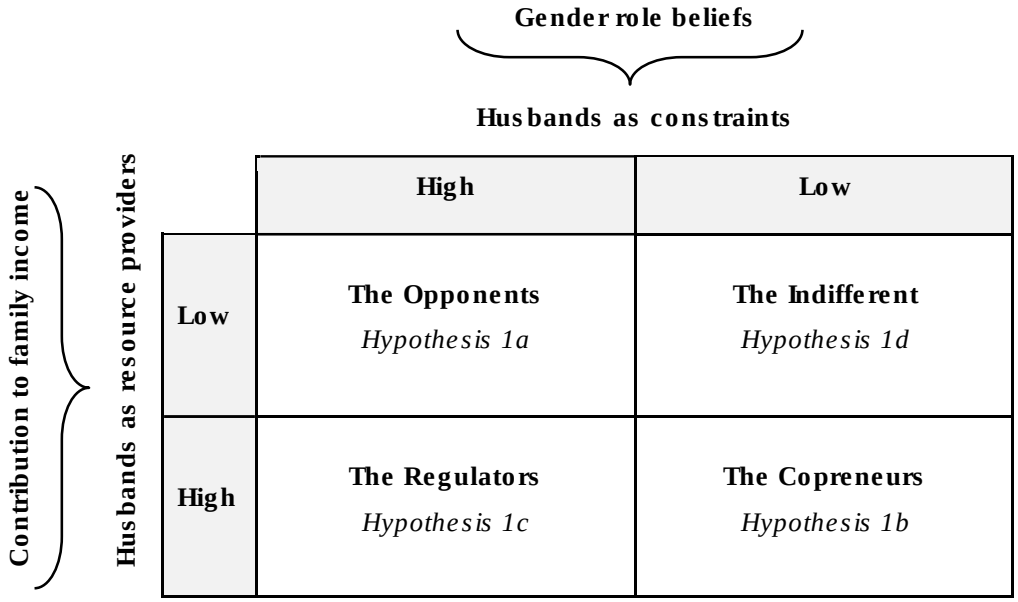


Figure 3.1. Theoretical model: Four distinct profiles of husbands' influence on women entrepreneurs' business success in sub-Saharan Africa.

3.2.4 The Relationship Between Profiles of Husbands' Influence and Women Entrepreneurs' Business Success

We argue that the profiles of husbands' influence are related to women entrepreneurs' business success. Based on our discussion of the 'husbands as constraints' and 'husbands as resource providers' dimensions, we postulate that women entrepreneurs married to the Copreneurs run the most successful business, whereas women married to the Opponents run the least successful business. In addition, we propose that businesses run by women entrepreneurs married to the Regulators do not differ in terms of performance from businesses run by women entrepreneurs married to the Indifferent. We suggest that in the case of women entrepreneurs married to the Regulators, positive and negative behaviors cancel each other, thus leading neither to a competitive advantage nor disadvantage when compared to the businesses run by women entrepreneurs married to the Indifferent. This is in line with meta-analytical evidence which has indicated that family involvement per se has no effect on the financial performance of the business (O'Boyle Jr., Pollack, & Rutherford, 2012), potentially because positive and negative elements of family involvement neutralize. Following previous research in the context of low- and middle-income countries, we focus on profits and employees to quantify the success of women entrepreneurs' businesses (de Mel, McKenzie, & Woodruff, 2009b; Grimm & Paffhausen, 2015). We state:

> ***Hypothesis 4****: Businesses run by women entrepreneurs married to the Copreneurs have higher profits (a) and more employees (b) than businesses run by women entrepreneurs married to the Opponents, the Regulators, and the Indifferent.*
>
> ***Hypothesis 5****: Businesses run by women entrepreneurs married to the Opponents have lower profits (a) and fewer employees (b) than businesses run by women entrepreneurs married to the Copreneurs, the Regulators, and the Indifferent.*
>
> ***Hypothesis 6****: Businesses run by women entrepreneurs married to the Regulators do not differ in terms of profits (a) and employees (b) from businesses run by women entrepreneurs married to the Indifferent.*

3.3 Methods

3.3.1 Sample and Procedure

We drew a sample of 354 husbands from Addis Ababa, Ethiopia, based on an existing dataset of 2.001 women entrepreneurs, registered at the World Bank's Women Entrepreneurship Development Project (WEDP), which facilitates access to finance and entrepreneurial advocacy for women entrepreneurs in urban Ethiopia (World Bank, 2019a).[8] To register at WEDP, women need to own or partly own a micro or small enterprise and have a business license. 60 % of husbands participated in an Amharic interview between May and December 2016. We excluded husbands from the sample when their wives' business was closed at the time of the interview because we could not investigate husbands' current involvement. The final sample consists of 192 husbands. On average, husbands are 44 years old (*SD* = 9.41) and married for 14 years (*SD* = 8.60). 48 % of husbands run at least one business.

Women entrepreneurs were interviewed prior and subsequent to the interviews with their husbands as part of a larger data collection (First wave: November 2015 to April 2016; Second wave: June to September 2017). We use the data of those women entrepreneurs who are married to the husbands of our final sample. Attrition between the two measurement waves was low (8 %), resulting in a sample of 192 women entrepreneurs at the first and 176 women entrepreneurs at the second wave. At the time of the first wave, women entrepreneurs were 37 years old (*SD* = 6.88), had received 12 years of education (*SD* = 3.37), and had 2 children (*SD* = 1.20). They had been a business owner for 8 years (*SD* = 5.92) and 50 % of their businesses were located in a female-dominated sector. On average, they had 4 employees (*SD* = 5.81) and made 9,504 Ethiopian Birr profits per month, corresponding to approximately 452 US Dollar[9] (*SD* = 11,468 ETB / 546 USD).

3.3.2 Measures

Indicator variables of latent profiles. For the latent profile analysis, we used eight indicator variables that measure husbands' constraining and supportive behavior (cf. Table 3.1). These variables originate from interviews with husbands. To measure

[8] The sample of 354 husbands was drawn in the context of a larger entrepreneurship training experiment. For this purpose, all married women entrepreneurs who had accepted a training offer at the time of the sample selection were matched with married women entrepreneurs of a waiting control group based on a propensity score (Heckman, Ichimura, & Todd, 1997).
[9] At November 30, 2015, 1 US Dollar (USD) corresponded to 21 Ethiopian Birr (ETB).

husbands' *control over wives' business,* we asked husbands to consider all decisions to be made related to their wives' business and used the percentage of decisions that were made only by husbands themselves. We measured husbands' *control over wives' daily life* with seven items of the control identity scale (Stets, 1995), asking husbands to indicate how often they had engaged in each of the behaviors on a 5-point Likert scale (1 = Never to 5 = Always). A sample item is 'I made my wife do what I want.' The internal consistency of the scale was adequate (Cronbach's $\alpha = .77$). To measure the degree to which husbands *assign domestic duties to their wives,* we considered the weekly hours both husband and wife spent for household- and family-related duties. To facilitate interpretation of our analyses, we used the percentage share of hours invested by the wife so that high values indicate that husbands assign domestic duties to a high degree to their wives. To operationalize *destructive conflict management,* we selected three items of the power strategy scale (Aida & Falbo, 1991; Falbo & Peplau, 1980) that describe destructive conflict behavior and asked husbands how often they engaged in these behaviors in situations of disagreement with their wives. A sample item is 'I ignored her or didn't listen to her side.' Since conflict is inherently dyadic, we asked husbands to rate their own behavior as well as their wives' behavior on a 5-point Likert scale (1 = Never to 5 = Always) and used the scale mean across all six items. Internal consistency of the scale was high (Cronbach's $\alpha = .80$). We measured husbands' *financial resource provisions* by asking husbands whether or not they supported their wives' business financially (1 = Yes, 0 = No). We used two measures of husbands' social resource provisions: To measure husbands' *working hours in wives' business*, we asked for the number of weekly hours husband and wife work in the business and used the percentage share of husbands' hours. To measure husbands' *business support*, we adopted three items from the family support inventory (King, Mattimore, King, & Adams, 1995) and applied a 5-point Likert scale (1 = Never to 5 = Always). A sample item is 'How often do you take on extra business tasks if her business gets very demanding?' Scale reliability was high (Cronbach's $\alpha = .87$). We used husbands' years as business owner to measure husbands' *human capital resources*.

Control variables. We included husbands' *age*, *education*, the couples' number of *children* and *household members* as well as husbands' weekly *working hours outside of wives' business* and *the sector of wives' business* as control variables. We measured husbands' education with a 4-point scale ranging from 1 = 'Up to primary education' to 4 = 'Up to higher university education'. We defined *household members* as all people who eat and sleep together for at least six months of the year. To measure husbands' *working hours outside of wives' business,* we asked husbands for the number of weekly hours they spend for

wage employment and own businesses and calculated the total. For the *sector of wives' business*, we asked women entrepreneurs whether most businesses in their sector were owned by men or by women and coded '1' for female- and '0' for male-dominated sectors.

Antecedent variables of husbands' profile membership. We measured husbands' *gender role beliefs* with three items of the World Value Survey (Constantin & Voicu, 2015) and asked husbands to rate their agreement on a 5-point Likert scale (1 = Strongly disagree to 5 = Strongly agree). A sample item is 'On the whole, men make better business owners than women do.' Scale reliability was satisfactory for such a short scale (Cronbach's $\alpha = .68$). Higher values indicate more traditional and less egalitarian gender role beliefs. Husbands' *contribution to family income* was measured with a binary variable. As our hypothesis focused on husbands with a low contribution to the family income we coded '1' when husbands' perceived their relative contribution to the family income as half or less and '0' when they indicated to provide more than half of the family income themselves.

Women entrepreneurs' business success variables. We used business profits and number of employees as indicators of women entrepreneurs' business success. We measured *business profits* by asking women entrepreneurs for the profits their business had earned during the last month (de Mel et al., 2009b). We used a self-reported measure as only 36 % of women of our sample stated that they kept financial records for their business and were able to show them to the enumerator during the first wave of interviews. In addition, we followed recommendations for measuring profits in developing countries (de Mel et al., 2009b) in that we directly asked for profits instead of calculating profits based on self-reported sales and expenses. To measure the *number of employees*, we asked for the number of people working in the business, including paid family members, unpaid workers, casual workers, apprentices, and active owners and managers. Business profits and number of employees were set to zero in case the business was closed at the time women entrepreneurs were interviewed and winsorized at the 1st and 99th percentiles to reduce the influence of outliers.

Variables for latent profile validation. We included supplementary variables from the second wave of interviews with women entrepreneurs to be able to validate the interpretation of latent profiles with the help of women's reports. These variables are *husbands' involvement*, *wives' preference for higher involvement of husbands*, *wives' satisfaction with husbands' involvement*, and *wives' time-based work-family conflict*. In addition, we included the variable *joint business decision-making* from the survey with husbands and calculated the overall *family income* based on the surveys with husbands and women entrepreneurs.

Table 3.1. Description of study variables.

Variable	Survey	Description
Indicator variables of latent profiles – Husbands as constraints		
1. Control over wives' business	Husbands	Share of decisions related to wives' business typically made by husband (%); validation with women's report: r = .55, p = .01, n = 22
2. Control over wives' daily life	Husbands	7 items of control identity scale (Stets, 1995) (1 = Never to 5 = Always); Cronbach's α = .77
3. Assignment of domestic duties	Husbands	Wives' share of couples' hours spent for household and family-related duties (%); high values indicate that husbands assign domestic duties to a high degree to their wives
4. Destructive conflict management	Husbands	3 items of power strategy scale (Aida & Falbo, 1991; Falbo & Peplau, 1980) measuring destructive conflict behavior of husband and wife (1 = Never to 5 = Always); Cronbach's α = .80
Indicator variables of latent profiles – Husbands as resource providers		
5. Financial resource provisions	Husbands	Binary variable measuring whether husbands support their wives' business financially (1 = Financial support for wives' business, 0 = No financial support for wives' business)
6. Working hours in wives' business	Husbands	Husbands' share of couples' weekly working hours in wives' business (%); validation with women's reports: r = .41, p = .00, n = 148
7. Business support	Husbands	3 items of family support inventory (King et al., 1995) (1 = Never to 5 = Always); Cronbach's α = .87; validation with women's reports: r = .37, p = .00; n = 158
8. Human capital resources	Husbands	Husbands' years as business owner
Control variables		
9. Age	Husbands	Husbands' age
10. Education	Husbands	Husbands' level of education (1 = Up to primary education to 4 = Up to higher university education)
11. Children	Women ent[a]	Number of couple's children
12. Household members	Women ent[a]	Number of all individuals who eat and sleep together in the couple's household for at least six months of the year
13. Working hours outside of wives' business	Husbands	Sum of husbands' weekly working hours for wage employment and own businesses
14. Sector of wives' business	Women ent[a]	Binary variable measuring whether in wives' business sector most of the businesses are owned by men or women (1 = Female-dominated business sector, 0 = Male-dominated business sector)

Table 3.1. Continued.

Variable	Survey	Description
Antecedent variables of husbands' profile membership		
15. Gender role beliefs	Husbands	3 items of World Value Survey (Constantin & Voicu, 2015) (1 = Strongly disagree to 5 = Strongly agree), Cronbach's α = .68; higher values indicate more traditional gender role beliefs
16. Contribution to family income	Husbands	Husbands' perceived contribution to the family income (1 = half or less, 0 = more than half); validation with women's reports: chi^2 = 20.16, p = .00; n = 171
Women entrepreneurs' business success variables		
17. Business profits	Women ent[b]	Wives' business profits during the last month (winsorized at the 1st and 99th percentile) (in Ethiopian Birr: 1 USD = 23 ETB as of September 2017); set to 0 in case of closed business
18. Number of employees	Women ent[b]	Number of individuals working in wives' business including paid family members, unpaid workers, casual workers, apprentices, and active owners and managers (winsorized at the 1st and 99th percentile); set to 0 in case of closed business
Variables for latent profile validation		
19. Husbands' involvement	Women ent[b]	1 = Husband is currently involved in business, 0 = Husband is currently not involved in business
20. Wives' preference for higher involvement of husbands	Women ent[b]	1 = I wish he would be more involved OR I wish he would be my business partner 0 = I am completely satisfied OR I wish he would be less involved OR I wish he would not be involved at all
21. Wives' satisfaction with husbands' involvement	Women ent[b]	1 = I am completely satisfied 0 = I wish he would be more involved OR I wish he would be my business partner OR I wish he would be less involved OR I wish he would not be involved at all
22. Joint business decision-making	Husbands	Share of decisions related to wives' business typically made jointly by the couple (%)
23. Wives' time-based work-family conflict	Women ent[b]	Wives' time-based work-family conflict based on negative work-home interference subscale (Geurts et al., 2005) (1 = Never to 5 = Often); Cronbach's α = .83
24. Family income	Husbands, women ent[ab]	Sum of husbands' monthly income (including profits and salary from own businesses and wage employment and any income from other sources, e.g. remittances, rent) and wives' monthly income including monthly business profits (average of profits at first and second wave) and any income from other sources (e.g. remittances, rent) (Total amount winsorized at the 1st and 99th percentile) (in Ethiopian Birr: 1 USD = 23 ETB as of September 2017)

Note. Husbands = Measure based on survey with husbands: Study sample; Women ent: Measure based on survey with women entrepreneurs.
[a] Survey between November 2015 and April 2016 (first wave). [b] Survey between June and September 2017 (second wave).

3.3.3 Method of Analysis

Validation of indicator variables. Prior to running the latent profile analysis, we examined the correlation between husbands' and women entrepreneurs' reports of selected variables to make sure that husbands' perceptions were in line with women entrepreneurs' perceptions. For a small subset of the sample we could ascertain agreement on the variable *control over wives' business* ($r = .55$, $p = .01$, $n = 22$).[10] For husbands' *working hours in wives' business*, *business support*, and *contribution to family income*, we had a larger sample and again found a considerable level of agreement (working hours in wives' business: $r = .41$, $p = .00$, $n = 148$; business support: $r = .37$, $p = .00$; $n = 158$; contribution to family income: $chi^2 = 20.16$, $p = .00$; $n = 171$).[11]

Latent profile analysis. We used latent profile analysis to estimate different profile solutions based on the eight indicator variables measuring husbands' constraining and supportive behavior. In contrast to traditional cluster analysis techniques, latent profile analysis is a model-based procedure that relies on more rigorous fit indices and criteria to select the best-fitting model (Vermunt & Magidson, 2002; Wang & Hanges, 2011). M*plus* (version 7.4) was used to run the analyses. We started with a one-profile solution and increased the number of profiles until the best loglikelihood value could not be replicated (Nylund, Asparouhov, & Muthén, 2007). To avoid converging on a local solution, we estimated models with 5000 random sets of start values, 200 iterations per set and 100 best solutions for final stage optimization (Hipp & Bauer, 2006; Morin, Meyer, Creusier, & Biétry, 2016). We identified the latent profile solution with the optimal number of profiles by focusing on the lowest value of the Bayesian Information Criterion (BIC) and a significant result of the bootstrap likelihood ratio test (BLRT; McLachlan & Peel, 2004).[12] Simulation studies show that the BIC and BLRT are the best statistical fit-indices compared to alternative information criteria (e.g. Akaike Information Criterion, sample-size adjusted BIC) and other likelihood ratio tests (e.g. Lo-Mendel-Rubin likelihood ratio test; LMR) (Nylund et al., 2007). In addition, we considered posterior probabilities and entropy, which are useful indicators of classification accuracy and should be higher than .70 (Bennett, Gabriel, Calderwood, Dahling,

[10] The sample consists of 22 women entrepreneurs who completed a questionnaire during the interviews with their husbands. The sample size is small because women entrepreneurs were rarely present as the interview usually did not take place at the couples' home.
[11] This sample is based on the second wave of interviews with women entrepreneurs (June to September 2017).
[12] The BLRT compares a k-profile solution with a k-1 profile solution. A significant BLRT test indicates that the k-profile solution is superior to the k-1 profile solution (Morin et al., 2016).

& Trougakos, 2016; Stanley et al., 2016). Finally, we used 5 % of all observations as a rule of thumb for the minimum size of profiles (Stanley et al., 2016) and made sure that the identified profile solution was parsimonious and theoretically meaningful (Lubke & Muthén, 2005). Control variables were specified as auxiliary variables in M*plus* as the objective was to consider their influence on the latent class probabilities and not on the qualitative nature of the profiles (Marsh, Lüdtke, Trautwein, & Morin, 2009). After selecting the best latent profile solution, we conducted pairwise comparisons with Stata (version 13) to test whether profiles differ substantially with regard to the indicator variables (Stanley et al., 2016).

Antecedents of husbands' profile membership. We conducted multinomial logistic regressions using the R3STEP function in M*plus* (Asparouhov & Muthén, 2014) to test husbands' *gender role beliefs* and *contribution to the family income* as antecedents of the selected latent profile solution. R3STEP tests whether an increase in the antecedent makes it more or less likely that husbands belong to a specific profile. To control for other determinants of profile membership, we included the control variables in a first step (husbands' *age*, *education*, *children*, *household members*, *working hours outside of wives' business,* and *sector of wives' business*) and added the antecedents in a second step. Following previous work, we calculated odds ratios (OR) to facilitate the interpretation (Meyer, Morin, & Vandenberghe, 2015; Morin et al., 2016).

Profiles of husbands' influence and women entrepreneurs' business success. We used the DCON procedure in M*plus* (Asparouhov & Muthén, 2014; Lanza, Tan, & Bray, 2013) to test between-profile differences with regard to women entrepreneurs' business success variables (*business profits* and *number of employees*). The DCON function examines whether there are statistically significant differences between the profiles for each success variable. For both R3STEP and DCON, the automatic three steps approach accounts for possible errors in classification (Asparouhov & Muthén, 2014).

Validation of latent profiles. We used the R3STEP function in M*plus* to validate the interpretation of the latent profiles with the help of additional variables. The variables for profile validation were specified as auxiliary variables as we were interested in their relationship with profile membership (Marsh, Lüdtke, Trautwein, & Morin, 2009). The auxiliary function tests the hypothesis of the equality of means of these variables across the profiles based on pseudo-class draws, thus considering the probabilities that a husband will belong to a certain profile rather than the most likely class he will fall into (Marsh et al., 2009).

3.4 Results

3.4.1 Latent Profile Analysis

Table 3.2 displays the descriptive statistics and correlations of all study variables. The first step of the latent profile analysis was to identify the best latent profile solution. Table 3.3 shows the goodness of fit indices for the solutions with one to six profiles. For the solution with seven profiles, the best loglikelihood value could not be replicated so that we stopped increasing the number of profiles. The results show that the BIC reached its lowest level for the solution with three latent profiles. The BLRT could not be used to select the best profile solution since it was significant across all solutions. The LMR, an alternative likelihood ratio test, was significant at the 5 % level for the solution with two and six latent profiles ($p_2 < .002$; $p_6 < .031$) and significant at the 10 % level for the solution with three latent profiles ($p_3 < .094$). Entropy was higher than .70 for the two-profiles solution, higher than .80 for the three-, four-, and five-profiles solution and higher than .90 for the six-profiles solution, indicating high classification accuracy. Posterior probabilities were similarly high across all latent profile solutions (> .90). With the lowest BIC, an LMR significant at the 10 % level, high entropy, and a sufficient share of observations for each profile, the three-profiles solution yielded the best statistical fit and was therefore selected as the best latent profile solution. Figure 3.2 depicts the mean-standardized indicator values for each of the three latent profiles. The competing profile solutions with two, four, five, and six profiles are shown in Appendix B.

Table 3.2. Descriptive statistics and correlations of study variables.

Variables	H/W[a]	N	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Indicator variables of latent profiles – Husbands as constraints																												
1. Control over wives' business	H	192	17.29	20.59	(-)																							
2. Control over wives' daily life	H	192	2.06	.82	.12	(.77)[b]																						
3. Assignment of domestic duties	H	191	58.62	17.57	.19**	-.01	(-)																					
4. Destructive conflict management	H	192	1.49	.60	.05	.09	.04	(.80)																				
Indicator variables of latent profiles – Husbands as resource providers																												
5. Financial resource provisions	H	192	.56	.50	-.08	.24***	-.09	.04	(-)																			
6. Working hours in wives' business	H	190	24.38	20.47	.08	-.03	.00	-.09	-.04	(-)																		
7. Business support	H	192	3.56	1.13	.07	.08	-.20**	-.15*	.07	.60***	(.87)																	
8. Human capital resources	H	192	6.14	7.56	.02	.10	.03	-.03	.07	-.02	.03	(-)																
Control variables																												
9. Age	H	192	43.52	9.41	-.10	.03	.00	-.02	-.20**	-.14	-.13	.09	(-)															
10. Education	H	192	3.09	.97	.13	-.02	-.07	.04	.12	-.22**	-.11	-.15*	-.03	(-)														
11. Children	W	192	2.34	1.20	-.04	-.04	.02	.12	-.05	-.00	-.01	.16*	.36***	-.06	(-)													
12. Household members	W	192	5.59	2.02	-.02	.05	.09	.15*	.06	.05	.09	.18*	.18*	-.13	.62***	(-)												
13. Working hours outside of wives' business	H	192	45.64	26.61	-.04	-.02	.12	.10	.16*	-.45***	-.36***	.15*	-.01	.08	.11	.07	(-)											
14. Sector of wives' business	W	190	.50	.50	.00	-.06	-.00	.13	-.05	-.14	-.25***	-.09	.12	.04	.05	-.01	.05	(-)										
Antecedent variables of husbands' profile membership																												
15. Gender role beliefs	H	192	1.62	.89	.23**	.25***	.11	.17*	.07	-.07	-.04	.08	-.01	-.12	-.02	.03	.07	.04	(.68)									
16. Contribution to family income	H	192	.51	.50	-.05	-.06	-.02	-.12	-.14	.28***	.33***	.07	.04	-.15*	-.01	.08	-.24***	-.12	-.03	(-)								
Women entrepreneurs' business success variables																												
17. Business profits[c]	W	171	10380	16708	.07	-.01	-.00	-.09	.02	.15*	.18*	.08	-.21**	.09	-.12	.09	-.02	-.11	.05	.25***	(-)							
18. Number of employees	W	176	3.88	6.12	.05	.06	-.06	-.10	.03	.18*	.25***	.23**	-.04	.06	.06	.15*	-.10	-.03	.01	.27***	.59***	(-)						
Variables for latent profile validation																												
19. Husbands' involvement	W	158	.65	.48	-.02	-.04	.08	-.01	.05	.36***	.24**	.00	-.15	-.19*	.09	.10	-.14	-.05	-.17*	.18*	.14	.16*	(-)					
20. Wives' preference for higher involvement[d]	W	156	.42	.49	-.02	.06	.03	-.04	-.11	-.13	-.20*	-.06	.03	-.01	.06	.03	.02	.16*	.08	-.06	-.13	-.13	-.11	(-)				
21. Wives' satisfaction with involvement[e]	W	156	.51	.50	.04	-.08	-.06	.08	.10	.13	.23**	.07	-.03	-.04	.01	.05	-.03	-.18*	-.09	.12	.17*	.17*	.21**	-.86***	(-)			
22. Joint business decision-making	H	192	42.34	43.91	-.62***	-.06	-.02	-.12	-.05	.27***	.26***	-.05	.02	-.24***	.09	.10	-.12	-.09	-.15*	.20**	.00	.02	.17*	-.00	.04	(-)		
23. Wives' time-based work-family conflict	W	159	2.25	1.07	.00	.04	-.00	.15	.06	-.26***	-.14	.19*	.01	.02	.01	.09	.07	-.02	-.04	.20*	-.09	.08	-.08	-.00	.06	-.06	(.83)	
24. Family income[c]	H/W	152	32238	52726	.12	-.00	-.04	-.04	.18*	-.00	.04	.16*	-.16*	.11	-.08	.09	.16	-.17*	.07	-.15	.40***	.30***	-.11	-.09	.12	-.12	.06	(-)

Note. N = Number of observations per variable; M = Mean; SD = Standard Deviation.
[a] H = Measure based on survey with husbands, W = Measure based on survey with women entrepreneurs. [b] In parentheses: Reliability of the measure (Cronbach's alpha). [c] In Ethiopian Birr (ETB; 1 USD = 23 ETB as of September 2017). [d] The full variable name is: Wives' preference for higher involvement of husbands. [e] The full variable name is: Wives' satisfaction with husbands' involvement.
*$p < .05$
**$p < .01$
***$p < .001$

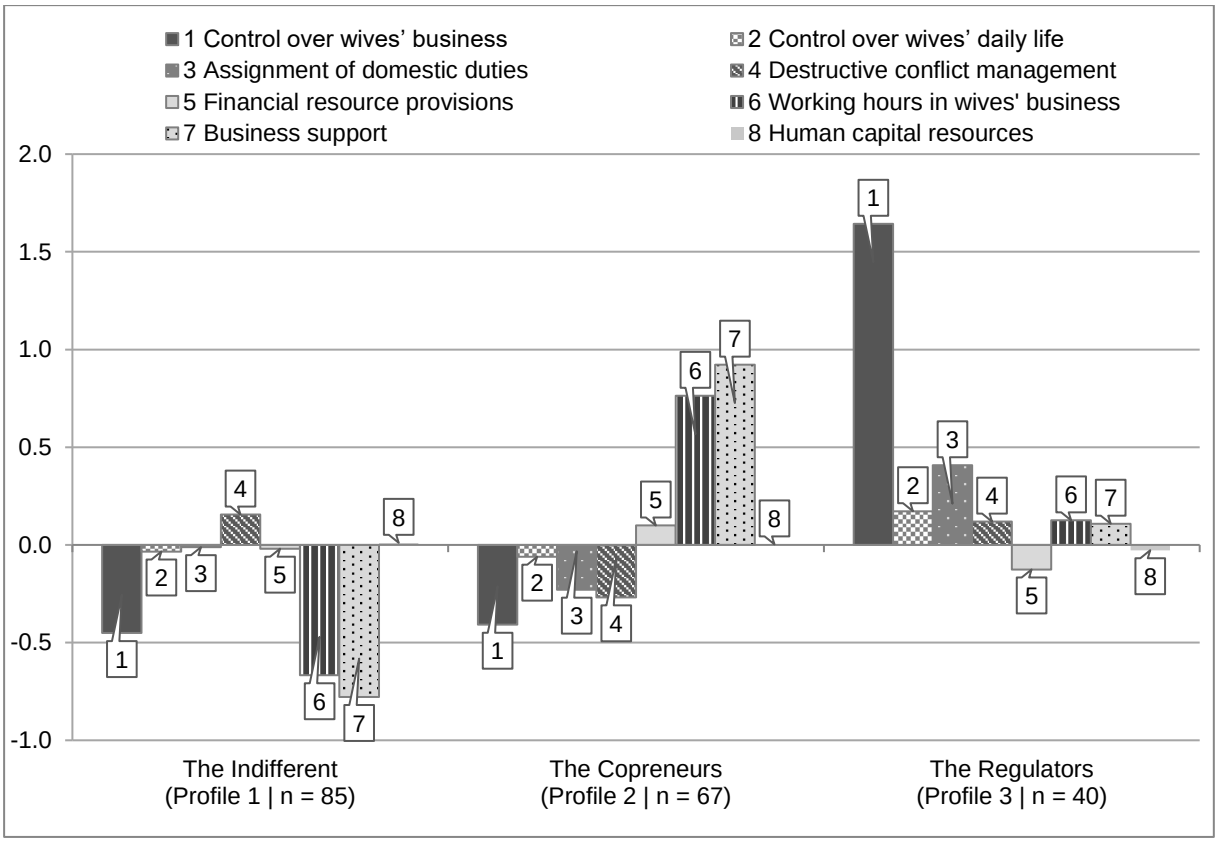
Table 3.3. Goodness of fit indices for latent profile solutions with one to six profiles.

#profiles	LL	#fp	BIC	BLRT (*p*)	LMR (*p*)	Entropy	#obs/min
1 profile	-4010.090	15	8099.042	-	-	-	192
2 profiles	-3960.178	24	8046.536	.000	.002	.786	96
3 profiles	**-3933.300**	**33**	**8040.096**	**.000**	**.094**	**.802**	40
4 profiles	-3909.714	42	8040.243	.000	.538	.898	13
5 profiles	-3887.607	51	8043.347	.000	.818	.896	11
6 profiles	-3868.922	60	8053.294	.000	.031	.916	3

Note. #profiles = Number of profiles; LL = Model log-likelihood; #fp = Number of free parameters; BIC = Bayesian information criterion; BLRT = Bootstrap likelihood ratio test; LMR = Lo-Mendel-Rubin likelihood ratio test; #obs/min = Number of observations of smallest profile; N = 192.

3.4.2 Profiles of Husbands' Influence

To evaluate whether the data supports our hypotheses 1a to 1d, we examined the shape and level of the indicator variables for each of the three profiles (cf. Figure 3.2). Table 3.4 displays the profile means and the pairwise comparisons of the eight indicator variables. The results provide support for hypothesis 1b, 1c, and 1d by identifying a profile corresponding to the Copreneurs (n = 67; 35 %), the Regulators (n = 40; 21 %), and the Indifferent (n = 85; 44 %). There are significant differences at the 5 % level between the three profiles regarding husbands' control over their wives' business (Regulators > Indifferent, Copreneurs), husbands' assignment of domestic duties (Regulators > Copreneurs), destructive conflict management (Indifferent > Copreneurs), and husbands' social resource provisions (working hours in wives' business: Copreneurs > Regulators > Indifferent; business support: Copreneurs > Regulators > Indifferent). Odds ratio results provided by M*plus* show that husbands differ significantly in their likelihood to provide financial resources (Copreneurs > Indifferent > Regulators). There are no significant between-profile differences with regard to husbands' control over wives' daily life and husbands' human capital resources but the Regulators' control over wives' daily life was significantly higher than the sample mean ($t(191) = -2.39$, $p = .018$). In contrast to hypothesis 1a, there is no profile that corresponds to the Opponents. Importantly, we do not find this profile in the latent profile solutions with two, four, five, or six profiles, either, indicating that the Opponents do not exist in our sample (cf. Appendix B). The effects of the control variables on profile membership are reported with the results for the antecedent variables in Table 3.5.



Note. The results were z-standardized to a mean of 0 and a standard deviation of 1 to facilitate interpretation of the profiles.

Figure 3.2. Three-profiles solution: Characteristics of latent profiles of husbands' influence based on the eight indicator variables.

Table 3.4. Profile means and pairwise comparisons of indicator variables of latent profiles.

Profile	*n*	Control over wives' business	Control over wives' daily life	Assignment of domestic duties	Destructive conflict manage-ment	Financial resource provisions	Working hours in wives' business	Business support	Human capital resources
Indifferent (Profile 1)	85	8.00	2.03	58.42	1.58	.55[a]	10.72	2.68	6.22
Copreneurs (Profile 2)	67	8.88	2.01	54.60	1.33	.61	40.00	4.60	6.16
Regulators (Profile 3)	40	51.13	2.20	65.79	1.56	.50	26.95	3.68	5.94
Pairwise comparisons[b]		3 > 1, 2	ns	3 > 2	1 > 2	2 > 1 > 3[c]	2 > 3 > 1	2 > 3 > 1	ns

Note. $N = 192$; ns = No significant pairwise comparisons at $p < .05$.
[a] Probabilities for binary variables. [b] Pairwise comparisons (using the Tukey-Kramer test) indicate which profile means differ significantly at $p < .05$. 1 refers to the profile mean of the Indifferent, 2 to the profile mean of the Copreneurs, and 3 to the profile mean of the Regulators. [c] Odds ratio results for binary variables.

3.4.3 Antecedents of Husbands' Profile Membership: Husbands' Gender Role Beliefs and Contribution to Family Income

Table 3.5 displays the results of the multinomial logistic regressions conducted with R3STEP. In a first step, we entered the six control variables. The results show that husbands' age decreased the likelihood to belong to the Regulators compared to the Indifferent (*OR* = .93, *p* = .015). Husbands' working hours outside of the business decreased the likelihood to belong to the Regulators (*OR* = .96, *p* = .003) or Copreneurs (*OR* = .96, *p* = .000) compared to the Indifferent. Finally, husbands were less likely to belong to the Copreneurs compared to the Indifferent when their wives operated in a female-dominated sector (*OR* = .37, *p* = .034). In a second step, we added the antecedent variables to test whether husbands' gender role beliefs and contribution to the family income predicted profile membership.[13] The results provide support for hypothesis 2 in that a one-standard-deviation increase in husbands' gender role beliefs (i.e. more traditional gender role beliefs) increased the likelihood of husbands to belong to the Regulators compared to both the Indifferent (*OR* = 2.26, *p* = .002) and the Copreneurs (*OR* = 2.68, *p* = .001). The results also provide support for hypothesis 3 in that husbands with a relatively low contribution to the overall family income were more likely to belong to the Copreneurs (*OR* = 4.86, *p* = .002) and the Regulators (*OR* = 2.65, *p* = .033) as compared to the Indifferent. For both antecedents, we were not able to test whether or not they predicted membership to the Opponents since we could not find this profile in our sample.

[13] As the results of the control variables remained largely the same, we display only the results of the antecedent variables. Only one result changed: Husbands' education increased the likelihood of husbands to belong to the Regulators compared to the Copreneurs (*OR* = 1.66, *p* = .049).

Table 3.5. Results for antecedent variables of husbands' profile membership (R3STEP).

	Regulators vs. Indifferent			Regulators vs. Copreneurs			Copreneurs vs. Indifferent		
	Coef.	***SE***	***OR***	**Coef.**	***SE***	***OR***	**Coef.**	***SE***	***OR***
Step 1: Control variables									
Age	-.07*	(.03)	.93	-.02	(.03)	.98	-.05	(.03)	.95
Education	-.04	(.24)	.97	.34	(.21)	1.49	-.43	(.23)	.65
Children	-.07	(.24)	.93	.12	(.21)	1.13	-.19	(.28)	.82
Household members	.18	(.14)	1.20	-.08	(.11)	.93	.26	(.16)	1.29
Working hours outside of wives' business	-.04**	(.01)	.96	.01	(.01)	1.01	-.05**	(.01)	.96
(female-dominated) sector of wives' business	-.60	(.50)	.55	.39	(.47)	1.48	-1.00*	(.47)	.37
Step 2: Control variables and antecedent variables									
(traditional) Gender role beliefs	.82††	(.27)	2.26	.99††	(.29)	2.68	.17	(.37)	1.18
(low) Contribution to family income	.98†	(.53)	2.65	-.61	(.55)	.55	1.58††	(.53)	4.86

Note. Positive (negative) coefficient values indicate that higher values on the variable make a husband more (less) likely to belong to the first latent profile of the two being compared; Coef. = Estimate (β) from the R3STEP multinomial logistic regression analysis; *SE* = Standard error of the coefficient; *OR* = Odds ratio; *N* = 190 due to listwise deletion.
* $p < .05$, two-tailed. ** $p < .01$, two-tailed.
† $p < .05$, one-tailed. †† $p < .01$, one-tailed.

3.4.4 Profiles of Husbands' Influence and Women Entrepreneurs' Business Success

Table 3.6 displays the results of the DCON procedure, testing between-profile differences with regard to women entrepreneurs' business profits and number of employees. Results provide partial support for hypothesis 4 by showing that businesses owned by women entrepreneurs married to the Copreneurs make higher profits ($\chi^2 = 6.61$, $p = .010$) and have more employees ($\chi^2 = 9.68$, $p = .002$) than businesses owned by women married to the Indifferent; however, profits and number of employees do not exceed those of businesses owned by women entrepreneurs married to the Regulators. Since there was no profile of Opponents, we could not test hypothesis 5. With regard to hypothesis 6, results show that businesses owned by women entrepreneurs married to the Regulators and Indifferent differ in terms of profits at the 10 % level ($\chi^2 = 3.39$, $p = .066$). In addition, businesses owned by women entrepreneurs married to the Regulators have significant more employees than those

businesses owned by women married to the Indifferent ($\chi^2 = 4.54$, $p = .033$). Thus, results do not provide support for hypothesis 6.

Table 3.6. Results for the relationship between profiles of husbands' influence and women entrepreneurs' business success (DCON).

Outcomes	***N***	**Indifferent** (Profile 1)	**Copreneurs** (Profile 2)	**Regulators** (Profile 3)	**Chi-square**
Business profits[a]	171	6 506.59 < Profile 2	13 789.50 > Profile 1	13 495.49	9.26*
Number of employees	176	2.23 < Profile 2, 3	5.39 > Profile 1	5.05 > Profile 1	12.91**

Note. The values for women entrepreneurs' business profits and number of employees are profile means. Subscripts indicate profiles that are significantly different at $p < .05$. *N* = Number of observations in DCON analysis.
[a] In Ethiopian Birr (ETB; 1 USD = 23 ETB as of September 2017).
* $p < .05$
** $p < .01$

Robustness checks show that businesses owned by women entrepreneurs married to the Copreneurs have higher profits than businesses owned by women married to the Indifferent and more employees than businesses owned by women married to the Indifferent or Regulators independent from the transformation of measures (e.g. winsorized at 5th and 95th percentile, inverse hyperbolic sine transformation) and regardless of whether the analysis was conducted on condition that the business was operational or not. The results are also robust to controlling for women's business sector and their profits and number of employees at the first wave.

3.4.5 Validation of Latent Profiles

Table 3.7 displays the results of the variables we included for latent profile validation. We draw on these results when summarizing the identified profiles in the discussion section.

Table 3.7. Results for variables for latent profile validation (R3STEP).

Variables for profile validation		Regulators vs. Indifferent			Regulators vs. Copreneurs			Copreneurs vs. Indifferent		
	N	**Coef.**	***SE***	***OR***	**Coef.**	***SE***	***OR***	**Coef.**	***SE***	***OR***
Husbands' involvement	158	.66	.51	1.94	-.99	.59	.37	1.65**	.52	5.20
Wives' preference for higher involvement of husbands	156	-.66	.51	.52	.53	.53	1.71	-1.20**	.46	.30
Wives' satisfaction with husbands' involvement	156	.69	.51	2.00	-.40	.51	.67	1.09*	.45	2.98
Joint business decision-making (%)	192	-.06**	.02	.94	-.07**	.02	.93	.02**	.01	1.02
Wives' time-based work-family conflict	159	-.16*	.22	.86	.37	.26	1.44	-.52*	.24	.59
Family income[a]	152	.00	.00	1.00	.00	.00	1.00	.00	.00	1.00

Note. Positive (negative) coefficient values indicate that higher values on the variable make a husband more (less) likely to belong to the first latent profile of the two being compared; Coef. = Estimate (β) from the R3STEP multinomial logistic regression analysis; *SE* = Standard error of the coefficient; *OR* = Odds ratio; *N* = Number of observations in R3STEP analysis.

[a] In Ethiopian Birr (ETB; 1 USD = 23 ETB as of September 2017).

* $p < .05$, two-tailed.

** $p < .01$, two-tailed.

3.5 Discussion

With our study, we sought to challenge the preconception of the predominantly constraining husband by developing and testing a theoretical model of husbands' influence on women entrepreneurs' business success in sub-Saharan Africa. Our findings are in line with three of the four postulated profiles and largely support our hypotheses regarding husbands' gender role beliefs and their contribution to the family income: Husbands with traditional gender role beliefs are more likely to belong to the Regulators than to the other profiles and husbands with relatively low contributions to the family income are more likely to belong to the Copreneurs or Regulators as compared to the Indifferent. In addition, our findings partly support our hypothesis regarding the profiles' relationship with women entrepreneurs' business success in that women entrepreneurs married to the Copreneurs run more successful businesses than women entrepreneurs married to the Indifferent. Furthermore, the findings indicate that women entrepreneurs' businesses also benefit from the Regulators. With our study, we make three major contributions.

First, we demonstrate that there is a clear differentiation between the types of husbands. As the profiles of the Indifferent, Copreneurs, and Regulators illustrate, husbands can be meaningfully grouped into types that show helpful and hindering behaviors to different

degrees. Thus, our study contributes to the women entrepreneurship literature by empirically showing that husbands are more diverse than commonly assumed, thereby calling for a nuanced look on husbands' role in women entrepreneurship.

Second, by combining cultural and economic theory, we contribute to the emerging entrepreneurship literature that takes into account the unique context of entrepreneurs in sub-Saharan Africa (George et al., 2016; Webb et al., 2015; Zoogah et al., 2015). Drawing on social role theory (Eagly, 1987; Eagly & Wood, 2012), we account for the influential role of the patriarchal culture in which women entrepreneurs and their husbands are embedded, but bear in mind that husbands may vary in the facets of gender role beliefs they adopt and the degree to which they endorse them in their self-concepts. At the same time, by building on the efficient cooperative household model (Browning & Chiappori, 1998; Chiappori, 1988, 1992), we acknowledge that the family constitutes an economic unit in sub-Saharan Africa (Webb et al., 2015). Thus, financial considerations may be an integral element of everyday life decisions and play a more vital role than in other parts of the world (Banerjee & Duflo, 2007). Our findings indicate that indeed both cultural and economic motives matter in terms of how husbands approach their wives' business. So far, research about the interplay between family and business domains was mostly situated in middle- and high-income countries. Recent research has increasingly focused on the affective endowment of families, for example, emphasizing the family's pursuit of identity and legacy (Berrone et al., 2012; Gomez-Mejia et al., 2011). However, in the demanding context of sub-Saharan Africa, the preservation of the family's affective endowment may not rank first.

Third, we contribute to the emerging literature on entrepreneurship and poverty alleviation (Bruton et al., 2013; Sutter et al., 2019) by providing first empirical evidence for husbands' impact on women entrepreneurs' business success in sub-Saharan Africa. Our findings show that women entrepreneurs run the most successful businesses when married to husbands who provide resources for the business (cf. the Copreneurs and Regulators) – even when those husbands at the same time engage in constraining behavior (cf. the Regulators). Thus, our findings underline the importance of husbands' resources in otherwise resource-scarce environments and respond to the call for more research on how entrepreneurs in settings of poverty can be promoted beyond training or microcredit (Sutter et al., 2019). At the same time, our findings indicate that there is a different, maybe even unexpected way, in which husbands can do harm, namely by largely ignoring their wives' entrepreneurial efforts (cf. the Indifferent). Hence, our study suggests that husbands' involvement is critical for

women entrepreneurs' business success in sub-Saharan Africa. This finding is particularly crucial as husbands who are involved to a relatively low extent form the largest profile. Overall, we thus provide support for the notion that scholars need to complement their insights centered around individual factors with research on contextual factors in order to advance knowledge on successful women entrepreneurship (Ahl, 2006; Brush et al., 2009; Hughes et al., 2012; Jennings & Brush, 2013). Given that most women in sub-Saharan Africa are expected to get married, a profound understanding of their husbands' supportive and constraining potential is of high relevance.

In the following, the three profiles of the Indifferent, the Copreneurs, and the Regulators are described in more detail by also drawing on the variables we included for latent profile validation (cf. Table 3.7).

3.5.1 The Indifferent

The Indifferent form the largest profile with 44 % of all husbands. As hypothesized, husbands of this profile are characterized by a relatively low involvement in their wives' business. From a cultural viewpoint, there may be no need for the Indifferent to interfere in their wives' business as their wives' entrepreneurial activity is not in conflict with their gender role beliefs. The moderate levels of the Indifferent's supportive involvement seem to be related to their own income-generating activities. According to the efficient cooperative household model, husbands allocate resources in a way that the overall family income is increased (Baland & Ziparo, 2017; Zou, 2015). As the Indifferent are more likely than the other profiles to provide most of the family income themselves, their wives' business may be of little additional value for the family's economic well-being. Thus, from an economic perspective, there may be limited incentive for the Indifferent to sacrifice own resources for their wives' business; they rather focus on their own income-generating activities to optimize the family's financial situation.

Women entrepreneurs married to the Indifferent share the perception of relatively low spousal involvement. Whereas low levels of involvement may allow women entrepreneurs to run the business the way they want to, our findings indicate that women entrepreneurs' business performance may suffer: Women entrepreneurs married to the Indifferent run businesses with lower profits and fewer employees than women married to the Copreneurs. This is in line with our reasoning that in sub-Saharan Africa, husbands' financial, social, and human capital resources may be indispensable as women entrepreneurs often have limited access to finance, face high workloads at home and in the business, and lack relevant

entrepreneurial expertise (Klapper & Parker, 2010). The relatively high levels of work-family conflict experienced by women married to the Indifferent can be interpreted as an indicator of women's struggle to meet household and business demands in the absence of husbands' support.

In contrast to our hypothesis, women entrepreneurs married to the Indifferent also tend to run less successful businesses than the Regulators. There are several explanations for this finding. First, in an environment characterized by resource scarcity and institutional voids (Webb, Kistruck, Ireland, & Ketchen Jr, 2010; Webb et al., 2015), husbands' impact as resource provider might be more critical than their potential to do harm. Second, being embedded in a patriarchal society, women entrepreneurs might have developed the ability to manage constraining influences. We will elaborate on both explanations in more detail when discussing the profile of the Regulators as these explanations refer to the existence of supportive and constraining behaviors. Shifting attention back to the Indifferent, their wives are more likely to express that they wished their husbands would be more involved in their businesses than women who already work very closely with their husbands. Thus, an additional explanation for the limited success of businesses owned by women entrepreneurs married to the Indifferent may lie in the relatively low levels of guidance provided by these husbands. Drawing on leadership theories (Bass, 1985; Burns, 1978), research in various context has shown that low levels of feedback and rewards from supervisors are typically associated with negative outcomes and low performance of subordinates (Bass, Avolio, Jung, & Berson, 2003; Frischer & Larsson, 2000; Judge & Piccolo, 2004). Since there are no supervising structures in entrepreneurship, women entrepreneurs may look for guidance from their husbands and risk losing track if husbands like the Indifferent fail to accommodate such requests.

3.5.2 The Copreneurs

The Copreneurs form the second largest profile with 35 % of all husbands. In the entrepreneurship literature, copreneurs have been defined as couples who share responsibilities and commitment to the business (Barnett & Barnett, 1988; Marshack, 1993). In support of that notion, the Copreneurs of our sample dedicate high degrees of own manpower to their wives' business and are more likely to provide financial support than the Indifferent and the Regulators. In line with the efficient cooperative household model and our hypothesis, the findings suggest that the Copreneurs' involvement is at least partly motivated by economic reasons. As the Copreneurs' own contributions to the family income is rather

low, they may consider investing resources in their wives' business as the logical step towards income maximization for the family. Only recently, Bernhardt and colleagues (2017) provided strong evidence for this reasoning, demonstrating that grants and loans were commonly invested in the highest-return business within the household and not necessarily in the business owned by the recipient of the grant or loan. Research on unconditional cash transfers in Kenya also indicated that family members' investment decisions were geared towards family income maximization as returns at the family level did not vary with the gender of the recipient (Haushofer & Shapiro, 2016). At the same time, we acknowledge that other research has shown that resource investments in families are not always efficient (e.g. Doss, 2013; Fiala & He, 2017; Udry, 1996; Zou, 2015). However, the fact that income at the family level does not differ significantly between profiles of our study further corroborates the idea that husbands make smart decisions when allocating their resources between their own and their wives' income-generating activities.

Given their less traditional gender role beliefs, the Copreneurs may have confidence in their wives' ability to run the business and may not feel the need to take control of the business. The low levels of control over their wives' business do not indicate a lack of involvement but seem to be related to the fact that many decisions are made *jointly* by the couple. High levels of joint decision-making also suggest that Copreneurs and their wives regularly discuss and exchange about the business, which has been shown to increase business viability (Jang & Danes, 2013). Furthermore, the collaborative working style of the copreneurial couples finds expression in the low degree of destructive conflict management and a relatively equal distribution of household duties.

In support of our hypothesis, women entrepreneurs married to the Copreneurs run the most successful businesses with significant higher profits and more employees than the Indifferent. The positive effect of the Copreneurs' influence corresponds to our notion that husbands' resources may be particularly valuable when institutions are weak and alternative resources limited (Webb et al., 2015; Wolf & Frese, 2018). Research in Ethiopia has also found support for husbands' positive role, suggesting that husbands help women entrepreneurs' to enter into male-dominated, more profitable business sectors (Alibhai, Buehren, & Papineni, 2017). This is in line with our finding that women who operate in a male-dominated sector are more likely to be married to the Copreneurs than to the Indifferent. However, it remains open whether husbands influenced the sector decision in the first place or whether their wives' choice of the business sector determined husbands' scope of influence.

Finding that the Copreneurs significantly contribute to their wives' business success adds to the emerging stream of copreneurship research, which has produced inconclusive results so far (Jennings & Brush, 2013; McDonald, Marshall, & Delgado, 2017). Studies have shown, for example, that copreneurial teams were better problem solvers (Hedberg & Danes, 2012) and more likely to achieve first sales than other family teams (Brannon, Wiklund, & Haynie, 2013), but were vulnerable to business-related tensions (Danes & Morgan, 2004; Olson et al., 2003) and less likely to run high-potential businesses (Davidsson, Steffens, Gordon, & Senyard, 2008). While little is known about the conditions under which copreneurial teams are successful, our findings suggest that sub-Saharan Africa may constitute a setting in which copreneurial teams outperform others. Importantly, the Copreneurs' business involvement does not only manifest in higher business success but also in women entrepreneurs' higher satisfaction with the status quo and lower work-family conflict: The Copreneurs' wives are more likely to be highly satisfied with their husbands' level of involvement and perceive lower levels of work-family conflict than women married to the Indifferent. The availability of husbands' resources thus seems to ease women's double burden from business and household demands (Heilbrunn & Davidovitch, 2011; Jennings & McDougald, 2007).

3.5.3 The Regulators

The Regulators constitute the smallest profile with 21 % of husbands. In contrast to the Indifferent, these husbands are strongly involved in their wives' business, both in constraining and supportive ways. As theorized, this pattern of behavior seems to be related to the Regulators' traditional gender role beliefs and their economic dependency on their wives' business. In line with social role theory, holding traditional gender role beliefs seems to manifest in very dominant behavior: Making more than half of all business decisions themselves and refraining from domestic duties may allow the Regulators to comply with their gender identity and meet expectations in their community. For the Regulators, compliance is desirable in so far as it leads to positive emotions (Witt & Wood, 2010; W. Wood et al., 1997) and helps them to avoid sanctions that may follow from role-inconsistent behavior (Heilman, 2001; Heilman, Wallen, Fuchs, & Tamkins, 2004).

In addition, the Regulators face a similar situation as the Copreneurs: Knowing that their own contribution to the family income is relatively small, the Regulators seem to be willing to invest own manpower and provide hands-on support for their wives' business to optimize the family's economic outlook. For them, supporting their wives' business is by no

means contradictory to their interference or the domestic workload they leave to their wives. They are unlikely to be aware that they may risk reducing the positive effect of their resource investments since the potentially constraining behaviors conform to their traditional gender role beliefs. The co-occurrence of supportive and constraining family influence has also been illustrated by research from patriarchal and resource-scarce settings outside of sub-Saharan Africa, revealing that women entrepreneurs faced restrictions imposed by husbands and fathers, but were also practically and financially supported (Bullough, Renko, & Abdelzaher, 2017).

Against expectations, businesses owned by the Regulators' wives have more employees and tend to generate higher profits than businesses owned by women married to the Indifferent. Thus, in contrast to our hypothesis, our findings indicate that husbands' support may outweigh husbands' constraints. Women entrepreneurs' businesses seem to notably benefit from their husbands' involvement even when it entails some constraining elements. We propose two major explanations: The first explanation echoes our emphasis on the importance of husbands' resources: Given that women entrepreneurs in sub-Saharan Africa often face particular difficulties in accessing resources for their business (Aterido, Beck, & Iacovone, 2013), husbands who jump in may successfully release some of their wives' most tenacious constraints. This reasoning is in line with a growing body of literature suggesting that successful entrepreneurship will be unleashed when critical resources are provided (Sutter et al., 2019). Research with entrepreneurs from seven capital cities in West Africa, for example, has illustrated that there is a substantial share of entrepreneurs who are extremely productive and show very similar entrepreneurial behavior as high-performing entrepreneurs but who are constrained by very low stock of capital (Grimm, Knorringa, & Lay, 2012). The second explanation suggests that women entrepreneurs may be less constrained than expected by husbands' control over the business or the burden of household and family tasks as they may consider this the norm. Research has shown that in many developing countries, women's perceptions of gender responsibilities and privileges do not differ substantively from men's perceptions (Boudet et al., 2013). Thus, women entrepreneurs may be accustomed to these kinds of influences and well-equipped to cope with them.

3.5.4 The Missing Profile: The Opponents

In contrast to our first hypothesis, the latent profile analysis did not find the profile of Opponents. One potential explanation is that husbands aim to present themselves in a favorable light or are affected by ego syntonic bias. Previous research with women and men

from eighteen developing countries has shown, for example, that men overestimate the time they spend for tasks at home (World Bank, 2011). However, available data indicates considerable agreement between husbands' and wives' perceptions for a diverse set of variables. Second, it is possible that the Opponents might not exist in our sample as we focus on existing women entrepreneurs. It is possible that the Opponents do not allow their wives to become entrepreneurs in the first place. In this case, the Opponents would be likely to 'appear' when analyzing a sample of women entrepreneurs *intending* to become entrepreneurs. A third explanation is that the lack of Opponents in our sample might be due to sample selection as we will discuss in the next section. Finally, it is also conceivable that previous conceptions of husbands' influence on women entrepreneurship have been too negative (James, 2012). Complementary studies are needed to shed light on this missing profile.

3.6 Limitations and Strengths

A potential limitation is the size and selection of our study sample. Although scholars have argued against general recommendations regarding sample sizes for latent profile analyses, our sample size seems to be at the lower end (Lubke & Muthén, 2005; Nylund et al., 2007). In addition, husbands of our sample might be more open and supportive towards their wives' entrepreneurial endeavors than husbands of the overall population due to our sample selection procedure. First, husbands' willingness to participate in our study might be related to their general consent with their wives' entrepreneurial activities. Following this logic, one would expect that the Opponents are 'hidden' among those husbands who refused to participate in our study. According to our hypothesis, these would be the husbands who affect their wives' business in a negative way. As data on women entrepreneurs who are married to those husbands who *did not* participate in our study is available, we are able to compare their performance with those married to the husbands who *did* participate. However, findings show that there are no differences in business performance between women entrepreneurs married to husbands who refused their study participation and those married to husbands who participated (cf. Appendix C). Thus, our data does not indicate that Opponents are simply among those husbands who did not take part in our study. Second, our sample of husbands was drawn based on women entrepreneurs who had accepted a training offer (cf. Footnote 7). Thus, very restrictive husbands might not have approved their wives' participation in the training in the first place, therefore being underrepresented in our sample. Following the same logic as above, findings do not indicate that businesses owned by women entrepreneurs of our

sample perform generally better than those businesses owned by married women entrepreneurs who had declined the training offer (cf. Appendix C). We thus believe that it is unlikely that the women entrepreneurs who had declined the training offer are married to highly unsupportive and constraining husbands and that it is only due to our subsample based on trained women entrepreneurs that we do not find the Opponents. A third possibility is that we 'lost' the Opponents when excluding fifteen husbands because their wives' businesses were closed at the time of the interview so that we were not able to measure their influencing behavior. Business closure might have resulted from a lack of spousal support and high levels of constraining influence. However, even if business closure was exclusively caused by opposing husbands in all cases, the group of Opponents would be very small (6 %) compared to the size of the other profiles. Hence, in sum we believe that the bias introduced by our sample selection procedure is unlikely to have compromised our findings. Nevertheless, our profile analysis requires replication based on additional, randomly selected samples in other sub-Saharan settings (Wang & Hanges, 2011).

A second potential limitation is that we cannot rule out the existence of theoretically meaningful pathways that differ from the postulated relationships. For example, husbands' supportive and constraining behavior may also be a result rather than a driver of women entrepreneurs' business success. Similarly, husbands' traditional gender role beliefs or their contribution to the family income may be resulting from rather than leading to their influential behaviors. Although our theoretical reasoning suggests otherwise, longitudinal designs are needed in order to provide support for the causal relationship between husbands' influences, their antecedents, and women entrepreneurs' business success.

One strength of our study is that we used data from both husbands and women entrepreneurs. Thus, the relationship between husbands' self- reports for the variables that went into the profile analysis and the outcome variables measuring the success of their wives' businesses is unlikely to be due to common method variance. In addition, we were able to collect data for four variables to validate husbands' self-reports. In those cases, there was a good to very good agreement between wives and husbands. Although husbands may have exaggerated their positive and underplayed their negative behaviors, a potential self-report bias does not seem to be too problematic given the fact that there were meaningful relations between these behaviors and the success of their wives' businesses.

One might think that conducting this study in sub-Saharan Africa is a serious limitation. We think otherwise. We neither believe that our findings can be readily

generalized to highly developed Western countries nor was that the motivation of our study. We also do not aim to derive cross-cultural conclusions from our research. Rather, given their potential for poverty alleviation (Bruton et al., 2013; Sutter et al., 2019), we argue for the necessity to learn more about the vast majority of entrepreneurial endeavors that happen in the sub-Saharan region (George et al., 2016; GERA, 2017; Reynolds, 2012), particularly those pursued by women (Brush & Cooper, 2012; Minniti, 2010). We respond to this need by investigating the diverse influences of husbands within such an environment. To our knowledge, it is the largest study on husbands of women entrepreneurs in sub-Saharan Africa so far – a topic on which strong opinions but few data exists. Thus, we view our study as a starting point for the development of a highly relevant research area that needs to be strengthened in future studies.

3.7 Directions for Future Research

There are several promising avenues for future research. First, future research could investigate husbands' transitions between profiles since both supportive and constraining influences may differ depending on the stage of the business and the marital relationship (Danes, Lee, Stafford, & Heck, 2008; Stafford et al., 1999), making it unlikely that husbands remain part of one single profile throughout their life. Previous work has shown that CEO wives repeatedly changed their roles in the course of their husbands' careers (Poza & Messer, 2001). Future research could investigate, for example, which types of husbands increase their effort when their wives' business is in trouble and which types withdraw. Second, future research could use dyadic data from both spouses to better capture the dynamics inherent in the relationship and their effects on the business, for example by using experience sampling procedures (Uy, Foo, & Aguinis, 2010). In this regard, we also encourage future research to investigate women entrepreneurs' active role in dealing with constraints originating from their husbands (Kapinga & Montero, 2017) and mobilizing and making effective use of resources provided (T. Baker & Nelson, 2005). While this study addresses the gap of knowledge with regard to contextual influences in women entrepreneurship, it is the interplay between women entrepreneurs' dispositions, cognitions, and other personal factors, their behaviors, and environmental conditions that ultimately determines women entrepreneurs' business success. Thus, future research could adopt a social-cognitive perspective (Bandura, 1986; R. Wood & Bandura, 1989) and investigate, for example, how husbands' influence interacts with women's grit (Duckworth, Peterson, Matthews, & Kelly, 2007) or proactivity (Parker, Bindl,

& Strauss, 2010) to further advance our understanding of family dynamics in successful women entrepreneurship.

3.8 Practical Implications

Overall, our study has shown that husbands can have a significant influence on women entrepreneurs' business success. However, although programs and initiatives to unlock the potential of women entrepreneurs have become more and more popular in recent years, only a few have considered the different roles that husbands can play. Based on our findings (cf. the Indifferent), it might be critical, for example, to encourage husbands who are not yet involved in their wives' businesses to actively support their wives. Ironically, up to now programs seem to have rather focused on leaving husbands out than getting them involved. A first attempt to involve husbands is the training designed by CARE International and Promundo (2011), aiming to engage men as allies in women's economic empowerment. At the same time, we submit that care has to be taken that an increase of husbands' support does not come at the expense of the overall family income. If husbands are already involved (cf. the Regulators and the Copreneurs), entrepreneurship training targeted at both spouses might be more effective than training that is exclusively designed for women. A positive example in this regard is the entrepreneurship training promoted by Oxfam and Value for Women (2017), which combines women-only and men-only training modules with joint sessions. Importantly, these interventions need to be accompanied by rigorous research. To date, there is only little empirical evidence on the effectiveness of such interventions available (International Labour Organization, 2014). A study in Uganda showed that inviting male household members to business training had no effect on women entrepreneurs' agency but slightly increased their husbands' business support (Blattman, Green, Annan, & Jamison, 2013). Scholars working with women entrepreneurs in Asia invited husbands to attend business training but struggled with participation rates and found only weak evidence in support of the idea that women benefitted from their husbands' attendance (Bulte, Lensink, & Vu, 2016). In sum, we encourage both scholars and practitioners to take spousal dynamics into consideration when designing trainings (Bullough, de Luque, Abdelzaher, & Heim, 2015) and move towards more holistic interventions for women entrepreneurs in sub-Saharan Africa.

4. Teaching Women Entrepreneurs to Take Action: Mind the Trainer?

Abstract

Training is a popular means to promote entrepreneurship in sub-Saharan Africa. However, training impact is often limited and we lack a comprehensive understanding of the factors that make entrepreneurship training effective. We shed light on one factor that most trainings have in common but that has received very limited attention by the entrepreneurship literature so far: The entrepreneurship trainer. We use the example of personal initiative training, an action-oriented entrepreneurship training, to qualitatively explore how trainers contribute to training success. We draw on a randomized controlled field experiment with 2.001 women entrepreneurs in Addis Ababa, Ethiopia, which revealed that personal initiative training did not lead to an increase in women entrepreneurs' business success or personal initiative, the key outcome of the training. Our findings indicate that women entrepreneurs vary in their personal initiative 1.5 years after the training depending on the trainer who trained them. Using video data of the trainings, we show that trainers differ systematically in their teaching behaviors. We conclude that these differences may explain women entrepreneurs' varying personal initiative. Our study demonstrates that entrepreneurship trainers are important and provides first insights into the behaviors that characterize an effective entrepreneurship trainer.

4.1 Introduction

Offering effective training to entrepreneurs in sub-Saharan Africa is challenging. Meta-analyses and systematic reviews have produced mixed findings, showing that many trainings in low- and middle income countries fail to increase the business success of entrepreneurs (Chinen et al., 2018; Cho & Honorati, 2014; Grimm & Paffhausen, 2015; McKenzie & Woodruff, 2014). In response to these findings, scholars have argued for new training approaches, often in favor of action-oriented methodologies (e.g. Frese, Gielnik, & Mensmann, 2016; Gibb, 2002; Heinonen & Poikkijoki, 2006; Kirby, 2004). Others have looked into how to involve spouses or peers (e.g. Bulte, Lensink, & Vu, 2016; Field, Jayachandran, Pande, & Rigol, 2016) or how to combine trainings with additional interventions (e.g. Bastian, Bianchi, Goldstein, & Montalvao, 2018; Berge, Bjorvatn, & Tungodden, 2015; Blattman, Fiala, & Martinez, 2014) to make them more effective. Research has also revealed that entrepreneurship trainings are highly heterogeneous in content, length, and target group, making it difficult to identify universal success factors (Henry, Hill, & Leitch, 2005; McKenzie & Woodruff, 2014).

One of the few factors that many entrepreneurship trainings have in common has been largely ignored by the entrepreneurship literature to date: The role of the trainer. By trainer, we refer to the individual who delivers entrepreneurship education or training to a group of participants in a classroom-based setting. The limited attention paid to the entrepreneurship trainer is surprising for at least three reasons. First, it is the trainer who puts the content of the training into practice, thus he or she constitutes the main link between the intended training and the training that entrepreneurs eventually receive. Second, entrepreneurship trainings in sub-Saharan Africa are commonly provided by post-secondary education institutes (UNESCO, 2016b; World Bank, 2018a) and the education literature provides ample evidence for the strong influence of the teacher on student performance (Hattie, 2008, 2012; Kyriakides, Christoforou, & Charalambous, 2013). Third, many teachers in sub-Saharan Africa lack the training, knowledge, and skills needed to effectively promote student learning (African Union, 2007; Agence Française de Développement & World Bank, 2018; Béteille & Evans, 2018; World Bank, 2018c), which bears the risk that also many entrepreneurship trainings are delivered by teachers who are not well-equipped for that task. Thus, it seems to be crucial to have a closer look at whether and how trainers contribute to the effectiveness of entrepreneurship trainings in sub-Saharan Africa. In view of entrepreneurs' positive influence

on socio-economic development (Audretsch & Thurik, 2001; Kritikos, 2014; van Praag & Versloot, 2007), promoting entrepreneurship in this region is of key importance.

With our study, we aim to shed light on the role of the entrepreneurship trainer. We use the example of personal initiative (PI) training, an action-oriented training for entrepreneurs (Frese, Gielnik, et al., 2016; Mensmann & Frese, 2017), to investigate whether and how trainers influence the effectiveness of entrepreneurship training. Our findings suggest that trainers *do* play an important role and that it is their teaching behavior in the classroom that affects training effectiveness.

We make two major contributions. First, we contribute to the entrepreneurship literature by drawing attention to a factor that has been largely understudied in attempts to improve the effectiveness of entrepreneurship training. By showcasing that it is negligent to leave the entrepreneurship trainer out of consideration, we seek to highlight that it is not enough to compare training approaches (Mwasalwiba, 2010; Nabi, Liñán, Fayolle, Krueger, & Walmsley, 2017) or contents (Anderson-Macdonald, Chandy, & Zia, 2016). Our study shows that factors related to the implementation of the training need to be equally taken into account as they might affect whether training will be successful or not (Bullough et al., 2015).

Second, we add to the entrepreneurship literature by complementing it with knowledge on effective teaching from the education literature (Hattie, 2008; Kyriakides et al., 2013). So far, both streams of literature seem to have developed largely independently from each other despite the fact that entrepreneurship trainings are often institutionalized in the education system. By combining both literatures, we aim to provide first insights into which trainer behaviors might characterize effective entrepreneurship trainers. This is important as learning about *how* trainers matter is crucial to build theories that help to advance our understanding of successful entrepreneurship training.

We use an exploratory research design to examine the role of the trainer with regard to the effectiveness of entrepreneurship training. For the purpose of our study, we draw on a randomized controlled field experiment with 2.001 women entrepreneurs in Addis Ababa, Ethiopia, intended to test the effectiveness of PI training, which revealed that the training failed to increase women entrepreneurs' PI and business success. We proceed as follows: First, we describe the training experiment and its results. Second, we rule out that the training failed to increase women's business success due to theoretical shortcomings of the training by showing that PI, the hypothesized key outcome of the training, is positively related to women's business success in our sample. We further show that women entrepreneurs' PI

differs depending on the trainer who trained them. Our findings suggest that there is only one trainer who succeeded in increasing women entrepreneurs' PI. Third, using video data, trainer interviews, and field observations, we examine qualitatively whether this trainer differs from the other trainers and explore the trainer behaviors that might have contributed to his/her[14] influence on participants' PI. Fourth, we synthesize our findings and learnings, discuss strengths and limitations of our study, suggest avenues for future research, and address practical implications.

4.2 Teaching Women Entrepreneurs to Take Action: A Randomized Controlled Field Experiment

The starting point of our exploration of the trainers' role in entrepreneurship training is the unsuccessful implementation of PI training for women entrepreneurs in urban Ethiopia. A randomized controlled field experiment, intended to test the effectiveness of the training, revealed that PI training did not increase women entrepreneurs' business success and PI. In the following, we briefly describe the intervention, the methods, and the results of the randomized controlled field experiment to set the stage for the subsequent exploration of the trainers' role, which is at the heart of this article.

4.2.1 The Intervention: Personal Initiative (PI) Training

PI training is a psychological entrepreneurship training building on the premise that action is *the* central element of entrepreneurship (Frese, 2009; Gielnik et al., 2015; McMullen & Shepherd, 2006). Whether entrepreneurs look for finance, introduce new products, or explore new markets, PI training assumes that it is entrepreneurs' active behavior towards the environment that will largely determine their success (Frese, 2009; Rauch & Frese, 2000). To prepare entrepreneurs for action, the training aims at activating a mindset of PI. PI is a proactive mindset that manifests in *self-starting*, *future-oriented*, and *persistent* entrepreneurial behavior (Frese & Fay, 2001; Frese, Fay, Hilburger, Leng, & Tag, 1997). When seeking financial resources, for example, entrepreneurs showing high PI actively look for different and innovative sources of finance (*self-starting*), anticipate their financial needs in the short and in the long term (*future-oriented*), and are ready to come up with alternative sources of finance when facing financial difficulties (*persistent*).

[14] We use 's/he', 'his/her', and 'him/her' throughout this article to preserve the anonymity of all trainers.

So far, existing evidence points to the effectiveness of PI training. Studies in several sub-Saharan countries have shown that PI training increases entrepreneurs' business success (Campos et al., 2017a; Glaub et al., 2014; Solomon, Frese, Friedrich, & Glaub, 2013). A randomized controlled trial in Togo, for example, revealed that entrepreneurs who participated in PI training were able to increase their monthly profits by 30 % over two years as compared to a control group, which did not receive any training. The PI training impact was particularly high for women entrepreneurs who increased their monthly profits by 40 % (Campos et al., 2018). Moreover, these studies provided support for the importance of PI as key mechanism underlying the training's positive effect on business success.

4.2.2 Methods

4.2.2.1 Sample and Procedure

The randomized controlled field experiment was conducted with 2.001 women entrepreneurs owning or partly owning a formal business in Addis Ababa and being registered at the World Bank's Women Entrepreneurship Development Project (WEDP), which seeks to facilitate access to finance and entrepreneurial advocacy (World Bank, 2019a). Women entrepreneurs were randomly selected from a pool of 2.308 women entrepreneurs who were part of the WEDP registration database and who had not participated in any other business training or in a previous data collection in the context of the program. They were randomly assigned to either PI training (n = 747) or one of two control groups: a *waiting* control group (n = 497), which did not receive any training, and a *training* control group, which received an alternative training, hereafter referred to as 'business skills training'[15] (n = 757). The two control groups were used to test whether training effects were specific to PI training or simply due to being trained.

At the time of the baseline, women entrepreneurs of the sample were on average 36 years old (SD = 8.91), had received 12 years of education (SD = 3.59), and had 2 children (SD = 1.71). Their average monthly profit was 11,712 Ethiopian Birr, corresponding to approximately 558 US Dollar[16] (SD = 18,984 ETB / 904 USD). Thus, women's businesses

[15] The business skills training predominantly teaches traditional business skills including financial literacy, marketing, production and workplace management, purchasing and bookkeeping, business plan development, and legal rights and regulations. Additionally, it focuses on the development of creative ideas and promotes coping mechanisms for gender-related challenges faced by women entrepreneurs.

[16] At November 30, 2015, 1 US Dollar (USD) corresponded to 21 Ethiopian Birr (ETB).

were relatively advanced compared to the businesses studied by previous PI training evaluations (Campos et al., 2017a; Glaub et al., 2014).

Baseline interviews were conducted in Amharic by trained Ethiopian enumerators between November 2015 and April 2016; endline interviews took place between June and September 2017 approximately 1.5 years after the training. Attrition between the baseline and endline survey was low (11 %) and the sample participating in the endline survey was still balanced on observable baseline characteristics.[17]

At the end of the baseline interview, women entrepreneurs assigned to PI training or business skills training were invited to one out of six Technical and Vocational Education and Training (TVET) colleges in the proximity of their premise to take part in a ten half-days classroom-based training. 43 % of invited women entrepreneurs attended PI training between November 2015 and June 2016 (Business skills training: 39 %). The take-up rate was modest but similar to entrepreneurship training interventions in comparable contexts (McKenzie & Woodruff, 2014). Women entrepreneurs who followed the PI training invitation were less likely to have received a loan in the context of WEDP (34.17 % vs. 44.39 %; $chi^2 = 7.96$, $p = .01$), were higher in PI ($M_{accept} = 4.48$, $SD = .03$; $M_{\text{decline}} = 4.39$, $SD = .03$; $t = 2.12$, $p = .03$), and had less profitable businesses at baseline ($M_{\text{accept}} = 8{,}957.91$, $SD = 819.14$; $M_{\text{decline}} = 14{,}166.37$, $SD = 1{,}122.31$; $t = 3.51$, $p = .00$) than women who declined the training offer.[18] These differences suggest that women entrepreneurs taking up PI training were in higher need of the training and more motivated to participate in a learning opportunity. Another possible explanation is that these women faced lower opportunity costs when being absent from their business. In contrast to the modest take-up rate, average attendance, once *at* the training, was high with women entrepreneurs attending nine out of ten training sessions.[19]

4.2.2.2 Measures

PI training. To measure the effect of PI training, we used a binary variable based on the initial treatment assignment, being 1 if women entrepreneurs had been assigned to PI training and 0 if assigned to one of the two control groups. Analogously, we created a binary

[17] We cannot reject the hypothesis that baseline observables are jointly orthogonal to the experimental groups when comparing PI training to the waiting control group ($p = .47$) and to the training control group ($p = .49$), indicating that attrition did not change the balance across the experimental groups.
[18] The same differences occurred for women entrepreneurs of the training control group with the additional difference that women entrepreneurs accepting the business skills training offer were more likely to be the head of the household (37.67 % vs. 28.39 %; $chi^2 = 7.11$, $p = .01$).
[19] Average training attendance is based on data for 543 out of the 611 women entrepreneurs who attended the training (89 %).

variable for the business skills training (1 = assigned to business skills training, 0 = assigned to PI training or the waiting control group).

Business success. We measured business success by asking women entrepreneurs for their profits of the last month. Profits were set to zero in case the business was closed at the time women entrepreneurs were interviewed and winsorized at the 1st and 99th percentiles to reduce the influence of outliers. We used a self-reported measure of last month's profits as only 36 % of women of our sample stated that they kept financial records for their business and were able to show them to the enumerator during the baseline survey. In addition, research has shown that directly asking for profits is more reliable than calculating profits based on self-reported sales and expenses (de Mel et al., 2009b).

Personal initiative. We measured PI with the seven items of the validated PI scale (Fay & Frese, 2001). We asked women entrepreneurs to consider their behavior of the past twelve months and to indicate their agreement with the scale items on a 5-point Likert scale ranging from 1 = 'Strongly disagree' to 5 = 'Strongly agree'. A sample item is 'I actively attack problems'. Scale reliability was high (Cronbach's α = .87).

Control variables. All control variables were measured at baseline. Throughout our analyses, we controlled for women entrepreneurs' age, years of education starting from primary school, number of children, marital status (1 = married or in a consensual union, 0 = neither married nor in a consensual union), status in the household (1 = head of the household, 0 = not the head of the household), working memory (using the digit span test[20]), and whether or not they had received a loan as part of WEDP (1 = yes, 0 = no). We also took into account whether women operated in a male- or female-dominated sector (1 = male-dominated sector, 0 = female-dominated sector).[21] In addition, we included the baseline value of dependent variables as control variables in our analyses.

4.2.2.3 Method of Analysis

We tested the effect of PI training on women entrepreneurs' business success by running linear regressions using the PI training variable as independent variable. We used an intention-to-treat approach to avoid that our results were affected by selection bias (Hollis &

[20] The digit span test asks participants to repeat a span of three digits. The span is gradually increased until participants make a mistake. The highest correctly repeated span is recorded for both forward and backward repetition and summed up to one score.

[21] Due to missing values on the sector variable, its inclusion as control variable led to a loss of observations. As the inclusion of the sector variable did not lead to any substantial changes of results, we decided to conduct the analyses without it.

Campbell, 1999). In a first step, we included all control variables. In a second step, we added the PI training variable. We also added the business skills training variable as this enabled us to compare the effect of PI training with the waiting control group and to check the effects of the business skills training. Analogously, we tested the intention-to-treat effect of PI training on women entrepreneurs' PI, the postulated key outcome of the training (Glaub et al., 2014).

4.2.3 Results

Table 4.1 displays the descriptive statistics and correlations of all study variables. Against our expectations, linear regression results showed that PI training did not affect business success (cf. Table 4.2, Model 2). In addition, PI training did not increase women entrepreneurs' PI, either (cf. Table 4.2, Model 4). We found the same pattern of results with and without inclusion of the control variables.

4.3 A Lack of Impact: Looking for Explanations

The training experiment revealed that PI training did not lead to higher business success for women entrepreneurs in Ethiopia. It is no exception that entrepreneurship trainings fall short of expectations (Cho & Honorati, 2014; Grimm & Paffhausen, 2015). There are at least two different scenarios that might explain why this is the case: In the first scenario, trainings successfully convey skills but these skills do not enable entrepreneurs to increase their profits or sales (McKenzie & Woodruff, 2014). Improved bookkeeping skills as a result of a financial literacy training, for example, may lead to more organized books and a better overview of daily sales and expenses but do not automatically translate into increased financial success. In other words, these trainings lack a reasonable theory of change to create the impact they aim for. In the second scenario, trainings teach skills that are relevant for business success but fail to effectively convey these skills.

To address the first scenario and check the validity of the underlying theory of PI training for our sample, we analyzed whether women entrepreneurs' PI was related to their business success, independent from the training. Linear regression results confirm that women entrepreneurs' PI at baseline is positively related to women entrepreneurs' profits at endline (b = 2194.93, p = .00; cf. Table 4.3, Model 2), providing support for the importance of PI for business success (Campos et al., 2017a; Glaub et al., 2014; Koop, De Reu, & Frese, 2000; Krauss, Frese, Friedrich, & Unger, 2005; Solomon et al., 2013) and the fundamental assumption of PI training.

Table 4.1. Descriptive statistics and correlations of study variables.

Study variables	*N*	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13
1. PI training[a]	2001	.37	.48	(-)												
2. Business skills training[b]	2001	.38	.49	-.60***	(-)											
3. Business success[c] (BL)	1936	11712	18984	.01	-.02	(-)										
4. Business success[c] (EL)	1739	10453	18476	.00	.01	.50***	(-)									
5. PI (BL)	2001	4.41	.58	.02*	.01	.15***	.16***	(.88)[d]								
6. PI (EL)	1737	4.42	.59	-.01	.00	.12***	.15***	.11***	(.87)							
7. Age	2001	35.84	8.92	.00	.00	-.01	-.03	-.04	-.03	(-)						
8. Years of education	2001	12.33	3.59	.01	.01	.13***	.15***	.21***	.10***	-.31***	(-)					
9. Children	2001	1.99	1.71	.01	-.04	.04	.00	.01	.02	.56***	-.32***	(-)				
10. Marital status[e]	2001	.64	.48	.01	-.03	.05*	.04	-.02	.06*	-.03	.06*	.26***	(-)			
11. Household status[f]	2000	.32	.46	.00	.01	.00	.00	.06*	-.03	.21***	-.13***	-.01	-.54***	(-)		
12. Working memory	2001	6.36	1.95	.00	-.03	.07**	.09***	.20***	.05	-.22***	.32***	-.18***	-.03	-.08***	(-)	
13. Loan[g]	2001	.41	.49	-.02	.00	.10***	.12***	.07***	.03	.03	.02	.05*	.02	-.03	.05*	(-)
14. Business sector[h]	1853	.54	.50	.00	.04	.18***	.15***	.05*	-.02	.00	.08**	.03	.02	-.01	.07**	.02

Note. *N* = Number of observations per variable; *M* = Mean; *SD* = Standard Deviation; BL = Measured at baseline; EL = Measured at endline.
[a] 1 = assigned to PI training, 0 = assigned to business skills training or waiting control group. [b] 1 = assigned to business skills training, 0 = assigned to PI training or waiting control group. [c] In Ethiopian Birr (ETB; 1 USD = 21.0913 ETB as of November 30, 2015). [d] In parentheses: Reliability of the measure (Cronbach's alpha). [e] 1 = married or in a consensual union, 0 = neither married nor in a consensual union. [f] 1 = head of the household, 0 = not the head of the household. [g] 1 = received WEDP loan, 0 = did not receive WEDP loan. [h] 1 = male-dominated sector, 0 = female-dominated sector.

* $p < .05$
** $p < .01$
*** $p < .001$

Table 4.2. Linear regression results: Intention-to-treat effect of PI training on business success and PI.

	Business success (monthly profits)				Personal initiative (PI)			
	Model 1		Model 2		Model 3		Model 4	
Variables	Coef.	SE	Coef.	SE	Coef.	SE	Coef.	SE
Age	-8.69	(61.88)	-9.83	(62.04)	.00	(.00)	.00	(.00)
Years of education	443.28***	(126.39)	441.01***	(126.28)	.01**	(.00)	.01**	(.00)
Children	75.64	(277.49)	92.69	(279.70)	.02	(.01)	.02	(.01)
Marital status	1059.94	(954.79)	1080.16	(953.33)	.05	(.04)	.05	(.04)
Head of the household	1112.64	(1055.22)	1126.45	(1055.33)	.00	(.04)	.00	(.04)
Working memory	314.51	(237.06)	325.31	(236.49)	.00	(.01)	.00	(.01)
WEDP loan	2646.17**	(827.76)	2652.60**	(826.46)	.02	(.03)	.02	(.03)
Monthly profits (BL)	.46***	(.05)	.46***	(.05)				
PI (BL)					.10***	(.03)	.10***	(.03)
Business skills training			1049.26	(1001.58)			.00	(.04)
PI Training			219.56	(959.91)			-.02	(.04)
Observations	1686		1686		1736		1736	
Total R^2	0.25***		0.26***		0.03***		0.03***	
Deviance (-2LogLikelihood)	37402.49		37401.13		3031.39		3030.96	

Note. Unstandardized regression coefficients are shown. Robust standard errors in parentheses. BL = measured at baseline.

* $p < .05$
** $p < .01$
*** $p < .001$

Table 4.3. Linear regression results: Effect of PI on business success.

	Business success (monthly profits)			
	Model 1		Model 2	
Variables	Coef.	SE	Coef.	SE
Age	-8.69	(61.88)	-1.79	(61.83)
Years of education	443.28***	(126.39)	381.01**	(125.98)
Children	75.64	(277.49)	-17.26	(284.85)
Marital status	1059.94	(954.79)	1068.98	(951.40)
Head of the household	1112.64	(1055.22)	826.92	(1059.73)
Working memory	314.51	(237.06)	232.53	(240.32)
WEDP loan	2646.17**	(827.76)	2522.30**	(822.34)
Monthly profits (BL)	.46***	(.05)	.45***	(.05)
PI (BL)			2194.93***	(628.53)
Observations	1686		1686	
Total R^2	0.25***		0.26***	
Deviance (-2LogLikelihood)	37402.49		37393.18	

Note. Unstandardized regression coefficients are shown. Robust standard errors in parentheses. BL = measured at baseline.

* $p < .05$
** $p < .01$
*** $p < .001$

We thus turned to the second scenario. As the results of the training experiment show, PI training failed to instill PI in the first place. It might be the case that PI training was not a suitable intervention to increase the PI of women who run a business in Ethiopia. Yet, this is unlikely as a PI-related training implementation[22] with women entrepreneurs registered at WEDP and operating in the north of Ethiopia demonstrated that it *is* possible to increase the target group's PI with the help of training (Alibhai, Buehren, & Papineni, 2016). As a consequence, we suppose that the training's lack of influence on PI might be related to the specific implementation of PI training in the context of our training experiment. We therefore looked into what part of the implementation might have played a role in inhibiting the effectiveness of PI training. One of the implementation decisions that had caught our attention was the decision to work with TVET teachers as PI trainers. TVET teachers had been assigned to the train-the-trainers workshop based on their academic degree. As a result, teachers were very heterogeneous in terms of their experience and skills related to the

[22] Similar to PI training, the training seeks to create an entrepreneurial mindset that helps entrepreneurs to set and reach their goals. It was developed by the social enterprise Digital Opportunity Trust (DOT).

delivery of entrepreneurship training. Among PI trainers, there were, for example, experts in textile garment production, metal engineering, or accounting and marketing.

In the entrepreneurship literature, the importance of the trainer has received very limited attention so far. This lack of scrutiny is surprising given that research in the education literature indicates that the trainer is of critical importance. Meta-analytical research has shown that the teacher is one of the factors with the largest influence on whether or not learning takes place in a classroom (Hattie, 2008, 2012, 2015; Kyriakides et al., 2013). Scholars suggest that teachers account for about 20 to 25 % of the variance of students' achievement and constitute the largest source of influence after students themselves[23] (Hattie, 2015; Muijs et al., 2014). This also seems to hold true for developing countries (Kremer, Brannen, & Glennerster, 2013). A meta-analysis of education interventions in sub-Saharan Africa illustrated that interventions improving teachers' instructional techniques were more effective in increasing student performance than any other type of intervention (Conn, 2014). Considering that in sub-Saharan Africa, the majority of entrepreneurship trainings are offered by colleges or vocational schools (UNESCO, 2016b; World Bank, 2018a) and delivered in a classroom-based setting (McKenzie & Woodruff, 2014), findings from the education literature should also be relevant to the context of entrepreneurship trainings. Moreover, evidence from the education literature suggests that teachers' influence is largely generalizable across students, grades, subjects, and countries (Hattie, 2008, 2015; Kyriakides et al., 2013).

Against the backdrop of the heterogeneity of trainers in our experiment and the evidence from the education literature, we examined whether women entrepreneurs' PI differed depending on the trainer who had trained them. Comparing women entrepreneurs' PI at baseline and endline by trainer shows that there are considerable differences in women entrepreneurs' PI between trainers after the training whereas differences before the training seem to be negligible (cf. Figure 4.1). Figure 4.1 displays the change in women entrepreneur's PI depending on the trainer and suggests that only women entrepreneurs trained by *one* specific trainer (Trainer A) had a higher level of PI after the training than before the training. Women entrepreneurs trained by the four remaining trainers seem to have decreased in PI. An ANCOVA, using a categorical trainer variable with one level per trainer as independent

[23] We found no indication that training effectiveness was moderated by characteristics of women entrepreneurs. Interaction effects were tested for women's age, years of education, number of children, marital status, status in the household, working memory, whether or not they had received a WEDP loan, male- or female-dominated sector, years as business owner, entrepreneurial self-efficacy, monthly profits, and PI at baseline.

variable and controlling for PI at baseline and the same set of control variables used for previous analyses, supports the difference between trainers: Women entrepreneurs' trained by trainer A show significantly higher levels of PI at endline (M = 4.65, SD = .07) than women entrepreneurs trained by trainer B (M = 4.34, SD = .06) or trainer C (M = 4.22, SD = .08) (cf. Table 4.4).[24] Women entrepreneurs trained by trainer D (M = 4.39, SD = .10) and trainer E (M = 4.46, SD = .07) do not differ significantly in PI from other women.

Taken together, the findings of the follow-up analyses indicate that the trainer might be one critical reason for the lack of impact of PI training in the context of our training experiment. If only one trainer had succeeded in increasing women entrepreneurs' PI, it is not surprising that PI training did not have an overall positive and significant influence on women's PI and business success. In the light of these findings, we ask: Can we explain the differences between trainers? Does trainer A differ from the other trainers and if so, how? What can we learn from these differences?

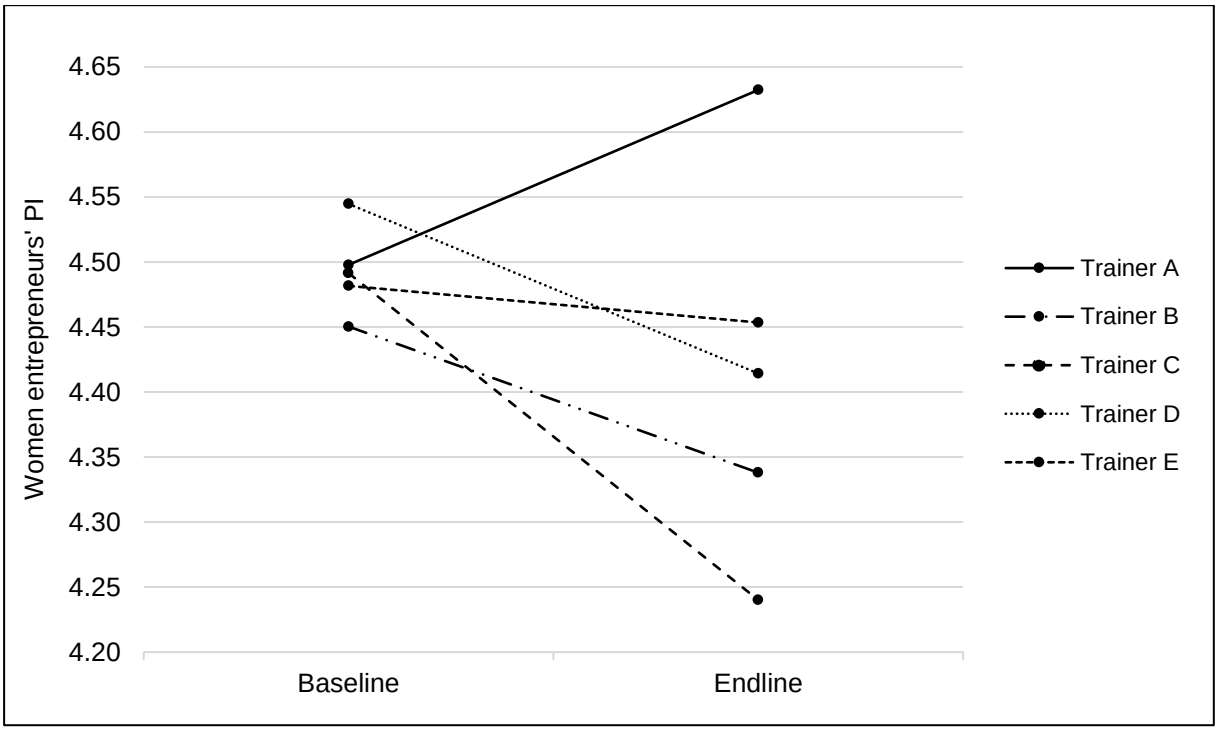


Figure 4.1. Women entrepreneurs' PI at baseline and at endline by PI trainer.

[24] We find a similar pattern of results when looking at women entrepreneurs' business success by trainer: Women entrepreneurs trained by trainer A tend to have higher profits at endline than women entrepreneurs trained by the other trainers, though the differences are not significant (cf. Appendix D). We suggest that the differences between trainers are stronger for PI than for business success as PI is in the trainers' range of influence and more directly related to the training.

Table 4.4. ANCOVA and pairwise comparison results: Estimated means of women entrepreneurs' PI at endline by trainer.

Groups	*n*	*M*	*SE*	95 % CI	*Pairwise comparisons*
Trained by trainer A	61	4.65	.07	[4.51, 4.80]	> Trained by trainer B, C
Trained by trainer B	92	4.34	.06	[4.23, 4.46]	< Trained by trainer A
Trained by trainer C	47	4.22	.08	[4.06, 4.39]	< Trained by trainer A
Trained by trainer D	30	4.39	.10	[4.19, 4.60]	ns
Trained by trainer E	65	4.46	.07	[4.32, 4.59]	ns

Note. n = Number of observations; M = Estimated mean; SE = Standard error; CI = Confidence interval; ns = not significant. Pairwise comparisons (using the Tukey-Kramer test) indicate which means differ significantly at $p < .05$.

4.4 Mind the Trainer?

To answer these questions, we take a closer look at the trainers of our PI training experiment. As a consequence of the limited attention that entrepreneurship trainers have received in the scholarly literature so far, very little is known about *what* makes entrepreneurship trainers effective (Brockhaus, Hills, Klandt, & Welsch, 2001). Most scholars suggest that teaching entrepreneurship requires a departure from traditional, lecture-based approaches towards a more active, participant-centered paradigm (e.g. Alcock & Vinten, 2004; Gibb, 2011; Heinonen & Poikkijoki, 2006; Lautenschläger & Haase, 2011; Robertson & Collins, 2003; Samwel Mwasalwiba, 2010). However, the trainer's role in facilitating these approaches in more and less effective ways remains largely unexplored. In a meta-analysis on entrepreneurship education and entrepreneurial intentions, Bae, Qian, Miao, and Fiet (2014) noted that they had not been able "to find any studies examining the differences among entrepreneurship teachers" (p. 242). Similarly, drawing on reviews and meta-analyses of entrepreneurship trainings in developing countries (Chinen et al., 2018; Cho & Honorati, 2014; Grimm & Paffhausen, 2015; McKenzie & Woodruff, 2014), we did not find a single study that addressed the attributes of an effective entrepreneurship trainer.

Against this backdrop, we conduct an exploratory qualitative analysis of the characteristics and training behaviors of the trainers of our experiment. By doing so, we do not only aim to understand the potentially underlying reasons of the differences in trainers' effectiveness in stimulating participants' PI, but also seek to contribute to the entrepreneurship literature by providing first insights into potentially critical attributes and behaviors of effective entrepreneurship trainers. We look at trainers and their training

behaviors from two complementary angles. The first angle considers relevant existing knowledge from the education literature. Specifically, we look at what we know about effective teachers in education that might be equally pertinent to effective trainers in entrepreneurship. As the desired outcomes of teaching in school may differ from the skills, knowledge, and behaviors that are targeted by entrepreneurship training (Kirby, 2004), we use a second angle that focuses on the most directly related outcome of PI training, participants' PI. We compile what we know about the development of a mindset of PI and consider what trainers need to do to facilitate this development. In the following, we provide a brief overview of both angles as they build the backbone of our analysis and discussion of results.

4.4.1 Overview of Theoretical Angles

4.4.1.1 What Do We Know About Effective Teachers?

Scholars and practitioners alike have widely acknowledged that teachers are the key to increase the quality of education around the globe (Agence Française de Développement & World Bank, 2018; Béteille & Evans, 2018; Hattie, 2008; World Bank, 2018c). However, attempts to identify effective teachers based on structural attributes such as teachers' level of experience, years of formal education, entry test performance, or certification have been largely unsuccessful (e.g. Bau & Das, 2017; Cruz-Aguayo, Ibarrarán, & Schady, 2017; Hanushek & Rivkin, 2006; Rivkin, Hanushek, & Kain, 2005; Staiger & Rockoff, 2010). Thus, scholars have argued for the necessity to shift the focus from *teachers* to their *teaching* and to look at what teachers do in the classroom in order to better understand how they can successfully increase student learning (Creemers & Kyriakides, 2006; Molina, Fatima, et al., 2018; Muijs & Reynolds, 2011).

The theory of visible learning (Hattie, 2008) responds to that call and offers an evidence-based framework of how teachers can contribute to the success of their students. It was developed based on more than 800 meta-analyses of educational interventions and can be considered the most comprehensive synthesis of evidence in the education literature (Muijs et al., 2014). The theory postulates that teachers are effective when teaching and learning become 'visible'– that is, when it is clear to both teachers and students what teachers are teaching and what students are learning (Hattie, 2008). Teaching and learning become visible, for example, when teachers make the learning intentions transparent and provide feedback that enables students to understand the progress they have already made and the gaps they still need to address. Importantly, the theory emphasizes that teachers need to take into account

this principle throughout their teaching. Thus, the theory acknowledges that teachers can use a variety of teaching techniques and methods to make teaching and learning visible (Hattie, 2008).

4.4.1.2 How to Teach a Mindset of PI?

Research has shown that it is possible to activate a mindset of PI with the help of training (Campos et al., 2017a; Frese et al., 2002; Frese, Hass, & Friedrich, 2016; Glaub et al., 2014; Solomon et al., 2013; Strauss & Parker, 2015). To explore the trainers' role in this activation process, it is necessary to understand how a mindset of PI is developed. The first step towards a mindset of PI is the creation of corresponding operative mental models. According to action theory (Frese & Zapf, 1994; Hacker, 1998), operative mental models are the cognitive base for action, containing the knowledge that is needed to show PI. As the quality of operative mental models determines the quality of resulting actions, it is of key importance that participants' operative mental models are adequate (Frese & Zapf, 1994). Hence, effective trainers need to provide clear and concrete explanations of how PI manifests in the various situations that entrepreneurs face to allow participants to develop a first, rudimentary understanding (Mensmann & Frese, 2017).

The second step in the development of a mindset of PI is the refinement and routinization of participants' operative mental models. Participants need to actively apply their operative mental models to make them more flexible, that is, to learn about the situational boundaries of PI, and to routinize them (Frese & Zapf, 1994; Mensmann & Frese, 2017). Thus, trainers need to create opportunities for active and repeated practice, including tasks that encourage participants to analyze and change their own work habits. In addition, to refine their mental models, participants rely on information that confirms those parts of the mental model that have been adequately developed and that corrects other parts that are flawed (Frese & Zapf, 1994). Hence, trainers need to provide feedback which carries information that allows participants to improve their operative mental models (Butler & Winne, 1995; Kluger & DeNisi, 1996; Mensmann & Frese, 2017). To be able to correct participants' operative mental models of PI, trainers themselves have to have a sound understanding of PI and its manifestation in entrepreneurship. Furthermore, trainers need to emphasize the value of errors to encourage participants to learn from negative feedback and errors, as errors are likely to occur when showing self-starting behavior (Frese & Keith, 2015; Keith & Frese, 2008).

4.4.2 Methods

An exploratory qualitative approach was chosen as it allows us to look "'behind the numbers'" of our quantitative findings (cf. Table 4.4 and Figure 4.1) (Edmondson & McManus, 2007, p. 1166). Such an approach is suitable to investigate whether trainer A differs from the other trainers when delivering the training and to explore *how* he might have succeeded in stimulating participants' PI (Yauch & Steudel, 2003). We consider our analysis as focused exploration as it was informed by our two theoretical angles but not constrained by them (Edmondson & McManus, 2007).

4.4.2.1 Sample

The analysis involves the five TVET college teachers (two females, three males) who delivered PI training in the context of WEDP. They were trained by international PI training experts in one of two 14-days train-the-trainers workshops between May and July 2015 together with other TVET teachers from the six largest cities in Ethiopia. Based on their performance during this workshop, assessed on four predetermined dimensions (charisma, activation of entrepreneurs, explanations of PI, time management) and a knowledge test, the best five teachers from Addis Ababa were selected as PI trainers for the training experiment. Nevertheless, the international PI training experts who performed the train-the-trainers workshop had reservations about the adequacy of these five teachers in terms of their capability to stimulate PI among training participants. At the time of the first round of PI training, the selected trainers were between 29 and 45 years old, held a Bachelor or Master degree, and had teaching experience of 7 to 26 years. Two of the five trainers had an educational background in business management and taught classes related to entrepreneurship at their TVET colleges. Self-reported entrepreneurial skills and knowledge ranged from 'medium' for one trainer, over 'rather good' for two trainers, to 'very good' for two trainers. One trainer had own practical experience as entrepreneur and stated to have detailed, written plans to start a business in the future; the other four trainers stated to have 'not very detailed' or 'kind of detailed' plans to start a business themselves. As part of the training experiment, trainers delivered between four and seven rounds of PI training and trained between 32 and 105 women entrepreneurs per person. Two trainers considered the PI training approach as 'rather useful' compared to other entrepreneurship or business management trainings; the remaining three trainers rated it as 'very useful'. To ensure the anonymity of trainers, we do not display the characteristics for each individual trainer.

4.4.2.2 Data Sources and Method of Analysis

For the qualitative analysis we draw on training videos showing each of the five trainers while delivering PI training. Field observations and trainer interviews were used to enrich and complement the video data. All data had been collected prior or during the implementation of PI training.

Training videos. Selected training sessions had been videotaped by two Ethiopian research assistants in the course of the training implementation period from November 2015 to June 2016 after establishing consent with trainers and participants. Research assistants had been free in the selection of training sessions to be filmed as the training videos had not been foreseen to lead to a systematic comparison of trainers. They were instructed to focus the camera on the trainer but were blind to the purpose of the data collection and, to the best of our knowledge, had no relationship or personal interest with regard to the training, TVET colleges and teachers, or the overall project. Thus, we assume that the selection of recorded training sessions and trainers was not affected by any decision that might distort the comparison of trainers. Training videos were analyzed in two ways.

First, we evaluated trainers holistically. We derived eight characteristics from various streams of literature to describe and contrast trainers' performance on higher-order factors (Bell & Kozlowski, 2009; Caprara, Barbaranelli, Steca, & Malone, 2006; Conger, Kanungo, & Menon, 2000; Cornelius-White, 2007; Hattie, 2008; Keller, Goetz, Becker, Morger, & Hensley, 2014; Spooren, Brockx, & Mortelmans, 2013). Three raters from Ethiopia (two males, one female) then watched one hour of training video per trainer and independently evaluated each trainer with regard to these characteristics using a 7-point Likert scale ranging from 1 = 'Strongly disagree' to 7 = 'Strongly agree'. Research has shown that precise evaluations can be achieved in 50 to 60-minute observations (Ho & Kane, 2013). Raters were instructed to assess the trainers from a training participant's point of view. Moreover, raters were blind to the research question and had a varying degree of familiarity with entrepreneurship, teaching, and PI training to avoid that trainers were evaluated from a single perspective. Resulting ratings were compared and averaged across raters for each characteristic. In addition, we asked raters to rank trainers according to their impression of trainers' overall performance (Harrison, Douglas, & Burdsal, 2004).

Second, we assessed trainers' specific teaching behaviors with the help of a qualitative content analysis. In line with established guidelines (Hsieh & Shannon, 2005; Kuckartz, 2016; Mayring, 2014), data analysis was carried out in the five following steps. First, two Amharic-

speaking research assistants produced smooth verbatim transcripts (Mayring, 2014) which were then translated to English by two experienced translators. Both research assistants and translators were blind to the research question. Second, we structured the English transcripts into thematic training *sessions* in line with the modules of PI training. As videotaped training sessions varied in length and in how many elements of a certain module were captured, we further divided them into smaller training *units*. Examples for training units are the theoretical introduction to a module or a training exercise. To be able to draw direct comparisons between trainers, we used all training units for our analysis for which we had data for at least two trainers. In addition, we excluded one-to-one interactions between trainers and participants. As research assistants had been instructed to focus the camera on the trainers, one-to-one interactions were often not audible, particularly when trainers moved around to accompany participants during training exercises. Table 4.5 provides an overview of the videotaped *sessions* and the available video material that forms the basis for the qualitative content analysis (cf. Appendix E for a more detailed summary of videotaped *units* per trainer). Third, we developed a category system and a coding manual based on a classroom observation tool for low- and middle-income countries (Molina, Fatima, et al., 2018; Molina, Melo Hurtado, Pushparatnam, & Wilichowski, 2018). We developed the category system deductively by taking into account the theoretical angles of PI mindset development and effective teaching in education (cf. Table 4.6 for the category system and Appendix F for the corresponding coding manual). The category system includes categories that are coded on an ordinal scale, ranging from 1 = 'low' to 3 = 'high', and categories that are coded on an interval scale. Fourth, three independent coders coded the transcripts of one training session per trainer with the help of the category system to establish the reliability of the coding procedure. They assigned one code per category to each training unit. Inter-coder agreement was high (Krippendorff's $\alpha = .92$) (Krippendorff, 2004). One coder then coded the training units of the remaining eight training sessions. Following best practices from studies using video-based content analysis (Baer, Leenders, Oldham, & Vadera, 2010; Burris, 2012; Chang, Bordia, & Duck, 2003), we used the results of the coder who had coded all transcripts for our analysis. Fifth, we analyzed the codes by comparing trainers for each category across all training units (Miles & Huberman, 1994). For each difference between trainers reported in this article, we checked whether it held when trainers were compared for single training sessions and based on those training units only that were fully available for all trainers. This way, we attempted to make sure that the length and nature of the available video data per trainer (e.g. discussion, exercise, theory) did not bias the comparisons.

Table 4.5. Overview of analyzed training sessions and video material (in hours) per trainer.

	Trainers				
Training session	**Trainer A**	**Trainer B**	**Trainer C**	**Trainer D**	**Trainer E**
Introduction		00:17 h			00:12 h
Being self-starting	02:44 h	02:00 h			01:44 h
Goal setting	02:30 h		01:37 h	01:40 h	
Getting finance	01:14 h	00:46 h	00:56 h		
Action planning		02:16 h		01:27 h	

Note. Colored cells indicate the analyzed training sessions per trainer. h = hours.

Table 4.6. Category system for qualitative content analysis of training video transcripts.

#	Category	Low (1)	Medium (2)	High (3)
1	**The trainer explicitly articulates the learning intention of the training session or activity.**	The trainer does not state any learning intention or simply announces an activity.	The trainer explicitly states a broad training learning intention.	The trainer explicitly states a specific training learning intention.
2	**The trainer's explanations of the content are clear.**	The trainer's explanations of the content are confusing or content is not explained at all.	The trainer's explanations of the content, when they occur, are somewhat clear. Although parts of these explanations may be clear, others are confusing or superficial.	The trainer's explanations of the content are clear and easy to understand. They are logical and may be accompanied by graphic representations or examples.
3	**The trainer makes connections in the session that relate to other content or participants' daily lives.**	The trainer does not connect what is being taught to other content or participants' daily lives.	The trainer may attempt to connect what is being taught to other content or participants' daily lives, but the connections are superficial, confusing, or unclear.	The trainer meaningfully connects what is being taught to other content or participants' daily lives. The connections are clear.
4	**The trainer provides participants with opportunities for deliberate[a] practice.**	The trainer does not provide participants with opportunities for deliberate practice.	The trainer provides participants with opportunities for practice but either the practice does not seem relevant or the opportunities appear to be very limited in terms of the time provided.	The trainer provides participants with opportunities for deliberate practice.

Table 4.6. Continued.

#	Category	Low (1)	Medium (2)	High (3)
5.1	**The trainer provides participants with opportunities to get actively involved.**	The trainer does not provide participants with opportunities to get actively involved during the training.	The trainer provides participants with limited opportunities to get actively involved during the training. 'Limited' can refer to both the quality and the frequency of opportunities.	The trainer provides participants with rich opportunities to get actively involved during the training. 'Rich' can refer to both the quality and the frequency of opportunities.
5.2	**The trainer provides participants with opportunities to get actively involved.**	**Number of trainer-participant interactions:** Number of interactions between trainer and participants, counted as the number of times a participant gets the chance to speak.		
5.3	**The trainer provides participants with opportunities to get actively involved.**	**Trainer/participant speech ratio:** Percentage share of words spoken by the trainer.		
5.4	**The trainer provides participants with opportunities to get actively involved.**	**Number of open-ended questions asked by the trainer:** An open-ended question is a question that requires reasoning, explanation, or generalization, or has more than one correct answer.		
6	**The trainer uses questions, prompts, or other strategies to determine participants' level of understanding.**	The trainer either does not use questions, prompts, or other strategies to determine participants' level of understanding at all or uses them without giving participants a chance to respond.	The trainer uses questions, prompts, or other strategies that are somewhat superficial for determining participants' level of understanding or uses effective prompts, questions, or strategies very infrequently.	The trainer uses questions, prompts, or other strategies that are effective at determining participants' level of understanding.
7	**The trainer encourages participants to assess, monitor, or evaluate themselves or what they have learned.**	The trainer does not encourage participants to assess, monitor, or evaluate themselves or what they have learned.	The trainer encourages participants to assess, monitor, or evaluate themselves or what they have learned but does not explain the value or underlying reasoning.	The trainer encourages participants to assess, monitor, or evaluate themselves or what they have learned and explains the value or underlying reasoning.
8.1	**The trainer encourages participants to provide positive or negative feedback with regard to the training, the training methods, or his/her own training behavior.**	The trainer does not encourage participants to provide positive or negative feedback with regard to the training, the training methods, or his/her own training behavior.	The trainer encourages participants to provide positive or negative feedback with regard to the training, the training methods, or his/her own training behavior but does not seek specific feedback or provides little room for participants to share their feedback.	The trainer encourages participants to provide specific positive or negative feedback with regard to the training, the training methods, or his/her own training behavior and provides sufficient room for participants to share their feedback.

Table 4.6. Continued.

#	Category	Low (1)	Medium (2)	High (3)
8.2	**The trainer encourages participants to provide positive or negative feedback to each other.**	The trainer does not encourage participants to provide positive or negative feedback to each other or the trainer announces feedback but then does not follow through.	The trainer encourages participants to provide positive or negative feedback to each other.	The trainer encourages participants to provide positive or negative feedback to each other and uses prompts/ questions to guide the feedback. Alternatively, the trainer encourages participants to provide positive or negative feedback to each other and emphasizes the value of feedback.
8.3	**The trainer shows a positive attitude towards making errors.**	The trainer shows a negative attitude towards participants' errors.	The trainer shows a neutral attitude towards participants' errors. Although the trainer does not penalize a participant for making mistakes or struggling with a new concept, the trainer does not make it clear that mistakes are normal and valuable parts of the learning process either.	The trainer shows a positive attitude towards participants' errors and helps participants to understand that mistakes are normal and valuable parts of the learning process.
9.1	**The trainer provides specific comments or prompts that help clarify participants' misunderstandings**. ***(negative feedback)***	The trainer provides participants with comments about their misunderstandings that are simple, evaluative statements (e.g., "That is incorrect").	The trainer provides participants with general or superficial comments/ prompts about their misunderstandings.	The trainer provides participants with specific comments/ prompts that contain substantive information that helps to clarify participants' misunderstandings.
9.2	**The trainer provides specific comments or prompts that help identify participants' successes**. ***(positive feedback)***	The trainer provides participants with comments about their successes that are simple, evaluative statements or praise (e.g., "That is correct", "Well done"). Alternatively, the trainer simply repeats what has been shared in an affirmative way.	The trainer provides participants with general or superficial comments/ prompts about their successes or the trainer paraphrases and adds little additional information that helps to identify participants' successes.	The trainer provides participants with specific comments/ prompts that contain substantive information that helps to identify participants' successes.
10	**The trainer shows a profound understanding of the training content.**	The trainer's contributions are indicative of a poor understanding of the training content.	The trainer's contributions are indicative of a superficial understanding of the training content.	The trainer's contributions are indicative of a profound understanding of the training content.

Note. # = Category number.
[a] Deliberate practice refers to the "extensive engagement in relevant practice activities for improving performance" (Hattie, 2008, p. 30).

Trainer interviews. Structured interviews were conducted in Amharic by two trained Ethiopian enumerators between October and November 2015, prior to the first round of PI training. The interview included questions on their demographic backgrounds, their experience as TVET college teachers, and their experience and attitudes with regard to entrepreneurship.

Field observations. We observed the training implementation on site as part of two field visits in February and May 2016. During these field visits, we visited selected training sessions and exchanged with trainers, women entrepreneurs, and further key stakeholders. Observations were recorded in the form of field notes and email communication with project partners.

4.4.3 Results and Discussion: Comparisons Between Trainers

In the following section, we draw and discuss comparisons between the five trainers. We particularly focus on differences between trainer A and the remaining trainers as our quantitative results suggest that women entrepreneurs trained by trainer A show higher PI after the training than women entrepreneurs trained by other trainers. The objective is to explore whether we can explain why trainer A has been more successful in increasing participants' PI than the other trainers. We first describe each trainer based on our observations in the field, summarize the results of the trainer interviews, and compare trainers holistically based on the trainer evaluation. We then zoom in on trainers' teaching behavior and present the main differences identified by the qualitative content analysis under thematic subsections. Finally, we present similarities between trainers.

4.4.3.1 Description of Trainers: Do Trainers Differ?

Trainer A. Trainer A is charismatic and succeeds seemingly effortlessly in gaining the participants' attention. S/he exudes competence in the interactions with participants and seems very confident; his/her gestures, facial expressions, and voice do not show any signs of nervousness. S/he has a friendly attitude and creates an engaging training atmosphere despite the tendency to hold long monologues. Overall, trainer A seems to feel comfortable as trainer and conveys the impression that s/he enjoys what s/he is doing.

Trainer B. Trainer B tries to give all participants the opportunity to share their experiences during the training but only rarely stimulates a real discussion. S/he appears tense and tired and there are only few signs indicating his/her enjoyment with regard to the training

content and its delivery. As a consequence, trainer B does not seem to succeed in energizing and inspiring the participants.

Trainer C. Trainer C has a friendly attitude and seems rather confident. S/he has a very calm nature but seems to lack the drive to activate training participants. That also contributes to the impression that trainer C is somewhat indifferent to the content and not particularly motivated to deliver the training.

Trainer D. Trainer D is an energetic trainer and exudes high confidence. S/he teaches with a loud voice in a very determined way, which grants him/her a certain authority. At the same time, s/he tries to create a pleasant training experience for participants.

Trainer E. Trainer E sticks closely to the desk and often reads from the training material, which creates the impression that s/he lacks both the confidence and the skills to train the women entrepreneurs attending the training. The delivery of the training seems to be very challenging for him/her and due to these demands, trainer E does not manage to get in control of the class and create an attentive and engaging training environment. Oftentimes, the noise in the classroom masks the trainer's own voice and forces him/her to get very close to the participants in order to be able to understand what they are saying.

The training interviews reveal that trainer A does not differ systematically from other trainers with regard to structural characteristics such as trainers' overall teaching experience, their educational level, or their educational background. However, trainer A is the only trainer who has practical entrepreneurial experience and concrete plans to start a business in the future. The individual descriptions suggest that trainer A is a better trainer than the others as s/he shows the highest degrees of competence, confidence, and enthusiasm at the same time. This is supported by the results of the holistic trainer evaluation, which reveal that trainer A is not only ranked as best trainer by all raters, but also receives higher ratings than the other four trainers for each characteristic evaluated (cf. Table 4.7). Results indicate that trainer A is perceived as more charismatic, competent, confident, and enthusiastic than the other trainers, actively involves participants to a higher degree, makes the training more interesting, shows more empathy, and is in better control of the class. Thus, the trainer evaluation strengthens our quantitative finding, suggesting that women entrepreneurs trained by trainer A show higher PI after the training than women entrepreneurs trained by the other trainers (cf. Figure 4.1, Table 4.4), by showing that s/he is perceived as strongest trainer.

Table 4.7. Holistic trainer evaluation.

Characteristics	Trainer A	Trainer B	Trainer C	Trainer D	Trainer E
Is charismatic	6.67	3.33	3.00	5.33	2.67
Is competent	6.67	4.67	4.00	6.33	3.67
Is confident	7.00	5.00	5.00	6.67	4.33
Actively involves participants	6.67	5.33	5.00	6.33	4.67
Is enthusiastic	6.67	3.00	4.00	6.00	4.00
Makes the training interesting	7.00	4.00	3.67	6.00	3.00
Shows empathy	6.67	4.33	4.00	6.33	3.33
Is in control of participants (in a positive way)	7.00	3.67	4.00	6.33	4.67
Mean of characteristics	6.79	4.17	4.08	6.17	3.79

Note. The table includes the mean across raters for each characteristic. All characteristics were rated on a 7-point Likert-Scale ranging from 1 = 'Strongly disagree' to 7 = 'Strongly agree'.

4.4.3.2 Zooming in: How Do Trainers Differ in Their Teaching?

In the following, we take a closer look at how trainer A, in contrast to the other four trainers, might have succeeded in evoking a positive change in women entrepreneurs' PI. We present four key differences that we identified based on the qualitative content analysis. A comprehensive tabular summary of results is provided in Appendix G.

Understanding the Training Content

The qualitative content analysis of training videos indicates that trainers differ in their understanding of the training content (cf. Category 10, Appendix G). Importantly, we report on trainers' understanding as it manifests in the training itself as opposed to teachers' subject-related knowledge, as measured by educational background variables or test scores. The latter has been shown to be largely unrelated to student achievement (Ahn & Choi, 2004; Hattie, 2008), most likely because having a deeper knowledge does not automatically enable teachers to adequately convey that knowledge. In our analysis, in turn, we assume that whether trainers exhibit a poor or profound understanding of the content during the training will also influence participants' understanding and application of the matter.

The findings suggest that trainer A has a more profound understanding of the content than his/her trainer colleagues. Trainer A's explanations demonstrate, for instance, that s/he is able to relate the concept of PI to situations that are not explicitly described by the training material. When discussing unconventional sources of finance, for example, s/he suggests

breaking with the traditional use of *iddir*, an Ethiopian community association that provides support for funeral ceremonies. By doing so, s/he applies what has been taught for PI and creativity ('Think creatively, without hindrance by traditional or conventional constraints.') to the topic of obtaining financial resources.

> *"Take the focus away from bank loans and think of alternative plans. (...) Iddirs have a lot of money saved, right? We can tell the head of the iddir (...), 'What is the point of saving all this money if it can't be used in times of need!' Just protest by saying the iddir is pointless if it doesn't help its members. (...) We are not used to things like this, right? We regularly pay money for iddir and we only get the money whenever there is a funeral. This is what we are used to but we should learn to modify our old ways of doing things. We should be able to change our iddir for the better."*

Another way in which trainer A demonstrates his/her understanding of the content throughout the training is by outlining why certain content is taught and how it helps participants to increase their business success. When teaching participants to set specific business goals, for example, s/he explains,

> *"If our goal is broad and ambiguous, what does it mean? That means, when we come to implementation, we would have to choose what to do. Thus, while my goal is here [he points to one direction of the room], I am actually moving this way [he points to the opposite direction]. This way, it will take a lot of time to reach our destination. But if it is specific, (...), I'll easily move that way. (...). That's why, whenever we set goals, they should be specific."*

In the same situation, trainer D does not point out why specific goals are important or what risks are associated with unspecific goals, making it difficult for participants to understand the functionality of setting specific goals. S/he simply states,

> *"When you set your goals, they have to be clear and understandable. They are the things we wish to achieve. Thus, goals should always be set in a precise and clear manner."*

Trainer A's advance in understanding seems to be particularly pronounced in the session on 'being self-starting' at the very beginning of the training. In this session, important elements of the concept of PI are explained and the groundwork for subsequent sessions is laid. In contrast to the other trainers, trainer A shows a profound understanding in all training

units of this session (Trainer A: 100 %, Trainer B: 0 %, Trainer E: 17 %). This might be of particular importance as participants' mental models of PI are formed at this early stage of the training and require adequate and actionable input from the trainer to become operative (Mensmann & Frese, 2017). Otherwise, mental models risk to remain abstract and superficial representations.

Communicating Learning Intentions

In addition, trainer A is stronger in articulating learning intentions than the remaining trainers (cf. Category 1, Appendix G). Learning intentions define which skills, knowledge, or behaviors participants are supposed to learn. Articulating learning intentions makes clear how certain learning activities relate to the attainment of these intentions; it makes teaching and learning visible (Hattie, 2008). This allows participants to focus their effort on the learning goal (Locke & Latham, 2002; Noel & Latham, 2006; Schunk, 1990). It also serves as control mechanism for trainers, helping them to make sure that classroom activities are relevant for moving forward. In our case, trainer A is the only trainer who succeeds in stating specific learning intentions (in 39 % of all training units compared to 0 % for all other trainers; cf. Appendix G). The four other trainers attempt to formulate learning intentions as well, but these intentions are often very vague. Without clear learning intentions, it is difficult for both trainer and participants to assess whether teaching and learning has been successful or not.

Table 4.8 illustrates this finding with the help of an example. In this example, trainers ask participants to complete self-rating questionnaires to evaluate their current behavior with regard to a specific topic of the training. However, only trainer A explains why participants are asked to fill out that questionnaire, which is to identify areas for improvement by means of self-evaluation. Both trainers B and C announce the activity but neglect to explain the function of evaluating oneself.

Table 4.8. Comparison of learning intentions communicated by trainer A, B, and E.

Trainer A	Trainer B	Trainer E
As you can see, the self-rating questionnaire is about being self-starting and identifying supportive opportunities. You'll need to identify if you were self-starting or not while working on your business in the past. You'll first evaluate yourself. After evaluating how we have been doing things this far, we'll get to know how we want to change after completing this training. *[Trainer starts reading the questions]*	On page eight of the worksheet, there is a part where we evaluate ourselves, whether we are self-starters or not. First, what does it say? *[Trainer starts reading the questions]*	What did I say earlier about what we need to do before we start something? I told you there will be a questionnaire, right? It is here now. So, what does it say? It is mentioned on the worksheet. If you open the exercise sheet, you will find the questionnaire. It says worksheet 1, right? What's there on worksheet 1? There are some questions. On worksheet 1, it says, 'a self-rating questionnaire prepared to assess self-starting behaviors and the ability to identify supportive opportunities.' Hence, this is for you. I can give you one example. *[Trainer starts reading the questions]*

Making Meaningful Connections

In comparison to his/her trainer colleagues, trainer A is more likely to connect the training content to participants' daily life or previously taught content (cf. Category 3, Appendix G). Across training sessions, s/he makes meaningful connections in 33 % of all training units, compared to rates of 0 to 20 % for the remaining trainers. Connections are meaningful when they help participants realize that the trained skills are relevant to their own situation or when they assist participants to integrate new content with knowledge they have already acquired. By using examples that illustrate PI and its effects in participants' specific context, trainers demonstrate the functionality of PI and help participants learn how to show PI in their individual situation. In addition, by making the applicability and the value of the training content visible, trainers may increase participants' motivation to translate the content into action (Chiaburu & Lindsay, 2008; Grossman & Salas, 2011; Renta-Davids, Jiménez-González, Fandos-Garrido, & González-Soto, 2014). Furthermore, meaningful connections to previously learned content contribute to more integrated knowledge structures and meta-cognitive awareness about what is already known, which improves participants' ability to transfer learned skills and behaviors to situations outside the training context (Pugh & Bergin, 2006).

Table 4.9 illustrates that the connections made by trainer A are more tangible than the connections made by trainer B and C. In this situation, trainers explain how future-oriented behavior, one of the three facets of PI, can manifest in the process of looking for financial

resources. Trainer A connects future-oriented behavior and its benefits to participants' immediate business environment by linking it to the loan repayment scheme of a credit institute nearby. Trainer C makes the same type of connection but remains more abstract in his/her reasoning. In stark contrast, trainer B does not explain at all how participants can show future orientation in the process of getting finances. Being ahead of trainer B and trainer C in this regard might be related to trainer A's own entrepreneurial experience and future plans. As former business owner and with elaborated plans to start a business, trainer A might find it easier than other trainers to slip into participants' shoes and link the training content to their daily life experiences. Using a similar line of reasoning, some scholars and practitioners have argued that trainers should have personal practical experience as entrepreneurs (Aronsson & Birch, 2004; Bullough et al., 2015; Volkmann et al., 2009).

Providing Informative Feedback

Results of the qualitative content analysis reveal that trainer A differs from the remaining trainers in that s/he provides more informative positive and negative feedback to participants (cf. Categories 9.1 and 9.2, Appendix G). When giving feedback, trainer A tends to provide additional information that helps participants to understand why s/he agrees or disagrees with a certain response. In other cases, s/he picks up participants' ideas and adds own elaborations. Whereas trainer A provides feedback less frequently than trainer C (Average number of incidents of feedback per training unit: $M_A = 3.44$, $SD = 5.15$; $M_C = 6.60$, $SD = 10.55$), much of trainer C's feedback comprises very little learning-relevant information.

The low degree of such information is problematic because details on why the completion of a certain task has been successful or how to complete a task more effectively are crucial for learning and improvement (Butler & Winne, 1995; Cannon & Witherspoon, 2005; Hattie & Timperley, 2007; Kluger & DeNisi, 1996). Meta-analytical research has shown that the effectiveness of feedback largely depends on the degree of learning-relevant cues it contains (Kluger & DeNisi, 1996). In the language of the theory of visible learning, it is such information that makes the learning visible and feedback powerful (Hattie, 2008; Hattie & Timperley, 2007).

Table 4.9. Comparison of connections to participants' daily life made by trainer A, B, and C.

Trainer A	Trainer B	Trainer C
We need to see how these sources can continue to thrive and grow in the future. I've heard about one such institute located around Aratkilo[a]. They will first ask you to save 25,000 Birr[b]. Then they will give you a 100,000 Birr loan and ask you to pay them back in three years. But if you wish, you can pay them back in a month. When you return that, you will be able to secure a 200,000 Birr loan that you have to pay back in five years. When you repay that, you get a loan of 500,000 Birr to be paid back in six years. This is quite an encouraging method. Repaying your loan gives you future benefits. If you pay on time, you ensure that you get a loan in the future. This is a really good scheme as your financial source keeps increasing and your ability to pay back what you owe improves along with it. This is really good for you and shows that you are exhibiting a lot of future thinking. It proves that you are farsighted.	On top of being self-starting, we also need to add future thinking.	Let alone other things, how is your future thinking? How is your future thinking when it comes to rising money for your business? Thinking about how the sources of finance we have chosen and the money we need can go and grow together *[Trainer reads from the slide]*. For example, if you choose to take a loan from a credit institution, how can this go together in the future? How does your relation with credit institutions look like in the process of taking and paying back loans? How will the business go? How can you work and grow together, while you take and repay the loans? Can they create loan opportunities for you in the future? What kind of opportunities can they facilitate for you in the future? Your future thinking is measured not by the loan you take today, but by how you are going to collaborate in business in the future. So, it is important to think about what kind of relationship you are going to establish with them.

Note. [a] City district of Addis Ababa. [b] Birr refers to Ethiopia's currency, the Ethiopian Birr.

With regard to the development of a mindset of PI, feedback including a high level of learning-relevant information helps to avoid a premature fixture of potentially inadequate mental models (Frese & Zapf, 1994). One challenge in the development of operative mental models is that participants often form such models although they lack a sufficient amount of information (Frese & Zapf, 1994). Moreover, the idea of PI is new and might not be self-evident for most participants, making it likely that they develop misconceptions about PI in the beginning of the training. Thus, trainers who provide informative feedback actively support participants in the development of an adequate mindset of PI.

Once we restrict our analysis to feedback that contains learning-relevant information (i.e. code 2 or 3), trainer A outperforms the four remaining trainers in terms of feedback frequency (Average number of incidents of informative feedback per training unit: $M_A = 2.11$, $SD = 3.36$; $M_B = .33$, $SD = .90$; $M_C = 1.00$, $SD = 1.41$; $M_D = 1.00$, $SD = 1.78$; $M_E = 1.67$, $SD = 1.87$). Table 4.10 illustrates the qualitative differences between feedback given by trainer A, B, and C and demonstrates that both trainer B and C miss out on the opportunity to provide relevant information. In the particular situation, participants present their results for an exercise that asks them to list sources of finance and think about ways to reduce their expenses and invest an additional monthly salary. Importantly, feedback largely remains absent in trainer B's teaching throughout training units.

4.4.3.3 Similarities Between Trainers

Although the focus of our analysis is on differences between the five trainers, we believe that for a nuanced view, it is equally important to address their similarities. The trainer interviews show that there are no structural attributes that differentiate trainer A from the four remaining trainers with the exception of his/her practical entrepreneurial experience. S/he is not more educated and does not have more teaching experience or prior knowledge than all four other trainers. In addition, the qualitative content analysis reveals that trainer A shares some weaknesses with the other trainers. This is not surprising given that we do not compare effective trainers with particularly effective trainers, as it is often the case in the education literature drawing on samples from high-income countries (Hattie, 2003, 2008). Thus, the fact that trainer A shares weaknesses with the other trainers does not cast doubt on his/her superiority over the other trainers. There are two main findings that we want to highlight.

Table 4.10. Comparison of feedback provided by trainer A, B, and C.

Trainer A	Trainer B	Trainer C
Participant: *[Participant lists sources of finance]* The fifth option is renting out a house in case we have one available. **Trainer:** Even if you have a house with an extra room, this idea can work. For example, if your house has three rooms, you can use one of them and your two children could use the other room. If you can convince them to share a room, you can rent out one of the rooms. You'll be able to make money. Very good. Go on. **Participant:** For the question that is asking us how we can concentrate on our necessities and avoid extra costs, we have some answers. One method is renting out our free space instead of wasting it. **Trainer:** See what she did? She is saying her work space is very big and she only needs half the space. So, she is hoping to just use half and rent out the rest. So, this will really reduce her costs. Renting out a space she is not using is a good source of income. Okay, very nice. What else? *[Trainer and participants continue the discussion]*	**Trainer:** Let's see one or two groups and we'll move to the next topic. Okay Konjit, let's hear what you did. **Participant:** *[Participant lists sources of finance]* If I have extra money, I'll bring in more teaching materials and different playing tools. I also hope to buy computers and offer quality service. **Trainer:** Okay, thank you. Seble, what about you? **Participant:** *[Participant lists sources of finance]*. Since it is going to be a spa, it will need materials for both female and male hair salons and cosmetics for kids. My goal is to have customers coming in and using different services at once. Once the work is started, I will make sure that all these things are in place and I'll offer quality service. That's it! **Trainer:** Thank you everyone. *[Trainer summarizes the exercise in general terms]*	**Trainer:** First, you have listed down potential sources of finance, right? For example, where can we get it from. Rahel said one source of finance can be her family. What about Hiwot? **Participant:** From credit and saving institutions. **Trainer:** It is possible to get money from credit institutions. Mahder? **Participant:** Equb.[a] **Trainer:** It is possible to get money from Equb savings. Kelemework? **Participant:** From Banks. **Trainer:** It is possible to get money from banks as there are different banks. Beza? **Participant:** From friends. **Trainer:** I can get money from my friends. Okay, Tersit. **Participant**: From my husband. **Trainer**: Okay, I can get money from my husband. Okay, Rekik. *[Trainer and participants continue the discussion]*

Note. To preserve confidentiality, all names were changed.

[a] Equb is a widespread Ethiopian saving group system. Its members make a predetermined monetary contribution at regular intervals and the full amount is distributed on a rotating basis.

First, based on the qualitative content analysis, trainer A does not differ from the other trainers in the extent to which s/he actively involves participants, for example by integrating participants during more theoretical training parts or by stimulating classroom discussions (cf. Category 5.1, Appendix G).[25] The results indicate that all trainers provide only limited opportunities for participation: The number of trainer-participant interactions is low, trainers talk most of the time, and they ask very few questions that encourage participants to think (cf. Table 4.11). The lack of involvement is problematic as it prevents participants from actively engaging in learning by testing, applying, and refining the knowledge they have already acquired. Scholars agree that training is most effective when participants are encouraged to become responsible for their own learning instead of remaining passive recipients of trainers' input (Bell & Kozlowski, 2009; Bell, Tannenbaum, Ford, Noe, & Kraiger, 2017; Keith & Wolff, 2015). However, a highly participatory approach might conflict with trainers' own idea of good teaching. Being used to a teacher-centered approach, they might view good teaching as being determined by the amount of knowledge they share with participants (Bartlett & Mogusu, 2013; Vavrus, Thomas, & Bartlett, 2011). This reasoning is supported by the fact that trainers' training self-efficacy, that is, their confidence in their training skills, is very high for all five trainers.[26]

Table 4.11. Comparison of trainers: Active involvement of participants.

		Trainer A		**Trainer B**		**Trainer C**		**Trainer D**		**Trainer E**	
#	**Indicators**	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
5.2	Number of trainer-participant interactions[a]	7.89	10.21	8.67	17.32	9.70	13.03	5.62	6.85	6.33	5.68
5.3	Trainer-participant talk ratio (%)[b]	93.79	9.25	84.34	22.94	92.61	8.43	91.52	13.57	88.78	14.73
5.4	Number of open-ended questions[c]	.77	1.17	1.13	1.36	1.8	2.15	.38	.65	1.5	2.07

Note. The means displayed are means across all training units. # = Category number (cf. Table 4.6 and Appendix F).
[a] Counted as the number of times a participant gets the chance to speak. [b] Defined as the percentage share of words spoken by the trainer. [c] Questions that require reasoning, explanation, or generalization or have more than one correct answer.

[25] This finding contradicts the results of the trainer evaluation, which indicate that trainer A involves participants to a higher degree than the remaining trainers (cf. Table 4.7). We believe that this might be due to additional factors that were taken into account when trainers' active involvement was evaluated globally, such as the degree to which the training content was related to participants' individual situations.
[26] Trainers' self-reported training self-efficacy ranges from 4.83 for two trainers to 5.00 for the three remaining trainers. It was measured with six items based on Schyns and Von Collani (2002) and Levenson (1981) (Cronbach's $\alpha = .69$), using a 5-point Likert scale ranging from 1 = 'Strongly disagree' to 5 = 'Strongly agree'.

Second, the results show that trainers do little to develop a feedback and error management culture during the training (Frese & Keith, 2015). First, they rarely ask other participants to provide feedback to each other. Only in 0 to 22 % of all training units, they encourage participants to give feedback to their classmates (cf. Category 8.2, Appendix G). In addition, trainers emphasize the value of errors for improvement in only 0 to 17 % of all training units (cf. Category 8.3, Appendix G). This is unfortunate as meta-analytical evidence has shown that preparing participants for the occurrence of errors and highlighting the value of errors for learning leads to better training outcomes, particularly when the acquired skills are supposed to be transferred to novel situations (Keith & Frese, 2008). Finally, trainers do not seek feedback from participants for themselves (cf. Category 8.1, Appendix G). Thus, overall trainers fail to create a training climate that enables participants to receive as much information as possible to correct their mindset of PI and improve their performance (A. Baker, Perreault, Reid, & Blanchard, 2013; London & Smither, 2002). This similarity between trainers could be related to the fact that fear of failure in Ethiopia is higher than in other sub-Saharan African countries (Herrington & Kelley, 2013), making it difficult for trainers to adopt and demonstrate a positive stance towards errors and potentially negative feedback.

4.5 General Discussion

We conducted a randomized controlled field experiment with women entrepreneurs in Addis Ababa, Ethiopia, to test the effectiveness of PI training and found that PI training was not successful in increasing participants' business success and PI. Following this lack of impact, we identified the trainers as a potential contributory cause and explored their role in inducing a positive change in participants' PI with the help of video data. The results of our exploratory qualitative analysis support our quantitative findings. They indicate that, when evaluated holistically, one of the trainers (Trainer A) is stronger than the four other trainers. In addition, results show that this trainer differs systematically in his/her teaching, thereby underpinning our supposition that PI training might have failed to increase women entrepreneurs' business success due to the other trainers' difficulty in stimulating women entrepreneurs' PI in the first place.

We contribute to the entrepreneurship literature by showing that training effectiveness is trainer-dependent and requires more than relevant content and a theoretically sound training approach (Bullough et al., 2015). As our findings illustrate, even a theoretically well-

developed, evidence-based training (Frese, Gielnik, et al., 2016; Mensmann & Frese, 2017) might fail when not adequately delivered by the trainer. Research in the past years has considerably improved our knowledge on how different types of training (e.g. Anderson-Macdonald et al., 2016; Campos et al., 2017a; Drexler, Fischer, & Schoar, 2014), different target groups (e.g. Bulte et al., 2016; de Mel, McKenzie, & Woodruff, 2014; Field et al., 2016), and additional interventions (e.g. Bastian et al., 2018; Berge et al., 2015; Blattman et al., 2014) relate to the effectiveness of entrepreneurship trainings. However, large parts of this research are based on the implicit assumption that trainings being tested are identical to the intended trainings. This is unlikely to be the case as interventions rarely take place in controlled environments (Boekaerts & Corno, 2005), leading to many factors shaping the version of the training that entrepreneurs eventually receive. Hence, we add to existing training studies by showcasing that the trainer is among those factors that might determine whether training turns out to be successful or not. Given the numerous entrepreneurship trainings offered to promote entrepreneurs in sub-Saharan Africa (Coduras Martínez, Levie, Kelley, Saemundsson, & Schott, 2010; GERA, 2018), it seems of high importance to learn more about the conditions under which trainings succeed in providing effective support.

We make a first step in this direction and add to the entrepreneurship literature by providing insights into what may make an entrepreneurship trainer effective. Although this research is only suggestive, we identified four key differences between an effective trainer (Trainer A) and the remaining trainers: Trainer A demonstrates a more profound understanding of the training content, is more likely to make learning intentions transparent, links the training content more meaningfully to participants' daily entrepreneurial experiences and previous content, and provides more informative feedback.

Looking at the results from the perspective of the theory of visible learning (Hattie, 2008), the identified differences suggest that making teaching and learning visible is not only an important principle for effective teaching at school but is also relevant to entrepreneurship trainers. First, by making learning intentions transparent, trainer A provides guidance for participants about what they should learn (Hattie, 2008). Furthermore, the formulation of clear learning intentions may help him/her to know what to teach, that is, to develop implementation intentions which are critical to put learning intentions into action (Gollwitzer, 1990, 1999). Second, by linking the training content to participants' life, trainer A makes the relevance of the training content visible. In addition, links to previous content may contribute to more integrated and flexible knowledge structures. Jointly, these links may motivate and

enable participants to actively apply the training content beyond the training situation (Chiaburu & Lindsay, 2008; Pugh & Bergin, 2006). Finally, by providing informative feedback, trainer A helps participants to find out what they have successfully learned and what they still need to improve (Hattie & Timperley, 2007). This way, participants can adjust their efforts in order to achieve their goals.

With regard to trainers' facilitation of participants' development of a mindset of PI, we proposed that trainers need to provide clear and concrete explanations, repeated opportunities for deliberate practice, meaningful feedback, and demonstrate a positive attitude towards errors. The identified differences indicate that trainer A outperforms the other trainers in two of these four components. First, trainer A demonstrates a profound understanding of the training content and relates it meaningfully to participants' environment. By doing so, s/he may enable participants to transform an initially vague idea of PI into an operative mental model of PI that comprises the required knowledge on how to actively show PI in the business (Mensmann & Frese, 2017). Second, by providing informative feedback, trainer A may support participants in correcting and refining their operative mental models (Frese & Zapf, 1994). However, we propose that there are also areas in which trainer A needs to improve. Similar to the other trainers, s/he does not actively create a feedback- and error-friendly training atmosphere, which could have further increased participants' learning from negative feedback and errors (Frese & Keith, 2015; Keith & Frese, 2008). With regard to the remaining component, repeated opportunities for deliberate practice, we did not find differences between trainer A and the four remaining trainers: By and large, all trainers provided such opportunities as predetermined by the training design in terms of group, team, or individual exercises (cf. Category 4, Appendix G). Thus, in line with previous research (Kirschner, Sweller, & Clark, 2006; Mayer, 2004), our results suggest that encouraging practice alone is not enough. As exhibited by trainer A, trainers need to additionally provide guidance and informative feedback to effectively support participants in all phases of the development of a mindset of PI.

Based on our results, we conclude that participants trained by trainer A show higher levels of PI after the training as they are more aware of what is being taught and learned during the training and form better mindsets of PI than participants trained by the four remaining trainers. It is beyond the scope of our analysis to examine which of the identified trainer behaviors might matter more for participants' PI than others. As a consequence, we cannot disentangle whether making teaching and learning visible or ensuring the adequate

development of participants' PI mindset is more important for entrepreneurship trainers to be effective. However, our results point to what has been claimed by parts of the education literature for years: It matters what trainers *do* in the training rather than what they *bring* in terms of educational qualifications or teaching experience (Hattie, 2008; Kyriakides et al., 2013). With our study, we thus seek to build the starting point for the development of an understudied area within the entrepreneurship literature that deserves further attention.

4.5.1 Strengths and Limitations

A notable strength of our study is the rigorous research design of our training experiment. By conducting a randomized controlled field experiment in Ethiopia, we respond to calls for more experimental research in entrepreneurship (D. W. Williams, Wood, Mitchell, & Urbig, 2019) and help to shed light on the effectiveness of entrepreneurship training where it may matter most. It is now widely acknowledged that entrepreneurs are important drivers of economic growth, job creation, innovation, and societal well-being (Audretsch & Thurik, 2001; Kritikos, 2014; van Praag & Versloot, 2007), thus have the potential to support countries like Ethiopia in their efforts to fight poverty (Sutter et al., 2019). However, far too often, research either does not produce conclusive evidence or findings resulting from Western samples are assumed to be generalizable to sub-Saharan entrepreneurs.

A second strength of our research is that we use qualitative methods to follow up on the null results of our training experiment instead of hiding them in the file drawer. We believe that hiding null results is negligent as they can entail important insights that may inform future research questions (Landis, James, Lance, Pierce, & Rogelberg, 2014). The use of qualitative methods did not only allow us to strengthen the plausibility of the quantitative analyses, which identified the trainer as a contributory cause, but also enabled us to shed light on the underlying reasons for the lack of impact, namely trainers' teaching behavior. By complementing the randomized controlled trial with qualitative methods, we thus highlight the value of mixed-method approaches to advance our understanding of complex phenomena such as the effectiveness of entrepreneurship training (Bakhshi et al., 2015; Bamberger, Tarsilla, & Hesse-Biber, 2016; Edmondson & McManus, 2007; Hesse-Biber, 2012; Molina-Azorín, López-Gamero, Pereira-Moliner, & Pertusa-Ortega, 2012).

Finally, we think that using video data to analyze trainers' behavior during the training is a considerable strength of our study. Instead of speculating about trainers' behavior based on background variables, we actually observed what trainers did. This way, we obtained a more accurate idea of how trainers differ in their role as entrepreneurship trainer.

Our research also has its limitations. One limitation is that our training experiment was not designed to examine the effectiveness of entrepreneurship trainers from the outset. As a consequence, we do not have video data from the same sessions for all trainers, for example. Another implication is that women entrepreneurs were not randomly assigned to PI trainers. This bears the risk that women entrepreneurs' difference in PI after the training might be due to other reasons than the trainer. However, we are confident that the non-random allocation of women participants to trainers does not bias our comparisons for the following reasons. First, prior to the training, women entrepreneurs did not differ in PI when compared with regard to their future trainer ($F(4, 322) = .20$, $\eta^2 = .00$, $p = .94$). Second, we controlled for a comprehensive set of observable characteristics when comparing women entrepreneurs' PI after the training between trainers. Third, we believe that it is unlikely that women entrepreneurs have purposely picked a certain trainer or were systematically assigned to a certain trainer. Women entrepreneurs did not know their trainers in advance, thus did not have the chance to choose a trainer. Living in a city with more than four million inhabitants (Central Intelligence Agency, 2019), including numerous women entrepreneurs, it is also unlikely that women entrepreneurs systematically recommended a particular trainer to future training participants. In addition, women entrepreneurs were free to choose among TVET colleges. Although they were invited to the TVET college in the proximity of their premise, they could switch to any other college more convenient or attractive to them. Moreover, as trainers occasionally switched TVET colleges for organizational reasons, the choice of a certain TVET college did not automatically determine the trainer.

A second limitation of our study is that we cannot rule out additional explanations for PI trainings' lack of influence on women entrepreneurs' business success and PI. One possibility is, for example, that PI training was an unsuitable training approach for our specific target group. Women entrepreneurs of our sample might have been too advanced or already overtrained as compared to those entrepreneurs who benefitted from PI training in other settings (Alibhai et al., 2016; Campos et al., 2017a; Glaub et al., 2014). For many years, Ethiopia has been very popular among international development agencies, leading to multiple training offers for entrepreneurs in Addis Ababa. However, recent research showed that PI training was effective for women entrepreneurs regardless of their level of initial human capital (Campos et al., 2018). This study also indicated that PI training was rather more than less effective for those women who had taken previous trainings (Campos et al., 2018). A second possibility is that the transfer of the training content to participants' real-life settings failed as women entrepreneurs were not supported subsequent to the training. In

Togo, for example, training participants were offered four individual coaching sessions over a period of four months, helping them to pursue a business-related goal they had set at the end of the training (Campos et al., 2017b). However, meta-analytical evidence suggests that post-training interventions focusing on goal setting have only limited impact (Ford, Baldwin, & Prasad, 2018). Moreover, in other settings, PI-related training succeeded to increase entrepreneurs' PI without coaching (Alibhai et al., 2016; Glaub et al., 2014). Yet, even if the fact that women entrepreneurs were based in Addis Ababa or the absence of coaching did not contribute to the lack of training impact, there might be other explanations that we are not aware of.

4.5.2 Future Research

There are several interesting avenues for future research. First of all, future research should follow up on our work and continue to study the teaching of successful entrepreneurship trainers. Our study provides first insights on effective trainer behaviors that can inform the development and test of specific hypotheses. For example, future research could design experiments to compare the impact of trainers who are trained in critical training behaviors with those who are not on entrepreneurial outcomes of training participants.

Second, future research could investigate whether trainers' influence differs depending on whether female or male entrepreneurs are trained. Due to findings of the education literature, showing that effective ways of teaching are similar for all students (Hattie, 2008), we did not address the fact that the training was only offered to women entrepreneurs. However, entrepreneurship research suggests that training is often less effective for women than for men (Berge et al., 2015; de Mel et al., 2014; Giné & Mansuri, 2014). Although this might be related to factors outside the training context, such as women entrepreneurs' family duties and time constraints (Amine & Staub, 2009; Jennings & McDougald, 2007), it could still be the case that some teaching methods are more or less effective when targeting female compared to male entrepreneurs.

Third, we proposed that trainer A might have been better able to connect the training content to participants' daily activities due to his/her own entrepreneurial experience and aspirations. Hence, future studies could test whether trainers' practical experience with entrepreneurship predicts the type and quality of teaching methods being used. In addition, studies could examine whether trainers' entrepreneurial experience might have a moderating influence. It is conceivable, for example, that the impact of trainers' feedback increases because participants have more faith in their trainers' suggestions and are therefore more

likely to act on them (Dirks & Ferrin, 2001; Jacob, Uy, Antonio, Christina, & Wonohadidjojo, 2017).

Fourth, future research could explore whether and under which conditions entrepreneurship training might have a negative influence on PI and business success. Our results illustrate that participants' PI decreased from baseline to endline unless trained by trainer A (cf. Figure 4.1). This negative trend is not observable in the waiting control group, indicating that PI training, when delivered by certain trainers, might have reduced participants' PI in the long term. Future research could also examine the mechanisms that underlie potentially negative training effects. Negative effects could result, for example, from mindsets of PI that are not adequately developed. When making first attempts to show PI subsequent to the training, participants are likely to experience setbacks. Participants not well-equipped for dealing with setbacks might respond by taking a very passive stance in fear of further failures instead of showing persistence and actively looking for solutions (Kollmann, Stöckmann, & Kensbock, 2017; Van Dyck, Van Hooft, De Gilder, & Liesveld, 2010).

Fifth, future research could investigate trainer behaviors that have received less attention in our study. Our results indicate, for example, that trainer A has been more passionate about entrepreneurship than the four remaining trainers (cf. Table 4.7). Education scholars have shown that passion discriminates between higher and lower performing teachers (Hattie & Clinton, 2008; Smith, Baker, Hattie, & Bond, 2008) and argued that passion can be modeled and learned (Hattie, 2008). Similarly, scholars in entrepreneurship have proposed that passion is contagious (Cardon, 2008) and demonstrated its relationship with training success (Gielnik, Uy, Funken, & Bischoff, 2017; Mensmann et al., 2017). Thus, future research could test whether trainers' passion leads to higher training success via increased passion among training participants. By doing so, future research would simultaneously extend the range of training success mediators under study. Due to the nature of PI training and its importance in entrepreneurship (Frese, 2009; Frese & Gielnik, 2014; Koop et al., 2000; Krauss et al., 2005), we focused on trainers' influence on the development of PI but future research could contribute to a more comprehensive understanding of effective entrepreneurship trainers by investigating additional pathways.

4.5.3 Practical Implications

We would like to emphasize that the context of our training implementation is no exception: Entrepreneurship trainings in sub-Saharan Africa are regularly implemented by TVET and other post-secondary institutes (UNESCO, 2016b). Given that teacher quality

constitutes one of the major challenges of the educational systems in many African countries (African Union, 2007; Agence Française de Développement & World Bank, 2018; Béteille & Evans, 2018), this also implies that many entrepreneurs risk to be trained by teachers that may lack the required skills to effectively deliver the training. Against this backdrop, our research addresses a topic that is not only of theoretical interest but also of high practical relevance for the promotion of entrepreneurship in these countries. There are two practical implications we want to highlight.

First, our results indicate that a good trainer cannot be selected based on a set of structural variables but can only be identified in action. Thus, practitioners should introduce selection procedures that allow them to observe entrepreneurship trainers while training before making hiring decisions. Such procedures might involve higher costs for training providers at the selection stage but seem likely to pay off for both entrepreneurs and providers later on. Our results also suggest that practitioners should withstand the temptation to hire entrepreneurship trainers that might not have passed such a practical test, hoping that participants 'might still get something out of it'. Weak trainers might not only reduce the effectiveness of the training but might actually render the training ineffective or even have negative effects.

Second, entrepreneurship trainers should be prepared with regard to teaching behaviors that are critical for training success. Fortunately, there is empirical evidence that teachers' skills can be increased and lead to improved student performance (Glewwe & Muralidharan, 2016; Kremer et al., 2013; McEwan, 2015). However, if skills are taught in an inadequate way, training for trainers will fail in a similar way as training for entrepreneurs (Loyalka, Popova, Li, & Shi, *forthcoming*). We argued earlier, for example, that changing routines requires repeated practice. Thus, trainers might need more time and practice than typically granted to abandon their teaching habits and adopt new, more effective teaching styles. In addition, research in the field of professional teacher development suggests that training for trainers should not be a one-time intervention but continue over the course of the implementation period (Evans & Popova, 2015). Meta-analytical evidence shows that teacher coaching, that is, individualized support over a longer period of time, can lead to substantial improvements in the quality of teachers' instructional practice, which then translate into higher student achievement (Kraft, Blazar, & Hogan, 2018).

4.5.4 Conclusion

This exploratory study makes an important contribution to the identification of success factors of effective entrepreneurship training in sub-Saharan Africa. Our findings suggest that entrepreneurship trainers have a considerable influence on whether trainings turn out successful or not. They indicate that trainers' teaching behavior in the classroom is of key importance and differentiates between effective and less effective entrepreneurship trainers.

5. General Discussion

In this dissertation, I sought to contribute to a better understanding of women entrepreneurship in sub-Saharan Africa and its promotion through entrepreneurship training. More specifically, I analyzed two context factors that influence women's entrepreneurial performance and the success of training interventions: The role of husbands for women entrepreneurs' business success and the role of the trainer for the effectiveness of entrepreneurship training. In my analyses, I took into account the cultural, social, and economic conditions that women entrepreneurs in sub-Saharan Africa are facing. In Chapter 2 and 3, I focused on the influence of women entrepreneurs' husband. The systematic literature review in Chapter 2 illustrated that spouses can have both positive and negative effects on entrepreneurs' activity and performance but revealed that existing studies are largely situated in North American and Western European settings, shedding little light on spousal dynamics in sub-Saharan Africa. In response to that, I derived propositions on how the resource-scarce entrepreneurial ecosystem, the patriarchal society and the high degree of work-family integration that characterize the sub-Saharan context affect spousal influence on women entrepreneurship. In Chapter 3, I developed and empirically tested a theoretical model of husbands' influence on women entrepreneurship in sub-Saharan Africa that integrates cultural (Eagly & Wood, 2012; W. Wood & Eagly, 2002) and economic theory of the household (Chiappori, 1988, 1992). The findings suggest that there are three distinct types of husbands that differ significantly in their impact on women entrepreneurs' business success. They further indicate that husbands' support function is stronger than expected from parts of the literature and that women's entrepreneurial performance suffers from a lack of spousal involvement. In Chapter 4, I addressed the influence of trainers on the effectiveness of entrepreneurship training in sub-Saharan Africa by drawing on an unsuccessful training implementation. The exploratory qualitative analysis of training videos indicates that trainers' teaching behavior in the classroom contributes to whether women entrepreneurs benefit from the training or not.

5.1 General Theoretical Implications

The findings of this dissertation hold four important theoretical implications. First, I contribute to the women entrepreneurship literature by shifting the perspective from a purely individualist focus to a more contextualized view of women entrepreneurship (Brush et al., 2009; Brush, Edelman, et al., 2018). Specifically, to complement research that has focused on

women entrepreneurs' dispositions, motivations, and cognitions, this dissertation looks at how external influences affect women entrepreneurs' performance in sub-Saharan Africa. By addressing the ways in which sub-Saharan husbands may exert influence on women's entrepreneurial endeavor, Chapter 2 and 3 highlight that women entrepreneurs operate under different family dynamics than male entrepreneurs and demonstrate that the consideration of these dynamics is critical towards a more comprehensive understanding of women entrepreneurship in this region. Chapter 4 points to the importance of context factors for training success in sub-Saharan Africa by drawing attention to the role of the entrepreneurship trainer. Although the trainer is likely to be equally important for male entrepreneurs, Chapter 4 illustrates that there are factors beyond women entrepreneurs' commitment, interest, or capability that influence whether a training is successful.

Second, I add to the entrepreneurship literature by contributing to the development of theories that explain entrepreneurial phenomena in the African context (George et al., 2016; Zoogah et al., 2015). Although sub-Saharan Africa belongs to the regions with the highest entrepreneurial activity (GERA, 2018), large parts of the entrepreneurship literature continue to originate from research with entrepreneurs in high income countries (George et al., 2016; Henry et al., 2016; Zahra & Wright, 2011; Zoogah et al., 2015). Scholars have thus argued that "more empirical and conceptual work is warranted to explain the richness of the opportunities on the African continent and address the challenges within them" (George et al., 2016, p. 389). This dissertation responds to that call by providing a more authentic view of successful women entrepreneurship in sub-Saharan Africa than previous research has offered. Chapter 2 develops propositions on how husbands' influence on women's entrepreneurial activity and performance unfolds considering that many women entrepreneurs in sub-Saharan Africa operate in a resource-scarce, patriarchal environment with weak boundaries between family and business life. Chapter 3 builds and tests a theoretical model of husbands' influence that takes into account sub-Saharan Africa's cultural and economic setting to explain husbands' constraining and supportive behavior towards their wives' businesses. In addition, Chapter 4 addresses sub-Saharan Africa's educational infrastructure and its challenges and explores how entrepreneurship trainers employed at public TVET colleges affect the effectiveness of entrepreneurship training.

Third, I add to the entrepreneurship literature by shedding light on the family dynamics that affect women entrepreneurs' success in sub-Saharan Africa. To date, most research addressing the role of the family has focused on family businesses, investigating

research questions related to governance (e.g. Chrisman, Sharma, Steier, & Chua, 2013; Madison, Holt, Kellermanns, & Ranft, 2015; Steier, Chrisman, & Chua, 2015) and succession (e.g. Daspit, Holt, Chrisman, & Long, 2015; Handler, 1994; Ip & Jacobs, 2006; Nordqvist, Wennberg, Bau', & Hellerstedt, 2013), or comparing family with non-family firms (e.g. O'Boyle Jr., Pollack, & Rutherford, 2012; Wagner, Block, Miller, Schwens, & Xi, 2015). However, considerably less is known about the family's influence outside the family firm context. This is surprising given that scholars widely agree that entrepreneurs are deeply embedded in the family system (Aldrich & Cliff, 2003; Dyer et al., 2014). In sub-Saharan Africa, family and business units are particularly intertwined as "family members are drawn together […] as sources of labor, knowledge, capital, and other resources" (Webb et al., 2015, p. 116). The degree to which family and business intermingle is even higher for women entrepreneurs as they often have to manage family and business duties at the same time (Gudeta & van Engen, 2017). Thus, it is likely that the family has a large influence on women's entrepreneurial performance in sub-Saharan Africa. My dissertation addresses the need to study family dynamics in this region by investigating how husbands constrain and support their wives' entrepreneurial endeavor. Of all family members, husbands are likely to have a particular strong impact as they are usually the head of sub-Saharan households (Boudet et al., 2013; OECD, 2019). Chapter 2 identifies six types of spousal influence that recur in the entrepreneurship literature and elaborates on the likelihood of their occurrence and the strength of their effects in the sub-Saharan context. Chapter 3 conceptualizes husbands' influence on two dimensions, husbands as constraints and husbands as resource providers, and argues that these two dimensions result in four distinct profiles of husbands' influence. It provides empirical support for three of the four profiles, examines their antecedents, and shows that the profiles differentially predict women entrepreneurs' success. Thus, this dissertation contributes to a nuanced view of husbands' influence on women entrepreneurship in sub-Saharan Africa.

Fourth, I contribute to the entrepreneurship training literature by providing new insights with regard to the determinants of training success in sub-Saharan Africa. Despite good intentions, many trainings in middle- and low income countries, including the sub-Saharan region, fail to increase participants' business success (Cho & Honorati, 2014; Grimm & Paffhausen, 2015; McKenzie & Woodruff, 2014). To identify factors that facilitate or constrain effective training, scholars have evaluated and compared different training contents (e.g. Anderson-Macdonald, Chandy, & Zia, 2016), training approaches (e.g. Campos et al., 2017), and supplemental interventions (e.g. Bastian, Bianchi, Goldstein, & Montalvao, 2018;

Berge, Bjorvatn, & Tungodden, 2015; Blattman, Fiala, & Martinez, 2014). However, little is known about the entrepreneurship trainers' role in conveying these contents or facilitating these approaches although the trainer constitutes one of the few commonalities of entrepreneurship trainings. This dissertation represents an important step to address this gap. Following the lack of impact of an action-oriented entrepreneurship training in sub-Saharan Africa, Chapter 4 identifies the trainer as a potential contributory cause and qualitatively explores the teaching behaviors that might distinguish more effective from less effective trainers. By bringing in the theory of visible learning (Hattie, 2008) and the knowledge about the development of an entrepreneurial mindset, Chapter 4 paves the way for future theoretical and empirical research to develop a better understanding of the influence of the entrepreneurship trainer.

5.2 General Practical Implications

This dissertation has two overall practical implications. First, it provides important insights for practitioners that help to promote women entrepreneurship in sub-Saharan Africa. In view of the importance of women entrepreneurship to tackle poverty (Bruton et al., 2013; Hughes et al., 2012; Sutter et al., 2019) and the limited success of existing training interventions (Cho & Honorati, 2014; Grimm & Paffhausen, 2015; McKenzie & Woodruff, 2014), practitioners rely on evidence-based solutions towards more effective trainings. This dissertation suggests two pathways to improve existing training interventions.

The first pathway builds on the findings of Chapter 2 and Chapter 3, suggesting that women entrepreneurs in sub-Saharan Africa are deeply embedded in their families and that husbands can have a substantial impact on their wives' entrepreneurial success. Specifically, Chapter 3 indicates that husbands have a positive influence on women's business success if they are actively involved. Thus, practitioners may design interventions that encourage husbands to become allies in women's entrepreneurial endeavor (Bullough et al., 2015) and that support couples in jointly negotiating the role that husbands assume in the women's business (cf. CARE International & Promundo, 2011). In addition, practitioners may consider to move from women-only entrepreneurship trainings to trainings that are open to both spouses. To date, most efforts to promote women entrepreneurship in sub-Saharan Africa concentrate on entrepreneurship trainings that are exclusively designed for women. Although these interventions are important, providing a safe space for women entrepreneurs to share challenges and try out newly acquired skills, they do not necessarily foster a conducive

environment for women entrepreneurs at home. Restricting training participation to women may risk, for example, that husband feel left out and become more resistant to potential changes women entrepreneurs may want to introduce after the training. Thus, involving husbands in the training might not only improve both spouses' skills and knowledge but also increase the likelihood that learnings are actually applied subsequent to the training. One way to ensure the benefits of both exclusive and joint training could be the combination of women-only and men-only modules with joint sessions (cf. Oxfam & Value for Women, 2017).

The second pathway towards more effective entrepreneurship training concerns the selection and preparation of the entrepreneurship trainer. Chapter 4 illustrates that trainers lacking effective teaching skills might render a training futile. Thus, practitioners should take the selection and preparation of entrepreneurship trainers seriously. In light of the findings of Chapter 4, practitioners should select trainers based on their training behavior rather than based on their formal qualifications, such as years of education or teaching experience. In addition, practitioners should ensure that trainers are adequately prepared. Depending on trainers' background and professional experience, practitioners should take into account that trainers who are typically used to a very trainer-centered approach (Bartlett & Mogusu, 2013; Vavrus et al., 2011) might not be able to adopt new, more effective teaching methods overnight but require repeated practice and extensive feedback to replace old routines (Frese & Zapf, 1994).

Second, this dissertation holds an important implication for entrepreneurship scholars. Across domains, randomized controlled trials (RCTs) are considered the most rigorous experimental design, often referred to as 'gold standard' (Banerjee, 2007; Duflo & Kremer, 2005). However, whereas there is a high need for more experimental methods in entrepreneurship research (D. W. Williams et al., 2019), scholars need to be aware that RCTs also have their limitations. One of these limitations is that they may leave the scholar with a 'black box' when there is no overall effect of the intervention. This dissertation illustrates that the integration of qualitative methods can prevent scholars from facing such a situation (Bakhshi et al., 2015; Bamberger et al., 2016). Specifically, Chapter 4 uses qualitative methods to follow up on an RCT which revealed that the training under study had no impact on women entrepreneurs' business success. It demonstrates that the use of qualitative methods does not only help to strengthen the quantitative analyses, which identified the trainer as a contributory cause, but also sheds light on the underlying reasons for the lack of impact,

namely trainers' teaching behavior. This way, it provides rich insights into the conditions under which the training has been successful although the intervention had no overall effect (Bamberger et al., 2016; Edmondson & McManus, 2007). Thus, by highlighting that an RCT can be further strengthened by the integration of qualitative methods (Bakhshi et al., 2015; Bamberger et al., 2016; Hesse-Biber, 2012; O'Cathain, Thomas, Drabble, Rudolph, & Hewison, 2013), this dissertation encourages the use of more rigorous mixed-methods research designs in entrepreneurship (Edmondson & McManus, 2007; Molina-Azorín, Bergh, Corley, & Ketchen, 2017; Molina-Azorín et al., 2012).

5.3 General Conclusion

This dissertation deepens our understanding of women entrepreneurship and its promotion in sub-Saharan Africa. Against the backdrop of sub-Saharan Africa's social, cultural, and economic environment, it analyzes the influence of husbands on women entrepreneurs' business success and sheds light on the role of the trainer for the effectiveness of entrepreneurship training. This way, it contributes to a more contextualized and nuanced view of women entrepreneurship in this region than previous research has offered. The findings of this dissertation can help to improve the promotion of women entrepreneurs in sub-Saharan Africa and serve as a fruitful starting point for future research.

6. References

African Development Bank (AfDB). (2015). *Empowering African women: An agenda for action. Africa Gender Equality Index 2015*. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Gender_Equality_Index_2015-EN.pdf

African Development Bank (AfDB), Organisation for Economic Co-operation and Development (OECD), & United Nations Development Programme (UNDP). (2016). *African Economic Outlook 2016: Sustainable cities and structural transformation*. Retrieved from http://www.africaneconomicoutlook.org/sites/default/files/content-pdf/eBook_AEO2016.pdf

African Development Bank (AfDB), Organisation for Economic Co-operation and Development (OECD), & United Nations Development Programme (UNDP). (2017). *African Economic Outlook 2017: Entrepreneurship and industrialisation*. https://doi.org/10.1787/aeo-2017-en

African Union. (2007). *Strategy to revitalize Technical and Vocational Education and Training (TVET) in Africa*. Retrieved from http://lekiworld.com/AU/docs/15.pdf

Agence Française de Développement, & World Bank. (2018). *Facing forward: Schooling for learning in Africa*. Washington, DC. https://doi.org/10.1596/978-1-4648-1260-6

Ahl, H. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship Theory and Practice*, *30*(5), 595–621. https://doi.org/10.1111/j.1540-6520.2006.00138.x

Ahn, S., & Choi, J. (2004). *Teachers' subject matter knowledge as a teacher qualification: A synthesis of the quantitative literature on students' mathematics achievement*. *Online Submission*. ERIC Institute of Education Sciences. Retrieved from https://files.eric.ed.gov/fulltext/ED490006.pdf

Aida, Y., & Falbo, T. (1991). Relationships between marital satisfaction, resources, and power strategies. *Sex Roles*, *24*(1), 43–56. https://doi.org/10.1007/BF00288702

Akresh, R. (2005). *Understanding pareto inefficient intrahousehold allocations* (IZA Discussion Paper No. 1858). Retrieved from https://www.iza.org/publications/dp/1858/understanding-pareto-inefficient-intrahousehold-allocations

Al-Dajani, H., & Marlow, S. (2010). Impact of women's home-based enterprise on family dynamics: Evidence from Jordan. *International Small Business Journal*, *28*(5), 470–486. https://doi.org/10.1177/0266242610370392

Alcock, S., & Vinten, G. (2004). Entrepreneuring in education. *International Journal of Educational Management*, *18*(3), 188–195. https://doi.org/10.1108/09513540410527185

Aldrich, H. E., & Cliff, J. E. (2003). The pervasive effects of family on entrepreneurship: Toward a family embeddedness perspective. *Journal of Business Venturing*, *18*(5), 573–596. https://doi.org/10.1016/S0883-9026(03)00011-9

Alibhai, S., Buehren, N., & Papineni, S. (2016). *From learning to earning: An impact evaluation of the Digital Opportunity Trust (DOT) entrepreneurship training* (World Bank Gender Innovation Lab: Policy Brief Issue 17). Retrieved from http://documents.worldbank.org/curated/en/963301475096550281/pdf/108547-REVISED-PUBLIC-From-Learning-to-Earning.pdf

Alibhai, S., Buehren, N., & Papineni, S. (2017). *Crossovers: Female entrepreneurs who enter male sectors* (World Bank Policy Research Working Paper No. 8065). Retrieved from http://documents.worldbank.org/curated/en/482051494945352045/pdf/WPS8065.pdf

Allen, T. D., Herst, D. E. L., Bruck, C. S., & Sutton, M. (2000). Consequences associated with work-to-family conflict: A review and agenda for future research. *Journal of Occupational Health Psychology*, *5*(2), 278–308. https://doi.org/10.1037//1076-8998.5.2.278

Alsos, G. A., Isaksen, E. J., & Ljunggren, E. (2006). New venture financing and subsequent business growth in men-and women-led businesses. *Entrepreneurship Theory and Practice*, *30*(5), 667–686. https://doi.org/10.1111/j.1540-6520.2006.00141.x

Alvarez, S. A., & Barney, J. B. (2014). Entrepreneurial opportunities and poverty alleviation. *Entrepreneurship Theory and Practice*, *38*(1), 159–184. https://doi.org/10.1111/etap.12078

Amarapurkar, S. S., & Danes, S. M. (2005). Farm business-owning couples: Interrelationships among business tensions, relationship conflict quality, and spousal satisfaction. *Journal of Family and Economic Issues*, *26*(3), 419–441. https://doi.org/10.1007/s10834-005-5905-6

Amin, M. (2010). Gender and firm-size: Evidence from Africa. *Economics Bulletin*, *30*(1), 663–668.

Amin, M., Islam, A., & Sakhonchik, A. (2016). *Does paternity leave matter for female employment in developing economies?* (World Bank Policy Research Working Paper No. 7588). Retrieved from http://documents.worldbank.org/curated/en/124221468196762078/pdf/WPS7588.pdf

Amine, L. S., & Staub, K. M. (2009). Women entrepreneurs in sub-Saharan Africa: An institutional theory analysis from a social marketing point of view. *Entrepreneurship & Regional Development*, *21*(2), 183–211. https://doi.org/10.1080/08985620802182144

Anderson-Macdonald, S. J., Chandy, R., & Zia, B. (2016). *Pathways to profits: Identifying separate channels of small firm growth through business training* (World Bank Policy Research Working Paper No. 7774). Retrieved from http://documents.worldbank.org/curated/en/932291469740775507/pdf/WPS7774.pdf

Anderson, A. R., Jack, S. L., & Dodd, S. D. (2005). The role of family members in entrepreneurial networks: Beyond the boundaries of the family firm. *Family Business Review*, *18*(2), 135–154. https://doi.org/10.1111/j.1741-6248.2005.00037.x

Anderson, S., & Genicot, G. (2015). Suicide and property rights in India. *Journal of Development Economics*, *114*, 64–78. https://doi.org/10.1016/j.jdeveco.2014.11.004

Anna, A. L., Chandler, G. N., Jansen, E., & Mero, N. P. (2000). Women business owners in traditional and non-traditional industries. *Journal of Business Venturing*, *15*(3), 279–303. https://doi.org/10.1016/S0883-9026(98)00012-3

Aronsson, M., & Birch, D. (2004). Education matters: But does entrepreneurship education? An interview with David Birch. *Academy of Management Learning & Education*, *3*(3), 289–292. Retrieved from http://www.jstor.org/stable/40214117

Ashforth, B. E., Kreiner, G. E., & Fugate, M. (2000). All in a day's work: Boundaries and micro role transitions. *Academy of Management Review*, *25*(3), 472–491. https://doi.org/10.5465/AMR.2000.3363315

Asparouhov, T., & Muthén, B. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling: A Multidisciplinary Journal*, *21*(3), 329–341. https://doi.org/10.1080/10705511.2014.915181

Aterido, R., Beck, T., & Iacovone, L. (2013). Access to finance in sub-Saharan Africa: Is there a gender gap? *World Development*, *47*, 102–120. https://doi.org/10.1016/j.worlddev.2013.02.013

Au, K., & Kwan, H. K. (2009). Start-up capital and chinese entrepreneurs: The role of family. *Entrepreneurship Theory and Practice*, *33*(4), 889–908. https://doi.org/10.1111/j.1540-6520.2009.00331.x

Audretsch, D. B., & Thurik, R. (2001). *Linking entrepreneurship to growth* (OECD Science, Technology and Industry Working Papers No. 2001/02). OECD Publishing. https://doi.org/10.1787/736170038056

Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2014). Entrepreneurial innovation: The importance of context. *Research Policy*, *43*(7), 1097–1108. https://doi.org/10.1016/j.respol.2014.01.015

Bae, T. J., Qian, S., Miao, C., & Fiet, J. O. (2014). The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrepreneurship Theory and Practice*, *38*(2), 217–254. https://doi.org/10.1111/etap.12095

Baer, M., Leenders, R. T. A. J., Oldham, G. R., & Vadera, A. K. (2010). Win or lose the battle for creativity: The power and perils of intergroup competition. *Academy of Management Journal*, *53*(4), 827–845. https://doi.org/10.5465/AMJ.2010.52814611

Baker, A., Perreault, D., Reid, A., & Blanchard, C. M. (2013). Feedback and organizations: Feedback is good, feedback-friendly culture is better. *Canadian Psychology/Psychologie Canadienne*, *54*(4), 260–268. https://doi.org/10.1037/a0034691

Baker, T., Aldrich, H. E., & Liou, N. (1997). Invisible entrepreneurs: The neglect of women business owners by mass media and scholarly journals in the USA. *Entrepreneurship & Regional Development*, *9*(3), 221–238. https://doi.org/10.1080/08985629700000013

Baker, T., & Nelson, R. E. (2005). Creating something from nothing: Resource construction through entrepreneurial bricolage. *Administrative Science Quarterly*, *50*(3), 329–366. https://doi.org/10.2189/asqu.2005.50.3.329

Bakhshi, H., Edwards, J. S., Roper, S., Scully, J., Shaw, D., Morley, L., & Rathbone, N. (2015). Assessing an experimental approach to industrial policy evaluation: Applying RCT+ to the case of Creative Credits. *Research Policy*, *44*(8), 1462–1472. https://doi.org/10.1016/j.respol.2015.04.004

Baland, J.-M., & Ziparo, R. (2017). *Intra-household bargaining in poor countries* (WIDER Working Paper No. 2017/18). Helsinki: UNU-Wider. Retrieved from http://hdl.handle.net/10419/163077

Bamberger, M., Tarsilla, M., & Hesse-Biber, S. (2016). Why so many "rigorous" evaluations fail to identify unintended consequences of development programs: How mixed methods can contribute. *Evaluation and Program Planning*, *55*, 155–162. https://doi.org/10.1016/j.evalprogplan.2016.01.001

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122–147. https://doi.org/10.1037/0003-066X.37.2.122

Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*.

Englewood Cliffs, NJ: Prentice Hall.

Banerjee, A. (2007). *Making aid work*. Cambridge, MA: MIT Press.

Banerjee, A., & Duflo, E. (2007). The economic lives of the poor. *Journal of Economic Perspectives, 21*(1), 141–168. https://doi.org/10.1257/jep.21.1.141

Bardasi, E., Sabarwal, S., & Terrell, K. (2011). How do female entrepreneurs perform? Evidence from three developing regions. *Small Business Economics, 37*(4), 417. https://doi.org/10.1007/s11187-011-9374-z

Barnett, F., & Barnett, S. (1988). *Working together: Entrepreneurial couples*. Ten Speed Press.

Baron, R. A. (2007). Entrepreneurship: A process perspective. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The Psychology of Entrepreneurship* (pp. 19–39). Mahwah: Lawrence Erlbaum.

Bartlett, L., & Mogusu, E. (2013). Teachers' understandings and implementation of learner-centered pedagogy. In *Teaching in Tension. Pittsburgh Studies in Comparative and International Education.* (1st ed., pp. 61–74). Rotterdam: SensePublishers. https://doi.org/10.1007/978-94-6209-224-2_4

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York: Free Press.

Bass, B. M., Avolio, B. J., Jung, D. I., & Berson, Y. (2003). Predicting unit performance by assessing transformational and transactional leadership. *Journal of Applied Psychology, 88*(2), 207–218. https://doi.org/10.1037/0021-9010.88.2.207

Bastian, G., Bianchi, I., Goldstein, M., & Montalvao, J. (2018). *Short-term impacts of improved access to mobile savings, with and without business training: Experimental evidence from Tanzania* (Center for Global Development Working Paper No. 478). Retrieved from https://www.cgdev.org/sites/default/files/short-term-impacts-improved-access-mobile-savings-business-training.pdf

Bates, L. M., Schuler, S. R., Islam, F., & Islam, M. K. (2004). Socioeconomic factors and processes associated with domestic violence in rural Bangladesh. *International Family Planning Perspectives*, 190–199. https://doi.org/10.1363/ifpp.30.139.04

Bau, N., & Das, J. (2017). *The misallocation of pay and productivity in the public sector: Evidence from the labor market for teachers* (World Bank Policy Research Working Paper No. 8050). Retrieved from http://documents.worldbank.org/curated/en/565311493912180970/pdf/WPS8050.pdf

Baughn, C. C., Chua, B.-L., & Neupert, K. E. (2006). The normative context for women's participation in entrepreneurship: A multicountry study. *Entrepreneurship Theory and Practice, 30*(5), 687–708. https://doi.org/10.1111/j.1540-6520.2006.00142.x

Baumol, W. J. (1990). Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy, 98*(5, Part 1), 893–921. https://doi.org/10.1086/261712

Beach, B. (1993). Family support in home-based family businesses. *Family Business Review, 6*(4), 371–379. https://doi.org/10.1111/j.1741-6248.1993.00371.x

Beck, T., & Cull, R. (2014). SME finance in Africa. *Journal of African Economies, 23*(5), 583–613. https://doi.org/10.1093/jae/eju016

Bell, B. S., & Kozlowski, S. W. J. (2009). Toward a theory of learner-centered training design: An integrative framework of active learning. In S. W. J. Kozlowski & E. Salas

(Eds.), *Learning, training, and development in organizations* (pp. 263–300). New York: Routledge.

Bell, B. S., Tannenbaum, S. I., Ford, J. K., Noe, R. A., & Kraiger, K. (2017). 100 years of training and development research: What we know and where we should go. *Journal of Applied Psychology, 102*(3), 305. https://doi.org/10.1037/apl0000142

Bennett, A. A., Gabriel, A. S., Calderwood, C., Dahling, J. J., & Trougakos, J. P. (2016). Better together? Examining profiles of employee recovery experiences. *Journal of Applied Psychology, 101*(12), 1635–1654. https://doi.org/10.1037/apl0000157

Berge, L. I. O., Bjorvatn, K., & Tungodden, B. (2015). Human and financial capital for microenterprise development: Evidence from a field experiment in Tanzania. *Management Science, 61*(4), 707–722. https://doi.org/10.1287/mnsc.2014.1933

Bernhardt, A., Field, E., Pande, R., & Rigol, N. (2017). *Household matters: Revisiting the returns to capital among female micro-entrepreneurs* (NBER Working Paper Series Working Paper No. 23358). National Bureau of Economic Research. Retrieved from http://www.nber.org/papers/w23358

Berniell, M. I., & Sánchez-Pàramo, C. (2011). *Overview of time use data used for the analysis of gender differences in time use patterns* (Background paper for the 2012 World Development Report on Gender Equality and Development).

Berrone, P., Cruz, C., & Gomez-Mejia, L. R. (2012). Socioemotional wealth in family firms: Theoretical dimensions, assessment approaches, and agenda for future research. *Family Business Review, 25*(3), 258–279. https://doi.org/10.1177/0894486511435355

Béteille, T., & Evans, D. K. (2018). *Successful teachers, successful students: Recruiting and supporting society's most crucial profession* (World Bank Policy Approach to Teachers). Retrieved from http://pubdocs.worldbank.org/en/235831548858735497/Successful-Teachers-January-2019.pdf

Bird, M., & Wennberg, K. (2016). Why family matters: The impact of family resources on immigrant entrepreneurs' exit from entrepreneurship. *Journal of Business Venturing, 31*(6), 687–704. https://doi.org/10.1016/j.jbusvent.2016.09.002

Bjørnskov, C., & Foss, N. (2013). How strategic entrepreneurship and the institutional context drive economic growth. *Strategic Entrepreneurship Journal, 7*(1), 50–69. https://doi.org/10.1002/sej.1148

Blattman, C., Fiala, N., & Martinez, S. (2014). Generating skilled self-employment in developing countries: Experimental evidence from Uganda. *The Quarterly Journal of Economics, 129*(2), 697–752. https://doi.org/10.1093/qje/qjt057

Blattman, C., Green, E., Annan, J., & Jamison, J. (2013). *Building women's economic and social empowerment through enterprise* (LOGiCA Study Series No. 1). Retrieved from http://www.logica-wb.org/PDFs/LOGICA_StudySeriesNo1_Uganda_hr.pdf

Blenkinsopp, J., & Owens, G. (2010). At the heart of things: The role of the "married" couple in entrepreneurship and family business. *International Journal of Entrepreneurial Behavior & Research, 16*(5), 357–369. https://doi.org/10.1108/13552551011071850

Boekaerts, M., & Corno, L. (2005). Self-regulation in the classroom: A perspective on assessment and intervention. *Applied Psychology, 54*(2), 199–231. https://doi.org/10.1111/j.1464-0597.2005.00205.x

Boudet, A. M. M., Petesch, P., Turk, C., & Thumala, A. (2013). *On norms and agency:*

Conversations about gender equality with women and men in 20 countries (Directions in development: Human development). Washington, DC. https://doi.org/10.1596/978-0-8213-9862-3

Brannon, D. L., Wiklund, J., & Haynie, J. M. (2013). The varying effects of family relationships in entrepreneurial teams. *Entrepreneurship Theory and Practice*, *37*(1), 107–132. https://doi.org/10.1111/j.1540-6520.2012.00533.x

Brindley, C. (2005). Barriers to women achieving their entrepreneurial potential: Women and risk. *International Journal of Entrepreneurial Behavior & Research*, *11*(2), 144–161. https://doi.org/10.1108/13552550510590554

Brockhaus, R. H., Hills, G. E., Klandt, H., & Welsch, H. (2001). *Entrepreneurship education: A global view*. Aldershot: Ashgate.

Brown, S., Farrel, L., & Sessions, J. G. (2006). Self-employment matching: An analysis of dual earner couples and working households. *Small Business Economics*, *26*(2), 155–172. https://doi.org/10.1007/s11187-004-6489-5

Browning, M., & Chiappori, P.-A. (1998). Efficient intra-household allocations: A general characterization and empirical tests. *Econometrica*, *66*(6), 1241–1278.

Bruce, D. (1999). Do husbands matter? Married women entering self-employment. *Small Business Economics*, *13*(4), 317–329. https://doi.org/10.1023/A:1008179214572

Brüderl, J., & Preisendörfer, P. (1998). Network support and the success of newly founded business. *Small Business Economics*, *10*(3), 213–225. https://doi.org/10.1023/A:1007997102930

Bruni, A., Gherardi, S., & Poggio, B. (2004). Entrepreneur-mentality, gender and the study of women entrepreneurs. *Journal of Organizational Change Management*, *17*(3), 256–268. https://doi.org/10.1108/09534810410538315

Brush, C. G., & Cooper, S. Y. (2012). Female entrepreneurship and economic development: An international perspective. *Entrepreneurship & Regional Development*, *24*(1–2), 1–6. https://doi.org/10.1080/08985626.2012.637340

Brush, C. G., de Bruin, A., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and Entrepreneurship*, *1*(1), 8–24. https://doi.org/10.1108/17566260910942318

Brush, C. G., Edelman, L. F., Manolova, T., & Welter, F. (2018). A gendered look at entrepreneurship ecosystems. *Small Business Economics*, 1–16. https://doi.org/10.1007/s11187-018-9992-9

Brush, C. G., Greene, P., Balachandra, L., & Davis, A. (2018). The gender gap in venture capital - Progress, problems, and perspectives. *Venture Capital*, *20*(2), 115–136. https://doi.org/10.1080/13691066.2017.1349266

Bruton, G. D., Ketchen Jr., D. J., & Ireland, R. D. (2013). Entrepreneurship as a solution to poverty. *Journal of Business Venturing*, *28*(6), 683–689. https://doi.org/10.1016/j.jbusvent.2013.05.002

Bullough, A., de Luque, M. S., Abdelzaher, D., & Heim, W. (2015). Developing women leaders through entrepreneurship education and training. *Academy of Management Perspectives*, *29*(2), 250–270. https://doi.org/10.5465/amp.2012.0169

Bullough, A., & Renko, M. (2017). A different frame of reference: Entrepreneurship and gender differences in the perception of danger. *Academy of Management Discoveries*,

3(1), 21–41. https://doi.org/10.5465/amd.2015.0026

Bullough, A., Renko, M., & Abdelzaher, D. (2017). Women's business ownership: Operating within the context of institutional and in-group collectivism. *Journal of Management, 43*(7), 2037–2064. https://doi.org/10.1177/0149206314561302

Bulte, E., Lensink, R., & Vu, N. (2016). Do gender and business trainings affect business outcomes? Experimental evidence from Vietnam. *Management Science*, 1–18. https://doi.org/10.1287/mnsc.2016.2472

Burke, P. J. (2007). Identity control theory. In *The Blackwell Encyclopedia of Sociology* (pp. 1–7). Oxford: Wiley-Blackwell. https://doi.org/10.1111/b.9781405124331.2007.x

Burns, J. M. (1978). *Leadership*. New York: Harper & Row.

Burris, E. R. (2012). The risks and rewards of speaking up: Managerial responses to employee voice. *Academy of Management Journal*, *55*(4), 851–875. https://doi.org/10.5465/amj.2010.0562

Butler, D. L., & Winne, P. H. (1995). Feedback and self-regulated learning: A theoretical synthesis. *Review of Educational Research, 65*(3), 245–281. https://doi.org/10.3102/00346543065003245

Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017a). Teaching personal initiative beats traditional training in boosting small business in West Africa. *Science*, *357*(6357), 1287–1290. https://doi.org/10.1126/science.aan5329

Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2017b). Teaching personal initiative beats traditional training in boosting small business in West Africa (Supporting online material). *Science, 357*(6357), 1287–1290. https://doi.org/10.1126/science.aan5329

Campos, F., Frese, M., Goldstein, M., Iacovone, L., Johnson, H. C., McKenzie, D., & Mensmann, M. (2018). Is personal initiative training a substitute or complement to the existing human capital of women? Results from a randomized trial in Togo. In *AEA Papers and Proceedings* (Vol. 108, pp. 256–261). https://doi.org/10.1257/pandp.20181026

Campos, F., & Gassier, M. (2017). *Gender and enterprise development in Sub-Saharan Africa: A review of constraints and effective interventions* (World Bank Policy Resesarch Working Paper No. 8239). Retrieved from http://documents.worldbank.org/curated/en/326061510086379739/pdf/WPS8239.pdf

Cannon, M. D., & Witherspoon, R. (2005). Actionable feedback: Unlocking the power of learning and performance improvement. *The Academy of Management Executive*, *19*(2), 120–134. https://doi.org/10.5465/AME.2005.16965107

Caprara, G. V., Barbaranelli, C., Steca, P., & Malone, P. S. (2006). Teachers' self-efficacy beliefs as determinants of job satisfaction and students' academic achievement: A study at the school level. *Journal of School Psychology*, *44*(6), 473–490. https://doi.org/10.1016/j.jsp.2006.09.001

Cardon, M. S. (2008). Is passion contagious? The transference of entrepreneurial passion to employees. *Human Resource Management Review, 18*(2), 77–86. https://doi.org/10.1016/j.hrmr.2008.04.001

CARE International, & Promundo. (2011). *Journey of transformations: A training manual for*

engaging men as allies in women's economic empowerment. Retrieved from https://www.care.org/sites/default/files/documents/Rwanda Journey%27s of Transformation.pdf

Carr, J. C., Cole, M. S., Ring, J. K., & Blettner, D. P. (2011). A measure of variations in internal social capital among family firms. *Entrepreneurship Theory and Practice*, *35*(6), 1207–1227. https://doi.org/10.1111/j.1540-6520.2011.00499.x

Central Intelligence Agency. (2019). The World Factbook: Ethiopia. Retrieved February 23, 2019, from https://www.cia.gov/library/publications/the-world-factbook/geos/print_et.html

Chang, A., Bordia, P., & Duck, J. (2003). Punctuated equilibrium and linear progression: Toward a new understanding of group development. *Academy of Management Journal*, *46*(1), 106–117. https://doi.org/10.2307/30040680

Chiaburu, D. S., & Lindsay, D. R. (2008). Can do or will do? The importance of self-efficacy and instrumentality for training transfer. *Human Resource Development International*, *11*(2), 199–206. https://doi.org/10.1080/13678860801933004

Chiappori, P.-A. (1988). Rational household labor supply. *Econometrica*, *56*(1), 63–90.

Chiappori, P.-A. (1992). Collective labor supply and welfare. *Journal of Political Economy*, *100*(3), 437–467. https://doi.org/10.1086/261825

Chinen, M., de Hoop, T., Balarin, M., Alcázar, L., Sennett, J., & Mezarina, J. (2018). *Vocational and business training to improve women's labour market outcomes in low- and middle-income countries: A systematic review* (3ie Systematic Review 40). *Campbell Systematic Reviews*. London. https://doi.org/10.23846/SR71094

Chliova, M., Brinckmann, J., & Rosenbusch, N. (2015). Is microcredit a blessing for the poor? A meta-analysis examining development outcomes and contextual considerations. *Journal of Business Venturing*, *30*, 467–487. https://doi.org/10.1016/j.jbusvent.2014.10.003

Cho, Y., & Honorati, M. (2014). Entrepreneurship programs in developing countries: A meta regression analysis. *Labour Economics*, *28*, 110–130. https://doi.org/10.1016/j.labeco.2014.03.011

Chrisman, J. J., Sharma, P., Steier, L. P., & Chua, J. H. (2013). The influence of family goals, governance, and resources on firm outcomes. *Entrepreneurship Theory and Practice*, *37*(6), 1249–1261. https://doi.org/10.1111/etap.12064

Clark, S. C. (2000). Work/family border theory: A new theory of work/family balance. *Human Relations*, *53*(6), 747–770. https://doi.org/10.1177/0018726700536001

Clark, S. C. (2002). Communicating across the work/home border. *Community, Work & Family*, *5*(1), 23–48. https://doi.org/10.1080/13668800020006802

Cliff, J. E. (1998). Does one size fit all? Exploring the relationship between attitudes towards growth, gender, and business size. *Journal of Business Venturing*, *13*(6), 523–542. https://doi.org/10.1016/S0883-9026(97)00071-2

Coduras Martínez, A., Levie, J., Kelley, D. J., Saemundsson, R. J., & Schott, T. (2010). *Global entrepreneurship monitor special report: A global perspective on entrepreneurship education and training*. Retrieved from https://www.gemconsortium.org/report/47119

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis.

Psychological Bulletin, *98*(2), 310–357. https://doi.org/10.1037/0033-2909.98.2.310

Coleman, S., & Robb, A. (2009). A comparison of new firm financing by gender: Evidence from the Kauffman firm survey data. *Small Business Economics*, *33*(4), 397–411. https://doi.org/10.1007/s11187-009-9205-7

Collins-Dodd, C., Gordon, I. M., & Smart, C. (2004). Further evidence on the role of gender in financial performance. *Journal of Small Business Management*, *42*(4), 395–417. https://doi.org/10.1111/j.1540-627X.2004.00119.x

Collins, D., Morduch, J., Rutherford, S., & Ruthven, O. (2010). *Portfolios of the poor: how the world's poor live on $2 a day*. Princeton University Press.

Conger, J. A., Kanungo, R. N., & Menon, S. T. (2000). Charismatic leadership and follower effects. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *21*(7), 747–767. https://doi.org/10.1002/1099-1379(200011)21:7<747::AID-JOB46>3.0.CO;2-J

Conn, K. (2014). Identifying effective education interventions in sub-Saharan Africa: A meta-analysis of rigorous impact evaluations. *Review of Educational Research*, *87*(5), 863–898. https://doi.org/10.3102/0034654317712025

Connell, R. W. (2005). Change among the gatekeepers: Men, masculinities, and gender equality in the global arena. *Signs: Journal of Women in Culture and Society*, *30*(3), 1801–1825. https://doi.org/10.1086/427525

Constantin, A., & Voicu, M. (2015). Attitudes towards gender roles in cross-cultural surveys: Content validity and cross-cultural measurement invariance. *Social Indicators Research*, *123*(3), 733–751. https://doi.org/10.1007/s11205-014-0758-8

Cooper, A. C., Gimeno-Gascon, F. J., & Woo, C. Y. (1994). Initial human and financial capital as predictors of new venture performance. *Journal of Business Venturing*, *9*(5), 371–395. https://doi.org/10.1111/j.1540-627X.2004.00119.x

Cornelius-White, J. (2007). Learner-centered teacher-student relationships are effective: A meta-analysis. *Review of Educational Research*, *77*(1), 113–143. https://doi.org/10.3102/003465430298563

Creemers, B. P. M., & Kyriakides, L. (2006). Critical analysis of the current approaches to modelling educational effectiveness: The importance of establishing a dynamic model. *School Effectiveness and School Improvement*, *17*(3), 347–366. https://doi.org/10.1080/09243450600697242

Cromie, S., & Birley, S. (1992). Networking by female business owners in Northern Ireland. *Journal of Business Venturing*, *7*(3), 237–251. https://doi.org/10.1016/0883-9026(92)90029-Q

Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, *47*(2), 448–474. https://doi.org/10.1257/jel.47.2.448

Cruz-Aguayo, Y., Ibarrarán, P., & Schady, N. (2017). Do tests applied to teachers predict their effectiveness? *Economics Letters*, *159*, 108–111. https://doi.org/10.1016/j.econlet.2017.06.035

Cruz, C., Justo, R., & De Castro, J. O. (2012). Does family employment enhance MSEs performance? Integrating socioemotional wealth and family embeddedness perspectives. *Journal of Business Venturing*, *27*(1), 62–76. https://doi.org/10.1016/j.jbusvent.2010.07.002

Danes, S. M., Lee, J., Stafford, K., & Heck, R. K. Z. (2008). The effects of ethnicity, families and culture on entrepreneurial experience: An extension of sustainable family business theory. *Journal of Developmental Entrepreneurship*, *13*(03), 229–268. https://doi.org/10.1142/S1084946708001010

Danes, S. M., Leichtentritt, R. D., Metz, M. E., & Huddleston-Casas, C. (2000). Effects of conflict styles and conflict severity on quality of life of men and women in family businesses. *Journal of Family and Economic Issues*, *21*(3), 259–286. https://doi.org/10.1023/A:1009485301715

Danes, S. M., Matzek, A. E., & Werbel, J. D. (2010). Spousal context during the venture creation process. In *Entrepreneurship and family business: Advances in entrepreneurship, firm emergence, and growth* (pp. 113–161). Emerald Group Publishing Limited. https://doi.org/10.1108/S1074-7540(2010)0000012007

Danes, S. M., & Morgan, E. A. (2004). Family business-owning couples: An EFT view into their unique conflict culture. *Contemporary Family Therapy*, *26*(3), 241–260. https://doi.org/10.1023/B:COFT.0000037913.20921.0e

Danes, S. M., & Olson, P. D. (2003). Women's role involvement in family businesses, business tensions, and business success. *Family Business Review*, *16*(1), 53–68. https://doi.org/10.1111/j.1741-6248.2003.00053.x

Danes, S. M., Rueter, M. A., Kwon, H.-K., & Doherty, W. (2002). Family FIRO model: An application to family business. *Family Business Review*, *15*(1), 31–43. https://doi.org/10.1111/j.1741-6248.2002.00031.x

Danes, S. M., Stafford, K., Haynes, G., & Amarapurkar, S. S. (2009). Family capital of family firms: Bridging human, social, and financial capital. *Family Business Review*, *22*(3), 199–215. https://doi.org/10.1177/0894486509333424

Danes, S. M., Zuiker, V., Kean, R., & Arbuthnot, J. (1999). Predictors of family business tensions and goal achievement. *Family Business Review*, *12*(3), 241–252. https://doi.org/10.1111/j.1741-6248.1999.00241.x

Daniels, C., Herrington, M., & Kew, P. (2016). *Global Entrepreneurship Monitor 2015/2016: Special report on entrepreneurial finance*. Retrieved from http://www.gemconsortium.org/report/49558

Daspit, J. J., Holt, D. T., Chrisman, J. J., & Long, R. G. (2015). Examining family firm succession from a social exchange perspective: A multiphase, multistakeholder review. *Family Business Review*, *29*(1), 44–64. https://doi.org/10.1177/0894486515599688

Davidsson, P., Steffens, P. R., Gordon, S. R., & Senyard, J. M. (2008). *Characteristics of high-potential start-ups: Some early observations from the CAUSEE project*. Retrieved from https://eprints.qut.edu.au/19649/1/c19649.pdf

Davis, P. S., & Harveston, P. D. (2001). The phenomenon of substantive conflict in the family firm: A cross-generational study. *Journal of Small Business Management*, *39*(1), 14–30. https://doi.org/10.1111/0447-2778.00003

de Bruin, A., Brush, C. G., & Welter, F. (2007). Advancing a framework for coherent research on women's entrepreneurship. *Entrepreneurship Theory and Practice*, *31*(3), 323–339. https://doi.org/10.1111/j.1540-6520.2007.00176.x

de Mel, S., McKenzie, D., & Woodruff, C. (2009a). Are women more credit constrained? Experimental evidence on gender and microenterprise returns. *American Economic Journal: Applied Economics*, *1*(3), 1–32. https://doi.org/10.1257/app.1.3.1

de Mel, S., McKenzie, D., & Woodruff, C. (2009b). Measuring microenterprise profits: Must we ask how the sausage is made? *Journal of Development Economics*, *88*(1), 19–31. https://doi.org/10.1016/j.jdeveco.2008.01.007

de Mel, S., McKenzie, D., & Woodruff, C. (2014). Business training and female enterprise start-up, growth, and dynamics: Experimental evidence from Sri Lanka. *Journal of Development Economics*, *106*, 199–210. https://doi.org/10.1016/j.jdeveco.2013.09.005

Delprato, M., Akyeampong, K., Sabates, R., & Hernandez-Fernandez, J. (2015). On the impact of early marriage on schooling outcomes in sub-Saharan Africa and South West Asia. *International Journal of Educational Development*, *44*, 42–55. https://doi.org/10.1016/j.ijedudev.2015.06.001

Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, *86*(3), 499–512. https://doi.org/10.1037/0021-9010.86.3.499

Demirguç-Kunt, A., Klapper, L., & Singer, D. (2013). *Financial inclusion and legal discrimination against women: Evidence from developing countries* (World Bank Policy Research Working Paper No. 6416). Retrieved from http://documents.worldbank.org/curated/en/801311468330257772/pdf/wps6416.pdf

Desrochers, S., Hilton, J. M., & Larwood, L. (2005). Preliminary validation of the work-family integration-blurring scale. *Journal of Family Issues*, *26*(4), 442–466. https://doi.org/10.1177/0192513X04272438

Dimov, D. (2007). Beyond the single-person, single-insight attribution in understanding entrepreneurial opportunities. *Entrepreneurship Theory and Practice*, *31*(5), 713–731. https://doi.org/10.1111/j.1540-6520.2007.00196.x

Diomande, M. (1990). Business creation with minimal resources: Some lessons from the African experience. *Journal of Business Venturing*, *5*(4), 191–200. https://doi.org/10.1016/0883-9026(90)90016-M

Dirks, K. T., & Ferrin, D. L. (2001). The role of trust in organizational settings. *Organization Science*, *12*(4), 450–467. https://doi.org/10.1287/orsc.12.4.450.10640

Doss, C. (2006). The effects of intrahousehold property ownership on expenditure patterns in Ghana. *Journal of African Economies*, *15*(1), 149–180. https://doi.org/10.1093/jae/eji025

Doss, C. (2013). Intrahousehold bargaining and resource allocation in developing countries. *The World Bank Research Observer*, *28*(1), 52–78. https://doi.org/10.1093/wbro/lkt001

Dover, P. (2014). Gender and development cooperation: Scaling up work with men and boys. *IDS Bulletin*, *45*(1), 91–98. https://doi.org/10.1111/1759-5436.12073

Drexler, A., Fischer, G., & Schoar, A. (2014). Keeping it simple: Financial literacy and rules of thumb. *American Economic Journal: Applied Economics*, *6*(2), 1–31. https://doi.org/10.1257/app.6.2.1

Duckworth, A. L., Peterson, C., Matthews, M. D., & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, *92*(6), 1087–1101. https://doi.org/10.1037/0022-3514.92.6.1087

Duflo, E. (2003). Grandmothers and granddaughters: Old-age pensions and intrahousehold allocation in South Africa. *The World Bank Economic Review*, *17*(1), 1–25. https://doi.org/10.1093/wber/lhg013

Duflo, E. (2012). Women empowerment and economic development. *Journal of Economic*

Literature, *50*(4), 1051–1079. https://doi.org/10.1257/jel.50.4.1051

Duflo, E., & Kremer, M. (2005). Use of randomization in the evaluation of development effectiveness. In G. K. Pitman, O. N. Feinstein, & G. K. Ingram (Eds.), *Evaluating development effectiveness* (Vol. 7, pp. 205–231). New Brunswick, NJ: Transaction Publishers.

Dyer, W. G. (2006). Examining the "family effect" on firm performance. *Family Business Review*, *19*(4), 253–273. https://doi.org/10.1111/j.1741-6248.2006.00074.x

Dyer, W. G., & Dyer, W. J. (2009). Putting the family into family business research. *Family Business Review*, *22*(3), 216–219. https://doi.org/10.1177/0894486509333042

Dyer, W. G., Dyer, W. J., & Gardner, R. G. (2012). Should my spouse be my partner? Preliminary evidence from the Panel Study of Income Dynamics. *Family Business Review*, *26*(1), 68–80. https://doi.org/10.1177/0894486512449354

Dyer, W. G., & Mortensen, S. P. (2005). Entrepreneurship and family business in a hostile environment: The case of Lithuania. *Family Business Review*, *18*(3), 247–258. https://doi.org/10.1111/j.1741-6248.2005.00045.x

Dyer, W. G., Nenque, E., & Hill, E. J. (2014). Toward a theory of family capital and entrepreneurship: Antecedents and outcomes. *Journal of Small Business Management*, *52*(2), 266–285. https://doi.org/10.1002/sej.1236

Eagly, A. H. (1987). *Sex Differences in Social Behavior: A Social-Role Interpretation*. Hillsdale, NJ: Lawrence Erlbaum.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review*, *109*(3), 573. https://doi.org/10.1037/0033-295X.109.3.573

Eagly, A. H., & Wood, W. (1991). Explaining sex differences in social behavior: A meta-analytic perspective. *Personality and Social Psychology Bulletincial Psychology Bulletin*, *17*(3), 306–315. https://doi.org/10.1177/0146167291173011

Eagly, A. H., & Wood, W. (2012). Social role theory. In P. A. M. Van Lange, A. W. Kruglanski, & E. T. Higgins (Eds.), *Handbook of Theories of Social Psychology* (Vol. 2, pp. 458–476). London: SAGE Publications Ltd. https://doi.org/10.4135/9781446249222.n49

Eby, L. T., Casper, W. J., Lockwood, A., Bordeaux, C., & Brinley, A. (2005). Work and family research in IO/OB: Content analysis and review of the literature (1980–2002). *Journal of Vocational Behavior*, *66*(1), 124–197. https://doi.org/10.1016/j.jvb.2003.11.003

Eddleston, K. A., & Kellermanns, F. W. (2007). Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business Venturing*, *22*(4), 545–565. https://doi.org/10.1016/j.jbusvent.2006.06.004

Eddleston, K. A., & Powell, G. N. (2012). Nurturing entrepreneurs' work–family balance: A gendered perspective. *Entrepreneurship Theory and Practice*, *36*(3), 513–541. https://doi.org/10.1111/j.1540-6520.2012.00506.x

Edmondson, A. C., & McManus, S. E. (2007). Methodological fit in management field research. *Academy of Management Review*, *32*(4), 1246–1264. https://doi.org/10.5465/amr.2007.26586086

Educate! (2017). Retrieved November 27, 2017, from http://www.experienceeducate.org

Edwards, J. R., & Rothbard, N. P. (2000). Mechanisms linking work and family: Clarifying the relationship between work and family constructs. *Academy of Management Review, 25*(1), 178–199. https://doi.org/10.5465/AMR.2000.2791609

Evans, D. K., & Popova, A. (2015). *What really works to improve learning in developing countries? An analysis of divergent findings in systematic reviews* (World Bank Policy Research Working Paper No. 7203). Retrieved from http://documents.worldbank.org/curated/en/516191468172488103/pdf/WPS7203.pdf

Ezzedeen, S. R., & Ritchey, K. G. (2008). The man behind the woman: A qualitative study of the spousal support received and valued by executive women. *Journal of Family Issues, 29*(9), 1107–1135. https://doi.org/10.1177/0192513X08315363

Fafchamps, M., Kebede, B., & Quisumbing, A. R. (2009). Intrahousehold welfare in rural Ethiopia. *Oxford Bulletin of Economics and Statistics, 71*(4), 567–599. https://doi.org/10.1111/j.1468-0084.2009.00553.x

Falbo, T., & Peplau, L. A. (1980). Power strategies in intimate relationships. *Journal of Personality and Social Psychology, 38*(4), 618–628. https://doi.org/10.1037/0022-3514.38.4.618

Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance, 14*(1), 97–124. https://doi.org/10.1207/S15327043HUP1401_06

Fiala, N., & He, X. (2017). Unitary or noncooperative intrahousehold model? Evidence from couples in Uganda. *The World Bank Economic Review*, 1–9. https://doi.org/10.1093/wber/lhw011

Field, E., Jayachandran, S., Pande, R., & Rigol, N. (2016). Friendship at work: Can peer effects catalyze female entrepreneurship? *American Economic Journal: Economic Policy, 8*(2), 125–153. https://doi.org/10.1257/pol.20140215

Fletschner, D., Anderson, C. L., & Cullen, A. (2010). Are women as likely to take risks and compete? Behavioural findings from Central Vietnam. *Journal of Development Studies, 46*(8), 1459–1479. https://doi.org/10.1080/00220381003706510

Ford, J. K., Baldwin, T. T., & Prasad, J. (2018). Transfer of training: The known and the unknown. *Annual Review of Organizational Psychology and Organizational Behavior, 5*, 201–225. https://doi.org/10.1146/annurev-orgpsych-032117-104443

Frese, M. (2007). The psychological actions and entrepreneurial success: An action theory approach. In J. Robert Baum, M. Frese, & R. A. Baron (Eds.), *The Psychology of Entrepreneurship* (1st ed., pp. 151–188). Mahwah: Lawrence Erlbaum Associates.

Frese, M. (2009). Towards a psychology of entrepreneurship: An action theory perspective. *Foundations and Trends in Entrepreneurship, 5*(6), 437–494. https://doi.org/10.1561/0300000028

Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. *Research in Organizational Behavior, 23*, 133–187. https://doi.org/10.1016/S0191-3085(01)23005-6

Frese, M., Fay, D., Hilburger, T., Leng, K., & Tag, A. (1997). The concept of personal initiative: Operationalization, reliability and validity in two German samples. *Journal of Occupational and Organizational Psychology, 70*(2), 139–161. https://doi.org/10.1207/S15327043HUP1401_06

Frese, M., Garman, G., Garmeister, K., Halemba, K., Hortig, A., Pulwitt, T., & Schildbach, S. (2002). Training zur Erhöhung der Eigeninitiative bei Arbeitslosen: Bericht über einen Pilotversuch. *Zeitschrift Für Arbeits- Und Organisationspsychologie*, *46*(2), 89–97. https://doi.org/10.1026//0932-4089.46.2.89

Frese, M., & Gielnik, M. M. (2014). The psychology of entrepreneurship. *Annual Review of Organizational Psychology and Organizational Behavior*, *1*, 413–438. https://doi.org/10.1146/annurev-orgpsych-031413-091326

Frese, M., Gielnik, M. M., & Mensmann, M. (2016). Psychological training for entrepreneurs to take action: Contributing to poverty reduction in developing countries. *Current Directions in Psychological Science*, *25*(3), 196–202. https://doi.org/10.1177/0963721416636957

Frese, M., Hass, L., & Friedrich, C. (2016). Personal initiative training for small business owners. *Journal of Business Venturing Insights*, *5*, 27–36. https://doi.org/10.1016/j.jbvi.2016.01.001

Frese, M., & Keith, N. (2015). Action errors, error management, and learning in organizations. *Annual Review of Psychology*, *66*, 661–687. https://doi.org/10.1146/annurev-psych-010814-015205

Frese, M., & Zapf, D. (1994). Action as the core of work psychology : A German approach. In H. C. Trianids, M. D. Dunnette, & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed., pp. 1–35). Palo Alto, CA: Consulting Psychologists Press.

Frischer, J., & Larsson, K. (2000). Laissez-faire in research education— an inquiry into a Swedish doctoral program. *Higher Education Policy*, *13*(2), 131–155. https://doi.org/10.1016/S0952-8733(99)00022-7

Gartner, W. B. (1995). Aspects of organizational emergence. In I. Bull, H. Thomas, & G. Willard (Eds.), *Entrepreneurship: Perspectives on theory building* (pp. 67–86). Oxford: Pergamon.

George, G., Corbishley, C., Khayesi, J. N. O., Haas, M. R., & Tihanyi, L. (2016). Bringing Africa in: Promising directions for management research. *Academy of Management Journal*, *59*(2), 377–393. https://doi.org/10.5465/amj.2016.4002

Geurts, S. A. E., Taris, T. W., Kompier, M. A. J., Dikkers, J. S. E., Van Hooff, M. L. M., & Kinnunen, U. M. (2005). Work-home interaction from a work psychological perspective: Development and validation of a new questionnaire, the SWING. *Work & Stress*, *19*(4), 319–339. https://doi.org/10.1080/02678370500410208

Gibb, A. (2002). In pursuit of a new "enterprise" and "entrepreneurship" paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge. *International Journal of Management Reviews*, *4*(3), 233–269. https://doi.org/10.1111/1468-2370.00086

Gibb, A. (2011). Concepts into practice: Meeting the challenge of development of entrepreneurship educators around an innovative paradigm: The case of the International Entrepreneurship Educators' Programme (IEEP). *International Journal of Entrepreneurial Behavior & Research*, *17*(2), 146–165. https://doi.org/10.1108/13552551111114914

Gielnik, M. M., Frese, M., Kahara-Kawuki, A., Katono, I. W., Kyejjusa, S., Munene, J., Muhammed, N., Namatovu-Dawa, R., Nansubuga, F., Orobia, L., Oyugi, J., Sejjaaka, S.,

Sserwanga, A., Walter, T., Bischoff, K. M., & Dlugosch, T. J. (2015). Action and action-regulation in entrepreneurship: Evaluating a student training for promoting entrepreneurship. *Academy of Management Learning and Education*, *14*(1), 69–94. https://doi.org/10.5465/amle.2012.0107

Gielnik, M. M., Uy, M. A., Funken, R., & Bischoff, K. M. (2017). Boosting and sustaining passion: A long-term perspective on the effects of entrepreneurship training. *Journal of Business Venturing*, *32*(3), 334–353. https://doi.org/10.1016/j.jbusvent.2017.02.003

Giné, X., & Mansuri, G. (2014). *Money or ideas? A field experiment on constraints to entrepreneurship in rural Pakistan* (World Bank Policy Research Working Paper No. 6959). Retrieved from http://documents.worldbank.org/curated/en/480101468074334449/pdf/WPS6959.pdf

Glaub, M., Frese, M., Fischer, S., & Hoppe, M. (2014). Increasing personal initiative in small business managers or owners leads to entrepreneurial success: A theory-based controlled randomized field intervention for evidence-based management. *Academy of Management Learning and Education*, *13*(3), 354–379. https://doi.org/10.5465/amle.2013.0234

Glewwe, P., & Muralidharan, K. (2016). Improving education outcomes in developing countries: Evidence, knowledge gaps, and policy implications. In E. A. Hanushek, S. J. Machin, & L. Woessmann (Eds.), *Handbook of the Economics of Education* (Vol. 5, pp. 653–743). Elsevier. https://doi.org/10.1016/B978-0-444-63459-7.00010-5

Global Entrepreneurship Research Association (GERA). (2017). *Global Entrepreneurship Monitor: Global Report 2016/17*. Retrieved from http://www.gemconsortium.org/report/49812

Global Entrepreneurship Research Association (GERA). (2018). *Global entrepreneurship monitor: Global report 2017/18*. Retrieved from https://www.gemconsortium.org/report/50012

Gollwitzer, P. M. (1990). Action phases and mind-sets. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of Motivation and Cognition: Foundations of Social Behavior* (Vol. 2, pp. 53–92). New York, London: Guilford Press.

Gollwitzer, P. M. (1999). Implementation intentions: Strong effects of simple plans. *American Psychologist*, *54*(7), 493–503. https://doi.org/10.1037/0003-066X.54.7.493

Gomez-Mejia, L. R., Cruz, C., Berrone, P., & De Castro, J. (2011). The bind that ties: Socioemotional wealth preservation in family firms. *The Academy of Management Annals*, *5*(1), 653–707. https://doi.org/10.1080/19416520.2011.593320

Gomez-Mejia, L. R., Haynes, K. T., Núñez-Nickel, M., Jacobson, K. J. L., & Moyano-Fuentes, J. (2007). Socioemotional wealth and business risks in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, *52*(1), 106–137. https://doi.org/10.2189/asqu.52.1.106

Gras, D., & Nason, R. S. (2015). Bric by bric: The role of the family household in sustaining a venture in impoverished Indian slums. *Journal of Business Venturing*, *30*(4), 546–563. https://doi.org/10.1016/j.jbusvent.2014.10.002

Grimm, M., Knorringa, P., & Lay, J. (2012). Constrained gazelles: High potentials in West Africa's informal economy. *World Development*, *40*(7), 1352–1368. https://doi.org/10.1016/j.worlddev.2012.03.009

Grimm, M., & Paffhausen, A. L. (2015). Do interventions targeted at micro-entrepreneurs and small and medium-sized firms create jobs ? A systematic review of the evidence for low

and middle income countries. *Labour Economics*, *32*, 67–85. https://doi.org/10.1016/j.labeco.2015.01.003

Grossman, R., & Salas, E. (2011). The transfer of training: What really matters. *International Journal of Training and Development*, *15*(2), 103–120. https://doi.org/10.1111/j.1468-2419.2011.00373.x

Gudeta, K. H., & van Engen, M. L. (2017). Work-life boundary management styles of women entrepreneurs in Ethiopia – "choice" or imposition? *Journal of Small Business and Enterprise Development*, *25*(3), 368–386. https://doi.org/10.1108/JSBED-02-2017-0073

Gupta, V. K., Turban, D. B., & Bhawe, N. M. (2008). The effect of gender stereotype activation on entrepreneurial intentions. *Journal of Applied Psychology*, *93*(5), 1053–1061. https://doi.org/10.1037/0021-9010.93.5.1053

Gupta, V. K., Turban, D. B., Wasti, S. A., & Sikdar, A. (2009). The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship Theory and Practice*, *33*(2), 397–417. https://doi.org/10.1111/j.1540-6520.2009.00296.x

Hacker, W. (1998). *Allgemeine Arbeitspsychologie: Psychische Regulation von Arbeitstätigkeiten*. Bern: Huber.

Hackman, J. R. (2003). Learning more by crossing levels: Evidence from airplanes, hospitals, and orchestras. *Journal of Organizational Behavior*, *24*(8), 905–922. https://doi.org/10.1002/job.226

Hallward-Driemeier, M., & Gajigo, O. (2015). Strengthening economic rights and women's occupational choice: The impact of reforming Ethiopia's family law. *World Development*, *70*, 260–273. https://doi.org/10.1016/j.worlddev.2015.01.008

Handler, W. C. (1994). Succession in family business: A review of the research. *Family Business Review*, *7*(2), 133–157. https://doi.org/10.1111/j.1741-6248.1994.00133.x

Hanushek, E. A., & Rivkin, S. G. (2006). Teacher quality. In E. A. Hanushek & F. Welch (Eds.), *Handbook of the Economics of Education* (Vol. 2, pp. 1051–1078). Elsevier. https://doi.org/10.1016/S1574-0692(06)02018-6

Harrison, P. D., Douglas, D. K., & Burdsal, C. A. (2004). The relative merits of different types of overall evaluations of teaching effectiveness. *Research in Higher Education*, *45*(3), 311–323. https://doi.org/10.1023/B:RIHE.0000019592.78752.da

Hattie, J. (2003). *Teachers make a difference: What is the research evidence?* (Paper presented at the Building TeacherQuality: What does the research tell us ACER Research Conference). Melbourne. Retrieved from http://research.acer.edu.au/research_conference_2003/4/

Hattie, J. (2008). *Visible learning: A synthesis of over 800 meta-analyses relating to achievement*. Routledge.

Hattie, J. (2012). *Visible learning for teachers: Maximizing impact on learning*. Routledge.

Hattie, J. (2015). The applicability of Visible Learning to higher education. *Scholarship of Teaching and Learning in Psychology*, *1*, 79–91. https://doi.org/10.1037/stl0000021

Hattie, J., & Clinton, J. (2008). Identifying accomplished teachers: A validation study. In L. Ingvarson & J. A. Hattie (Eds.), *Assessing teachers for professional certification: The first decade of the National Board for Professional Teaching Standards* (pp. 313–344). Oxford, UK: Elsevier.

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487

Haushofer, J., & Shapiro, J. (2016). The short-term impact of unconditional cash transfers to the poor: Experimental evidence from Kenya. *The Quarterly Journal of Economics*, *131*(4), 1973–2042. https://doi.org/10.1093/qje/qjw025

Hechavarria, D. M., Ingram, A., Justo, R., & Terjesen, S. (2012). Are women more likely to pursue social and environmental entrepreneurship. In K. D. Hughes & J. E. Jennings (Eds.), *Global women's entrepreneurship research: Diverse settings, questions and approaches* (pp. 135–151). Edward Elgar. https://doi.org/10.4337/9781849804622.00016

Heck, R. K. J., Danes, S. M., Fitzgerald, M. A., Haynes, G. W., Jasper, C. R., Schrank, H. L., Stafford, K., & Winter, M. (2006). The family's dynamic role within family business entrepreneurship. In P. Z. Poutziouris, K. X. Smyrnios, & S. B. Klein (Eds.), *Handbook of Research on Family Business* (pp. 80–105). Elgar online. https://doi.org/http://dx.doi.org/10.4337/9781847204394.00014

Heckman, J. J., Stixrud, J., & Urzua, S. (2005). The effects of cognitive and noncognitive abilities on labor market outcomes and social behavior.

Hedberg, P. R., & Danes, S. M. (2012). Explorations of dynamic power processes within copreneurial couples. *Journal of Family Business Strategy*, *3*(4), 228–238. https://doi.org/10.1016/j.jfbs.2012.10.004

Heilbrunn, S., & Davidovitch, L. (2011). Juggling family and business: Work-family conflict of women entrepreneurs in Israel. *The Journal of Entrepreneurship*, *20*(1), 127–141. https://doi.org/10.1177/097135571002000106

Heilman, M. E. (2001). Description and prescription: How gender stereotypes prevent women's ascent up the organizational ladder. *Journal of Social Issues*, *57*(4), 657–674. https://doi.org/10.1111/0022-4537.00234

Heilman, M. E., & Chen, J. J. (2003). Entrepreneurship as a solution: The allure of self-employment for women and minorities. *Human Resource Management Review*, *13*(2), 347–364. https://doi.org/10.1016/S1053-4822(03)00021-4

Heilman, M. E., Wallen, A. S., Fuchs, D., & Tamkins, M. M. (2004). Penalties for success: Reactions to women who succeed at male gender-typed tasks. *Journal of Applied Psychology*, *89*(3), 416–427. https://doi.org/10.1037/0021-9010.89.3.416

Heinonen, J., & Poikkijoki, S.-A. (2006). An entrepreneurial-directed approach to entrepreneurship education: Mission impossible? *Journal of Management Development*, *25*(1), 80–94. https://doi.org/10.1108/02621710610637981

Henley, A. (2004). Self-employment status: The role of state dependence and initial circumstances. *Small Business Economics*, *22*(1), 67–82. https://doi.org/10.1023/B:SBEJ.0000011573.84746.04

Henry, C., Foss, L., & Ahl, H. (2016). Gender and entrepreneurship research: A review of methodological approaches. *International Small Business Journal*, *34*(3), 217–241. https://doi.org/10.1177/0266242614549779

Henry, C., Hill, F., & Leitch, C. (2005). Entrepreneurship education and training: Can entrepreneurship be taught? Part I. *Education + Training*, *47*(2), 98–111. https://doi.org/10.1108/00400910510586524

Herrington, M., & Kelley, D. (2013). *African entrepreneurship: Sub-Saharan African regional report 2012*. Retrieved from http://www.gemconsortium.org/report/48831

Hesse-Biber, S. (2012). Weaving a multimethodology and mixed methods praxis into randomized control trials to enhance credibility. *Qualitative Inquiry*, *18*(10), 876–889. https://doi.org/10.1177/1077800412456964

Hipp, J. R., & Bauer, D. J. (2006). Local solutions in the estimation of growth mixture models. *Psychological Methods*, *11*(1), 36. https://doi.org/10.1037/1082-989X.11.1.36

Ho, A. D., & Kane, T. J. (2013). *The reliability of classroom observations by school personnel*. Bill & Melinda Gates Foundation. Retrieved from https://files.eric.ed.gov/fulltext/ED540957.pdf

Hoddinott, J., & Haddad, L. (1995). Does female income share influence household expenditures? Evidence from Côte d'Ivoire. *Oxford Bulletin of Economics and Statistics*, *57*(1), 77–96. https://doi.org/10.1111/j.1468-0084.1995.tb00028.x

Hollis, S., & Campbell, F. (1999). What is meant by intention to treat analysis? Survey of published randomised controlled trials. *British Medical Journal*, *319*(7211), 670–674. https://doi.org/10.1136/bmj.319.7211.670

Hormiga, E., Batista-Canino, R. M., & Sánchez-Medina, A. (2011). The impact of relational capital on the success of new business start-ups. *Journal of Small Business Management*, *49*(4), 617–638. https://doi.org/10.1111/j.1540-627X.2011.00339.x

Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288. https://doi.org/10.1177/1049732305276687

Hsu, D. K., Wiklund, J., Anderson, S. E., & Coffey, B. S. (2016). Entrepreneurial exit intentions and the business-family interface. *Journal of Business Venturing*, *31*(6), 613–627. https://doi.org/10.1016/j.jbusvent.2016.08.001

Hughes, K. D., Jennings, J. E., Brush, C. G., Carter, S., & Welter, F. (2012). Extending women's entrepreneurship research in new directions. *Entrepreneurship Theory and Practice*, *36*, 429–442. https://doi.org/10.1111/j.1540-6520.2012.00504.x

International Finance Corporation. (2011). *Strengthening access to finance for women-owned SMEs in developing countries*. Washington, DC. Retrieved from https://www.ifc.org/wps/wcm/connect/a4774a004a3f66539f0f9f8969adcc27/G20_Women_Report.pdf?MOD=AJPERES

International Labour Organization. (2014). *Engaging men in women's economic empowerment and entrepreneurship development interventions*. Retrieved from http://www.ilo.org/wcmsp5/groups/public/---ed_emp/---emp_ent/---ifp_seed/documents/briefingnote/wcms_430936.pdf

Ip, B., & Jacobs, G. (2006). Business succession planning: A review of the evidence. *Journal of Small Business and Enterprise Development*, *13*(3), 326–350. https://doi.org/10.1108/14626000610680235

Jacob, G. H. H., Uy, M. A., Antonio, T., Christina, C., & Wonohadidjojo, D. M. (2017). Personal initiative: Influencing team members through developmental feedback. *Academy of Management Proceedings*, *2017*(1). https://doi.org/10.5465/AMBPP.2017.13993abstract

Jamali, D. (2009). Constraints and opportunities facing women entrepreneurs in developing

countries. *Gender in Management: An International Journal*, *24*(4), 232–251. https://doi.org/10.1108/17542410910961532

James, A. (2012). Conceptualizing "woman" as an entrepreneurial advantage: A reflexive approach. In K. D. Hughes & J. E. Jennings (Eds.), *Global Women's Entrepreneurship Research: Diverse Settings, Questions, and Approaches* (pp. 226–240). Edward Elgar Publishing.

Jang, J., & Danes, S. M. (2013). Are we on the same page? Copreneurial couple goal congruence and new venture viability. *Entrepreneurship Research Journal*, *3*(4), 483–504. https://doi.org/10.1515/erj-2013-0036

Jennings, J. E., & Brush, C. G. (2013). Research on women entrepreneurs: Challenges to (and from) the broader entrepreneurship literature? *The Academy of Management Annals*, *7*(1), 661–713. https://doi.org/10.1080/19416520.2013.782190

Jennings, J. E., & McDougald, M. S. (2007). Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. *Academy of Management Review*, *32*(3), 747–760. https://doi.org/10.5465/AMR.2007.25275510

Johns, G. (2006). The essential impact of context on organizational behavior. *Academy of Management Review*, *31*(2), 386–408. https://doi.org/10.2307/20159208

Judge, T. A., & Piccolo, R. F. (2004). Transformational and transactional leadership: A meta-analytic test of their relative validity. *Journal of Applied Psychology*, *89*(5), 755–768. https://doi.org/10.1037/0021-9010.89.5.755 755

Justo, R., DeTienne, D. R., & Sieger, P. (2015). Failure or voluntary exit? Reassessing the female underperformance hypothesis. *Journal of Business Venturing*, *30*(6), 775–792. https://doi.org/10.1016/j.jbusvent.2015.04.004

Kapinga, A. F., & Montero, C. S. (2017). Exploring the socio-cultural challenges of food processing women entrepreneurs in Iringa, Tanzania and strategies used to tackle them. *Journal of Global Entrepreneurship Research*, *7*(1), 17. https://doi.org/10.1186/s40497-017-0076-0

Karlan, D., & Zinman, J. (2011). Microcredit in theory and practice: Using randomized credit scoring for impact evaluation. *Science*, *332*, 1278–1284. https://doi.org/10.1126/science.1200138

Keith, N., & Frese, M. (2008). Effectiveness of error management training: A meta-analysis. *Journal of Applied Psychology*, *93*(1), 59–69. https://doi.org/10.1037/0021-9010.93.1.59

Keith, N., & Wolff, C. (2015). Encouraging active learning. In K. Kraiger, J. Passmore, N. R. Santos, & S. Malvezzi (Eds.), *The Wiley-Blackwell handbook of the psychology of training, development, and performance improvement* (pp. 91–116). Chichester: Wiley-Blackwell.

Keller, M. M., Goetz, T., Becker, E. S., Morger, V., & Hensley, L. (2014). Feeling and showing: A new conceptualization of dispositional teacher enthusiasm and its relation to students' interest. *Learning and Instruction*, *33*, 29–38. https://doi.org/10.1016/j.learninstruc.2014.03.001

Kelley, D. J., Baumer, B. S., Brush, C. G., Greene, P. G., Mahdavi, M., Majbouri, M., Cole, M., Dean, M., Heavlow, R., Babson College, Smith College, & Global Entrepreneurship Research Association (GERA). (2017). *Global Entrepreneurship Monitor 2016/2017 Report on Women's Entrepreneurship*. Retrieved from http://www.gemconsortium.org/report/49860

Kelley, D. J., Brush, C. G., Greene, P. G., Litovsky, Y., & Global Entrepreneurship Research Association (GERA). (2013). *Global Entrepreneurship Monitor 2012 Women's Report*. Retrieved from http://www.gemconsortium.org/report/48583

Kevane, M., & Wydick, B. (2001). Microenterprise lending to female entrepreneurs: sacrificing economic growth for poverty alleviation? *World Development*, *29*(7), 1225–1236. https://doi.org/10.1016/S0305-750X(01)00032-8

Khavul, S., Bruton, G. D., & Wood, E. (2009). Informal family business in Africa. *Entrepreneurship Theory and Practice*, *33*(6), 1219–1238. https://doi.org/10.1111/j.1540-6520.2009.00342.x

Khayesi, J. N. O., George, G., & Antonakis, J. (2014). Kinship in entrepreneur networks: Performance effects of resource assembly in Africa. *Entrepreneurship Theory and Practice*, *38*(6), 1323–1342. https://doi.org/10.1111/etap.12127

Kim, P. H., Longest, K. C., & Aldrich, H. E. (2013). Can you lend me a hand? Task-role alignment of social support for aspiring business owners. *Work and Occupations*, *40*(3), 213–249. https://doi.org/10.1177/0730888413481365

King, L. A., Mattimore, L. K., King, D. W., & Adams, G. A. (1995). Family support inventory for workers: A new measure of perceived social support from family members. *Journal of Organizational Behavior*, *16*(3), 235–258. https://doi.org/10.1002/job.4030160306

Kirby, D. A. (2004). Entrepreneurship education: Can business schools meet the challenge? *Education + Training*, *46*(8/9), 510–519. https://doi.org/10.1108/00400910410569632

Kirkwood, J. (2009). Spousal roles on motivations for entrepreneurship: A qualitative study in New Zealand. *Journal of Family and Economic Issues*, *30*(4), 372–385. https://doi.org/https://doi.org/10.1007/s10834-009-9169-4

Kirschner, P. A., Sweller, J., & Clark, R. E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential, and inquiry-based teaching. *Educational Psychologist*, *41*(2), 75–86. https://doi.org/10.1207/s15326985ep4102_1

Klapper, L., & Parker, S. C. (2010). Gender and the business environment for new firm creation. *The World Bank Research Observer*, *26*(2), 237–257. https://doi.org/10.1093/wbro/lkp032

Klapper, L., & Singer, D. (2015). The role of informal financial services in Africa. *Journal of African Economies*, *24*(AERC Supplement 1), i12–i31. https://doi.org/10.1093/jae/eju027

Klotz, A. C., Hmieleski, K. M., Bradley, B. H., & Busenitz, L. W. (2014). New venture teams: A review of the literature and roadmap for future research. *Journal of Management*, *40*(1), 226–255. https://doi.org/10.1177/0149206313493325

Kluger, A. N., & DeNisi, A. S. (1996). The effects of feedback interventions on performance: A historical review, a meta-analysis, and a preliminary feedback intervention theory. *Psychological Bulletin*, *119*(2), 254–284. https://doi.org/10.1037/0033-2909.119.2.254

Kluwer, E. S., Heesink, J. A. M., & Van De Vliert, E. (1997). The marital dynamics of conflict over the division of labor. *Journal of Marriage and the Family*, *59*(3), 635–653. https://doi.org/10.2307/353951

Kollmann, T., Stöckmann, C., & Kensbock, J. M. (2017). Fear of failure as a mediator of the

relationship between obstacles and nascent entrepreneurial activity—An experimental approach. *Journal of Business Venturing*, *32*(3), 280–301. https://doi.org/10.1016/j.jbusvent.2017.02.002

Koop, S., De Reu, T., & Frese, M. (2000). Sociodemographic factors, entrepreneurial orientation, personal initiative, and environmental problems in Uganda. In M. Frese (Ed.), *Success and failure of microbusiness owners in Africa: A psychological approach* (pp. 55–76). Westport, CT: Quorum.

Kraft, M. A., Blazar, D., & Hogan, D. (2018). The effect of teacher coaching on instruction and achievement: A meta-analysis of the causal evidence. *Review of Educational Research*, *88*(4), 547–588. https://doi.org/10.3102/0034654318759268

Krauss, S. I., Frese, M., Friedrich, C., & Unger, J. M. (2005). Entrepreneurial orientation: A psychological model of success among Southern African small business owners. *European Journal of Work and Organizational Psychology*, *14*(3), 315–344. https://doi.org/10.1080/13594320500170227

Kremer, M., Brannen, C., & Glennerster, R. (2013). The challenge of education and learning in the developing world. *Science*, *340*(6130), 297–300. https://doi.org/10.1126/science.1235350

Krippendorff, K. (2004). Reliability in content analysis: Some common misconceptions and recommendations. *Human Communication Research*, *30*(3), 411–433. https://doi.org/10.1111/j.1468-2958.2004.tb00738.x

Kritikos, A. S. (2014). Entrepreneurs and their impact on jobs and economic growth. *IZA World of Labor*, *8*. https://doi.org/10.15185/izawol.8

Kuckartz, U. (2016). *Qualitative Inhaltsanalyse: Methoden, Praxis, Computerunterstützung*. *Grundlagentexte Methoden* (3rd ed.). Beltz.

Kyriakides, L., Christoforou, C., & Charalambous, C. Y. (2013). What matters for student learning outcomes: A meta-analysis of studies exploring factors of effective teaching. *Teaching and Teacher Education*, *36*, 143–152. https://doi.org/10.1016/j.tate.2013.07.010

Lain, J. (2016). *Job flexibility and occupational selection: An application of maximum simulated likelihood using data from Ghana* (CSAE Working Paper No. WPS/2016-34). Centre for the Study of African Economies, University of Oxford. Retrieved from https://www.csae.ox.ac.uk/materials/papers/csae-wps-2016-34.pdf

Landis, R. S., James, L. R., Lance, C. E., Pierce, C. A., & Rogelberg, S. G. (2014). When is nothing something? Editorial for the null results special issue of Journal of Business and Psychology. *Journal of Business and Psychology*, *29*(2), 163–167. https://doi.org/10.1007/s10869-014-9347-8

Langowitz, N., & Minniti, M. (2007). The entrepreneurial propensity of women. *Entrepreneurship, Theory & Practice*, *31*(3), 341–364. https://doi.org/10.1111/j.1540-6520.2007.00177.x

Lanza, S. T., Tan, X., & Bray, B. C. (2013). Latent class analysis with distal outcomes: A flexible model-based approach. *Structural Equation Modeling: A Multidisciplinary Journal*, *20*(1), 1–26. https://doi.org/10.1080/10705511.2013.742377

Lautenschläger, A., & Haase, H. (2011). The myth of entrepreneurship education: Seven arguments against teaching business creation at universities. *Journal of Entrepreneurship Education*, *14*, 147–161.

Levenson, H. (1981). Differentiating among internality, powerful others, and chance. In H. M. Lefcourt (Ed.), *Research with the locus of control construct* (1st ed., pp. 15–63). New York: Academic Press.

Lin, Z., Picot, G., & Compton, J. (2000). The entry and exit dynamics of self-employment in Canada. *Small Business Economics, 15*(2), 105–125. https://doi.org/10.1023/A:1008150516764

Locke, E. A., & Latham, G. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.

Locke, E. A., & Latham, G. P. (2002). Building a practically useful theory of goal setting and task motivation: A 35-year odyssey. *American Psychologist*, *57*(9), 705–717. https://doi.org/10.1037//0003-066X.57.9.705

London, M., & Smither, J. W. (2002). Feedback orientation, feedback culture, and the longitudinal performance management process. *Human Resource Management Review*, *12*(1), 81–100. https://doi.org/10.1080/17521882.2012.691888

Loyalka, P., Popova, A., Li, G., & Shi, Z. (*forthcoming*). Does teacher training actually work? Evidence from a large-scale randomized evaluation of a national teacher training program. *American Economic Journal: Applied Economics*.

Lubke, G. H., & Muthén, B. (2005). Investigating population heterogeneity with factor mixture models. *Psychological Methods*, *10*(1), 21–39. https://doi.org/10.1037/1082-989X.10.1.21

Lumpkin, G. T., Cogliser, C. C., & Schneider, D. R. (2009). Understanding and measuring autonomy: An entrepreneurial orientation perspective. *Entrepreneurship Theory and Practice*, *33*(1), 47–69. https://doi.org/10.1111/j.1540-6520.2008.00280.x

Lumpkin, T., & Dess, G. G. (1996). Clarifying the entrepreneurial orientation construct and linking it to performance. *Academy of Management Review*, *21*(1), 135–172. https://doi.org/10.5465/amr.1996.9602161568

Madison, K., Holt, D. T., Kellermanns, F. W., & Ranft, A. L. (2015). Viewing family firm behavior and governance through the lens of agency and stewardship theories. *Family Business Review*, *29*(1), 65–93. https://doi.org/10.1177/0894486515594292

Marlow, S., & McAdam, M. (2012). Analyzing the influence of gender upon high-technology venturing within the context of business incubation. *Entrepreneurship Theory and Practice*, *36*(4), 655–676. https://doi.org/10.1111/j.1540-6520.2010.00431.x

Marlow, S., & Patton, D. (2005). All credit to men? Entrepreneurship, finance, and gender. *Entrepreneurship Theory and Practice*, *29*(6), 717–735. https://doi.org/10.1111/j.1540-6520.2005.00105.x

Marsh, H. W., Lüdtke, O., Trautwein, U., & Morin, A. J. S. (2009). Classical latent profile analysis of academic self-concept dimensions: Synergy of person-and variable-centered approaches to theoretical models of self-concept. *Structural Equation Modeling*, *16*(2), 191–225. https://doi.org/10.1080/10705510902751010

Marshack, K. J. (1993). Coentrepreneurial couples: A literature review on boundaries and transitions among copreneurs. *Family Business Review*, *6*(4), 355–369. https://doi.org/10.1111/j.1741-6248.1993.00355.x

Marshack, K. J. (1994). Copreneurs and dual-career couples: Are they different? *Entrepreneurship Theory and Practice*, *19*(1), 49–70.

https://doi.org/10.1177/104225879401900104

Matzek, A. E., Gudmunson, C. G., & Danes, S. M. (2010). Spousal capital as a resource for couples starting a business. *Family Relations, 59*(1), 60–73. https://doi.org/10.1111/j.1741-3729.2009.00586.x

Mayer, R. E. (2004). Should there be a three-strikes rule against pure discovery learning? *American Psychologist, 59*(1), 14–19. https://doi.org/10.1037/0003-066X.59.1.14

Mayring, P. (2014). *Qualitative content analysis: Theoretical foundation, basic procedures and software solution*. Klagenfurt. Retrieved from http://nbn-resolving.de/urn:nbn:de:0168-ssoar-395173

McDonald, T. M., Marshall, M. I., & Delgado, M. S. (2017). Is working with your spouse good for business? The effect of working with your spouse on profit for rural businesses. *Journal of Family and Economic Issues, 38*(4), 477–493. https://doi.org/10.1007/s10834-017-9525-8

McEwan, P. J. (2015). Improving learning in primary schools of developing countries: A meta-analysis of randomized experiments. *Review of Educational Research, 85*(3), 353–394. https://doi.org/10.3102/0034654314553127

McGowan, P., Redeker, C. L., Cooper, S. Y., & Greenan, K. (2012). Female entrepreneurship and the management of business and domestic roles: Motivations, expectations and realities. *Entrepreneurship & Regional Development, 24*(1–2), 53–72. https://doi.org/10.1080/08985626.2012.637351

McKenzie, D., & Woodruff, C. (2014). What are we learning from business training and entrepreneurship evaluations around the developing world? *World Bank Research Observer, 29*(1), 48–82. Retrieved from https://openknowledge.worldbank.org/handle/10986/2212

McLachlan, G., & Peel, D. (2004). *Finite mixture models*. John Wiley & Sons.

McMullen, J. S., & Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of Management Review, 31*(1), 132–152. https://doi.org/10.5465/amr.2006.19379628

Mensmann, M., & Frese, M. (2017). Proactive behavior training: Theory, design, and future directions. In S. K. Parker & U. K. Bindl (Eds.), *Proactivity at Work*. Routledge.

Mensmann, M., Frese, M., Campos, F., Goldstein, M., Iacovone, L., Johnson, H., & McKenzie, D. (2017). From caring to daring: How personal initiative training impacts female entrepreneurs' business success in developing countries. *Unpublished Manuscript*. Retrieved from http://opus.uni-lueneburg.de/opus/volltexte/2017/14450/pdf/Proactivity_Against_Poverty_Dissertation_Mona_Mensmann.pdf

Merttens, F., Hurrel, A., Marzi, M., Attah, R., Farhat, M., Kardan, A., & MacAuslan, I. (2012). *Kenya Hunger Safety Net Programme: Monitoring and evaluation component*. Retrieved from http://www.opml.co.uk/sites/default/files/HSNP Impact evaluation final report_0.pdf

Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review, 11*(3), 299–326. https://doi.org/10.1016/S1053-4822(00)00053-X

Meyer, J. P., Morin, A. J. S., & Vandenberghe, C. (2015). Dual commitment to organization

and supervisor: A person-centered approach. *Journal of Vocational Behavior, 88*, 56–72. https://doi.org/10.1016/j.jvb.2015.02.001

Milazzo, A., & Goldstein, M. (2017). *Governance and women's economic and political participation: Power inequalities, formal constraints, and norms* (Background paper for the 2017 World Development Report on Governance and the Law). Retrieved from http://hdl.handle.net/10986/27267

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. London: Sage.

Miller, D., Steier, L. P., & Le Breton-Miller, I. (2016). What can scholars of entrepreneurship learn from sound family businesses? *Entrepreneurship Theory and Practice, 40*(3), 445–455. https://doi.org/10.1111/etap.12231

Minniti, M. (2010). Female entrepreneurship and economic activity. *European Journal of Development Research, 22*, 294–312. https://doi.org/10.1057/ejdr.2010.18

Minniti, M., & Naudé, W. (2010). What do we know about the patterns and determinants of female entrepreneurship across countries ? *European Journal of Development Research, 22*, 277–293. https://doi.org/10.1057/ejdr.2010.17

Molina-Azorín, J. F., Bergh, D. D., Corley, K. G., & Ketchen, D. J. (2017). Mixed methods in the organizational sciences: Taking stock and moving forward. *Organizational Research Methods, 20*(2), 179–192. https://doi.org/10.1177/1094428116687026

Molina-Azorín, J. F., López-Gamero, M. D., Pereira-Moliner, J., & Pertusa-Ortega, E. M. (2012). Mixed methods studies in entrepreneurship research: Applications and contributions. *Entrepreneurship & Regional Development, 24*(5–6), 425–456. https://doi.org/10.1080/08985626.2011.603363

Molina, E., Fatima, S. F., Ho, A., Melo Hurtado, C. E., Wilichowski, T. M., & Pushparatnam, A. (2018). *Measuring teaching pratices at scale: Results from the development and validation of the Teach classroom observation tool* (World Bank Policy Research Working Paper No. 8653). Retrieved from http://documents.worldbank.org/curated/en/464361543244734516/Measuring-Teaching-Practices-at-Scale-Results-from-the-Development-and-Validation-of-the-Teach-Classroom-Observation-Tool

Molina, E., Melo Hurtado, C. E., Pushparatnam, A., & Wilichowski, T. M. (2018). Teach: Observer manual. Washington, DC: World Bank. Retrieved from http://documents.worldbank.org/curated/en/949541542659103528/Teach-Observer-Manual

Morin, A. J. S., Meyer, J. P., Creusier, J., & Biétry, F. (2016). Multiple-group analysis of similarity in latent profile solutions. *Organizational Research Methods, 19*(2), 231–254. https://doi.org/10.1177/1094428115621148

Morris, M. H., Miyasaki, N. N., Watters, C. E., & Coombes, S. M. (2006). The dilemma of growth: Understanding venture size choices of women entrepreneurs. *Journal of Small Business Management, 44*(2), 221–244. https://doi.org/10.1111/j.1540-627X.2006.00165.x

Muijs, D., Kyriakides, L., van der Werf, G., Creemers, B., Timperley, H., & Earl, L. (2014). State of the art - teacher effectiveness and professional learning. *School Effectiveness and School Improvement, 25*(2), 231–256. https://doi.org/10.1080/09243453.2014.885451

Muijs, D., & Reynolds, R. (2011). *Effective Teaching: Evidence and Practice* (3rd ed.). London: SAGE Publications Ltd.

Muske, G., & Fitzgerald, M. A. (2006). A panel study of copreneurs in business: Who enters, continues, and exits? *Family Business Review*, *19*(3), 193–205. https://doi.org/10.1111/j.1741-6248.2006.00070.x

Muske, G., Fitzgerald, M. A., Haynes, G., Black, M., Chin, L., MacClure, R., & Mashburn, A. (2009). The intermingling of family and business financial resources: Understanding the copreneurial couple. *Journal of Financial Counseling and Planning*, *20*(2), 27–47.

Mwasalwiba, E. S. (2010). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education + Training*, *52*(1), 20–47. https://doi.org/10.1108/00400911011017663

Nabi, G., Liñán, F., Fayolle, A., Krueger, N., & Walmsley, A. (2017). The impact of entrepreneurship education in higher education: A systematic review and research agenda. *Academy of Management Learning & Education*, *16*(2), 277–299. https://doi.org/10.5465/amle.2015.0026

Nichter, S., & Goldmark, L. (2009). Small firm growth in developing countries. *World Development*, *37*(9), 1453–1464. https://doi.org/10.1016/j.worlddev.2009.01.013

Noel, T. W., & Latham, G. P. (2006). The importance of learning goals versus outcome goals for entrepreneurs. *The International Journal of Entrepreneurship and Innovation*, *7*(4), 213–220. https://doi.org/10.5367/000000006779111594

Nordqvist, M., Wennberg, K., Bau', M., & Hellerstedt, K. (2013). An entrepreneurial process perspective on succession in family firms. *Small Business Economics*, *40*(4), 1087–1122. https://doi.org/10.1007/s11187-012-9466-4

Nylund, K. L., Asparouhov, T., & Muthén, B. O. (2007). Deciding on the number of classes in latent class analysis and growth mixture modeling: A Monte Carlo simulation study. *Structural Equation Modeling*, *14*(4), 535–569. https://doi.org/10.1080/10705510701575396

O'Boyle Jr., E. H., Pollack, J. M., & Rutherford, M. W. (2012). Exploring the relation between family involvement and firm's financial performance: A meta-analysis of main and moderator effects. *Journal of Business Venturing*, *27*, 1–18. https://doi.org/10.1016/j.jbusvent.2011.09.002

O'Cathain, A., Thomas, K. J., Drabble, S. J., Rudolph, A., & Hewison, J. (2013). What can qualitative research do for randomised controlled trials? A systematic mapping review. *BMJ Open*, *3*(6). https://doi.org/10.1136/bmjopen-2013-002889

Olson, P. D., Zuiker, V. S., Danes, S. M., Stafford, K., Heck, R. K. Z., & Duncan, K. A. (2003). The impact of the family and the business on family business sustainability. *Journal of Business Venturing*, *18*(5), 639–666. https://doi.org/http://dx.doi.org/10.1016/S0883-9026(03)00014-4

Organisation for Economic Co-operation and Development (OECD). (2019). *SIGI 2019 global report: Transforming challenges into opportunities*. Paris. https://doi.org/10.1787/bc56d212-en

Oxfam, & Value for Women. (2017). *Not strictly business: Improving women's entrepreneurship through soft-skills training and engagement of men*. Retrieved from https://www.oxfamamerica.org/static/media/files/Not_Strictly_Business_Policy_Paper_SEPT7-WEB.pdf

Özcan, B. (2011). Only the lonely? The influence of the spouse on the transition to self-employment. *Small Business Economics*, *37*(4), 465–492. https://doi.org/10.1007/s11187-011-9376-x

Parker, S. K., Bindl, U. K., & Strauss, K. (2010). Making things happen: A model of proactive motivation. *Journal of Management*, *36*(4), 827–856. https://doi.org/10.1177/0149206310363732

Patrick, C., Stephens, H., & Weinstein, A. (2016). Where are all the self-employed women? Push and pull factors influencing female labor market decisions. *Small Business Economics*, *46*(3), 365–390. https://doi.org/10.1007/s11187-015-9697-2

Paulus, P. B., & Yang, H.-C. (2000). Idea generation in groups: A basis for creativity in organizations. *Organizational Behavior and Human Decision Processes*, *82*(1), 76–87. https://doi.org/10.1006/obhd.2000.2888

Pistrui, D., Welsch, H. P., & Roberts, J. S. (1997). The [re]-emergence of family businesses in the transforming Soviet Bloc: Family contributions to entrepreneurship development in Romania. *Family Business Review*, *10*(3), 221–238. https://doi.org/10.1111/j.1741-6248.1997.00221.x

Ponthieu, L. D., & Caudill, H. L. (1993). Who's the boss? Responsibility and decision-making in copreneurial ventures. *Family Business Review*, *6*(1), 3–18. https://doi.org/10.1111/j.1741-6248.1993.00003.x

Powell, G. N., Butterfield, D. A., & Parent, J. D. (2002). Gender and managerial stereotypes: Have the times changed? *Journal of Management*, *28*(2), 177–193. https://doi.org/10.1177/014920630202800203

Powell, G. N., & Eddleston, K. A. (2013). Linking family-to-business enrichment and support to entrepreneurial success: Do female and male entrepreneurs experience different outcomes? *Journal of Business Venturing*, *28*(2), 261–280. https://doi.org/10.1016/j.jbusvent.2012.02.007

Powell, G. N., & Eddleston, K. A. (2016). Family involvement in the firm, family-to-business support, and entrepreneurial outcomes: An exploration. *Journal of Small Business Management*, *55*(4), 614–631. https://doi.org/10.1111/jsbm.12252

Poza, E. J., & Messer, T. (2001). Spousal leadership and continuity in the family firm. *Family Business Review*, *14*(1), 25–36. https://doi.org/10.1111/j.1741-6248.2001.00025.x

Pugh, K. J., & Bergin, D. A. (2006). Motivational influences on transfer. *Educational Psychologist*, *41*(3), 147–160. https://doi.org/10.1207/s15326985ep4103_2

Quisumbing, A. R., & Maluccio, J. A. (2000). *Intrahousehold allocation and gender relations: New empirical evidence from four developing countries* (International Food Policy Research Institute FCND Discussion Paper No. 84). Retrieved from https://ageconsearch.umn.edu/record/16460/files/fc000084.pdf

Rappaport, A. (1995). Farm women as full-time partners: Some evidence of sharing traditional gender-based tasks. *Family Business Review*, *8*(1), 55–63. https://doi.org/10.1111/j.1741-6248.1995.00055.x

Rauch, A., & Frese, M. (2000). Psychological approaches to entrepreneurial success: A general model and an overview of findings. In C. L. Cooper & I. T. Robertson (Eds.), *International Review of Industrial and Organizational Psychology* (pp. 101–142). Chichester: Wiley.

Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality traits, business creation, and success. *European Journal of Work and Organizational Psychology*, *16*(4), 353–385. https://doi.org/10.1080/13594320701595438

Rauch, A., Rosenbusch, N., Unger, J., & Frese, M. (2016). The effectiveness of cohesive and diversified networks: A meta-analysis. *Journal of Business Research*, *69*(2), 554–568. https://doi.org/10.1016/j.jbusres.2015.05.011

Raynolds, L. T. (2002). Wages for wives: Renegotiating gender and production relations in contract farming in the Dominican Republic. *World Development*, *30*(5), 783–798. https://doi.org/10.1016/S0305-750X(02)00008-6

Renta-Davids, A.-I., Jiménez-González, J.-M., Fandos-Garrido, M., & González-Soto, Á.-P. (2014). Transfer of learning: Motivation, training design and learning-conducive work effects. *European Journal of Training and Development*, *38*(8), 728–744. https://doi.org/10.1108/EJTD-03-2014-0026

Renzulli, L. A., Aldrich, H., & Moody, J. (2000). Family matters: Gender, networks, and entrepreneurial outcomes. *Social Forces*, *79*(2), 523–546. https://doi.org/10.2307/2675508

Reynolds, P. D. (2012). Entrepreneurship in developing economies: The bottom billions and business creation. *Foundations and Trends® in Entrepreneurship*, *8*(3), 141–277. https://doi.org/10.1561/0300000045

Rindova, V., Barry, D., & Ketchen, D. J. (2009). Entrepreneuring as emancipation. *Academy of Management Review*, *34*(3), 477–491. https://doi.org/10.5465/amr.2009.40632647

Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, *73*(2), 417–458. https://doi.org/10.1111/j.1468-0262.2005.00584.x

Robertson, M., & Collins, A. (2003). The entrepreneurial summer school as a successful model for teaching enterprise. *Education + Training*, *45*(6), 324–330. https://doi.org/10.1108/00400910310495978

Rodriguez, P., Tuggle, C. S., & Hackett, S. M. (2009). An exploratory study of how potential "family and household capital" impacts new venture start-up rates. *Family Business Review*, *22*(3), 259–272. https://doi.org/10.1177/0894486509335342

Sarooghi, H., Libaers, D., & Burkemper, A. (2015). Examining the relationship between creativity and innovation: A meta-analysis of organizational, cultural, and environmental factors. *Journal of Business Venturing*, *30*(5), 714–731. https://doi.org/10.1016/j.jbusvent.2014.12.003

Schunk, D. H. (1990). Goal setting and self-efficacy during self-regulated learning. *Educational Psychologist*, *25*(1), 71–86. https://doi.org/10.1207/s15326985ep2501_6

Schyns, B., & Von Collani, G. (2002). A new occupational self-efficacy scale and its relation to personality constructs and organizational variables. *European Journal of Work and Organizational Psychology*, *11*(2), 219–241. https://doi.org/10.1080/13594320244000148

Shabbir, A., & Di Gregorio, S. (1996). An examination of the relationship between women's personal goals and structural factors influencing their decision to start a business: The case of Pakistan. *Journal of Business Venturing*, *11*(6), 507–529. https://doi.org/10.1016/S0883-9026(96)00034-1

Shane, S., & Vekataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Review, 25*(1), 217–226.

Sharma, P. (2004). An overview of the field of family business studies: Current status and directions for the future. *Family Business Review, 17*(1), 1–36. https://doi.org/10.1111/j.1741-6248.2004.00001.x

Sieger, P., & Minola, T. (2017). The family's financial support as a "poisoned gift": A family embeddedness perspective on entrepreneurial intentions. *Journal of Small Business Management, 55*, 179–204. https://doi.org/10.1111/jsbm.12273

Sirmon, D. G., & Hitt, M. A. (2003). Managing resources: Linking unique resources, management, and wealth creation in family firms. *Entrepreneurship Theory and Practice, 27*(4), 339–358. https://doi.org/10.1111/1540-8520.t01-1-00013

Smith, T. W., Baker, W. K., Hattie, J., & Bond, L. (2008). A validity study of the certification system of the National Board for Professional Teaching Standards. In L. Ingvarson & J. A. Hattie (Eds.), *Assessing teachers for professional certification: The first decade of the National Board for Professional Teaching Standards* (pp. 345–378). Oxford, UK: Elsevier.

Solomon, G., Frese, M., Friedrich, C., & Glaub, M. (2013). Can personal initiative training improve small business success? A longitudinal South African evaluation study. *Entrepreneurship and Innovation, 14*(4), 255–268. https://doi.org/10.5367/ijei.2013.0129

Sorenson, R. L. (1999). Conflict management strategies used by successful family businesses. *Family Business Review, 12*(4), 325–340. https://doi.org/10.1111/j.1741-6248.1999.00325.x

Sorenson, R. L., & Bierman, L. (2009). Family capital, family business, and free enterprise. *Family Business Review, 22*(3), 193–195. https://doi.org/10.1177/0894486509341178

Sorenson, R. L., Goodpaster, K. E., Hedberg, P. R., & Yu, A. (2009). The family point of view, family social capital, and firm performance: An exploratory test. *Family Business Review, 22*(3), 239–253. https://doi.org/10.1177/0894486509332456

Spooren, P., Brockx, B., & Mortelmans, D. (2013). On the validity of student evaluation of teaching: The state of the art. *Review of Educational Research, 83*(4), 598–642. https://doi.org/10.3102/0034654313496870

Stafford, K., Duncan, K. A., Danes, S. M., & Winter, M. (1999). A research model of sustainable family businesses. *Family Business Review, 12*(3), 197–208. https://doi.org/10.1111/j.1741-6248.1999.00197.x

Staiger, D. O., & Rockoff, J. E. (2010). Searching for effective teachers with imperfect information. *Journal of Economic Perspectives, 24*(3), 97–118. https://doi.org/10.1257/jep.24.3.97

Stam, W., Arzlanian, S., & Elfring, T. (2014). Social capital of entrepreneurs and small firm performance: A meta-analysis of contextual and methodological moderators. *Journal of Business Venturing, 29*(1), 152–173. https://doi.org/10.1016/j.jbusvent.2013.01.002

Stanley, L., Kellermanns, F. W., & Zellweger, T. M. (2016). Latent profile analysis: Understanding family firm profiles. *Family Business Review, 30*(1), 84–102. https://doi.org/10.1177/0894486516677426

Steier, L. P. (2003). Variants of agency contracts in family-financed ventures as a continuum of familial altruistic and market rationalities. *Journal of Business Venturing, 18*(5), 597–

618. https://doi.org/10.1016/S0883-9026(03)00012-0

Steier, L. P. (2009a). Familial capitalism in global institutional contexts: Implications for corporate governance and entrepreneurship in East Asia. *Asia Pacific Journal of Management*, *26*(3), 513–535. https://doi.org/10.1007/s10490-008-9117-0.

Steier, L. P. (2009b). Where do new firms come from? Households, family capital, ethnicity, and the welfare mix. *Family Business Review*, *22*(3), 273–278. https://doi.org/10.1177/0894486509336658

Steier, L. P., Chrisman, J. J., & Chua, J. H. (2015). Governance challenges in family businesses and business families. *Entrepreneurship Theory and Practice*, *39*(6), 1265–1280. https://doi.org/10.1111/etap.12180

Stets, J. E. (1995). Modelling control in relationships. *Journal of Marriage and the Family*, *57*(2), 489–501. https://doi.org/10.2307/353701

Stets, J. E., & Burke, P. J. (2005). Identity verification, control, and aggression in marriage. *Social Psychology Quarterly*, *68*(2), 160–178. https://doi.org/10.1177/019027250506800204

Strauss, K., & Parker, S. K. (2015). Intervening to enhance proactivity in organizations: Improving the present or changing the future. *Journal of Management*, *44*(3), 1250–1278. https://doi.org/10.1177/0149206315602531

Sutter, C., Bruton, G. D., & Chen, J. (2019). Entrepreneurship as a solution to extreme poverty: A review and future research directions. *Journal of Business Venturing*, *34*(1), 197–214. https://doi.org/10.1016/j.jbusvent.2018.06.003

Taylor, S. E. (2011). *Social support: A review*. (H. S. Friedman, Ed.), *The Oxford Handbook of Health Psychology*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195342819.013.0009

Thébaud, S. (2010). Masculinity, bargaining, and breadwinning: Understanding men's housework in the cultural context of paid work. *Gender & Society*, *24*(3), 330–354. https://doi.org/10.1177/0891243210369105

Thébaud, S. (2015). Business as Plan B: Institutional foundations of gender inequality in entrepreneurship across 24 industrialized countries. *Administrative Science Quarterly*, *60*(4), 671–711. https://doi.org/10.1177/0001839215591627

Thébaud, S. (2016). Passing up the job: The role of gendered organizations and families in the entrepreneurial career process. *Entrepreneurship Theory and Practice*, *40*(2), 269–287. https://doi.org/10.1111/etap.12222

Titi Amayah, A., & Haque, M. D. (2017). Experiences and challenges of women leaders in sub-Saharan Africa. *Africa Journal of Management*, *3*(1), 99–127. https://doi.org/10.1080/23322373.2017.1278663

Townsend, D. M., Busenitz, L. W., & Arthurs, J. D. (2010). To start or not to start: Outcome and ability expectations in the decision to start a new venture. *Journal of Business Venturing*, *25*(2), 192–202. https://doi.org/10.1016/j.jbusvent.2008.05.003

Uchino, B. N. (2009). Understanding the links between social support and physical health: A life-span perspective with emphasis on the separability of perceived and received support. *Perspectives on Psychological Science*, *4*(3), 236–255. https://doi.org/10.1111/j.1745-6924.2009.01122.x

Udry, C. (1996). Gender, agricultural production, and the theory of the household. *Journal of*

Political Economy, *104*(5), 1010–1046. https://doi.org/10.1086/262050

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2015). *Education for All 2000-2015: Achievements and challenges* (EFA Global Monitoring Report). Paris. Retrieved from http://unesdoc.unesco.org/images/0023/002322/232205e.pdf

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2016a). *Gender review: Creating sustainable futures for all* (Global Education Monitoring Report 2016). Paris. Retrieved from http://unesdoc.unesco.org/images/0024/002460/246045e.pdf

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2016b). *Strategy for Technical and Vocational Education and Training (TVET) (2016-2021)*. Paris. Retrieved from http://unesdoc.unesco.org/images/0024/002452/245239e.pdf

UNESCO Institute for Statistics (UIS), & United Nations International Children's Emergency Fund (UNICEF). (2015). *Fixing the broken promise of Education for All: Findings from the Global Initiative on Out-of-School Children*. Montreal. https://doi.org/10.15220/978-92-9189-161-0-en

Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*, *26*(3), 341–358. https://doi.org/10.1016/j.jbusvent.2009.09.004

United Nations. (2015). *The world's women 2015: Trends and statistics*. New York. https://doi.org/10.18356/9789210573719AJOM

United Nations (UN) Women, United Nations Development Programme (UNDP), United Nations Environmental Programme (UNEP), & World Bank. (2015). *The cost of the gender gap in agricultural productivity in Malawi, Tanzania, and Uganda*. Retrieved from http://documents.worldbank.org/curated/en/847131467987832287/pdf/100234-WP-PUBLIC-Box393225B-The-Cost-of-the-Gender-Gap-in-Agricultural-Productivity-in-Malawi-Tanzania-and-Uganda.pdf

United Nations Development Programme (UNDP). (2016). *Human Development Report 2016: Human development for everyone*. New York. Retrieved from http://hdr.undp.org/sites/default/files/2016_human_development_report.pdf

United Nations Development Programme (UNDP). (2017). About Sub-Saharan Africa. Retrieved December 10, 2017, from http://www.africa.undp.org/content/rba/en/home/regioninfo.html

Uy, M. A., Foo, M.-D., & Aguinis, H. (2010). Using experience sampling methodology to advance entrepreneurship theory and research. *Organizational Research Methods*, *13*(1), 31–54. https://doi.org/10.1177/1094428109334977

Valdivia, M. (2015). Business training plus for female entrepreneurship? Short and medium-term experimental evidence from Peru. *Journal of Development Economics*, *113*, 33–51. https://doi.org/10.1016/j.jdeveco.2014.10.005

Van Auken, H., & Werbel, J. (2006). Family dynamic and family business financial performance: Spousal commitment. *Family Business Review*, *19*(1), 49–63. https://doi.org/10.1111/j.1741-6248.2006.00059.x

Van der Sluis, J., Van Praag, M., & Vijverberg, W. (2005). Entrepreneurship selection and performance: A meta-analysis of the impact of education in developing economies. *The World Bank Economic Review*, *19*(2), 225–261. https://doi.org/10.1093/wber/lhi013

Van Dyck, C., Van Hooft, E., De Gilder, D., & Liesveld, L. (2010). Proximal antecedents and correlates of adopted error approach: A self-regulatory perspective. *The Journal of Social Psychology*, *150*(5), 428–451. https://doi.org/10.1080/00224540903366743

van Praag, C. M., & Versloot, P. H. (2007). What is the value of entrepreneurship? A review of recent research. *Small Business Economics*, *29*(4), 351–382. https://doi.org/10.1007/s11187-007-9074-x

Vavrus, F., Thomas, M., & Bartlett, L. (2011). *Ensuring quality by attending to inquiry: Learner-centered pedagogy in sub-Saharan Africa*. Addis Ababa: UNESCO-IICBA. Retrieved from http://www.iicba.unesco.org/sites/default/files/Fundamentals 4 Eng.pdf

Vermunt, J. K., & Magidson, J. (2002). Latent class cluster analysis. In J. Hagenaars & A. McCutcheon (Eds.), *Applied latent class analysis* (Vol. 11, pp. 89–106). Cambridge: Cambridge University Press.

Vial, V., & Hanoteau, J. (2015). Returns to micro-entrepreneurship in an emerging economy: A quantile study of entrepreneurial Indonesian households' welfare. *World Development*, *74*, 142–157. https://doi.org/http://dx.doi.org/10.1016/j.worlddev.2015.04.008

Volkmann, C., Wilson, K. E., Marlotti, S., Rabuzzi, D., Vyakarnam, S., & Sepulveda, A. (2009). *Educating the next wave of entrepreneurs - Unlocking entrepreneurial capabilities to meet the global challenges of the 21st century: A report of the Global Education Initiative*. Geneva. Retrieved from http://www.gvpartners.com/web/pdf/WEF_EE_Full_Report.pdf

Wagner, D., Block, J. H., Miller, D., Schwens, C., & Xi, G. (2015). A meta-analysis of the financial performance of family firms: Another attempt. *Journal of Family Business Strategy*, *6*(1), 3–13. https://doi.org/10.1016/j.jfbs.2015.01.001

Wang, M., & Hanges, P. J. (2011). Latent class procedures: Applications to organizational research. *Organizational Research Methods*, *14*(1), 24–31. https://doi.org/10.1177/1094428110383988

Watson, J., & Newby, R. (2005). Biological sex, stereotypical sex-roles, and SME owner characteristics. *International Journal of Entrepreneurial Behavior & Research*, *11*(2), 129–143. https://doi.org/10.1108/13552550510590545

Watson, J., & Robinson, S. (2003). Adjusting for risk in comparing the performances of male- and female-controlled SMEs. *Journal of Business Venturing*, *18*(6), 773–788. https://doi.org/https://doi.org/10.1016/S0883-9026(02)00128-3

Webb, J. W., Bruton, G. D., Tihanyi, L., & Ireland, R. D. (2013). Research on entrepreneurship in the informal economy: Framing a research agenda. *Journal of Business Venturing*, *28*(5), 598–614. https://doi.org/10.1016/j.jbusvent.2012.05.003

Webb, J. W., Kistruck, G. M., Ireland, R. D., & Ketchen Jr, D. J. (2010). The entrepreneurship process in base of the pyramid markets: The case of multinational enterprise/nongovernment organization alliances. *Entrepreneurship Theory and Practice*, *34*(3), 555–581. https://doi.org/10.1111/j.1540-6520.2009.00349.x

Webb, J. W., Pryor, C. G., & Kellermanns, F. W. (2015). Household enterprise in Base-of-the-Pyramid markets: The influence of institutions and family embeddedness. *Africa Journal of Management*, *1*(2), 115–136. https://doi.org/10.1080/23322373.2015.1024089

Welsh, D. H. B., Memili, E., Kaciak, E., & Ochi, M. (2014). Japanese women entrepreneurs: Implications for family firms. *Journal of Small Business Management*, *52*(2), 286–305. https://doi.org/10.1111/jsbm.12099

Welter, F. (2011). Contextualizing entrepreneurship - Conceptual challenges and ways forward. *Entrepreneurship Theory and Practice*, *35*(1), 165–184. https://doi.org/10.1111/j.1540-6520.2010.00427.x

Welter, F., & Smallbone, D. (2003). Entrepreneurship and enterprise strategies in transition economies: An institutional perspective. In D. A. Kirby & A. Watson (Eds.), *Small firms and economic development in developed and transition economies: A reader* (pp. 95–114). Aldershot: Ashgate Publishing Limited.

Wennberg, K., Pathak, S., & Autio, E. (2013). How culture moulds the effects of self-efficacy and fear of failure on entrepreneurship. *Entrepreneurship & Regional Development*, *25*(9–10), 756–780. https://doi.org/10.1080/08985626.2013.862975

Whetten, D. A. (1989). What constitutes a theoretical contribution? *Academy of Management Review*, *14*(4), 490–495. https://doi.org/10.5465/AMR.1989.4308371

Whetten, D. A. (2009). An examination of the interface between context and theory applied to the study of Chinese organizations. *Management and Organization Review*, *5*(1), 29–55. https://doi.org/10.1111/j.1740-8784.2008.00132.x

Williams, D. R. (2004). Effects of childcare activities on the duration of self-employment in Europe. *Entrepreneurship, Theory & Practice*, *28*(5), 467–485. https://doi.org/10.1111/j.1540-6520.2004.00058.x

Williams, D. W., Wood, M. S., Mitchell, J. R., & Urbig, D. (2019). Applying experimental methods to advance entrepreneurship research: On the need for and publication of experiments. *Journal of Business Venturing*, *34*(2), 215–223. https://doi.org/10.1016/j.jbusvent.2018.12.003

Witt, M. G., & Wood, W. (2010). Self-regulation of gendered behavior in everyday life. *Sex Roles*, *62*(9–10), 635–646. https://doi.org/10.1007/s11199-010-9761-y

Wolf, K., & Frese, M. (2018). Why husbands matter: Review of spousal influence on women entrepreneurship in Sub-Saharan Africa. *Africa Journal of Management*. https://doi.org/10.1080/23322373.2018.1428019

Wood, R., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, *14*(3), 361–384. https://doi.org/10.5465/amr.1989.4279067

Wood, W., Christensen, P. N., Hebl, M. R., & Rothgerber, H. (1997). Conformity to sex-typed norms, affect, and the self-concept. *Journal of Personality and Social Psychology*, *73*(3), 523–535. https://doi.org/10.1037/0022-3514.73.3.523

Wood, W., & Eagly, A. H. (2002). A cross-cultural analysis of the behavior of women and men: Implications for the origins of sex differences. *Psychological Bulletin*, *128*(5), 699–727. https://doi.org/10.1037/0033-2909.128.5.699

World Bank. (2008). *Doing Business: Women in Africa*. Washington, DC. Retrieved from http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Special-Reports/Women-in-Africa.pdf

World Bank. (2011). *World Development Report 2012: Gender equality and development*. Washington, DC. Retrieved from https://siteresources.worldbank.org/INTWDR2012/Resources/7778105-1299699968583/7786210-1315936222006/Complete-Report.pdf

World Bank. (2015). *Women, business and the law 2016: Getting to equal*. Washington, DC.

Retrieved from http://wbl.worldbank.org/~/media/WBG/WBL/Documents/Reports/2016/Women-Business-and-the-Law-2016.pdf

World Bank. (2018a). *Africa's pulse: An analysis of issues shaping Africa's economic future*. Washington, DC.

World Bank. (2018b). Women Entrepreneurs Finance Initiative (We-Fi). Retrieved March 15, 2019, from https://we-fi.org

World Bank. (2018c). *World Development Report 2018: Learning to realize education's promise*. Washington, DC. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/.../9781464810961.pdf

World Bank. (2019a). Ethiopia Women Entrepreneurship Development Project. Retrieved March 3, 2019, from http://projects.worldbank.org/P122764/women-entrepreneurship-development-project?lang=en&tab=overview

World Bank. (2019b). *Women, business and the law 2019*. Washington, DC. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/31327/WBL2019.pdf

World Bank. (2019c). World Bank Enterprise Surveys. Retrieved March 15, 2019, from http://www.enterprisesurveys.org/data/exploretopics/gender

World Economic Forum. (2017a). *The Global Competitiveness Report 2016-2017*. Geneva. Retrieved from www.weforum.org/gcr.

World Economic Forum. (2017b). *The Global Gender Gap Report 2017*. Geneva. Retrieved from http://www3.weforum.org/docs/WEF_GGGR_2017.pdf

Yauch, C. A., & Steudel, H. J. (2003). Complementary use of qualitative and quantitative cultural assessment methods. *Organizational Research Methods*, *6*(4), 465–481. https://doi.org/10.1177/1094428103257362

Yoong, J., Rabinovich, L., & Diepeveen, S. (2012). *The impact of economic resource transfers to women versus men: A systematic review*. London. Retrieved from http://eppi.ioe.ac.uk/cms/Portals/0/PDF reviews and summaries/Economic transfers 2012Yoong.pdf?ver=2012-01-13-101615-493

Zahra, S. A. (2007). Contextualizing theory building in entrepreneurship research. *Journal of Business Venturing*, *22*(3), 443–452. https://doi.org/10.1016/j.jbusvent.2006.04.007

Zahra, S. A., Hayton, J. C., Neubaum, D. O., Dibrell, C., & Craig, J. (2008). Culture of family commitment and strategic flexibility: The moderating effect of stewardship. *Entrepreneurship Theory and Practice*, *32*(6), 1035–1054. https://doi.org/10.1111/j.1540-6520.2008.00271.x

Zahra, S. A., & Wright, M. (2011). Entrepreneurship's next act. *Academy of Management Perspectives*, *25*(4), 67–83. https://doi.org/10.5465/amp.2010.0149

Zahra, S. A., Wright, M., & Abdelgawad, S. G. (2014). Contextualization and the advancement of entrepreneurship research. *International Small Business Journal*, *32*(5), 479–500. https://doi.org/10.1177/0266242613519807

Zoogah, D. B., Peng, M. W., & Woldu, H. (2015). Institutions, resources, and organizational effectiveness in Africa. *The Academy of Management Perspectives*, *29*(1), 7–31. https://doi.org/10.5465/amp.2012.0033

Zou, W. (2015). Intrahousehold productive inefficiency in Burkina Faso: Can experimental

inefficiency measures explain differences in household income? Retrieved from https://arefiles.ucdavis.edu/uploads/filer_public/8c/4a/8c4ad895-f632-4664-a9d6-aa900057e2d9/jmp_zou_2015feb.pdf

7. Appendices

Appendix A. Literature overview of studies relevant for husbands' influence on women entrepreneurs' business success.

Table A1. Literature overview: Husbands as constraints.

Authors	Country	Relevant findings
Control over wives' business and daily life		
Amarapurkar & Danes, 2005	USA	The study reveals that in farm business-owning couples, "a higher discrepancy between husbands and wives in decision-making involvement created less shared meaning which in turn resulted in a less constructive conflict quality" (p. 436).
Amine & Staub, 2009	(sub-Saharan Africa)	The authors report that in many sub-Saharan communities, women entrepreneurship is associated with men's failure to provide for the family and control their wives. "Fearing such a loss of control, personal honor or social standing, many men simply refuse to allow their wives to start or operate their own businesses." (p. 199).
Anderson & Genicot, 2015	India	The authors show that improved property rights for women in India increased conflict within the household.
Bates, Schuler, Islam, & Islam, 2004	Bangladesh	The study shows that Bangladeshi women with a dowry agreement or personal earnings were at increased risk of domestic violence.
Berge, Bjorvatn, & Tungodden, 2015	Tanzania	Based on the findings of a field experiment, the authors suggest that Tanzanian female entrepreneurs might be less able to benefit from business training or long-term credit due to their limited influence over business decisions.
Danes & Olson, 2003	USA	The authors emphasize the importance of spouses' decision-making authority as "higher order of involvement" (p. 60).

Table A1. Continued.

Authors	Country	Relevant findings
Danes, Rueter, Kwon, & Doherty, 2002	USA	Based on 207 farm couples, the study finds that mutual involvement in financial decision making (rather than imbalanced control by one party) leads to collaborative conflict behaviors which in turn increase family business success.
Dover, 2014	(Developing countries)	The author states that "support to developing women's entrepreneurship is often hindered by women's […] lack of economic decision-making power at household level" (p. 92). He refers to men's "resistance to women's empowerment in situations of poverty and economic stress, in which men feel ashamed because of their inability to live up to 'household breadwinner' expectations" (p. 92) as a widely known barrier.
Ezzedeen & Ritchey, 2008	USA	Based on previous research, the authors state that "men have the final say in critical decisions, leaving inconsequential ones to women" (p. 1109).
Hedberg & Danes, 2012	USA	The study finds that the least productive farm businesses are run by couples with husbands being in charge and wives having limited power to make business decisions or perform business tasks.
Khavul, Bruton, & Wood, 2009	Kenya, Uganda	The study suggests that family ties play a constraining role in East Africa, particularly for women. "As a result, female entrepreneurs opt to bring in outside partners in the business in order to limit the participation of those individuals who can appropriate the benefits" (p. 1233).
Kirkwood, 2009	New Zealand	Based on a qualitative gender comparative study with 68 entrepreneurs in New Zealand, the study finds that it is usually the husband who is in control of a copreneurial business.
Marshack, 1994	USA	The findings based on a subsample of 30 copreneurial couples "indicate that the husband is the leader and decision maker at work and at home, while the wife is consistently the support person" (p. 63). "In both the domain of work and the domain of love, copreneurial wives are following, allowing, passive, introverted, and less powerful. […] In neither domain is the copreneurial wife the leader" (p. 64).

Table A1. Continued.

Authors	Country	Relevant findings
Merttens et al., 2012	Kenya	Qualitative findings suggest that delivering cash transfers to Kenyan women might have increased tensions and marital conflict "as men felt that their role and status as household heads were being undermined" (p. 58).
Philbrick & Fitzgerald, 2007	USA	The authors suggest that "the invisible spouse may consult with the active spouse in the family business and these consultations may weigh heavily on the decisions the active spouse makes in the family business" (p. 632).
Ponthieu & Caudill, 1993	USA	The authors find that "while both male and female copreneurs trust their spouses to make important decisions without consulting them, it seems to be the males who actually make the solo decisions" (p. 14f).
Rappaport, 1995	USA	The study finds that wives did not have sole responsibility for farm decisions or tasks even when men and women were considered full-time partners.
Sharifian, Jennings, & Jennings, 2012	Canada	Based on a sample of copreneurs and a control group of non-copreneurs, the study shows that business equity has a positive influence on average sales growth of copreneurial businesses.
Välimäki, Lämsä, & Hiillos, 2009	Finland	Developing a typology of female managers' husbands in Finland, the study finds that the "counterproductive husband" who prefers traditional gender roles with wives being subordinate to men is mentioned second most frequently. The "determining husband" who determines his wife's career and decisions is mentioned third most frequently.
World Bank, 2011b	Ethiopia	The World Development Report 2012 refers to a study by Tarazona and Munro (2011) which finds that even after reforming the family code in Ethiopia, between 28 % (in the capital) and 48 % (in rural areas) of women state that they need their husbands' permission to work.

Table A1. Continued.

Authors	Country	Relevant findings
World Bank, 2011b	Multiple	Based on a multi-country qualitative study of gender and economic choice (World Bank, 2011a), the World Development Report 2012 reports that 20 % of study participants state that husbands have full control over their wives' autonomous income. Husbands' control over their wives' income appears particularly large at low household incomes.
World Bank, 2011b	(Multiple)	The World Development Report 2012 points out that "improvements in women's economic position can also challenge social norms on women's role in the household and in society and lead to an increase in some forms of domestic violence or threats of such violence in the short term" (p. 154).
Assignment of domestic duties		
Al-Dajani & Marlow, 2010	Jordan	Studying 43 Palestinian women who operate home-based enterprises within conservative patriarchal families living in Jordan, the authors find that "while most husbands gave permission for their wives to operate these businesses, there was little toleration of any 'spill over' into the domestic sphere nor any erosion of traditional roles. […] As such, there was no facility for the women to exchange any of their domestic roles for income generating activity" (p. 481).
Amine & Staub, 2009	(sub-Saharan Africa)	The authors acknowledge that women in sub-Saharan Africa "have less time available to handle bureaucratic procedures, due to their household and childcare responsibilities" (p. 196).
Baughn, Chua, & Neupert, 2006	Multiple	The authors consider women's household and family duties as push factor into entrepreneurship and acknowledge that the burden of work and family tasks has a negative effect on business success.
Berge et al., 2015	Tanzania	Based on their findings, the authors suggest that domestic obligations might hinder Tanzanian female entrepreneurs from benefitting from business training or long-term credit.

Table A1. Continued.

Authors	Country	Relevant findings
Dover, 2014	(Developing countries)	The author states that "support to developing women's entrepreneurship is often hindered by women's care-work tasks […]" (p. 92).
Duflo, 2012	(Developing countries)	The author considers the way women are expected to spend their time as a major source of gender inequality and proposes that freeing up women's time would increase their ability to engage in market activities.
Eddleston & Powell, 2012	USA	The findings show a positive effect of instrumental support at home on satisfaction with work-family balance. In line with the traditional allocation of domestic duties within households, female entrepreneurs receive less instrumental support at home than male entrepreneurs.
Ezzedeen & Ritchey, 2008	USA	The study finds that married executive women rank "inadequate help with the household, whether in the form of insufficient help or lack of initiative" (p. 1125) first among unsupportive husband behaviors.
Gudeta & van Engen, 2017	Ethiopia	The study shows that women entrepreneurs in societies with traditional gender roles do not expect that household responsibilities are shared with their husbands but accept them as their own duties. These duties in turn force women entrepreneurs to integrate "business, family and social roles, while having little control over circumstances and events" (p. 378).
Jennings & McDougald, 2007	(NA)	The authors develop a conceptual model and suggest that due to household time demands and family responsibilities "women business owners are not only more likely to experience greater work-family conflict than their male counterparts but are also more likely to use coping strategies that […] constrain rather than enhance the growth of their firms" (p. 746).
Klapper & Parker, 2010	(Developing countries)	The authors list household burdens as one of the main factors restricting women entrepreneurs' performance. They acknowledge that "men systematically contribute less to household production than women, even when the woman is working" (p. 240).

Table A1. Continued.

Authors	Country	Relevant findings
McGowan, Redeker, Cooper, & Greenan, 2012	Northern Ireland	The findings show that women entrepreneurs in Northern Ireland receive little or no support with household tasks from their husbands.
United Nations, 2015	37 developing, 28 developed countries	Data show that "when the hours of paid and unpaid work are combined, women work longer hours per day than men, in both developing and developed countries […]. Women in developing countries spend a total of 7 hours and 9 minutes per day on paid and unpaid work, while men spend 6 hours and 16 minutes per day" (p. 114).
Van Auken & Werbel, 2006	(NA)	As part of their conceptual model of spousal commitment, the authors state that "men are more likely to press family time demands on their mates than women" (p. 55).
Williams, 2004	8 European countries	Based on data from the European Community Household Panel survey for 1994–1999, the findings show a negative effect of the time spent for child care on entrepreneurial survival.
World Bank, 2011b	Multiple	The World Development Report 2012 builds on research across 23 countries (Berniell & Sánchez-Pàramo, 2011) that shows that "married women spend at least one hour a day, or 30 percent, more on housework than their single counterparts, after controlling for relevant individual and household characteristics. […] Even when women contribute a substantial fraction of total market work […], they continue to be largely responsible for housework and care work" (p. 218).
Destructive conflict management		
Amarapurkar & Danes, 2005	USA	The authors base their research on tensions and conflict among farm business-owning couples on the assumption that "sustained, unaddressed, or unresolved conflict […] has […] negative consequences for the emotional and economic well-being of the individuals involved" (p. 423).

Table A1. Continued.

Authors	Country	Relevant findings
Danes, Zuiker, Kean, & Arbuthnot, 1999	USA	The findings of 414 family business households show that "for both the household and the business managers, the total tension level predicted the success in achieving the business goal" (p. 249). "The higher the total level of tensions identified, the less success achieved in business goals" (p. 247).
Danes, Leichtentritt, Metz, & Huddleston-Casas, 2000	USA	The authors acknowledge that in an environment where conflict is inevitable, conflict management styles play an important role for business success. "The results of the study strongly indicate that conflict resolution styles affect the severity of conflict and the assessment of the quality of life of the family business" (p. 277).
Danes et al., 2002	USA	Based on 207 farm couples, the study finds that collaborative (i.e. constructive) conflict behavior has a positive effect on family business success.
Danes & Olson, 2003	USA	The authors provide empirical evidence that high tensions in family-business-owning couples are destructive and negatively affect business success.
Danes & Lee, 2004	USA	Acknowledging the high potential for conflict in family businesses, the authors investigate the sources of tension in business farm-owning couples.
Danes & Morgan, 2004	USA	The authors examine the sources of tension among business-owning couples. They find higher tension levels for wives "whose husbands identified them as major decision makers" and "when resources were transferred from the family to the business" (p. 250). They find higher tension levels for the husband "as the number of hours his spouse worked in the family business increased." (p. 251).
Davis & Harveston, 2001	USA	"The findings suggest that even though family members may work in the same business and share a common interest in cooperating and coordinating their efforts, substantive (task) conflicts may still arise" (p. 26).

Table A1. Continued.

Authors	Country	Relevant findings
Eddleston & Kellermanns, 2007	USA	The authors provide empirical evidence for the detrimental effect of relationship conflict between family members working in the family business on family business performance.
Eddleston, Otondo, & Kellermanns, 2008	USA	The authors base their study on the assumption that relationship conflict between family members working in the family businesses impedes business success.
Harvey & Evans, 1994	(NA)	Based on the tenet that conflict impedes business performance, the study provides a theoretical analysis of multiple levels of conflict and resolution processes at different stages of the family business.
Jang & Danes, 2013	USA	The authors find that goal congruence in copreneurial couples improves the quality of business-related communication (which can be understood as opposed to destructive conflict). Quality communication, in turn, increases the viability of the businesses.
Kellermanns & Eddleston, 2004	(NA)	Acknowledging the high potential for conflict in family businesses, the authors develop a theoretical model of different types of conflict. They propose a negative effect of relationship conflict on family business performance and suggest that the "potential positive effects of task and process conflict will be diminished to the degree that relationship conflict occurs" (p. 215).
Lee & Rogoff, 1996	USA	The findings show that family business owners experience higher levels of conflict than business owners without family participation. However, conflict does not have any negative influence on business success.
Scott, Dolan, Johnstone-Louis, Sugden, & Wu, 2012	South Africa	A qualitative study with women entrepreneurs in South Africa shows that "those who had male partners did sometimes experience conflict related to their new business" (p. 559). In some cases, husbands' discouragement resulted in women entrepreneurs stopping their entrepreneurial activity.

Table A1. Continued.

Authors	Country	Relevant findings
Sorenson, 1999	USA	The findings show that conflict management strategies characterized by competition and avoidance are most detrimental to both family and business outcomes.
Van Auken & Werbel, 2006	(NA)	The authors base their study on two distinct research themes including one stream "that assumes conflicts between a husband and wife impede business success" (p. 49). They consider differences in spouses' goals and spousal involvement in decision making power as sources of destructive conflict.

Note. Brackets indicate that the country/region constitutes the thematic focus but that there is no study sample from this country/region. (NA) = Not applicable since there is no regional focus; Multiple = Sample based on more than two countries/regions.

Table A2. Literature overview: Husbands as resource providers.

Authors	Country	Relevant findings
Financial resource provisions		
Arregle et al., 2015	China, France, Russia, USA	The study provides a nuanced view of monetary business resources. It reveals that "when family ties are above the threshold of 87% of entrepreneurs' business resource networks, the family embeddedness in these networks has a positive effect on new venture growth" (p. 22).
Bird & Wennberg, 2016	Sweden	The findings show that "family financial capital enhances immigrant entrepreneurs' likelihood of remaining in entrepreneurship as well as their likelihood of exiting to paid employment" (p. 687).
Danes, Stafford, Haynes, & Amarapurkar, 2009	(NA)	The authors develop a family capital typology and describe its contribution to family business performance. They find that "financial capital contributed more than other forms of family capital to gross revenue in both 1997 and 2000" (p. 209).
Daniels, Herrington, & Kew, 2016	Multiple	The special report on entrepreneurial finance of the Global Entrepreneurship Monitor 2015/2016 admits that "Many of the previous models of entrepreneurial finance remain relevant today, including informal investment through the founders themselves, as well as borrowing from friends, family and colleagues" (p. 4). "In all regions, the majority of informal investors provide funds to close family members […]" (p. 6).
Demirgüç-Kunt, Klapper, Singer, & Van Oudheusden, 2015	Multiple	The findings show that "in developing economies, 29 percent of adults reported borrowing from family or friends, while only 9 percent reported borrowing from a financial institution. Borrowing from family or friends is especially common in Sub-Saharan Africa, where 42 percent of adults reported doing so." (p. 48).
Gundry & Welsch, 1994	USA	The authors provide empirical evidence for the positive effect of family intensity, including financial family investments, on projected business growth of 832 women entrepreneurs.

Table A2. Continued.

Authors	Country	Relevant findings
Muske et al., 2009	USA	Based on a sample of copreneurs, the study shows that the use of financial family resources (i.e. using the home as collateral) is related to business success.
Rodriguez, Tuggle, & Hackett, 2009	USA	The findings show that household wealth is strongly related to business creation.
Steier, 2003	(NA)	The key assumption of this conceptual research is that "in terms of new venture finance, family represents a most significant resource" (p. 615).
World Bank, 2011b	Multiple	The World Development Report 2012 points to the relevance of financial resources from family members by showing that "the process for women to accumulate assets is affected by prevailing inheritance laws and practices, which in many regions are significantly weaker for women" (p. 163).
Social resource provisions		
Bird & Wennberg, 2016	Sweden	The findings indicate that immigrant entrepreneurs rely on active support from family members.
Blenkinsopp & Owens, 2010	(NA)	The authors acknowledge the critical role of spousal support and distinguish between five different types: unpaid labor, household management, access to networks and specific expertise, spousal leadership and invisible contributions.
Brüderl & Preisendörfer, 1998	Germany	The authors "observe the strongest and most consistent effects for active help from the spouse or life-partner" and conclude that "in the context of entrepreneurship and small business formation, strong ties and family support seem to be crucial resources" (p. 223).

Table A2. Continued.

Authors	Country	Relevant findings
Cetindamar, Gupta, Karadeniz, & Egrican, 2012	Turkey	Based on the Turkish data of the Global Entrepreneurship Monitor 2006, the authors find "that family capital facilitates women's entry into entrepreneurship only when family size is very large" (p. 29). Family capital refers to family size as "the number of people in the family is believed to: (1) provide more working hands to help with work and (2) be a better source of economic, psychological and social support" (p. 39).
Chang, Memili, Chrisman, Kellermanns, & Chua, 2009	USA	Based on a sample of Hispanic entrepreneurs in the United States, the findings show that family support contributes to both venture preparedness and the decision to start a business.
Cruz, Justo, & De Castro, 2012	Dominican Republic	The study provides empirical evidence for the positive effect of family employment on the financial business performance of women-led micro and small family enterprises in the Dominican Republic. In contrast, effects for male-owned businesses are mixed.
Danes et al., 2009	USA	The authors find that the number of family employees has a positive effect on gross revenues in the short term.
Danes, Matzek, & Werbel, 2010	USA	The authors analyze enabling and constraining spousal resources in the venture creation process. They find that spousal direct involvement in the business is an enabling resource during this process.
Dyer, Dyer, & Gardner, 2012	USA	The authors find no effect of spousal support on firm profits. They suggest that "the lack of spousal influence on firm performance is because of their inability to influence their spouses, their lack of education and skills needed by the firm, and organizational 'imprinting'" (p. 68).
Eby, Casper, Lockwood, Bordeaux, & Brinley, 2005	Multiple	A content analysis and review of work-family studies between 1998 and 2002 show that spousal support can buffer the negative relationship between stressors and work and family outcomes as well as exert direct positive influences on women entrepreneurs.

Table A2. Continued.

Authors	Country	Relevant findings
Edelman, Manolova, Shirokova, & Tsukanova, 2016	Multiple	Based on a sample of 12.399 nascent entrepreneurs from 19 countries, the study finds that family support "in the form of social contacts and introduction into social networks, has a consistently significant positive effect on the scope of start-up activities" (p. 441).
Fitzgerald & Muske, 2002	USA	The findings show that copreneurs "have spouses working more weeks per year in the business", and "report significantly lower levels on all objective and subjective measures of financial success than do noncopreneurs" (p.1).
Gundry & Welsch, 1994	USA	The study provides empirical evidence for the positive effect of family intensity, including family employment, on projected business growth of 832 women entrepreneurs.
Kim, Longest, & Aldrich, 2013	USA	The study shows that instrumental family support increases the likelihood that nascent entrepreneurs persist in start-up efforts.
Kirkwood, 2009	New Zealand	A qualitative gender comparative study with 68 entrepreneurs in New Zealand reveals that "no women started their business without spousal support" (p. 378), indicating the important role of spousal support for women entrepreneurs.
Matzek, Gudmunson, & Danes, 2010	USA	Based on longitudinal data of 109 male and female entrepreneurs, the study finds that spouses' working hours and work functions in the business have a positive effect on spousal dedication to the business which, in turn, positively affects business sustainability and couple relationship quality.
Nikina, Shelton, & LeLoarne, 2015	Denmark, Finland, Norway, Sweden	Based on qualitative interviews with 12 Scandinavian couples, the authors find that "throughout the analysis, the essential support role of the husband was evident" (p. 55).

Table A2. Continued.

Authors	Country	Relevant findings
Powell & Eddleston, 2013	USA	The study provides empirical evidence that "family-to-business support, which captures the interpersonal assistance family members can provide, was more positively related to women's business performance, growth in employment, satisfaction with status, and satisfaction with employee relationships than for male entrepreneurs" (p. 262).
Powell & Eddleston, 2016	USA	The findings show that "family involvement in the firm was indirectly related to four entrepreneurial outcomes (business performance, strategic planning, satisfaction with business success, and commitment to remain self-employed) through family-to-business support" (p. 1).
Rogers, 1998	USA	The study finds that married women entrepreneurs with supportive spouses achieve the highest levels of financial performance.
Shabbir & Di Gregorio, 1996	Pakistan	Based on a qualitative study in Pakistan, the authors develop a framework of the goals, advantages, and constraints faced by women entrepreneurs starting a business. They consider family and husband support as a key structural factor determining the success of women's start-up endeavor and business performance.
Välimäki et al., 2009	Finland	The authors develop a typology of female managers' husbands in Finland and find that the "supporting husband" who provides psychosocial and practical support is mentioned most frequently.
Van Auken & Werbel, 2006	(NA)	The authors base their study on two distinct research themes including one stream "that assumes that family support promotes the success of a family business" (p. 49f). They hypothesize that family support has a positive influence on financial business performance and suggest that spousal commitment is more important for married women than for married men as women entrepreneurs face higher degrees of work-family conflict.

Table A2. Continued.

Authors	Country	Relevant findings
Webb, Pryor, & Kellermanns, 2015	(Developing countries)	The authors present a model based on the assumption that "the family is not just a social unit but also operates in an important economic support role where the household becomes the enterprise in a collective effort to escape poverty. Family members are drawn together into household enterprises as sources of labor, knowledge, capital, and other resources" (p. 116).
Human capital resource provisions		
Bird & Wennberg, 2016	Sweden	The findings do not provide support for the hypothesized effects of family human capital (in terms of the average level of education within the family) on exiting entrepreneurship to unemployment or paid employment.
Brown, Farrel, & Sessions, 2006	Great Britain	The study provides empirical evidence for the prevalence of employment type matching, particularly for self-employment. They suggest that "transfers of specialised human capital within dual earner couples and within households may increase the associated benefits of holding matched types of employment. Such transfers of human capital may enhance the earnings potential within couples and households" (p. 164).
Bruce, 1999	USA	The study shows that "having a husband with some exposure to self-employment nearly doubles the probability that a woman will become self-employed" (p. 317). The authors suggest that "Intrahousehold transfers of human (and, to a much lesser degree, financial) capital might […] play a role" (p. 317).
Caputo & Dolinsky, 1998	USA	The study finds that "husband's business knowledge and experience greatly contributed to the women being self-employed" (p. 8).
Danes et al., 2009	USA	The authors find that family human capital contributed to owners' success perceptions and firms' gross revenues both in the short and in the long term.

Table A2. Continued.

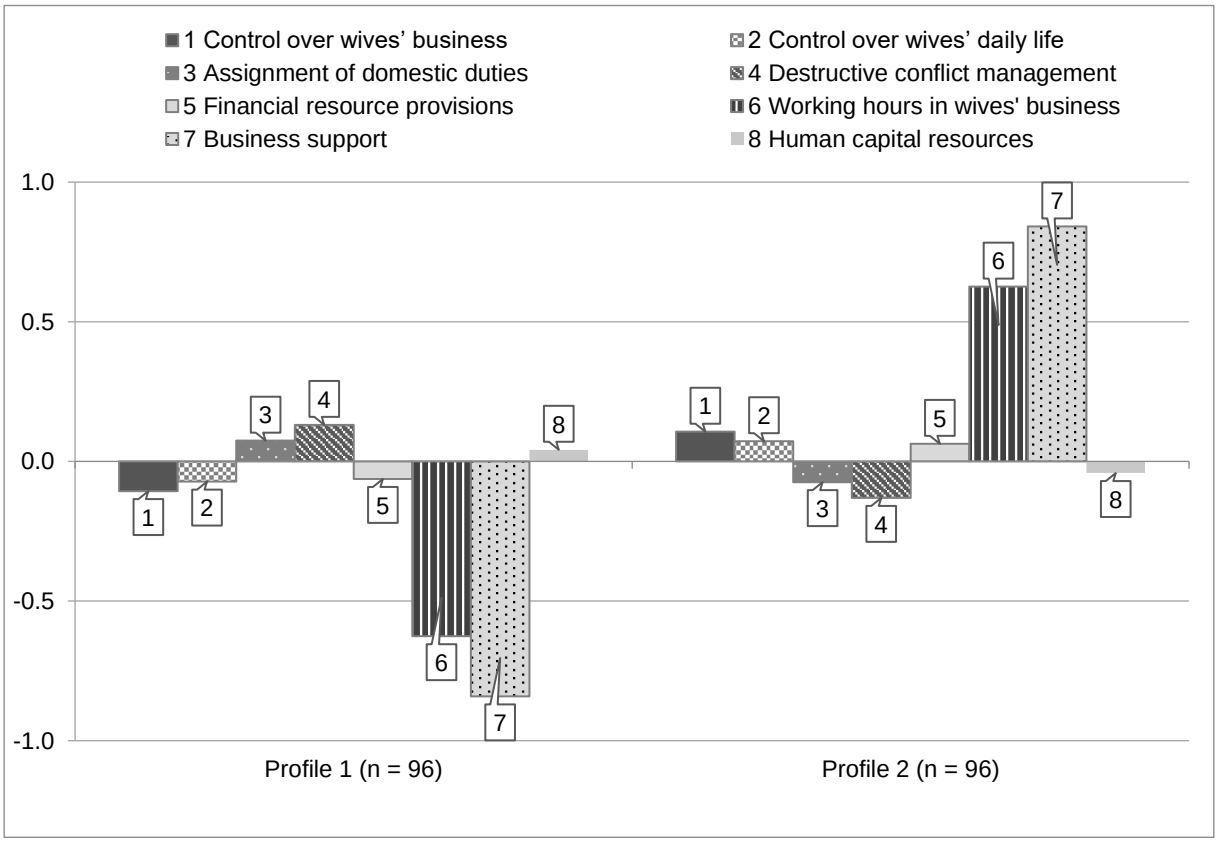
Authors	Country	Relevant findings
Dyer, 2006	(NA)	The author proposes that "Firms with family employees will have greater human capital than firms with employees without family ties, given that family employees are better trained, more flexible, and more motivated than nonfamily employees" but that "Firms relying solely on family employees to fill key positions in the firm will have poorer human capital than those firms that may also select nonfamily employees for key positions" (p. 263).
Dyer, Nenque, & Hill, 2014	(NA)	The authors suggest that "entrepreneurs who have access to […] family human capital are likely to have a competitive advantage as they launch a new enterprise" (p. 268).
Gras & Nason, 2015	India	Based on a sample of 1307 Indian businesses, the study reveals a positive effect of household entrepreneurial experience on business performance, indicating "the existence of entrepreneurial spillover benefits within households" (p. 14).
Lin, Picot, & Compton, 2000	Canada	The findings show that "having a spouse in business […] substantially increases the likelihood of the other spouse becoming self-employed" (p. 105).
Miller et al., 2016	(NA)	The authors argue that "when a family is involved in the creation of a business, it can supply resources that are often not available to a lone entrepreneur who must secure these resources from less socially motivated, less loyal, and less committed parties." They propose that the family's human capital in terms of the range of knowledge and mentorship is one of these resources.
Sirmon & Hitt, 2003	(NA)	The authors develop a resource management process model and examine the resources of family firms that can lead to a competitive advantage. They conclude that "the most important resource to a family firm is its human capital. Relying on human capital (e.g., knowledge) provides opportunities for these firms because intangible resources are the most likely to lead to a competitive advantage." (p. 352).

Table A2. Continued.

Authors	Country	Relevant findings
Sorenson & Bierman, 2009	(NA)	In their introduction to a special issue on family capital, the authors emphasize the important role of human capital, claiming that "the availability of family human capital provides a potential resource advantage" since "family members, even those who are not employed in the business, are more likely to make human capital available to the business" (p. 194).
Webb, Pryor, & Kellermanns, 2015	(Developing countries)	The authors present a model based on the assumption that "the family is not just a social unit but also operates in an important economic support role where the household becomes the enterprise in a collective effort to escape poverty. Family members are drawn together into household enterprises as sources of labor, knowledge, capital, and other resources" (p. 116).

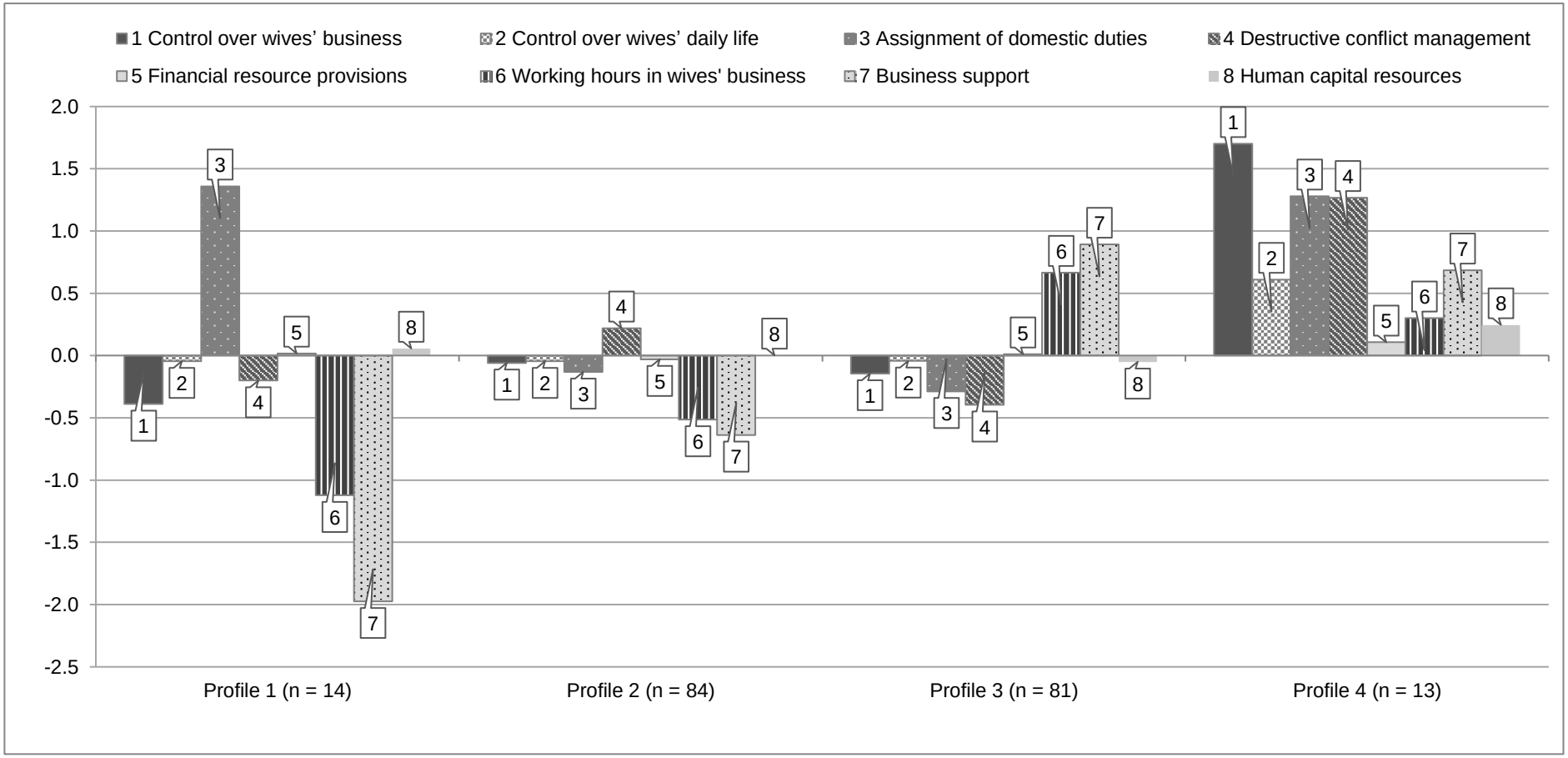
Note. Brackets indicate that the country/region constitutes the thematic focus but that there is no study sample from this country/region. (NA) = Not applicable since there is no regional focus; Multiple = Sample based on more than two countries/regions.

Appendix B. Competing latent profile solutions with two, four, five, and six latent profiles.



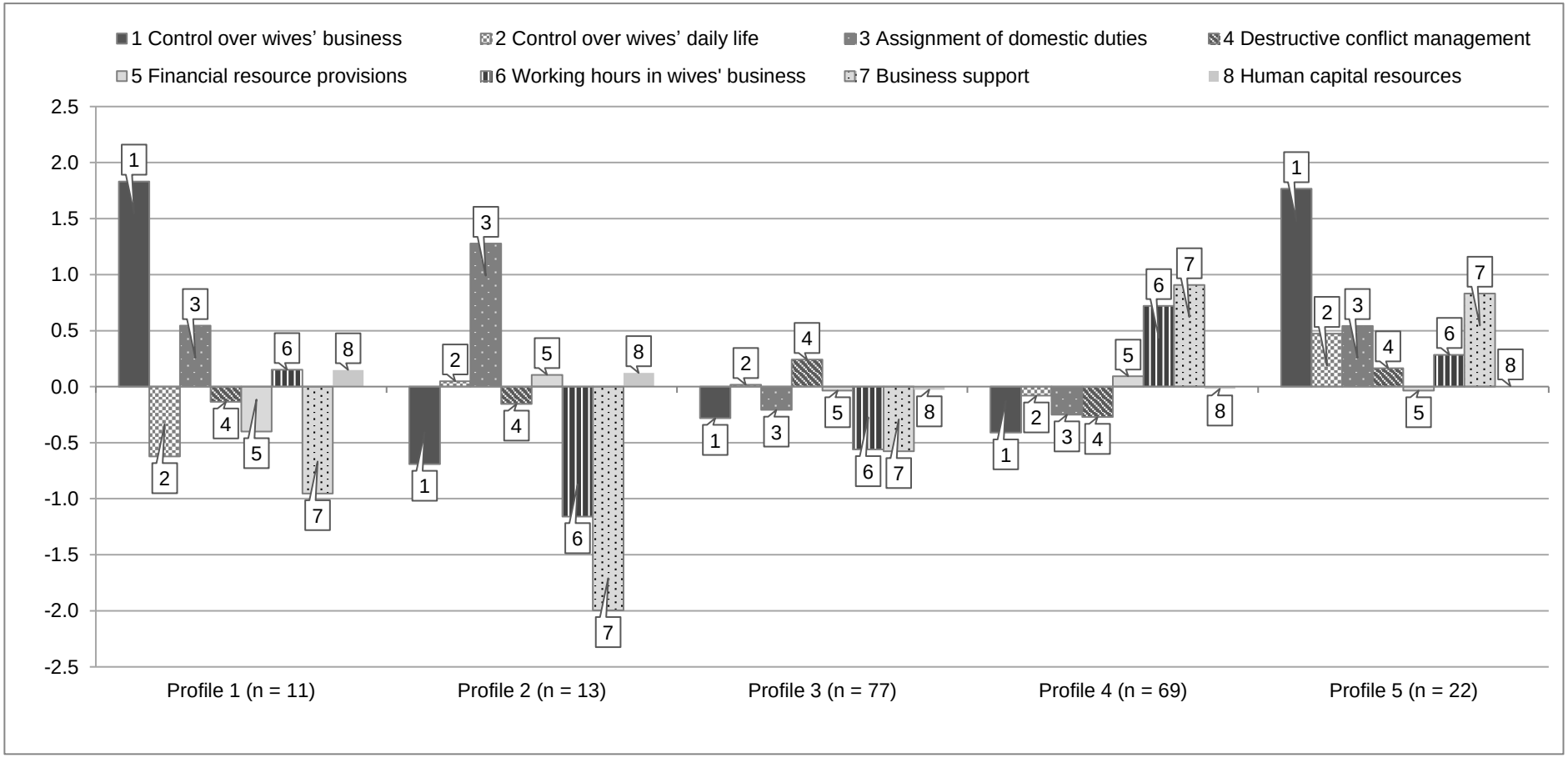
Note. The results were z-standardized to a mean of 0 and a standard deviation of 1 to facilitate interpretation of the profiles.

Figure B1. Two-profiles solution: Characteristics of latent profiles of husbands' influence based on the eight indicator variables.



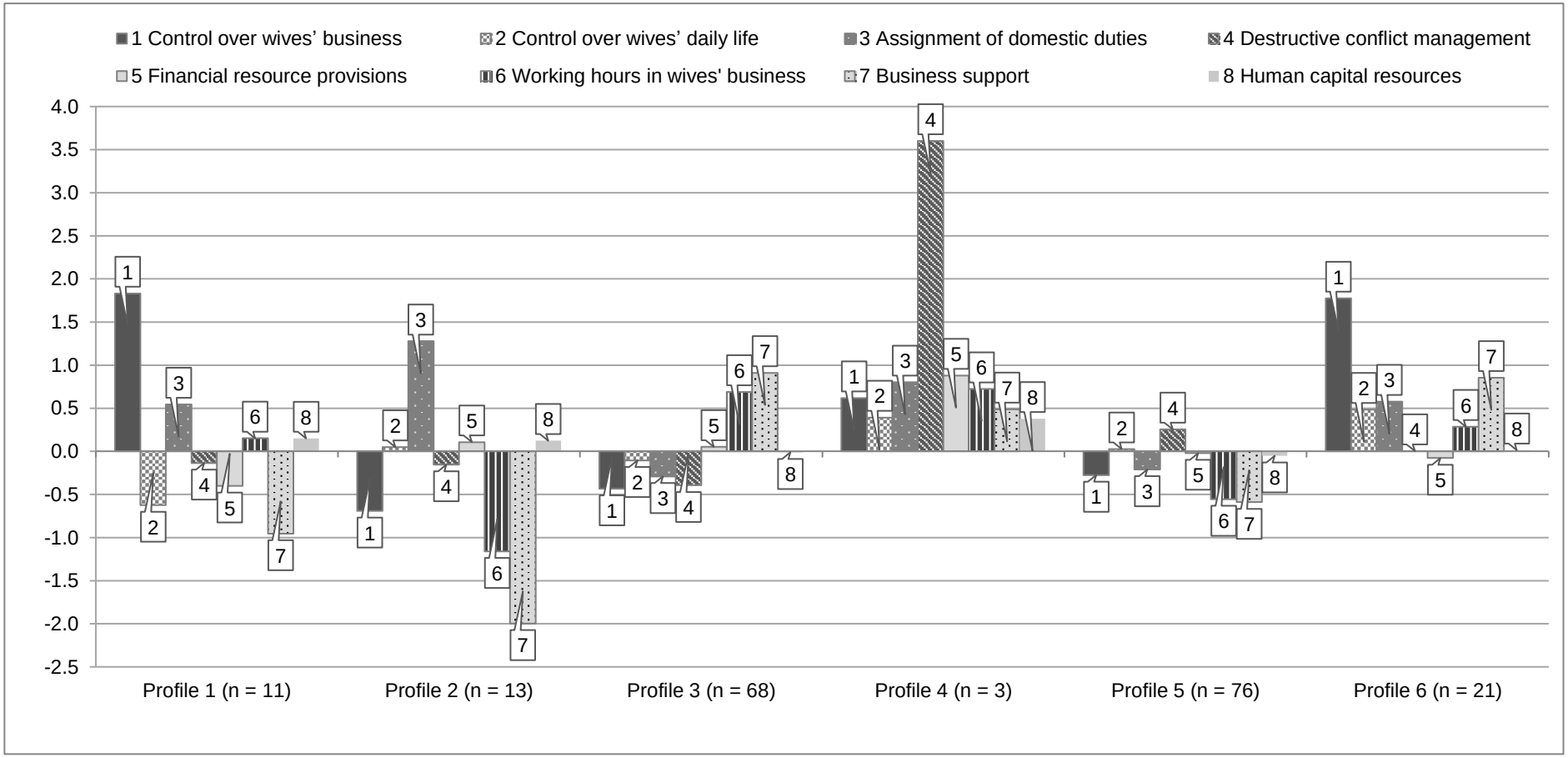
Note. The results were z-standardized to a mean of 0 and a standard deviation of 1 to facilitate interpretation of the profiles.

Figure B2. Four-profiles solution: Characteristics of latent profiles of husbands' influence based on the eight indicator variables.



Note. The results were z-standardized to a mean of 0 and a standard deviation of 1 to facilitate interpretation of the profiles.

Figure B3. Five-profiles solution: Characteristics of latent profiles of husbands' influence based on the eight indicator variables.



Note. The results were z-standardized to a mean of 0 and a standard deviation of 1 to facilitate interpretation of the profiles.

Figure B4. Six-profiles solution: Characteristics of latent profiles of husbands' influence based on the eight indicator variables.

Appendix C. Analyses to address sample selection bias.

Table C1. Analysis of women entrepreneurs' business success: Comparison between women entrepreneurs married to husbands who did and did not participate in the study.

	Sample					
	Women entrepreneurs married to husbands who participated in study		Women entrepreneurs married to husbands who did not participate in study			
	n	*M*	*n*	*M*	*t*	*df*
Business profits[a]	190	9827 (1198)	89	10663 (2187)	.36	277
Number of employees	195	3.68 (.45)	92	3.27 (.76)	-.48	285

Note. Standard errors appear in parentheses below means. Profits and number of employees are measured at the second wave of interviews with women entrepreneurs between June and September 2017; winsorized at the 1st and 99th percentile; set to 0 in case of closed business.
[a] In Ethiopian Birr (ETB; 1 USD = 23 ETB as of September 2017).
* $p < .05$
** $p < .01$

Table C2. Analysis of women entrepreneurs' business success: Comparison between women entrepreneurs married to husbands of the study sample and married women entrepreneurs who had declined a training offer.

	Sample					
	Women entrepreneurs married to husbands of the study sample		Married women entrepreneurs who declined a training offer			
	n	*M*	*n*	*M*	*t*	*df*
Business profits[a]	171	10399 (1286)	489	11969 (959)	-.88	658
Number of employees	176	3.97 (.50)	501	4.27 (.37)	-.45	675

Note. Standard errors appear in parentheses below means. Profits and number of employees are measured at the second wave of interviews with women entrepreneurs between June and September 2017; winsorized at the 1st and 99th percentile; set to 0 in case of closed business.
[a] In Ethiopian Birr (ETB; 1 USD = 23 ETB as of September 2017).
* $p < .05$
** $p < .01$

Appendix D. ANCOVA and pairwise comparison results: Estimated means of women entrepreneurs' business success at endline by trainer.

Groups	*n*	*M*	*SE*	95 % CI	*Pairwise comparisons*
Trained by trainer A	62	11523.83	1643.16	[8288.62, 14759.03]	ns
Trained by trainer B	90	9045.50	1349.38	[6388.73, 11702.27]	ns
Trained by trainer C	47	8224.37	1841.62	[4598.42, 11850.31]	ns
Trained by trainer D	30	5592.64	2297.46	[1069.19, 10116.08]	ns
Trained by trainer E	65	9545.45	1561.55	[6470.93, 12619.98]	ns

Note. n = Number of observations; M = Estimated mean; SE = Standard error; CI = Confidence interval; ns = not significant. Pairwise comparisons (using the Tukey-Kramer test) indicate which means differ significantly at $p < .05$.

Appendix E. Overview of analyzed training sessions and training units per trainer.

Training session	#	Training unit	Trainer A	Trainer B	Trainer C	Trainer D	Trainer E
Introduction	1	Training overview, feedback rules					
Being self-starting	2	Self-rating questionnaire					
	3	Theory: Being self-starting					
	4	Exercise: Self-starting vs. reactive behavior					
	5	Exercise: Daily routine					
	6	Transfer sheet and daily feedback					
Goal setting	7	Self-rating questionnaire					
	8	Theory: SMART goals					
	9	Theory: SMART-PI goals					
	10	Exercise I: Reformulating goals					
	11	Exercise II: Reformulating goals					
	12	Exercise: Act out specific goal					
	13	Exercise: Setting goals for your own business					
	14	Self-rating questionnaire (review)					
Getting finance	15	Self-rating questionnaire					
	16	Theory: Getting finance					
	17	Exercise: Getting finance					
	18	Theory: Bootstrapping					
	19	Theory: Getting finance - PI					
Action planning	20	Self-rating questionnaire					
	21	Theory: From a goal to a plan					
	22	Theory: From a goal to a plan - PI					
	23	Example: From a goal to a plan					
	24	Exercise: From a goal to a plan					

Note. # = Training unit number. Colored cells indicate the analyzed training units per trainer. Hatched cells indicate that essential parts of the training unit are missing (e.g. the discussion of an exercise) due to lack of corresponding video material.

Appendix F. Detailed coding manual for the use of the category system.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
1	**The trainer explicitly articulates the learning intention of the training session or activity.**	The trainer does not state any learning intention or simply announces an activity. *For example, the trainer says, "We are going to do an exercise now."*	The trainer explicitly states a broad training learning intention. *For example, the trainer says, "Today we're going to learn about personal initiative," without further specification.*	The trainer explicitly states a specific training learning intention. *For example, before starting a training exercise, the trainer says, "The assignment is trying to show us that incorporating the different suggestions we receive here about our daily activities can help us to show more self-starting behavior."*	The learning intention does not need to be stated in the beginning of an activity/ session. The trainer's articulation of the learning intention should go beyond the explanation of an exercise. To code 3, the trainer should say why participants are learning something, rather than what participants will be learning.
2	**The trainer's explanations of the content are clear.**	The trainer's explanations of the content are confusing or content is not explained at all. *For example, the trainer uses too many technical terms without explaining what s/he means. The trainer may say, "So one thing we can do is engage in bootstrapping," without explaining the meaning of bootstrapping.* *Moreover, the trainer may explain ideas without a logical order or connection.* *Alternatively, the trainer may not provide any explanation of content.*	The trainer's explanations of the content, when they occur, are somewhat clear. Although parts of these explanations may be clear, others are confusing or superficial.	The trainer's explanations of the content are clear and easy to understand. They are logical and may be accompanied by graphic representations or examples. *For example, in a session on the value of errors, the trainer provides a clear and thorough explanation and provides a practical example of a business woman who has become successful after learning from an error she had made.*	This category does not assess the accuracy of content, but rather, how the content is delivered. Thus, if the trainer's explanations are wrong but consistently clear, it is still scored as 3. This element does not require observers to discern correct from incorrect material.

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
3	**The trainer makes connections in the session that relate to other content or participants' daily lives.**	The trainer does not connect what is being taught to other content or participants' daily lives.	The trainer may attempt to connect what is being taught to other content knowledge or participants' daily lives, but the connections are superficial, confusing, or unclear. *For example, when introducing a session on being self-starting, the trainer says, "You are all business women. So, you have to be self-starting." The connection to participants' lives is superficial and nonspecific.* *For example, the trainer says, "Remember, yesterday we learned about goal setting? Today, we are going to learn about planning."*	The trainer meaningfully connects what is being taught to other content knowledge or participants' daily lives. The connections are clear. *For example, the trainer says,* "*Remember, yesterday we learned about goal setting? Today, we are going one step further. To be able to achieve our goals, we need to develop a plan. A plan will help us to put our goal in action."* *For example, the trainer says, "Take the example of Ziyen's laundry. She told us that she was struggling to acquire enough money to get her business running. Which bootstrapping strategies might help her?"*	Connections often come in the form of practical examples. This category is about the quality of connections. Even if the trainer makes only one connection, code 2 or 3 (dependent on whether it is superficial/ confusing/ unclear or meaningful). If the trainer makes several connections and some of them are superficial/ confusing/ unclear and others are meaningful, use your average impression to assign the code.
4	**The trainer provides participants with opportunities for deliberate[a] practice.**	The trainer does not provide participants with opportunities for deliberate practice. *For example, the trainer does not provide the chance for participants to work on an exercise but asks them to do it at home.*	The trainer provides participants with opportunities for practice but either the practice does not seem relevant or the opportunities appear to be very limited in terms of the time provided. *For example, the trainer asks participants to complete a self-rating questionnaire but expects them to fill it out while s/he is talking instead of reserving some time for the completion.*	The trainer provides participants with opportunities for deliberate practice.	Opportunities coded in this category only include opportunities to work on exercises or tasks (individually, in teams, or in small groups). All other forms of practice (e.g. engagement in discussions) are coded with the help of category 5.1.

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
5.1	**The trainer provides participants with opportunities to get actively involved.**	The trainer does not provide participants with opportunities to get actively involved during the training. *For example, the training unit is primarily lecture-based and participation is limited to listening. In this unit, the trainer never gives participants the chance to read a text or share their ideas, expectations, or opinions.*	The trainer provides participants with limited opportunities to get actively involved during the training. 'Limited' can refer to both the quality and the frequency of opportunities. *For example, the trainer asks participants to read instructions or to repeat simple terms that s/he has introduced before.*	The trainer provides participants with rich opportunities to get actively involved during the training. 'Rich' can refer to both the quality and the frequency of opportunities. *For example, the trainer asks participants to share their perspective, asks whether they have made related experiences, or whether they can illustrate the content in the context of their own business.*	Opportunities coded in this category do not include opportunities to work on exercises or tasks (individually, in teams, or in small groups). This is coded with the help of category 4.
5.2	**The trainer provides participants with opportunities to get actively involved.**	**Number of trainer-participant interactions:** Please quantify the interactions between trainer and participants by counting how many times a participant gets the chance to speak. Count regardless of whether the interaction is meaningful or not. *For example, the trainer says, "Did you find the worksheet?" and the trainee answers, "No" would be counted as one interaction.*			
5.3	**The trainer provides participants with opportunities to get actively involved.**	**Trainer-participant speech ratio:** Please count the words used by the trainer and the participants. Calculate the percentage share of words spoken by the trainer.			
5.4	**The trainer provides participants with opportunities to get actively involved.**	**Open-ended questions asked by the trainer:** Please count the number of open-ended questions asked by the trainer. An open-ended question is a question that requires reasoning, explanation, or generalization, or has more than one correct answer. *For example, the trainer asks, "What could Gannet do to decrease the costs of her delivery service?* <u>Counted as open-ended questions:</u> - Recall questions that have more than one correct answer. *For example, the trainer asks "What did we learn yesterday?"* - Questions that require reasoning, explanation, or generalization or have more than one correct answer although they are technically closed-ended <u>Not counted as open-ended questions:</u> - Questions that do not require reasoning, explanation, or generalization and questions having a predetermined answer although they might start with "what", "why", "how", ...). *For example, the trainer asks, "Which criteria define a good goal?", while it is clear that the responses are displayed on the training slide. Or the trainer asks, "What does Almaz aim to do?" after having read a case study that explicitly states Almaz' goal.* - Open-ended questions without a chance for participants to respond, for example the trainer continues talking - Follow-up questions like *"What else?"* or *"Do you have something you wish to add?"* - Pure repetitions of previously asked and counted open-ended questions			

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
6	**The trainer uses questions, prompts, or other strategies to determine participants' level of understanding.**	The trainer either does not use questions, prompts, or other strategies to determine participants' level of understanding at all or uses them without giving participants a chance to respond. *For example, when explaining a concept, the trainer asks, "It is clear, right?" Then, the trainer continues right away.*	The trainer uses questions, prompts, or other strategies that are somewhat superficial for determining participants' level of understanding or uses effective prompts, questions, or strategies very infrequently. *For example, at the end of the session about goal setting, the trainer asks participants to list the goal setting criteria. This is a simple recall task and does not help the trainer to detect whether or not the participants have understood how to apply these criteria.*	The trainer uses questions, prompts, or other strategies that are effective at determining participants' level of understanding. *For example, the trainer asks, "What would an entrepreneur showing personal initiative do in this case?"* *For example, the trainer says, "Please put your thumb up if you agree or down if you disagree with this statement: The goal that Almaz set is measurable."*	This category is about determining participants' level of understanding – not about clarifying it. Thus, it is not important for this category how the trainer responds to finding out, for example, that most participants have not understood the instructions of an exercise. If the trainer uses questions, prompts, or other strategies to determine participants' level of understanding and it is not clear whether s/he gives participants the chance to respond, code 2 rather than 1. This category does not include questions used to check organizational issues, such as whether participants have managed to find the correct worksheet.
7	**The trainer encourages participants to assess, monitor, or evaluate themselves or what they have learned.**	The trainer does not encourage participants to assess, monitor, or evaluate themselves or what they have learned.	The trainer encourages participants to assess, monitor, or evaluate themselves or what they have learned but does not explain the value or underlying reasoning. *For example, at the beginning of the session, the trainer distributes a self-rating questionnaire and says, "Here is a self-rating questionnaire for you. You can assess how you evaluate your goals. Please complete it."*	The trainer encourages participants to assess, monitor, or evaluate themselves or what they have learned and explains the value or underlying reasoning. *For example, at the beginning of the session, the trainer distributes a self-rating questionnaire and says, "Take a look at the self-rating questionnaire on goal setting. It helps you to assess your own goal setting behavior. This way, after we have learned about good goal setting, you can easily identify where you want to improve."*	

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
8.1	**The trainer encourages participants to provide positive or negative feedback with regard to the training, the training methods, or his/her own training behavior.**	The trainer does not encourage participants to provide positive or negative feedback with regard to the training, the training methods, or his/her own training behavior.	The trainer encourages participants to provide positive or negative feedback with regard to the training, the training methods, or his/her own training behavior but does not seek specific feedback or provides little room for participants to share their feedback. *For example, at the end of the day, the trainer asks participants to tick the smiley that represents best their satisfaction with the training.*	The trainer encourages participants to provide specific positive or negative feedback with regard to the training, the training methods, or his/her own training behavior and provides sufficient room for participants to share their feedback *For example, at the end of an exercise, the trainer asks participants to share whether the completed exercise helped them to improve their planning skills and which parts of the planning process they want to practice again.*	It is not required that the trainer uses the term 'feedback'. He can also ask for comments, suggestions, or remarks, or do not use any of such terms.
8.2	**The trainer encourages participants to provide positive or negative feedback to each other.**	The trainer does not encourage participants to provide positive or negative feedback to each other or the trainer announces feedback but then does not follow through. *For example, the trainer says, "Is there anyone who is willing to present? We can then give our feedback." but does not ask for feedback anymore after the participant has presented.*	The trainer encourages participants to provide positive or negative feedback to each other. *For example, after a participant has shared her idea with the class, the trainer says, "Now let us give her feedback."* Alternatively, the trainer announces feedback. *For example, when explaining the instructions of an exercise, the trainer says, "Afterwards, you will provide feedback to your teammate."*	The trainer encourages participants to provide positive or negative feedback to each other and uses prompts/ questions to guide the feedback. Alternatively, the trainer encourages participants to provide positive or negative feedback to each other and emphasizes the value of feedback. *For example, after a participant has described her last working day, the trainer asks, "As per her presentation, she was only able to sell one item in the evening. What could she do to have a more profitable day tomorrow?"* *For example, a participant presents the goal she has formulated jointly with her group. The trainer asks the remaining participants, "What do you think, is their goal specific?"*	It is not required that the trainer uses the term 'feedback'. He can also refer to comments, suggestions, remarks, or do not use any of such terms (cf. examples provided for code 3).

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
				Alternatively, the trainer encourages participants to provide positive or negative feedback to each other and emphasizes the value of feedback. *For example, after a participant has presented her goal to the class, the trainer says, "What feedback do you want to share with her? Remember, your feedback will help her to set a better goal and become a more successful business owner."*	
8.3	**The trainer shows a positive attitude towards making errors.**	The trainer has a negative attitude towards participants' errors. *For example, the trainer explicitly scolds participants for making mistakes or becomes impatient with a participant for taking time to understand a new concept.*	The trainer shows a neutral attitude towards participants' errors. Although the trainer does not penalize a participant for making mistakes or struggling with a new concept, the trainer does not make it clear that mistakes are normal and valuable parts of the learning process either. *For example, when a participant is struggling to make her goal more specific, the trainer simply gives the participant the answer in a neutral manner (i.e., not in an angry or impatient manner).*	The trainer shows a positive attitude towards participants' errors, and helps participants to understand that mistakes are normal and valuable parts of the learning process. *For example, the trainer says, "The revised goal does not have to be perfect. Just try it. Afterwards, we will have the chance to improve it together. It is all a matter of practice."*	This category includes errors that can occur both in the training and in participants' daily life as entrepreneurs. Code 2 if no error is observed and the trainer does not show any behavior that indicates that his attitude is positive or negative towards making errors. Code 2 if indications for a negative and a positive attitude towards errors cancel each other out.

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
9.1	**The trainer provides specific comments or prompts that help clarify participants' misunderstandings**. ***(negative feedback)***	The trainer provides participants with comments about their misunderstandings that are simple, evaluative statements (e.g., "That is incorrect"). *For example, when a participant answers a trainer's question incorrectly, the trainer responds by saying, "That is not the correct answer," and moves on.*	The trainer provides participants with general or superficial comments/ prompts about their misunderstandings. *For example, the trainer says, "Your goal was not set using good goal setting principles," without providing further information or prompts.* *For example, the trainer asks how participants would invest one additional monthly salary. One participant responds that she would pay the school fees for her kids. The trainer comments: "It's good you pay the school fees, but we don't think this way as entrepreneurs."*	The trainer provides participants with specific comments/ prompts that contain substantive information that helps to clarify participants' misunderstandings. *For example, the trainer says, "Do you remember what it means to show personal initiative when setting a goal? Let's look at your notes. Now, let's look at your answer. What do you need to change to make sure that your goal is considered SMART-PI?"* *For example, a participant shares her daily routine and the trainer comments on her proactiveness, "It is good that you started by arranging your products but afterwards, you just waited for customers to arrive. Why don't you go outside and invite people to come in by telling them you have new trousers from Europe?"*	This category requires you to count the frequency of feedback for <u>each</u> code, i.e. how many times has the trainer given a feedback that fits the type of feedback for code1, how many times has s/he given a feedback that fits the type of feedback for code 2, and how many times has s/he given a feedback that fits the type of feedback for code 3. This category does not assess whether the coder agrees with the trainer in terms of what constitutes a misunderstanding in the first place. Feedback is always a response to something shared/ expressed/ done etc. by participants. Feedback can also come in the form of a question; however, questions asked for clarification/ comprehension are not considered as feedback. The main difference between code 2 and 3 is the degree to which the information added by the trainer is substantive. If the trainer provides specific feedback but it does not help clarifying participants' misunderstanding, code it as feedback event for code 2 instead of 3.

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
9.2	**The trainer provides specific comments or prompts that help identify participants' successes**. ***(positive feedback)***	The trainer provides participants with comments about their successes that are simple, evaluative statements or praise (e.g., "That is correct", "Well done"). Alternatively, the trainer simply repeats what has been shared in an affirmative way. *For example, when a participant shares her ideas, the trainer answers "Good," and moves on.* *For example, participants share their ideas on sources of finance for their business. A participant suggests, "From friends" and the trainer responds, "Okay, it is possible to get money from friends."*	The trainer provides participants with general or superficial comments/ prompts about their successes or the trainer paraphrases and adds little additional information that helps to identify participants' successes. *For example, if participants are setting their goals for their business, the trainer says, "Good job with regard to the measurement of the goal," without specifying what this participant did in particular that made it good.*	The trainer provides participants with specific comments/ prompts that contain substantive information that helps to identify participants' successes. *For example, if participants are setting their goals for their business, the trainer says, "You do a good job making sure that your goal shows personal initiative. By aiming to introduce adventure day trips for children, you make sure that you are different from other tourist operators in Addis!"* *For example, a participant presents the results of an exercise. She says, "The fifth option is renting out a house in case we have one available." The trainer comments on this contribution by saying: "Even if you have a house with an extra room, this idea can work. For example, if you can convince your children to share a room, you can rent out the other room. You'll be able to make good money. Very good. Go on."* *Alternatively, the trainer highlights one participant's work and says to the class, "Look at what she did, see how she reduced the estimated costs by using the bootstrapping methods we just got to know?" and then proceeds to explain in detail how she did it.*	This category requires you to count the frequency of feedback for <u>each</u> code, i.e. how many times has the trainer given a feedback that fits the type of feedback for code1, how many times has s/he given a feedback that fits the type of feedback for code 2, and how many times has s/he given a feedback that fits the type of feedback for code 3. This category does not assess whether the coder agrees with the trainer in terms of what constitutes a success in the first place. Feedback is always a response to something shared/ expressed/ done etc. by participants. The main difference between code 2 and 3 is the degree to which the information added by the trainer is substantive. If the trainer provides specific feedback but it does not help identify participants' success, code it as feedback event for code 2 instead of 3. Expressions as "Thank you" or "Okay" do not count as feedback if they are not further specified.

Appendix F. Continued.

#	Category	Low (1)	Medium (2)	High (3)	Notes for coding decision
10	**The trainer shows a profound understanding of the training content.**	The trainer's contributions are indicative of a poor understanding of the training content. *For example, the trainer makes remarks that are contrary to the concept of personal initiative (e.g. "If your business is already successful, then you can hope that everything remains exactly the same.").* *For example, the trainer does not understand the message of a specific exercise (e.g. emphasizes the importance of planning during the daily routine exercise, whereas it is actually about identifying situations in which entrepreneurs can show more self-starting behavior).*	The trainer's contributions are indicative of a superficial understanding of the training content. *For example, the trainer mentions that participants' goals do not only need to be SMART but also SMART-PI but does not explain or illustrate how that works.* *There is nothing wrong about the trainer's explanation but there is also no indication that s/he has a profound understanding.* *The trainer does not challenge participants to show more personal initiative although it becomes clear (based on participants' contributions) that it would be necessary to do so.* *The trainer uses key terms of the training (e.g. self-starting) but his/her explanations suggest that s/he is not able to relate them to different situations.*	The trainer's contributions are indicative of a profound understanding of the training content. *For example, the trainer emphasizes the relevance of personal initiative for goal setting (e.g. by explaining that participants should not just seek to add any product but one that makes them different from all their competitors) and pushes participants to revise their goal in this regard.* *The trainer provides feedback that encourages participants to show more personal initiative (in a specific way).* *The trainer applies principles of the training to new content.*	Use your average impression. If there are situations within one training unit that are indicative of a poor understanding and others that are indicative of a superficial understanding, take into account the weight of these contributions and come up with a global assessment.

Note. # = Category number. Coding manual developed based on Molina and colleagues (2018).
[a] Deliberate practice refers to the "extensive engagement in relevant practice activities for improving performance" (Hattie, 2008; p. 30).

Appendix G. Summary of the results of the qualitative content analysis: Relative frequencies of codes assigned for each category and trainer across training units.

#	Category[a]	Code	Trainer A	Trainer B	Trainer C	Trainer D	Trainer E
1	Communicates learning intentions	1	44.44 %	80.00 %	40.00 %	92.31 %	66.67 %
		2	16.67 %	20.00 %	60.00 %	7.69 %	33.33 %
		3	38.89 %	0.00 %	0.00 %	0.00 %	0.00 %
2	Explanations of content are clear	1	0.00 %	13.33 %	0.00 %	7.69 %	16.67 %
		2	50.00 %	53.33 %	50.00 %	76.92 %	33.33 %
		3	50.00 %	33.33 %	50.00 %	15.38 %	50.00 %
3	Makes meaningful connections	1	27.78 %	60.00 %	40.00 %	46.15 %	50.00 %
		2	38.89 %	40.00 %	40.00 %	46.15 %	33.33 %
		3	33.33 %	0.00 %	20.00 %	7.69 %	16.67 %
4	Provides opportunities for deliberate practice	1	44.44 %	60.00 %	40.00 %	46.15 %	33.33 %
		2	5.56 %	6.67 %	20.00 %	15.38 %	16.67 %
		3	50.00 %	33.33 %	40.00 %	38.46 %	50.00 %
5.1	Provides opportunities to get actively involved	1	38.89 %	53.33 %	50.00 %	53.85 %	33.33 %
		2	27.78 %	6.67 %	10.00 %	15.38 %	33.33 %
		3	33.33 %	40.00 %	40.00 %	30.77 %	33.33 %
5.2	Cf. 5.1: Trainer-participant interactions[b]		7.89 (10.21)	8.67 (17.32)	9.70 (13.03)	5.62 (6.85)	6.33 (5.68)
5.3	Cf. 5.1: Trainer-participant speech ratio[b]		93.79 (9.25)	84.34 (22.94)	92.61 (8.43)	91.52 (13.57)	88.76 (14.73)
5.4	Cf. 5.1: Open-ended questions[b]		.78 (1.17)	1.13 (1.36)	1.8 (2.15)	.38 (.65)	1.5 (2.07)
6	Tracks level of understanding	1	94.44 %	80.00 %	50.00 %	84.62 %	83.33 %
		2	5.56 %	20.00 %	50.00 %	15.38 %	16.67 %
		3	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
7	Encourages self-assessment, -monitoring, -evaluation	1	66.67 %	80.00 %	70.00 %	76.92 %	66.67 %
		2	11.11 %	20.00 %	30.00 %	23.08 %	33.33 %
		3	22.22 %	0.00 %	0.00 %	0.00 %	0.00 %
8.1	Encourages feedback for training or him/herself	1	100.00 %	100.00 %	100.00 %	100.00 %	83.33 %
		2	0.00 %	0.00 %	0.00 %	0.00 %	16.67 %
		3	0.00 %	0.00 %	0.00 %	0.00 %	0.00 %
8.2	Encourages feedback for other participants	1	77.78 %	86.67 %	90.00 %	100.00 %	83.33 %
		2	5.56 %	6.67 %	10.00 %	0.00 %	16.67 %
		3	16.67 %	6.67 %	0.00 %	0.00 %	0.00 %
8.3	Shows a positive attitude towards errors	1	0.00 %	6.67 %	0.00 %	0.00 %	0.00 %
		2	94.44 %	86.67 %	100.00 %	92.31 %	83.33 %
		3	5.56 %	6.67 %	0.00 %	7.69 %	16.67 %

Appendix G. Continued.

#	Category	Code	Trainer A	Trainer B	Trainer C	Trainer D	Trainer E
9.1	Provides negative feedback[b]	1	.22 (.55)	.07 (.26)	.20 (.26)	.08 (.28)	.00 (.00)
		2	.17 (.38)	.07 (.26)	.40 (.70)	.15 (.38)	.17 (.41)
		3	.44 (1.20)	.00 (.00)	.20 (.42)	.00 (.00)	.17 (.41)
9.2	Provides positive feedback[b]	1	1.11 (2.14)	.47 (.92)	5.40 (9.25)	1.54 (2.88)	1.33 (1.97)
		2	.67 (1.38)	.20 (.56)	.40 (.70)	.77 (1.54)	1.33 (1.51)
		3	.83 (1.65)	.07 (.26)	.00 (.00)	.08 (.28)	.00 (.00)
10	Shows profound understanding of content	1	5.56 %	6.67 %	10.00 %	23.08 %	0.00 %
		2	33.33 %	73.33 %	60.00 %	69.23 %	83.33 %
		3	61.11 %	20.00 %	30.00 %	7.69 %	16.67 %
Number of analyzed training units			18	15	10	13	6

Note. # = Category number. The table displays the relative frequencies of assigned codes for each category and trainer across analyzed training units.
[a] The category names are shortened (cf. Table 4.6 or Appendix F for detailed category names and descriptions of codes).
[b] For categories 5.2, 5.3, 5.4, 9.1, and 9.2 means and standard deviations (in brackets) are shown.