



TRAINING

PERSONAL INITIATIVE

TO BUSINESS OWNERS IN DEVELOPING COUNTRIES

A THEORETICALLY DERIVED INTERVENTION AND ITS EVALUATION

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**TRAINING PERSONAL INITIATIVE TO BUSINESS
OWNERS IN DEVELOPING COUNTRIES:
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AND ITS EVALUATION**

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ABSTRACT

Entrepreneurship is of fundamental importance for economic growth and well-being around the globe and is intensely promoted in developing countries with the intention to fight poverty and unemployment. Various entrepreneurship training programs have been implemented in the developing world within the last decades. These programs are attended by tens of thousands of entrepreneurs and would-be entrepreneurs each year. This dissertation introduces a promising alternative to these established training interventions: a training program that aims at increasing personal initiative. Personal initiative is a behavior that is suggested to be central for successful entrepreneurship. Empirically, personal initiative has been shown to be highly related to entrepreneurial success. Yet, the proposed causal relationship that PI leads to entrepreneurial success has not been systematically examined through an experimental design. This dissertation tests this causal relationship in a field experiment by means of the personal initiative training. If personal initiative is a central entrepreneurial variable, then our theoretically derived training intervention should increase personal initiative in entrepreneurs which in turn should lead to higher entrepreneurial success.

This dissertation includes two studies. The first study (Chapter 2) reviews evaluation studies of entrepreneurship training programs that have been implemented in developing countries. This review enables us to compare our personal initiative training with established training programs. The second study (Chapter 3) describes and evaluates the personal initiative training.

Chapter 2 summarizes the findings of 27 studies evaluating 10 different training programs in developing countries (including the personal initiative training and the evaluations study presented in Chapter 3). This makes this work the most extensive review of entrepreneurship training programs in the empirical literature (to our knowledge). The review indicated that all included entrepreneurship training programs positively affected entrepreneurial success.

We evaluated our theoretically derived personal initiative training (Chapter 3) by means of a long-term field experimental study using a pretest/posttest design (4 measurement waves) with a randomized waiting control group. The sample consisted of

100 small business owners in Kampala, Uganda. As predicted, the theoretically derived training program increased personal initiative and business success (4 to 5 months after the training). These effects were sustained over a 12-month period posttraining. Testing for mediation revealed that the increase of personal initiative was responsible for the increase of success. These results confirmed the core causal proposition of personal initiative theory that personal initiative leads to business success. Thus, we suggest that PI is indeed a central entrepreneurial variable.

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CHAPTER 1

INTRODUCTION

There is agreement among scholars that entrepreneurship is of fundamental importance for the economy around the globe as it functions as a catalyst for innovation, job creation, and economic well-being. Scientific evidence for this relationship has been accumulating (e.g., Autio, 2005; Baumol, 2002; Birch, 1987; van Stel, 2006).

Entrepreneurship is of particular importance for developing countries because with its inherent economic potential, entrepreneurship is an effective means for fighting poverty and unemployment. Along with the realization of the economic importance of entrepreneurship, academic interest of the topic has grown. Over the last decades, variables have been identified that are supportive for entrepreneurship. Undertakings have been made to positively influence these variables in order to promote entrepreneurship and thus, boost the economy. We put one of these variables in the center of our research because we propose that it is arguably at the core of what is demanded of successful entrepreneurs. This variable is personal initiative (PI).

PI is behavior characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming barriers (Frese, Kring, Soose, & Zempel, 1996). *Self-starting* implies that an entrepreneur starts an action without being told, without being driven by immediate demands, or without an explicit role model. Self-starting is essential because there are no supervisors who tell entrepreneurs what to do. *Proactive* implies having a long-term focus. Proactive entrepreneurs anticipate future opportunities and problems and get prepared for them. *Persistence* is necessary for overcoming difficulties that arise when pursuing a goal.

Empirically, PI has been shown to be highly related to performance of employees in a recent meta-analysis (Tornau & Frese, 2009) with meta-analytic correlations between PI and subjective performance of .31 and between PI and objective performance of .19. Studies in the specific context of entrepreneurship also found a positive linkage between PI and business success (Koop, de Reu, & Frese, 2000; Zempel, 1999). Proactiveness (one part of PI) has been highly and relatively consistently linked to organizational success in a recent meta-analysis (Rauch, Wiklund, Lumpkin, & Frese, in press) and to entrepreneurial

success in two cross-sectional studies (Koop, de Reu, & Frese, 2000; Krauss, Frese, Friedrich, & Unger, 2005). A reactive approach, the opposite of PI (reactive entrepreneurs do not start an action by themselves but wait until they have to react or until somebody tells them what to do), was shown to contribute negatively to success (Frese, Brantjes, & Horn, 2000; Van Gelderen, Frese, & Thurik, 2000).

Now, after both longitudinal and cross-sectional studies have found PI to be related to entrepreneurial success, a true experimental field study is needed to confirm that PI is indeed central for entrepreneurship. To test this, we developed a theoretically derived intervention. We implemented this intervention in a true experimental field study. With this study we aimed to assess the causal relation between PI and entrepreneurial success. If PI is indeed central for entrepreneurship, the intervention should first change PI and second change entrepreneurial success. In addition to this, PI should be a mediator between the intervention and the increase of economic success. The field experiment was a long-term study with a randomized control group. The sample constituted of 100 Ugandan small business owners.

Our theoretically derived intervention was a three-day training program that we specifically developed for entrepreneurs of an African country. If PI is central for entrepreneurship, and if our training program increases PI, then the training program would be a promising alternative to already established entrepreneurship training programs in the developing world.

Before we take a closer look at the PI training and its evaluation, it is prudent that an overview of entrepreneurship training programs that are already implemented in developing countries is presented. Therefore, Chapter 2 briefly describes these training programs and reviews the studies that assess their effects¹.

Chapter 3 concentrates on our PI training. It describes how we derived the training program theoretically and presents the long-term field experiment that we used to evaluate the PI training on 100 business owners in Uganda.

¹ This review includes the PI training and its evaluation study that are described in Chapter 3.

1.1 PERSONAL INITIATIVE AND ENTREPRENEURIAL SUCCESS

The central concept of this dissertation is PI. PI is behavior characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming barriers (Frese, Kring, Soose, & Zempel, 1996). We assume that PI is at the core of what is demanded of successful business owners.

First, PI is important for identifying and exploiting opportunities. Self-starting implies that entrepreneurs strive to differ from competitors. Thus, they are constantly on the lookout for opportunities and try to exploit the identified opportunities before competitors do. This may lead to first mover advantages (locally defined) (Lieberman & Montgomery, 1998) and, thus, help entrepreneurs to stay ahead of their competitors and to increase profits. Entrepreneurs who show PI engage in an active (systematic or unsystematic) search. Such an active search supports the access to and attainment of appropriate information for opportunity identification (e.g., Gaglio & Katz, 2001; Fiet, 2002; Hills & Shrader, 1998). Proactive means that this search is directed towards future opportunities. Being persistent, entrepreneurs do not give up the search for opportunities when this turns out to be difficult, for example, when the environment is complex. Once a future opportunity is identified, PI means to actively evaluate its potential before deciding whether to exploit it or not. When the decision to exploit an opportunity is made, the required resources have to be reassembled. When entrepreneurs show PI, they actively approach providers of resources and do not give up if their initial efforts remain fruitless.

Second, entrepreneurs operate in extremes of uncertainty, personal risk, urgency, complexity, and resource scarcity (Baum, 2004; Funder & Ozer, 1983; Smith & Smith, 2000). These conditions may frequently provoke errors and negative emotions; setbacks are likely to appear. PI here means that entrepreneurs actively approach these challenges (e.g., actively look for information to reduce uncertainty), that they motivate themselves to keep on going in spite of these negative events, and that they use errors as a source of feedback and learn from errors.

Third, PI is essential for entrepreneurs to successfully handle the multiple roles they have to fill by dealing with managerial, service, and leadership tasks (e.g., negotiating with suppliers, establishing customer relationships, or recruiting and retaining employees). Entrepreneurs who show PI approach these tasks with active actions (e.g. for recruiting

employees they post job ads in newspapers, ask people who may know potential employees, use the internet to look for employees abroad and so forth). They try new ways if rehearsed routines do not work and they usually do not give up until they solve the tasks in a satisfying way.

1.2 ENTREPRENEURSHIP TRAINING IN DEVELOPING COUNTRIES

We developed our PI training for business owners in a developing country, Uganda. To compare the PI training with already established programs, we reviewed entrepreneurship courses that have been implemented in the developing world. This review is presented in Chapter 3. The following paragraph provides a brief introduction into entrepreneurship training in developing countries.

Entrepreneurship training has to be distinguished from other educational interventions that are frequently used in the developing world to promote entrepreneurship. Besides entrepreneurship training programs, these interventions involve academic entrepreneurship programs (e.g. as part of MBA studies), coaching (counseling and advising services) and hybrid forms that combine entrepreneurship education with providing some form of assets (e.g. financial support) (Katz, 2007). This dissertation solely focuses on entrepreneurship training.

The roots of entrepreneurship training in the developing world began with the work of McClelland and his colleagues. In the 1960s in India, they developed a training intervention that was designed to encourage the need for achievement motive (i.e., an individual's urge to excel, consisting of preference for moderate risk, initiative, and a desire for feedback): the Achievement Motivation Training. McClelland and Winter (1969) rigorously evaluated this training program and found positive effects on achievement motivation and entrepreneurial success. Encouraged by these positive results, the Indian Small Industries Extension Training Institute started to intensely promote the Achievement Motivation Training. Step by step, new components (e.g., business planning and book-keeping) were added to the original Achievement Motivation Training and the name was changed into "Entrepreneurship Development Program". Today there are approximately

700 institutions in India that provide Entrepreneurship Development Programs. Since McClelland and colleagues' pioneering work on the Achievement Motivation Training, various entrepreneurship training programs have been developed and implemented in developing countries. The most widespread of such training programs are the CEFE ("Competency-based Economies through Formation of Enterprise"), the SIYB (Start and Improve your Business") and the EMPRETEC ("Emprendedores Technologia") training program, all of which are distributed across different continents and joined by tens of thousands of participants each year. The established entrepreneurship training programs vary in terms of content and duration. The majority are broadband interventions that, on average, have a duration of about two weeks. They usually involve business management skills (e.g., business plan development, marketing, or book-keeping) and psychological factors (e.g., motivation, creativity, or proactivity), frequently they employ follow-up interventions (e.g., personal counseling), and sometimes provide some form of assets (e.g., financial help, working tools).

Some research has been conducted in the developing world to assess the impact of entrepreneurship trainings. Harper and Finnegan (1998) reviewed evaluation studies on three selected training programs that involve psychological factors. They concluded that the training programs seemed to positively affect entrepreneurial success.

Although this dissertation is a full body of work, it has been constructed in a manner to allow independent reading of each chapter. Therefore, references are included at the end of each section.

1.3 REFERENCES

- Autio, E. (2005). *Global Entrepreneurship Monitor 2005 Report on High-Expectation Entrepreneurship*. London: London Business School.
- Baum, J. R. (2004, August). *Cognitions and behaviors of successful nascent entrepreneurs: A three-year panel study*. Presented at the Academy of Management Meeting, New Orleans, LA.
- Baumol, W. J. (2002). *The free-market innovation machine: Analyzing the growth miracle of capitalism*. Princeton: Princeton University Press.
- Birch, D. (1987). *Job creation in America*. New York: Free Press.
- Fiet, J. O. (2002). *The systematic search for entrepreneurial discoveries*. Westport, CT: Quorum Books.
- Frese, M., Brantjes, A., & Hoorn, R. (2002). Psychological success factors of small scale businesses in Namibia: The roles of strategy process, entrepreneurial orientation and the environment. *Journal of Developmental Entrepreneurship*, 7, 259-282.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between East and West Germany. *Academy of Management Journal*, 39, 37-63.
- Funder, D. C., & Ozer, D. J. (1983). Personality processes and individual differences. *Journal of Personality and Social Psychology*, 44, 107-112.
- Gaglio, C. M., & Katz, J. (2001). The psychological basis of opportunity identification: Entrepreneurial alertness. *Small Business Economics*, 16, 95-111.
- Harper, M., & Finnegan, G. (1998). *Value for money? Impact of small enterprise development*. London: Intermediate Technology Publications.
- Hills, G. E., & Shrader, R. C. (1998). Successful entrepreneurs' insights into opportunity recognition. In P.D. Reynolds (Ed.), *Frontiers of entrepreneurship research* (pp. 30-43). Wellsley, MA: Babson College.
- Katz, J. A. (2007). Education and training in entrepreneurship. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The psychology of entrepreneurship* (pp. 209-236). Mahwah, NJ: Lawrence Erlbaum Associates.

- Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. *Journal of the American Society of Training and Development*, 13, 3-9.
- Koop, S. De Reu, S., & Frese, M. (2000). Entrepreneurial orientation, initiative, and environmental forces in Uganda. In M. Frese (Ed.), *Success and failure of microbusiness owners in Africa: A psychological approach* (pp. 55-76). Westport, CT: Greenwood Publications.
- Krauss, S. I., Frese, M., Friedrich, C., & Unger, J. (2005), Entrepreneurial orientation: A psychological model of success among southern African small business owners, *European Journal of Work and Organizational Psychology*, 14, 315-344.
- Lieberman, M. B. & Montgomery, D. B. (1998). First mover (dis-)advantages: Retrospective and links with the resource-based view. *Strategic Management Journal*, 19, 1111-1125.
- McClelland, D., & Winter, G. (1969). *Motivating economic achievement*. New York: Free Press.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (in press). Entrepreneurial orientation and business performance: Cumulative empirical evidence. *Entrepreneurship Theory and Practice*.
- Smith, J. K., & Smith, R. L. (2000). *Entrepreneurial Finance*. New York: Wiley.
- Stel, A. J. van. (2006). *Empirical analysis of entrepreneurship and economic growth* (International Studies in Entrepreneurship Series, Vol. 13). New York: Springer Science.
- Van Gelderen, M., Frese, M., & Thurik, R. (2000). Strategies, uncertainty and performance of small business startups. *Small Business Economics*, 15, 165-181.
- Zempel, J. (1999). Selbstaendigkeit in den neuen Bundeslaendern: Praediktoren, Erfolgsfaktoren und Folgen - Ergebnisse einer Laengsschnittuntersuchung (Independence in the newly formed German states: Predictors, success factors and outcomes – Results of a longitudinal study) . In K. Moser, B. Batinic, & J. Zempel (Eds.). *Unternehmerisch erfolgreiches Handeln*. Goettingen: Hogrefe.

CHAPTER 2

A CRITICAL REVIEW OF ENTREPRENEURSHIP TRAININGS IN DEVELOPING COUNTRIES

Agreement persists amongst scholars that entrepreneurship is of fundamental importance for the economy as it functions as a catalyst for innovation, job creation, and economic well-being. Scientific evidence for this relationship has accumulated over time (Autio, 2005; Baumol, 2002; Birch, 1987; van Stel, 2006). Entrepreneurship is of particular importance for developing countries because with its inherent economic potential, it is an effective means for fighting poverty and unemployment. When realizing the economic potential inherent in entrepreneurship, policy makers in developing countries and international donor agencies started promoting entrepreneurship to stimulate the economy. Therefore, a variety of educational interventions have been developed and implemented. These interventions involve entrepreneurship trainings, academic entrepreneurship programs (e.g., as part of MBA studies), coaching (counseling and advising services), and hybrid forms that combine entrepreneurship education with the provision of some form of assets (e.g., financial support) (Katz, 2007). Empirical evidence for the effectiveness of academic entrepreneurship programs has accumulated in the developed world (e.g., Charney & Liebcap, 2000; Kolvereid & Moen, 1997; McMullan & Gille, 1998; Menzies & Paradi, 2002; Upton, Sexton, & Moore, 1995). But do entrepreneurship interventions also work in developing countries? With the present review, we attempt to answer this question for entrepreneurship trainings.

We focus on training programs that involve psychological factors. Psychological factors have been linked to business success in a vast amount of studies. For example, meta-analytic evidence for the positive linkage between need for achievement (i.e., an individual's urge to excel, consisting of preference for moderate risk, initiative, and a desire for feedback) and entrepreneurial success was found by Rauch and Frese (2007) and Collins, Hange, and Locke (2004) with a corrected $r = .314$ and $r = .260$, respectively. A

positive correlation between entrepreneurial orientation (an omnibus variable consisting of proactiveness, innovativeness, autonomy, risk taking, and competitive aggressiveness) and success of micro-businesses was found in a recent meta-analysis (Rauch, Wiklund, Lumpkin, & Frese, in press) with a corrected $r = .273$. If it is possible to strengthen such psychological factors through training programs, these training interventions might be powerful instruments for promoting entrepreneurship. We included all types of entrepreneurship training programs that involve psychological factors in the present review: focused training interventions that solely concentrate on these factors, broadband trainings that combine strengthening of psychological factors with training of business management skills (e.g., business plan development, bookkeeping, or marketing), and hybrid forms that facilitate the access to assets in addition to training psychological factors.

An extensive review of educational entrepreneurship interventions was conducted by Harper and Finnegan (1998). This review included 10 studies conducted in developing countries that evaluated three widespread training programs involving psychological factors: the Achievement Motivation Training, the Entrepreneurship Development Program, and the Competency-based Economies through Formation of Enterprise (CEFE) program. Harper and Finnegan showed that these training interventions seemed to have a positive effect on entrepreneurial success. However, the various methodological problems of the majority of the reviewed studies somewhat limit the conclusiveness of these results. During the last decade since Harper and Finnegan conducted their research, the interest in entrepreneurship has grown immensely and new entrepreneurship training programs have been developed and implemented. The amount of scientific studies published in the field of entrepreneurship research has greatly increased, and organizations that promote entrepreneurship trainings have put great effort into providing local training suppliers with instruments and advice for enabling a sophisticated evaluation of training effectiveness. These developments raise hope that the evaluation studies published within the last decade may have used stronger methodological designs and, thus, provide better evidence for the effectiveness of entrepreneurship training.

Our study aims to extend Harper and Finnegan's (1998) review of 10 evaluation studies of three selected entrepreneurship training programs involving psychological factors. We included all entrepreneurship training programs involving psychological factors that were evaluated in the developing world and, of which, had available evaluation

studies. In all, we reviewed 27 studies on 10 training programs. With the present review, we attempt to answer the following questions: (a) What types of entrepreneurship training programs that involve psychological factors have been implemented in developing countries? (b) Do these training programs strengthen the targeted psychological factors? (c) Do these training programs promote entrepreneurial success? (d) Should b and c prove to be true, does the change in the psychological factors contribute to the increase in success?

2.1 METHODS

Pool of Studies

We focused on studies that evaluated training programs for entrepreneurs or would-be entrepreneurs that involve psychological factors. To be included in this review, studies had to meet the following criteria: First, they were conducted in developing countries. Second, they were published in English. Third, they reported quantitative data; pure case studies were excluded.

Studies were identified from database search in PsychINFO, EBSCO, SSCI, EconLit, and ERIC, from internet search via Google and Google Scholar, from consulting the reference list of identified studies, and from contacting the first authors, colleagues and consultants who engage in the same field of research, and organizations that promote entrepreneurship training in developing countries. A total of 27 studies were identified that met the above listed criteria for inclusion in this review.

2.2 RESULTS

The identified 27 studies evaluated 10 different training programs in developing countries. The results section describes these training programs and summarizes their effects on psychological factors, business management skills and entrepreneurial success. Finally, a closer look is taken at the causal relationship between training related change in psychological factors and the effect on entrepreneurial success.

2.2.1 TYPES OF TRAINING PROGRAMS

Table 1 gives an overview of the 10 identified trainings programs and provides information about their origin, distribution, target group, content, design, and the applied training method². The following paragraph summarizes the main differences and similarities of the training programs.

² The features of one training program may slightly differ from those reported in Table 1 across evaluation studies. These divergences are shown in Table 2.

Table 1. Description of the identified entrepreneurship trainings

Training, Origin, Distribution, and Target Group	Content of Training	Training Design	Training Methods
<p>AMT – Achievement Motivation Training Developed by David McClelland and colleagues in the early 1960s. Today usually integrated as component in the EDPs. <i>Target group:</i> Small business owners.</p>	<p>Theory-based selection of content <i>Psychological factors:</i> Only content is achievement motivation that consists of 3 psychological factors: preference for moderate risk, initiative, and a desire for feedback.</p>	<p><i>Length:</i> 10 to 14 days <i>Pre-selection:</i> Non <i>Follow-up:</i> Participants regularly submit written progress reports that are analyzed and commented by the training supplier in order to reinforce achievement thinking.</p>	<p>Self-reflection, presentation of successful role models, lectures, discussions, exercises (e.g., thematic apperception test), simulated business situations, personal counseling.</p>
<p>EDP – Entrepreneurship Development Program Developed in 1970 in India by the Gujarat Industrial Investment Corporation Ltd. Mainly distributed in Asia. <i>Target group:</i> Small business owners and would-be entrepreneurs with a high degree of achievement motivation.</p>	<p>Selection of content partly based on empirical studies. No theory-based selection <i>Psychological factors:</i> Achievement motivation <i>Other:</i> Various business management skills, e.g., book-keeping, conducting a feasibility study, developing a business plan.</p>	<p><i>Length:</i> 1 week to 3 months <i>Pre-selection:</i> Individuals with a certain degree of achievement motivation <i>Follow-up:</i> Vary in intensity and content, e.g., financial assistance, personal counseling, or providing premises and raw materials.</p>	<p>Methods of AMT for increasing achievement motivation. Other methods vary according to training supplier and usually contain: lectures, pep-talks, information talks, field visits to ex-trainees.</p>
<p>SYB – Start Your Business Developed in the 90s. Has its roots in the “Improve Your Business” (IYB) program developed by SwedeCorp for the International Labor Organization (ILO). ILO promotes SYB in more than 20 countries worldwide. <i>Target group:</i> Would-be entrepr. with a business idea</p>	<p>Selection of content not theory-based. Not clear why this content was chosen <i>Psychological factors:</i> Creativity, social competence, and self-reflection <i>Other:</i> Developing a business plan, conducting a feasibility study, various basic business management skills.</p>	<p><i>Length:</i> 5 days <i>Pre-selection:</i> Non <i>Follow-up:</i> Non</p>	<p>Methods vary according to training suppliers. Frequently used are: lectures, role plays, games, real life examples, self-reflection.</p>
<p>GYB – Generate Your Business Idea The GYB was developed in the late 90s to supplement the SYB and is, like the SYB, promoted by the ILO. <i>Target group:</i> Would-be entrepreneurs without a business idea</p>	<p>Selection of content not theory-based. Not clear why this content was chosen <i>Psychological factors:</i> Creativity and active information search, self-reflection <i>Other:</i> Generating a business idea, feasibility study.</p>	<p><i>Length:</i> 3 to 5 days <i>Pre-selection:</i> Non <i>Follow-up:</i> Non</p>	<p>Methods vary according to training suppliers. Frequently used are: lectures, self-reflection, various creativity techniques.</p>
<p>CEFE - Competency-based Economies through Formation of Enterprise Developed in the 80s and by now spread worldwide over more than 80 countries visited by more than 100.000 participants a year. CEFE is promoted by the German Agency for Technical Cooperation (GTZ). <i>Target group:</i> Small business owners and would-be entrepreneurs with a high degree of motivation and growth potential</p>	<p>Selection partly on the basis of empirical studies. Not theory-based selection <i>Psychological factors:</i> Motivation, creativity, self-confidence, social competence, self-reflection <i>Other:</i> Business management skills, e.g., marketing, business plan development <i>Access to assets:</i> Access to credits is facilitated.</p>	<p>Different types of CEFE courses for different target groups that vary in content and length. <i>Length:</i> On average 4 to 6 weeks <i>Pre-selection:</i> Individuals with high motivation and growth potential <i>Follow-up:</i> Vary, provided on an ad-hoc basis.</p>	<p>Action learning approach with behavioral exercises like role-plays and simulations, creativity exercises, case studies, field trips.</p>

Training, Origin, Distribution, and Target Group	Content of Training	Training Design	Training Methods
<p>EMPRETEC - “Emprendedores Technologa” (entrepreneurs technology)</p> <p>Developed in the late 80s, EMPRETEC is now established in over 20 countries in Central and Latin America, Africa, and the Middle East with yet more than 70.000 participants. It is promoted by the United Nations. <i>Target group:</i> Small business owners and would-be entrepreneurs</p>	<p>Selection of content on the basis of empirical studies. <i>Psychological factors:</i> 10 different psychological factors that were found to be positively related to entrepreneurial success: opportunity seeking and initiative, risk taking, persistence, demand for efficiency and quality, commitment, goal setting, information seeking, systematic planning and monitoring, persuasion and networking, independence and self-confidence <i>Other:</i> Business plan development.</p>	<p><i>Length:</i> 2 weeks <i>Pre-selection:</i> Sometimes; individuals with a certain degree of psychological factors <i>Follow-up:</i> Usually in-house advice and additional training courses on business management skills.</p>	<p>Lectures, discussions, case studies, video tapes, self-assessment, exercises like role plays or business simulation.</p>
<p>Personal Initiative Training</p> <p>Developed by Glaub & Frese in 2004 and pilot tested in two African countries. The training is not distributed. <i>Target group:</i> Small business owners</p>	<p>Selection of content theory-based <i>Psychological factors:</i> Personal initiative, a behavior syndrome characterized by three facets: self-starting, proactive, and persistent in overcoming barriers.</p>	<p><i>Length:</i> 3 days <i>Pre-selection:</i> Non <i>Follow-up:</i> Non</p>	<p>Action training approach with exercises, case studies, self-reflection and small parts of lecture.</p>
<p>WEP – Women Entrepreneurship Programme</p> <p>Pilot tested in 2002 in South Africa and only locally distributed. <i>Target group:</i> Women who own a small business and have growth potential</p>	<p>Selection of content partly on the basis of empirical studies. <i>Psychological factors:</i> Risk propensity, creativity and innovation, opportunity identification, leadership, motivation, social skills <i>Other:</i> Developing a business plan, various management skills <i>Access to assets:</i> Participants present their business plans to potential providers of loans.</p>	<p><i>Length:</i> 6 days <i>Pre-selection:</i> Women with growth potential <i>Follow-up:</i> Vary; frequently personal counseling.</p>	<p>Lectures, role models presented through case studies and visits of successful entrepreneurs, discussions, various exercises.</p>
<p>CEPE - Création d’Entreprises et Développement de la Petite Entreprise</p> <p>Pilot tested in 1995 in Senegal. Degree of distribution not know. <i>Target group:</i> Small business owners</p>	<p>Selection of content partly on the basis of empirical studies <i>Psychological factors:</i> Risk taking, persisting, taking initiative, setting goals, opportunity seeking, seeking information, commitment, striving for efficiency <i>Other:</i> Conducting a market analysis, technical, economic, and financial studies, legal and administrative aspects, human resources.</p>	<p><i>Length:</i> Around 16 days <i>Pre-selection:</i> Non <i>Follow-up:</i> Supervision and personal counseling.</p>	<p>Case studies, role plays, exchange of experience, business simulation.</p>
<p>TechnoServe Business Plan Competition</p> <p>Developed by TechnoServe in 2002 and promoted in different countries in Central America and Sub-Saharan Africa. <i>Target group:</i> Small business owners and would-be entrepreneurs with growth potential and a viable business idea</p>	<p>Reason for selection of content not reported. <i>Psychological factors:</i> Entrepreneurial orientation and attitudes (not specified). <i>Other:</i> Business plan development, various management skills <i>Personal counselling:</i> One-to-one assistance in business planning.</p>	<p><i>Length:</i> 10 days <i>Pre-selection:</i> Individuals with growth potential and a viable business idea. <i>Follow-up:</i> Non</p>	<p>Lectures, examples, discussions, self-reflection, few exercises.</p>

Distribution. Concerning their distribution, the training programs can be partitioned into two categories. The first category consists of established training programs that are intensively promoted by governmental and nongovernmental organizations and distributed across continents (Achievement Motivation Training, Entrepreneurship Development Program, Start Your Business, Generate Your Business Idea, CEFE, EMPRETEC, TechnoServe Business Plan Competition). The second category contains more recently developed training programs that are implemented locally (Personal Initiative Training, Women Entrepreneurship Programme, CEPE).

Target group. Two training programs were specifically designed for would-be entrepreneurs whereas four training interventions exclusively target entrepreneurs with businesses in operation. Four interventions address both operating and would-be entrepreneurs. One training program targets women entrepreneurs (the Women Entrepreneurship Programme) while the others are not gender specific.

Content. Two of the 10 training programs solely focus on psychological factors: the Achievement Motivation Training and the Personal Initiative Training. The Achievement Motivation Training aims to strengthen achievement motivation and the Personal Initiative Training solely concentrates on personal initiative (a behavior syndrome, characterized by its three facets self-starting and proactive behavior, and persistence in overcoming barriers additionally, these two entrepreneurship training programs are the only theory-based training interventions, meaning, their content was selected on the basis of its theoretical linkage to entrepreneurial performance and the design was derived from the theory of achievement motivation and personal initiative, respectively. The other eight training programs involve business management skills (e.g., business plan development, marketing, or bookkeeping) and psychological factors, frequently use follow-up interventions (e.g., personal counseling), and sometimes provide some form of assets (e.g., financial help, working tools). Psychological factors for these training programs were predominantly chosen because of their assumed or empirical linkage to entrepreneurial success. The amount and type of psychological factors involved and their emphasis in relation to other contents varies across the eight training programs. For example, the Start Your Business program mainly concentrates on business management skills and devotes only a very small segment to psychological factors, while EMPRETEC almost exclusively

trains psychological factors adding business plan development coaching as its single managerial content.

Design. The training programs vary considerably in terms of duration. The shortest programs are the Personal Initiative Training and the Generate Your Business Idea program with a length of 3 days each. The intervention with the most contact hours is the extended form of the Entrepreneurship Development Program that stretches over three months. The majority of training programs take about one to three weeks.

Training methods. The training programs only differ slightly in terms of the applied training methods. Generally, they use single and group work sessions, present role models (in form of case studies or guest speakers), involve some form of self-reflection, and contain short lectures. In some cases, the same training program varies slightly in its applied methods, e.g., when local suppliers adapt the program to meet the demand the demands of a special target group (e.g., more visual methods are applied when the target group is mostly illiterate).

2.2.2 EFFECTS OF THE TRAINING PROGRAMS

Two tables are presented that provide an overview of the effects of the training programs. Table 2 displays the results of each study separately. Table 3 summarizes the studies' results for each training program. In the following, the two tables are described.

Table 2 presents all 27 evaluation studies reviewed in this article. Entries in the table are arranged according to the evaluated training program and according to a rating of the methodology used in the study. This rating is based on the properness of the methodology applied in the evaluation studies. The higher the rating of a study, the more conclusive are its results (composition of the methodology rating is presented in Table 4 and explained in more detail in the last paragraph of the results section). The table covers the following aspects of each study: First, the author is given. Second, the purpose of the evaluation is reported. Third, the methodology rating is presented. Fourth, specific features of the design of the evaluated training program are reported. Fifth, selected methodological aspects of the study are described (sample, use of control groups, number of points of measurement, and applied measures). Finally, the main results of the study are presented. Thereby we concentrated on those results that were most conclusive for the effectiveness of the evaluated training program, that is, we preferred displaying results on economic success

instead of participants' reaction toward training (e.g., satisfaction with the training content). In addition we focused on the economic success measures that were most commonly used across the identified studies (rate of new job creation, failure rate, and start-up rate).

Table 2. Summary of the identified evaluation studies of entrepreneurship training programs

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
AMT – Achievement Motivation Training								
McClelland & Winter (1969) Experiment, published & Heckhausen (1971), published	Assessing the impact of AMT on achievement motivation and economic success of businesses, and the impact on the economy of the two towns where the AMT was conducted. Testing if an increase of achievement motivation is responsible for an increase of success. Heckhausen reanalyzed the data to find out the conditions under which the AMT works best.	****	<i>Length:</i> 10 to 14 days <i>Follow-up:</i> Participants regularly submit written progress reports that are analyzed and commented by the training supplier in order to reinforce achievement thinking	<i>Size:</i> 151 entrepreneurs and would-be entrepreneurs <i>Description:</i> Individuals from two different towns were invited to take part in AMT. Those who took part formed the TG (N = 78); those who did not take part the (non-random, self-selected) CG (N = 38). A second, matched CG was formed of entrepreneurs of third town (N = 35). <i>Country:</i> India	1 non-treatment of same town 1 non-treatment of different town	1 st : Before intervention 2 nd : Directly a.i. 3 rd : 1½ years a.i.	Interview, projective test. Economic success (obj.), behavior (obj. & subj.), need for achievement (obj. & subj.), reaction	TG showed significant improvement in all indicators of economic success, both when compared with themselves before the course and when compared with controls after the course. Start-up rate of TG was 22% and of CG 8%, rate of new job creation was high both in TG with 5.9 and in CG with 2.7 employees per participant. Participants showed more active behavior and need for achievement was higher after the course than before. The increase of achievement motivation was responsible for the increase of economic success of the entrepreneurs. An effect on the economy of the cities where the AMT was conducted was not found. The AMT worked best, when participants scored low in hope of success before the training and had the chance to become active and actually became active after the training.
Miron & McClelland (1979) Experiment, published	Assessing the impact of AMT on business creation and economic success of the created and existing businesses. Comparing the effectiveness of AMT with two training programs that combine AMT with business training.	***	<i>Length:</i> AMT: 70 hours, 1 st combined training: 145 hours, 2 nd combined training: 210 hours <i>Follow-up:</i> Yes, not specified	<i>Size:</i> 186 entrepreneurs and would-be entrepreneurs <i>Description:</i> Individuals from different towns and ethnic backgrounds were invited to take part in the training courses. Those 186 who took part formed the (non-random, self-selected) sample for assessment of training effectiveness. For comparison of the different training programs, matched groups were formed (N = 56). <i>Country:</i> USA	1 receiving AMT + long business training 1 receiving AMT + short business training	1 st : Before intervention 2 nd : 1 – 1 ½ years after training	Questionnaire, telephone interview. Economic success (obj.)	The group receiving only AMT showed high significant increase in sales (246%), profit (294%) and income (150%), while number of employees stayed the same. The other training groups also predominantly increased in success measures. Comparing the AMT group with the groups that received additional business training revealed contradictory results. The pure AMT group was superior to the group receiving AMT + short business training and less successful than the group receiving AMT + long business training.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
EDP – Entrepreneurship Development Program								
Awasthi & Sebastian (1998) Survey, published	Assessing the impact of EDP on business creation and economic success of the created businesses.	***	<i>Length:</i> Not reported <i>Follow-up:</i> Not reported	<i>Size:</i> 1362 entrepreneurs and would-be entrepreneurs <i>Description:</i> 1295 participants of EDPs were randomly selected from 555 EDPs 2 to 6 years a.i. All 67 of these participants who had been operating for at least 3 years were compared with a matched control group (N = 67). <i>Country:</i> India	1 non-treatment	1st: 2 - 6 years a.i.	Interview. Economic success (obj. & subj.), reaction	Start-up rate in the TG was 26%. Failure rate was low (8%). TG achieved significantly higher scores than CG in all measures of financial performance and had a higher growth rate. Rate of new job creation was around 0.83 per participant.
Patel (1981) Survey, published	Comparing the effectiveness of two different financial support programs with a non-treatment group and analyze the effect of adding EDP on business creation and economic success.	***	<i>Length:</i> Not reported <i>Follow-up:</i> Not reported <i>Access to assets:</i> Financial support	<i>Size:</i> 94 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants were randomly selected 1 year a.i. 24 were in the EDP group. <i>Country:</i> India	1 non-treatment 1 financial support program for technicians 1 financial support program for nonspecific target group	1 st : 1 year a.i. 2 nd : 2 years a.i.	Questionnaire. Economic success (obj.)	Entrepreneurs who received EDP in addition to financial support achieved higher scores in all economic success measures than entrepreneurs who solely received financial support. They also had a lower failure rate (13%) than the non-treatment group (24%) and one group that only got financial training without EDP (39%). However, entrepreneurs of the non-treatment group had a higher Return of Investment than all other groups two years after the interventions and were as successful as the EDP trained entrepreneurs in terms of profit.
Saini & Bhatia (1996) Survey, published	Assessing the impact of EDP on the economic success of existing businesses.	**	<i>Length:</i> At least 2 weeks <i>Follow-up:</i> Frequently personal counselling <i>Access to assets:</i> In some cases clearance	<i>Size:</i> 74 would-be entrepreneurs <i>Description:</i> Participants of EDP were asked 1 to 9 years a.i. to take part in the study. 37 agreed and formed the (self-selected) TG. 37 non-trained were chosen to form a matched CG. <i>Country:</i> India	1 non-treatment	1 st : 1 - 9 years a.i.	Interview. Economic success (obj.)	TG scored significantly higher in 2 out of 9 economic success measures (employees and turnover). All other measures did not reveal significant differences. Rate of new job creation in TG was 3.4 per participant (in CG 1.4).
Harper & Mahajan (1995) - Study 1 - Survey, published	Assessing the impact of EDP on the economic success of existing businesses.	*	<i>Length:</i> 6 weeks <i>Follow-up:</i> Not reported	<i>Size:</i> Around 120, no exact figure reported, not clear if entrepreneurs or would be entrepreneurs <i>Description:</i> Around 60 participants were selected a.i. to form TG. A matched CG was formed (selection process not reported). <i>Country:</i> India	1 non-treatment	Not reported	Instrument not reported. Economic success	TG was significantly higher in profits, earnings and number of employees than CG. No significant difference in other economic success measures.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
Harper & Mahajan (1995) - Study 2 - Survey, published	Assessing the impact of EDP on the economic success of existing businesses	**	<i>Length:</i> 6 weeks <i>Follow-up:</i> Not reported	<i>Size:</i> 246, not clear if entrepreneurs or would-be entrepreneurs <i>Description:</i> 126 participants of 29 different EDPs were selected 1 to 9 years a.i. to form the TG (selection process not reported). 120 non-trained formed a matched CG. <i>Country:</i> India	1 non-treatment	1 st : 1 - 9 years a.i.	Instrument not reported. Economic success (obj. & subj.)	TG reached break-even point after business creation earlier than CG. However, growth rates of TG and CG were similar.
SYB – Start Your Business								
Barwa (2003) Survey, unpublished	Assessing the impact of SYB on economic success of newly created and of existing businesses.	**	<i>Length:</i> 5 days <i>Follow-up:</i> Not reported	<i>Size:</i> 258 entrepreneurs and would-be entrepreneurs <i>Description:</i> Women who participated in SYB were randomly selected 9 months a.i. <i>Country:</i> Vietnam	Non	1 st : 9 months a.i.	Questionnaire. Economic success (obj. & subj.), behavior (subj.), psychological factors (subj.), reaction	Nearly all participants stated that performance of business had improved after training. Around 70% reported an increase in customers, sales and profits. Job creation rate did increase (0.8 per participant). Most participants changed behavior after training in terms of managing their business differently (70%). 90% reported a change in business-related self-confidence.
Pharoah & Burton (2001) Survey, unpublished	Assessing the impact of SYB on business creation and economic success of the created businesses.	**	<i>Length:</i> 5 days <i>Follow-up:</i> Not reported	<i>Size:</i> 45 would-be entrepreneurs who had a business idea <i>Description:</i> Participants of SYB who operated business for at least 2 years were randomly selected minimum 2 years a.i. <i>Country:</i> South Africa	Non	1 st : 2 years and more a.i., no upper limit	Interview. Economic success (obj.), reaction	Only participants who actually created a business after training were studied and in this group failure rate was 28%.
Carlsson & Anh (2001) Survey, unpublished	Assessing the impact of SYB on business creation and economic success of the created and of existing businesses.	*	<i>Length:</i> 5 days <i>Follow-up:</i> Consultancy	<i>Size:</i> 648 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of the SYB were randomly selected directly a.i. up to 3 years a.i. <i>Country:</i> Vietnam	Non	1 st : Directly a.i. up to 3 years a.i.	Questionnaire. Economic success (obj. & subj.), behavior (subj.), reaction	Start-up rate of would-be entrepreneurs was 15%. Only a few (about 15%) of the already operating entrepreneurs reported an increase in productivity, sales, and profit that was mainly caused by training. Rate of new job creation was low (0.3 employees per participant). Only a slight increase in some trained business activities after training was reported. Some business activities even had decreased.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
Abey Suriya (2005) Survey, unpublished	Assessing the impact of SYB on business creation and economic success of the created businesses.	*	<i>Length:</i> 5 days <i>Follow-up:</i> Consultancy and/or training	<i>Size:</i> 2 separate samples of would-be entrepreneurs, first sample: N = 97, second sample: size not reported <i>Description:</i> First sample: Participants of SYB were randomly selected ½ to 1½ years a.i. to evaluate short-term effects. Second sample: Participants of SYB were selected 2½ to 3½ years a.i. to evaluate long-term effects (selection process not reported). <i>Country:</i> Sri Lanka	Non	First sample: ½ to 1½ years a.i. Second sample: 2½ to 3½ years a.i.	Interview. Economic success (obj. & subj.), behavior (subj.), reaction	Results after ½ to 1½ years (1 st sample): Start-up rate was 39%. However, major catalyst for start-up was personal follow-up counselling and not training. There was a low rate of new job creation (0.2 jobs per participant). Results after 2½ to 3½ years (2 nd sample): Start-up rate was 48%, failure rate of those who had started 36%.
GYB – Generate Your Business Idea								
Abey Suriya (2005) Survey, unpublished	Assessing the impact of GYB on business creation and economic success of the created businesses.	*	<i>Length:</i> 3 days <i>Follow-up:</i> Consultancy and/or training	<i>Size:</i> 2 separate samples of would-be entrepreneurs, first sample: N = 98, second sample: size not reported <i>Description:</i> First sample: Participants of GYB were randomly selected ½ to 1½ years a.i. to evaluate short-term effects. Second sample: Participants of SYB were selected 2½ to 3½ years a.i. to evaluate long-term effects (selection process not reported). <i>Country:</i> Sri Lanka	Non	First sample: ½ to 1½ years a.i. Second sample: 2½ to 3½ years a.i.	Interview. Economic success (obj. & subj.), behavior (subj.), reaction	Results after ½ to 1½ year (1 st sample): Start-up rate was low with 15% although 82% had developed a concrete business idea. Nearly all participants who founded a business reported that participating in GYB positively influenced their business and their business-related behavior. Results after 2½ to 3½ years (2 nd sample): Failure rate was low (13%).
CEFE - Competency-based Economics through Formation of Enterprise								
Pham (2002) Survey, unpublished	Assessing the impact of CEFE on economic success of existing businesses.	*	<i>Length:</i> Not reported <i>Follow-up:</i> Workshops <i>Access to assets:</i> Loans, working tools	<i>Size:</i> 2 separate samples of poor women entrepreneurs, first sample: N = 784, second sample: N = 336 <i>Description:</i> 1st sample: Participants of CEFE were randomly selected directly a.i. to evaluate short-term effects. 2nd sample: Participants of CEFE were randomly selected 7 months a.i. for long-term effects. <i>Country:</i> Vietnam	Non	First sample: Directly a.i. Second sample: 7 months a.i.	Interview. Economic success, behavior, learning, reaction (all subj.)	2/3 reported an increase in income 7 months after the training and nearly all stated that they had applied the acquired business management knowledge.
Nguyen (2001) Survey, unpublished	Assessing the impact of CEFE on business creation and economic success of the created businesses.	*	<i>Length:</i> 17 days <i>Follow-up:</i> Consultancy, workshops, training	<i>Size:</i> 106 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of CEFE courses were randomly selected ½ to 4 years a.i. <i>Country:</i> Vietnam	Non	1 st : ½ to 4 years a.i.	Interview. Economic success (obj. & subj.), learning (subj.), reaction	Start-up rate of would-be entrepreneurs was 28%. Turnover: 64% reported an increase and 13% a decrease. Employment: 44% reported an increase, 15% a decrease. Nearly all gained the knowledge to develop a business plan.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
Reichert et al. (2000) - Study 1 - Survey, unpublished	Assessing the impact of CEFE on business creation and economic success of the created and of existing businesses.	*	<i>Length:</i> 8 to 14 days <i>Follow-up:</i> Not reported	<i>Size:</i> 207 would-be and operating entrepreneurs <i>Description:</i> Participants of CEFE were selected up to 4 years a.i. (selection process not reported) <i>Country:</i> Sri Lanka	Non	1 st : 1 to 1½ years a.i. 2 nd : 4 years a.i.	Questionnaire. Economic success (obj. & subj.), reaction	Start-up rate of would-be entrepreneurs was 40% one year a.i., 4 years a.i., the overall rate of new job creation was 1.4 per participant and the vast majority of the operating entrepreneurs had expanded their business (80%).
Reichert et al. (2000) - Study 2 - Survey, unpublished	Assessing the impact of CEFE on economic success of existing businesses.	*	<i>Length:</i> 3 to 15 days <i>Follow-up:</i> Not reported	<i>Size:</i> 40 entrepreneurs <i>Description:</i> Participants of CEFE were selected 1 to 3 years a.i. (selection process not reported) <i>Country:</i> Laos	Non	1 st : Within first year up to 3 years a.i.	Questionnaire. Economic success (obj. & subj.), behavior (subj.), reaction	Increase in sales was very high in the first year after the training (44% compared to a GDP of 6%). The rate of new job creation was 1.4 per participant. The vast majority reported an improvement of business management skills (88%).
Reichert et al. (2000) - Study 3 - Survey, unpublished	Assessing the impact of CEFE on economic success of existing businesses.	*	<i>Length:</i> 4 to 22 days <i>Follow-up:</i> Not reported	<i>Size:</i> 132 entrepreneurs <i>Description:</i> participants of CEFE were selected 6 to 9 months a.i. (selection process not reported). <i>Country:</i> Thailand	Non	1 st : 6 to 9 months a.i.	Questionnaire. Economic success (subj.), behavior (subj.), reaction	Around 30% of the participants reported an increase in different success measures. The vast majority had implemented measures for improving business.
Braun et al. (1995) Survey, unpublished	Assessing the impact of a specific CEFE course for would-be entrepreneurs on business creation and of other CEFE courses on economic success of existing businesses.	*	<i>Length:</i> Varies, not reported concretely <i>Follow-up:</i> Consultancy	<i>Size:</i> 320 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of CEFE who returned a questionnaire directly a.i. up to 2 years a.i. formed the non-random, self-selected sample. 122 had participated in specific CEFE courses for would-be entrepreneurs and the other 198 had taken part in CEFE courses for operating entrepreneurs. <i>Countries:</i> Vietnam, Philippines, Kenya, Brazil, Chile.	Non	1 st : Directly a.i. up to two years a.i.	Questionnaire. Economic success (obj. & subj.), behavior (subj.), reaction	Results for specific CEFE course for would-be entrepreneurs: Start-up rate was 32% but widely varied across countries (highest in Philippines with 52%, lowest in Vietnam with no start-up); Other courses: 86% reported a strong or very strong increase of turnover and of these, the vast majority had changed behavior in different trained fields of action (on average 85%). The rate of new job creation was high (2.1 per participant). The participants reported a change in the way of managing their businesses (87%)

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
EMPRETEC - "Emprendedores Tecnologia" (entrepreneurs technology)								
Cooley (1991) Experiment, unpublished	Assessing the impact of EMPRETEC on economic success of newly created and existing businesses. Identifying the factors that are responsible for the increase of success.	*****	<i>Length:</i> 10 days <i>Follow-up:</i> Non	<i>Size:</i> 90 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of EMPRETEC were randomly assigned to a TG and a CG. Those of the TG who did not take part in training were re-assigned to the CG (partly self-selection of sample) TG and CG consisted of 45 individuals each. <i>Country:</i> Malawi	1 non-treatment	1 st : Before intervention 2 nd : 2 years a.i.	Interview and questionnaire. Economic success (obj.), behavior (subj.), reaction	TG showed a highly significant increase in sales compared to the CG. No significant change was found for number of employees. A large part of the change in economic success was due to a change in psychological factors. However, this change in psychological factors was only on a tenuous significant level.
Lopez (1999) Experiment, unpublished	Assessing the impact of EMPRETEC on economic success of newly created and of existing businesses.	***	<i>Length:</i> 10 days <i>Follow-up:</i> Non	<i>Size:</i> 64 entrepreneurs and would-be entrepreneurs <i>Description:</i> Individuals who wanted to participate in EMPRETEC were pre-selected in terms of entrepreneurial competencies. <i>Country:</i> Brazil	Non	1 st : Before intervention 2 nd : 6 to 7 months a.i.	Interview and questionnaire. Economic success (obj. & subj.), behavior (subj.)	There was no significant increase in success in the objective success measures. However, 62% of participants reported that gross sales had increased in spite of declining economical indicators. More than 2/3 had introduced changes in the way of running business. 5 of 10 trained and measured Psychological factors had increased significantly.
Ruffing & Fulvia (1999) - Study 1 - Survey, unpublished	Assessing the impact of EMPRETEC on business creation and economic success of the created and of existing businesses.	*	<i>Length:</i> Not reported <i>Follow-up:</i> Individual consultancy	<i>Size:</i> 810 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of EMPRETEC who were preselected in terms of entrepreneurial competencies and motivation were chosen directly a.i. up to 10 years a.i. (selection process not reported). A non-randomized CG was formed (size not reported) and compared with TG in terms of change in employment. <i>Country:</i> Uruguay	1 non-specified	1: Directly a.i. up to 10 years a.i.	Instrument not reported. Economic success (not reported if obj. or subj.)	Start-up rate was 56%. Within 4 years, employment increased by 12% whereas the CG showed a significant decrease (-28%).
Ruffing & Fulvia (1999) - Study 2 - Survey, unpublished	Assessing the impact of EMPRETEC on business creation and economic success of the created and of existing businesses.	*	<i>Length:</i> 9 days <i>Follow-up:</i> Individual consultancy	<i>Size:</i> 692 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of EMPRETEC who were pre-selected in terms of entrepreneurial competencies and motivation were randomly chosen 6 to 9 months a.i. (selection process not reported). <i>Country:</i> Brazil	Non	1 st : 6 months to 2 years a.i.	Instrument not reported. Economic success (obj.)	Start-up rate was 9%. Failure rate of participants was 0 whereas average failure rate of entrepreneurs in Brazil was 75%.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
Personal Initiative Training								
Glaub et al. (2009) Experiment, unpublished	Assessing the impact of Personal Initiative Training on economic success of existing businesses.	*****	<i>Length:</i> 3 days <i>Follow-up:</i> Non	<i>Size:</i> 100 entrepreneurs <i>Description:</i> Entrepreneurs who wanted to take part in Personal Initiative Training were randomly assigned to the TG (N = 47) and a waiting CG (N = 53). CG received training after the last measurement wave. <i>Country:</i> Uganda	1 non-treatment	1 st : Before intervention 2 nd : Directly a.i. 3 rd : 3 to 4 months a.i. 4 th : 1 year a.i.	Interview, questionnaire. Economic success (obj. & subj.), behavior (obj. & subj.), learning (obj.), reaction	TG significantly increased higher in economic success (in all success measures) and personal initiative (all knowledge and behavior measures) compared with the CG. Rate of new job creation was high with 2.8 created jobs per training participant whereas the CG showed a decrease (-1.8 per participant). There was no failure in the TG, failure rate in the CG was 8%. The increase of personal initiative was responsible for the increase of economic success.
Glaub et al. (2004) Experiment, unpublished	Assessing the impact of Personal Initiative Training on economic success of existing businesses.	****	<i>Length:</i> 3 days <i>Follow-up:</i> Non	<i>Size:</i> 84 entrepreneurs <i>Description:</i> Entrepreneurs were asked to take part in the training. Those who did take part formed the TG (N = 27). Those who did not want to take part but agreed to participate in the study and those who did not show up in training formed the CG (N = 57) (self-selected sample). <i>Country:</i> South Africa	1 non-treatment	1 st : Before intervention 2 nd : Directly a.i. 3 rd : 5 to 7 months a.i. 4 th : 2 years a.i.	Interview, questionnaire. Economic success (obj. & subj.), behavior (obj. & subj.), learning (obj.), reaction	TG was significantly higher than CG in success 5 to 7 months after the training. After 2 years, the effect on economic success (measured in terms of sales) was still positive but only marginally significant. TG increased in personal initiative (all knowledge and behavior measures) compared with the CG. Personal initiative was partly responsible for the increase of economic success.
WEP – Women Entrepreneurship Programme								
Botha (2006) Experiment, published	Assessing the impact of WEP on economic success of newly created and of existing businesses.	***	<i>Length:</i> 6 days <i>Follow-up:</i> Different, frequently individual consultancy <i>Access to assets:</i> Business plans are presented to potential providers of loans	<i>Size:</i> 180 entrepreneurs and would-be entrepreneurs <i>Description:</i> Women with growth potential were preselected from applicants for the WEP training. 116 were (nonrandomly) assigned to the TG and 64 formed a partly matched CG. <i>Country:</i> South Africa	1 non-treatment	1 st : Before intervention 2 nd : Directly a.i. 3 rd : 6 months a.i.	Questionnaire s. Economic success (obj. & subj.), behavior, learning (both subj.), reaction	Comparing TG and CG after the training, a significantly higher percentage of individuals of the TG reported an increase in most success measures than individuals of the CG did. All measures of business knowledge, skills, psychological factors and behavior significantly increased in TG.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Training/ Study	Purpose of Evaluation	Methodology Rating	Specific Aspects of Training Intervention	Sample	Comparison Groups	Points of Measurement	Instruments and Outcome Measures	Central Results
CEPE - Création d'Entreprises et Développement de la Petite Entreprise								
Kouessi (1995) Survey, published	Assessing the impact of CEPE on business creation.	*	<i>Length:</i> 10 days <i>Follow-up:</i> Varied, mostly personal counseling. <i>Access to assets:</i> Business plans are presented to potential providers of loans	<i>Size:</i> 31 entrepreneurs and would-be entrepreneurs <i>Description:</i> Participants of CEPE who agreed to take part in evaluation were selected 6 months a.i. (nonrandom, self-selected sample) <i>Country:</i> Senegal	Non	1 st : 9 months a.i.	Questionnaire. Economic success (obj. & subj.), behavior (subj.), reaction	Start-up rate was 39%. Nearly all participants reported that behavior had changed after the intervention.
TechnoServe Business Plan Competition								
Klinger & Schündeln (2007) Experiment, unpublished	Assessing the impact of TechnoServe Business Plan Competition on business creation and on economic success of the created and of existing businesses. Comparing the effects of the business plan training with those of a behavioral training focusing on psychological factors.	****	<i>Length:</i> 10 days <i>Follow-up:</i> Non	<i>Size:</i> 655 entrepreneurs and would-be entrepreneurs <i>Description:</i> Applicants for the training had to submit a business idea and were assigned to TG (N = 377) and CG (N = 278) according to the quality of their idea: individuals with ideas of high quality were assigned to TG (pre-selected, nonrandom sample). <i>Countries:</i> Guatemala, Nicaragua, El Salvador	1 non-treatment	1 st : Before intervention 2 nd : 1 year a.i.	Questionnaire. Economic success (obj.)	TG showed 25% more business creation activity (start-up of new or expansion of existing business) than CG. Employment rate increased slightly more in TG than in CG. Training in psychological factors had significant effects on expansion but not on business start-up. Business plan training revealed the contrary effect.

Note. TG = training group; CG = control group; N = number of participants; a.i. = after intervention; subj. = subjective; obj. = objective.

Table 3 summarizes the results of the 27 identified studies for each training program separately. In addition to rate of new job creation, failure rate, and start-up rate, we formed the category “general economic measures” from all other applied success measures. We summarized the effects of the training programs on psychological factors in one category and the effects of business management skills in another one. The numbers provided in Table 3 are not amenable to easy interpretation because of the use of different study designs (e.g., control group versus no control group or different points of measurement) and various methodological problems of the majority of the primary studies (cf. Table 4). Thus, Table 3 does not allow direct comparison of the impact of the training programs in terms of the displayed numbers. In the following, we describe the effects of the training programs as displayed in Table 3 in more detail.

Effects on Psychological Factors and Business Management Skills

Six of the 10 training programs were assessed in terms of the provoked change in the trained psychological factors. All six training programs positively affected the targeted psychological factors across all studies. Business management skills were assessed in five training programs. Four of these training programs led to an improvement in skills. The Start Your Business program was the only training intervention that resulted in contradictory effects in one study (Carlsson & Anh, 2001). However, in two further evaluation studies, the effects of the Start Your Business program on business management skills were predominantly positive (Barwa, 2003; Abeisuriya, 2005).

Effects on Entrepreneurial Success

We used the following measures to describe the training effects on business success: rate of job creation, failure rate, rate of business start-up, and general economic measures.

Rate of Job Creation. This measure assessed the number of jobs that were created in average per training participant between training and point of posttraining measurement. Five training programs were evaluated by the rate of job creation. On average, these training programs led to 2.0 newly created jobs per participant. Three of these training programs were evaluated by the use of a nontrained control group. Nontrained control groups serve the purpose of controlling for possible biases throughout the development of the economy: Entrepreneurs operating in a growth market may create new jobs whether they participate in training or not. Using a nontrained control group enables us to calculate the net increase of jobs due to participation in a training program.

Table 3. Aggregated results of the identified evaluation studies: Effects of the training programs on the participants

Training	Start-up Rate			Jobs created per Training Participant			Failure Rate			Effects on general Economic Measures			Effects on Business Psychological Factors* ¹			Effects on Business Management Skills* ¹		
	k	Range in %	Mean in %	k	Range	Mean	k	Range in %	Mean in %	k	Positive effects in%	Contradictory effects in %	k	Positive effects In %	Contradictory effects in %	k	Positive effects in%	Contradictory effects in %
AMT - Achievement Motivation Training	1	-	22	2	0 - 5.9	2.9	0	-	-	2	100	0	1	100	0	0	-	-
EDP - Entrepreneurship Development Program	1	-	26	2	0.8 - 3.4	2.1	2	8 - 13	11	5	20	80	0	-	-	0	-	-
SYB - Start Your Business	2	15 - 48	32	3	0.2 - 0.8	0.4	2	28 - 36	32	2	50	50	0	-	-	3	67	33
GYB - Generate Your Business Idea	1	-	15	0	-	-	1	-	13	1	100	0	0	-	-	0	-	-
CEFE - Competency-based Economies through Formation of Enterprise	3	28 - 40	33	3	1.4 - 2.1	1.6	0	-	-	6	67	33	0	-	-	4	100	0
EMPRETEC - "Emprendedores Technologia" (entrepreneurs technology)	2	9 - 56	33	0	-	-	0	-	-	3	33	67	2	100	0	0	-	-
Personal Initiative Training	0	-	-	1	-	2.8	1	-	0	2	100	0	2	100	0	0	-	-
WEP - Women Entrepreneurship Programme	0	-	-	0	-	-	0	-	-	1	100	0	1	100	0	1	100	0
CEPE - Création d'Entreprises et Développement de la Petite Entreprise	1	-	39	0	-	-	0	-	-	0	-	-	1	100	0	1	100	0
TechnoServe Business Plan Competition	0	-	-	0	-	-	0	-	-	1	100	0	1	100	0	1	100	0
Total	11	9 - 56	29	11	0.2 - 5.9	2.0	6	8 - 36	14	23	74	26	8	100	0	10	93	7

Note. k = number of studies that provided information of the effects of the training on the presented performance measures; *¹ if the results reported in a study were predominantly positive, the study counted for "positive effects", if the results were predominantly contradictory, the study counted for "contradictory effects", no study solely reported negative results.

The Achievement Motivation Training achieved the highest job creation rate in a study that used a nontrained control group with 5.9 new jobs per participant (McClelland & Winter, 1971). The control group also showed an increase in jobs with an average of 2.7 jobs per individual, indicating a positive development of the economy. Thus, the net increase due to training was 3.2. The highest such net increase in jobs was achieved by the Personal Initiative Training with an average of 4.6 created jobs per participant (training group: creation of 2.8 jobs per participant; control group: loss of 1.8 jobs per entrepreneur; Glaub et al., 2009). For the Entrepreneurship Development Program, the net increase in jobs was 2.0 (training group: 3.4, control group: 1.4; Saini & Bathia, 1996). In each of the three studies, the net increase reached statistical significance.

Failure rate. Four training programs were evaluated in reference to the rate of failure. On average, 14% of the participants closed their businesses between training and the posttraining point of measurement. Again, the use of a control group is necessary to control for a possible bias due to the development of the economy. Two studies that assessed the failure rate made use of a control group. Glaub et al. (2009) showed that none of the participants of the Personal Initiative Training failed over the year after the training course, while 8% of the entrepreneurs in the nontrained control group closed their businesses. Patel (1981) reported a failure rate of 13% for the participants of the Entrepreneurship Development Program and a higher failure rate of 24% for the nontrained control group. These results suggest that the Personal Initiative Training and the Entrepreneurship Development Program may increase the probability for business survival.

Business Start-up. Seven training programs were assessed in terms of the amount of businesses that were started by the participating would-be entrepreneurs. The average start-up rate of the training programs was 29%. The highest start-up rate was achieved by the CEPE with 39% (Kouessi, 1995) and the lowest (9%) by the Generate Your Business Idea program (Abey Suriya, 2005). However, the lack of control groups limits the conclusiveness of these results. Only one study compared the start-up rate of training participants with a nontrained control group: McClelland & Winter (1971) reported that 22% of the participants of the Achievement Motivation Training started a business while only 8% of the control group did so.

General Economic Measures. Nine of the 10 training programs were assessed by measures that were summarized in the category general economic measures. Five of these

training programs achieved solely positive results: Achievement Motivation Training, Generate Your Business Idea, Personal Initiative Training, Women Entrepreneurship Programme, and the TechnoServe Business Plan Competition. The most contradictory results were found for the Entrepreneurship Development Program (in 80% of the studies). Second most contradictory results were revealed for EMPRETEC (in 67% of the studies).

Summarizing the effects of the different training programs, we find indications that the reviewed entrepreneurship trainings may a) strengthen psychological factors, b) improve business management skills, and c) increase entrepreneurial success.

2.2.3 DOES TRAINING PSYCHOLOGICAL FACTORS CONTRIBUTE TO THE INCREASES OF SUCCESS?

The results described above suggest that the training programs positively affected the trained psychological factors and that they resulted in an increase of entrepreneurial success. But did the change in the psychological factors contribute to the increase of success? Eight of the 10 training programs listed above combine training psychological factors with training of business management skills and frequently use some sort of follow-up intervention (cf. Table 1). Thus, an increase in success may be due to an improvement of the trained business management skills or caused by the follow-up interventions. Another alternative explanation may be that unspecific effects of training (e.g., increased motivation due to a charismatic trainer) produced the positive results.

The most telling evidence for the positive effect of training psychological factors on entrepreneurial performance comes from one study evaluating the Achievement Motivation Training (McClelland & Winter, 1971) and one study assessing the Personal Initiative Training (Glaub et al., 2009). These two training programs focus solely on psychological factors and the evaluation studies controlled for unspecific effects. McClelland and Winter (1971) found that the Achievement Motivation Training produced a significant positive change in achievement motivation, the central variable of the training, and a significant positive effect on economic success. They showed that the increase in success was due to the increase in achievement motivation. Glaub et al. (2009) found similar results for the Personal Initiative Training: Personal initiative and economic

success increased significantly and the increase of personal initiative was responsible for the positive effect on success. Another training program that mainly focuses on psychological factors is EMPRETEC. Cooley (1991) found that participation in EMPRETEC led to a change in the trained psychological factors and to a significant increase of economic success. The change in the psychological factors was responsible for the positive impact on success. All these studies listed above were experimental field studies that applied appropriate research designs and measures. Thus, their findings are fairly conclusive that training psychological factors may positively affect entrepreneurial success.

Two studies were identified that compared the effects of training psychological factors with training of business management skills. First, Klinger and Schündeln (2007) evaluated the TechnoServe Business Plan Competition that involved psychological factors and business plan development. They found that both components had a positive impact but that they affected different outcome measures: Training psychological factors had a significant effect on business growth while the business plan component positively affected business start-up. Second, Miron and McClelland (1979) compared participants of the Achievement Motivation Training with entrepreneurs who received both the Achievement Motivation Training and training of business management skills. They found that both groups were more successful after participating in the training. However, the Achievement Motivation Training seemed to bring about business growth, while the business management training was more important for establishing new ventures and resuscitating ailing businesses. The Klinger and Schündeln (2007) and Miron and McClelland (1979) studies suggest that while both training of psychological factors and training of business management skills promote entrepreneurial success they may actually influence different facets of success. All other identified studies did not analyze the causal relationship between training content and posttraining change in business success.

2.2.4 METHODOLOGICAL ASPECTS AND PROBLEMS OF THE STUDIES

The next section describes methodological aspects of the studies and highlights the methodological problems that were common across studies. We rated the suitability of the applied methodology for each study: The higher the rating, the more conclusive are the study's results. The ratings and their compositions for all studies are reported in Table 4.

Various methodological aspects were assessed according to their influence on the conclusiveness of the results. The aspects were grouped in the categories sample, design and measures, and data analyses. A “2” was assigned when the influence of the aspect was positive, “1” when it was partly negative, “0” when the influence was fully negative, and “?” when no information about the methodological aspect was reported. Two independent raters rated each aspect. Both raters were scholars and experienced in developing and evaluating educational interventions. Interrater agreements were calculated with the two-way mixed effect model (people effect random, measure effect fixed, single measure correlation) of the intraclass correlation coefficient (Shrout & Fleiss, 1979). Interrater correlation was on average $r = .94$. The average rating over all aspects formed the methodology rating of a study. The methodology rating for each study is provided as an absolute number and as a rounded value in form of asterisks. The highest possible rating achieved here was 5.3 (five asterisks).

Sample. A positive aspect across studies was the sample size. In all studies, the sample included more than 20 individuals (ranging up to 1362 individuals) for at least one posttraining point of measurement. The sample quality, however, was frequently negatively affected by a self-selection bias: Most studies did not report the dropout rate, leaving the reader to assume that self-selection had taken place. Those studies that used questionnaires for evaluation and provided information about the return rate primarily reported a low return of questionnaires. Of those studies that used pre- and posttraining interviews for data collection, only one did not experience attrition (Glaub et al., 2009). Preselection of the participants may have also limited the conclusiveness of some studies’ results: Five studies chose training participants according to their motivation and growth potential. Such “high potentials” could have possibly started or improved their business without the benefit of a training course.

Design and Measures. A problem of many studies was the absence of control group (14 studies), a situation that may have led to biased result through effects of maturation, history, or testing. Only one study used a fully randomized control group that allowed controlling for effects of self-selection (Glaub et al., 2009). The research designs of the studies relied heavily on postintervention surveys (19 studies) whereas experimental designs with pretraining assessment were quite rare (7 studies). Nine surveys collected data at one point of measurement, frequently years after the intervention. To obtain pretraining

data, all surveys used retrospective questions that were likely to be biased by problems of recall. In addition, the time span between training and point of measurement frequently varied for participants within one sample from a period of a few months up to some years. For example, rate of job creation was measured in one study for each participant at a different point of time within one year and nine years after participation in the training program. The average job creation rate across all participants was presented as 'job creation rate of training participants' (Saini & Bhatia, 1996). This frequently used procedure negatively affected the comparability of the results across studies. The viability of the instruments used to measure training outcomes is questionable in many cases: Only four studies provided proper information that enabled the assessment of objectiveness, validity, and reliability of the measures.

Table 4. Methodology rating: Degree of properness of applied methodology

Training Program		Achievement Motivation Training		Entrepreneurship Development Program				Start Your Business				GYB		CEFE	
Methodological Aspect		McClelland (1969)	Miron (1979)	Awasthi (1998)	Patel (1981)	Saini (1996)	Harper (1995) Study 1	Harper (1995) Study 2	Barwa (2003)	Pharoah (2001)	Carlsson (2001)	Abey Suriya (2005) Study 1	Abey Suriya (2005) Study 2	Pham (2002)	Nguyen (2001)
Sample	Sample Size > 20 per group	++	+	++	+	++	++	++	++	++	++	++	++	++	++
	Quality of Sample* ¹	++	+	+	++	0	?	0	++	0	0	+	+	++	0
Design and	Control Group used	++	++	+	++	++	++	++	0	0	0	0	0	0	0
Measures	Control Group randomized	0	0	+	0	0	0	0	0	0	0	0	0	0	0
	Pre and post Intervention Data	++	++	++	++	0	0	0	+	+	+	0	0	0	+
	Sufficient reliable and valid Measures	+	+	+	+	+	?	?	+	+	+	+	+	0	0
Data	Analyses for Significance Testing	++	++	+	0	++	++	0	0	0	0	0	0	0	0
Analyses	Analyses meet statistical Conventions * ²	0	+	0	0	0	?	0	0	0	0	0	0	0	0
Methodology Rating*³ (min. = 0; max. = *****; highest possible rating 5.3)		**** (3.7)	*** (3.3)	*** (3.0)	*** (2.7)	** (2.3)	** (2.0)	* (1.3)	** (2.0)	* (1.3)	* (1.3)	* (1.3)	* (1.3)	* (1.3)	* (1.0)

Training Program		EMPRETEC				Personal Initiative Training		WEP	CEPE	TechnoServe				
Methodological Aspect		Reichert (2000) Study 1	Reichert (2000) Study 2	Reichert (2000) Study 3	Braun (1995)	Cooley (1991)	Lopez (1999)	Ruffing (1999) Study 1	Ruffing (1999) Study 2	Glaub (2009)	Glaub (2004)	Botha (2006)	Kouessi (1995)	Klinger (2007)
Sample	Sample Size > 20 per group	++	++	++	++	++	++	++	++	++	+	++	++	++
	Quality of Sample* ¹	?	?	?	0	++	0	0	+	++	++	+	+	+
Design and	Control Group used	0	0	0	0	++	0	+	0	++	++	++	0	++
Measures	Control Group randomized	0	0	0	0	+	0	?	0	++	0	0	0	0
	Pre and post Intervention Data	+	+	?	+	++	++	?	0	++	++	++	0	++
	Sufficient reliable and valid Measures	?	?	?	0	++	++	?	?	++	+	?	0	+
Data	Analyses for Significance Testing	0	0	0	0	++	++	0	0	++	++	++	0	++
Analyses	Analyses meet statistical Conventions * ²	0	0	0	0	++	0	0	0	++	++	0	0	0
Methodology Rating*³ (min. = 0; max. = *****; highest possible rating 5.3)		* (1.0)	* (1.0)	* (0.7)	* (1.0)	***** (5.0)	*** (2.7)	* (1.0)	* (1.0)	***** (5.3)	***** (4.0)	*** (3.0)	* (1.0)	***** (3.7)

Note. “0” was not true and negatively influenced conclusiveness of study results; “+” was true for some parts of the evaluation (e.g., not for all measures or not for all measurement waves) and did partly negatively influence conclusiveness of study results; “++” was fully true and did not negatively influence conclusiveness of study results; “?” was not reported; *¹ determined by representativeness and degree of self-selection of sample; *² e.g., analyses of covariance (ANCOVAs) or multiple regression analyses instead of analyses of variance (ANOVAs) or paired *t*-tests; *³ all “+” were sum up and divided by 3 (for better presentability).

Analyses. 10 studies applied analyses for significance testing; of these three used accepted statistical conventions. Examples of the latter would be the use of analyses of covariance (ANCOVA) or multiple regression analyses instead of paired *t*-tests or analyses of variance (ANOVA) to adjust posttraining results for pretraining levels. The remaining 16 studies provided percentage values.

Summarizing Table 4, the majority of the studies received low scores on most of the methodology criteria: 17 studies (63%) received a total research methods rating of only one or two asterisks, indicating that dissemination of the training may have had an impact, but that such an impact is not verified by the methodology used. Seven studies (26%) received three or four asterisks, indicating that results can be seen as somewhat conclusive but that they have to be interpreted with caution. Only two studies received five asterisks, indicating the presence of a proper evaluation design and methodology. These studies seem to provide valid results.

2.3. DISCUSSION

The present review includes 27 studies that evaluated 10 entrepreneurship training programs in developing countries. All training programs involved psychological factors. With this contribution we extend Harper and Finnegan's (1998) work that reviewed 10 evaluation studies on three selected entrepreneurship training programs involving psychological factors.

Summarizing the findings of the identified 27 studies, the evaluated training programs revealed positive effects on entrepreneurial performance: All training programs that were evaluated by means of their impact on psychological factors succeeded in changing the targeted psychological factors in a favorable way. All training programs that were assessed in terms of business management skills led to an improvement in the targeted skills. On average, 29% of the participants who had been would-be entrepreneurs before participating in the training program started a business; 2.0 new jobs were created per training participant; and two thirds of the training programs resulted in explicit positive effects on the general economic success measures. Generally speaking, entrepreneurship training

seems to promote entrepreneurial performance. This finding is consistent with the results of Harper and Finnegan's (1998) review of selected entrepreneurship training programs.

Eight of the 10 evaluated training programs combined training of psychological factors and training of business management skills, six used follow-up interventions, and two provided assets (cf. Table 1). This raises the question of whether the change in the psychological factors led to higher entrepreneurial performance or whether other components were responsible for the increase in business success. The present review showed that the training of psychological factors promoted entrepreneurial success: The Personal Initiative Training and the Achievement Motivation Training, the only two training programs that focus solely on psychological factors, were found to have a strong positive impact on economic success. Both the increase of personal initiative and achievement motivation were responsible for this positive development of business success (Glaub et al., 2009; McClelland & Winter, 1971). Cooley (1991) found that the EMPRETEC program positively influenced success and that this effect was due to an increase in psychological factors. Klinger and Schündeln (2007) showed, in their evaluation of the TechnoServe Business Plan Competition, that training in psychological factors led to business growth, while the trained business management skills did not influence this success measure.

The finding that training psychological factors positively affects business success, however, does not mean that business management training is unnecessary or ineffective. In their role as owner-managers, entrepreneurs have to look after the day-to-day running of their businesses and in so doing, have to deal with manifold tasks for which a dose of routine business management skills is necessary. From this perspective, business management training should be helpful. Evidence for this assumption comes from the studies of Miron and McClelland (1979) and Klinger and Schündeln (2007) which compared the effects of business management training with those achieved by training of psychological factors. Both studies found that improving business management skills via training led to an increase in entrepreneurial success.

Interestingly, business management training and training of psychological factors affected different facets of entrepreneurial success. While training business management skills promoted business start-up, training of psychological factors enhanced business growth. This suggests that the two types of training programs seemed to vary in terms of

effectiveness along the entrepreneurial process. The entrepreneurial process can be divided into three phases: a prelaunch, a launch, and a postlaunch phase (Baron, 2007). Training business management skills seemed to have a stronger positive impact on the first two phases, whereas training psychological factors seemed to be more effective in the postlaunch phase. This finding is in line with the opinion of many scholars who assume that the influence of specific skills and psychological factors may change considerably across the different phases of the entrepreneurial process (e.g., Baron, 2002; Baron & Markman, 2005; Gartner, 1989; Shane, 2003). Business planning, for example, may be of particular significance in the prelaunch phase as it serves as an instrument of analysis, providing the entrepreneur with information about all kinds of requirements necessary to launch a profitable business. In addition, a business plan frequently is a prerequisite for receiving starting capital from financial institutions. In the postlaunch phase, high competition may lead to the need for continuous high-speed development (Baum, 2004; Eisenhardt, 1989). Thus, psychological factors like the motivation to stand out from competitors, to be innovative, and to expand may become essential. However, much more research is needed to allow more firm conclusions about which component may be most effective during particular phases of the entrepreneurial process.

All 10 evaluated training interventions seem to have positive effects on business success. Unfortunately, the studies do not provide enough data to compare the different training programs in terms of their effectiveness via effect sizes or by applying a meta-analytic approach. However, the fact that brief training programs, like the Personal Initiative Training, seem to be very effective raises the question of whether long, broadband training interventions, like the Entrepreneurship Development Program, are in fact needed. Broadband interventions try to cover a variety of potential needs of their participants. Bearing in mind that different variables may be required in different phases of the entrepreneurial process, however, participants may not profit from the whole training program because they do not need to be exposed to some of the trained content at the time of participation. In addition, participants may not profit from some training segments because they already have the knowledge that is taught. Applying a broadband approach usually results in long course duration and this, in turn, leads to higher costs for suppliers and participants. Participants are either owner-managers or would-be entrepreneurs who usually have limited time and resources to devote to training. The longer the duration of a

course, the higher the costs for participation, direct costs (e.g., course fees) as well as transaction costs (e.g., loss of revenues because of absenteeism). Bearing in mind that broadband training interventions may involve superfluous content for some participants and considering the high cost for participation, such training programs may not be appropriate for all targeted entrepreneurs or would-be entrepreneurs. From this point of view, it seems to make more sense to develop brief, specific training programs that target business owners who are in the same phase of the entrepreneurial process and that are tailored to the needs of a specific target group.

The present review suggests another alternative: to develop a training program that focuses on only one central entrepreneurial variable. In this review two such training programs were included and both showed strong effects on entrepreneurial success: the Achievement Motivation Training and the Personal Initiative Training focusing on achievement motivation and personal initiative, respectively. Both psychological factors have a direct positive impact on business success. In addition, entrepreneurs with a high degree of achievement motivation or personal initiative have an urge to improve and, therefore, a high motivation to acquire useful knowledge, no matter if it is of managerial, technical, or of any other nature. Thus, increasing personal initiative or need for achievement through training increases participants' motivation to take part in further educational programs that meet their personal needs. In doing so, participants tailor their own individual training concept. Achievement Motivation Training and Personal Initiative Training, therefore, should be useful for all target groups at any stage of the entrepreneurial process. In the Personal Initiative Training, concentrating on only one variable was very well transformed into short course duration (three days), thus keeping the costs for participation low.

2.3.1 LIMITATIONS

Although we have put great deal of effort into identifying studies that evaluate entrepreneurship training programs, the number of reviewed studies is relatively small. We made an attempt to locate all relevant studies; however, it is likely that some pertinent evaluations were not included. Reasons for this may have been, for example, that studies were not available in English or that they were conducted by local organizations or

consultants that no longer had the data in their possession. The relatively small number of studies, however, is more a reflection of the lack of empirical research than of the thoroughness of the present literature search.

The present review may suffer from publication bias. The majority of the evaluations are carried out or commissioned by program providers or implementers who may want their training program to appear successful and thus, may be more interested in publishing success stories than negative results. Studies that failed to find positive outcomes might not have been published and, thus, do not appear in any databases.

Further limitations are based on the methodological weaknesses shared by the majority of the identified primary studies. More than 50% of the studies included in this review had a methodology rating of 1.3 or lower. That is, the methodology of studies with low ratings does not allow the verification of the results. Frequently, the sample was self-selected, no control groups were used, and pretraining data was collected by retrospective questions sometimes years after the training making it very likely to be biased by problems of recall. Information about the goodness of fit of the applied instruments and measures was sparsely available. Only 42% of the studies used statistical analyses for significance testing.

Finally, the failure of most primary studies to report adequate data and statistical information does not allow the calculation of effect sizes or the application of a meta-analytic approach that would lead to more conclusive results.

2.3.2 IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

This review suggests that entrepreneurship training seems to be an effective means to increase business success in developing countries. However, more good studies are needed to confirm the positive effects of the reviewed training programs.

An implication is that developers of training programs should carefully select the content on the basis of theoretical considerations and empirical findings. For instance, although they lead to higher business success, long broadband interventions may involve dispensable content. Alternatively, specific training programs that are tailored to the needs of a selected target group could be developed. For example, a training program for

business creation could be developed targeting would-be entrepreneurs without a viable business idea on the basis of recent empirical work: The major individual factors in firm creation are well-documented (Gartner, 1985, 1988; Katz & Gartner, 1988) and the nature and process of opportunity identification (as a basis for business creation) have been formulated in the works of Gaglio (1997; Gaglio & Katz, 2001), Fiet (1996; 1997; 2001), and Shane (2003; Shane & Baron 2005) in ways that take the lead in translating opportunity research into educational practice (Katz, 2007). An example of a training program for opportunity identification is provided by DeTienne and Chandler (2004). To aid in the selection of the content of such tailor-made training interventions, further research aimed at determining the effectiveness of different psychological factors and business management skills with respect to the different phases of the entrepreneurial process appears worthwhile.

Tailoring training programs to the needs of a local target group, however, implies investment of time and money and requires experts in training development. A good alternative seems to be the implementation of training programs that focus on central psychological factors like personal initiative or achievement motivation that, on the one hand, directly affect business success, and on the other hand, increase participants' motivation to proactively look for additional ways to acquire the knowledge or skills that they need.

The present review stresses the need for evaluation of training programs as it shows that the majority of the identified entrepreneurship training programs have not yet been evaluated rigorously enough to reveal valid results on their effectiveness. The CEFE and Start Your Business program, for example, are widely distributed and implemented in different continents and yearly attended by tens of thousands of entrepreneurs and would-be entrepreneurs. The surveys evaluating these two training programs reveal a predominantly positive impact on business success. However, an experimental study providing more valid results on the impact of these training programs is still lacking. Thus, even though this may seem trivial, we recommend that developers of entrepreneurship trainings carefully evaluate the impact of new training programs before implementing and distributing them. Valid results should provide some evidence that the benefits of the training programs outweigh their costs.

Carrying out a sophisticated evaluation, however, is difficult and requires great effort. It should imply the use of a suitable control group and the application of a longitudinal design with pre- and posttraining measurement waves. Self-selection should be prevented in the sample formation, and evaluation should be based on valid and reliable measures. The present review showed that conducting such evaluation studies in developing countries is possible. Moreover, two studies were identified that received five asterisks on the methodology rating (Cooley, 1991; Glaub, 2009), indicating that a proper evaluation design had been applied.

To our knowledge, the present work is the most extensive review of published and unpublished studies evaluating entrepreneurship training programs. We hope that this review will aid scholars and practitioners in judging the utility of existing training programs and in selecting content when developing their own training interventions. We also hope that researchers will be more aware of the need to empirically evaluate and thoroughly report the effectiveness of entrepreneurial training programs. This will provide the necessary data for more refined review of entrepreneurship training programs.

2.4 REFERENCES

- Abey Suriya, A., Chandrarathna, D., & Lieshout, S. van (2005). *Start and Improve Your Business Sri Lanka – Impact assessment 2004*. Internal report. Colombo: International Labor Organization.
- Autio, E. (2005). *Global Entrepreneurship Monitor 2005 Report on High-Expectation Entrepreneurship*. London: London Business School.
- Awasthi, D. N., & Sebastian, J. (1996). *Evaluation of entrepreneurship development programmes*. New Dehli: Sage Publications.
- 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, NJ: Lawrence Erlbaum Associates.
- Baron, R. A. (2002). OB and entrepreneurship: The reciprocal benefits of closer conceptual links. In B. M. Staw & R. Kramer (Eds.), *Research in organizational behavior* (pp. 225-269). Greenwich, CT: JAI Press.
- Baron, R. A., & Markman, G. D. (2005). Toward a process view of entrepreneurship: The changing impact of individual level variables across phases of new venture development. In M. A. Rahin, R. T. Golembiewski, & K. D. Mackenzie (Eds.), *Current topics in management* (Vol.9, pp. 45-64). New Brunswick, NJ: Transaction Publishers.
- Barwa, S. D. (2003). *Impact of Start Your Business (SYB) training on women entrepreneurs in Vietnam*. Working paper no. 1. Vietnam: International Labor organizations.
- Baum, J. R. (2004, August). *Cognitions and behaviors of successful nascent entrepreneurs: A three-year panel study*. Presented at the Academy of Management Meeting, New Orleans, LA.
- Baumol, W. J. (2002). *The free-market innovation machine: Analyzing the growth miracle of capitalism*. Princeton: Princeton University Press.
- Birch, D. (1987). *Job creation in America*. New York: Free Press.
- Botha, M., Nieman, G., & Vuuren, J. van (2006). Enhancing female entrepreneurship by enabling access to skills. *Entrepreneurship Management*, 2, 479-493.

- Braun, G., Hillen, P., & Schneider-Barthold, W. (1995). *Trainingskonzepte für Unternehmer in Entwicklungsländern - Evaluierung der Maßnahme ,Existenzgründungsprogramm CEFE'* (Training concepts for entrepreneurs in developing countries – evaluation of the the ,program for founders of businesses CEFE'). Internal report. Munich: Ifo Institute.
- Carlsson, S., & Anh, T. T. L. (2001). *SIYB programme in Vietnam - Impact study 2001*. Vietnam: Vietnam Chamber of Commerce and Industry.
- Charney, A., & Liebcap, G. (2000). Impact of entrepreneurship education. Kansas City, MO: Kauffman Center for Entrepreneurial Leadership.
- Collins, C. J., Hanges, P. J., & Locke, E. A. (2004). The relationship of achievement motivation to entrepreneurial behavior: a meta-analysis. *Human Performance*, 17(1), 95-117.
- Cooley, L. S. (1991). Entrepreneurship training and the strengthening of entrepreneurial performance. *Unpublished Management Philosophy Thesis*. Cranfield, UK: Cranfield Institute of Technology.
- DeTienne, D. R., & Chandler, G. (2004). Opportunity identification and its role in the entrepreneurial classroom: A pedagogical approach and empirical test. *Academy of Management Learning & Education*, 3(3), 242-257.
- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32(3), 543-576.
- Gartner, W. B. (1989). "Who is an entrepreneur?" is the wrong question. *Entrepreneurship Theory and Practice*, 13, 47-68.
- Glaub, M., Gramberg, K., Friedrich, C., & Frese, M. *Personal initiative training for small business owners in South Africa: Evaluation study of a 3-day training program*. Giessen: University of Giessen.
- Glaub, M., Fischer, S., Klemm, M., & Frese, M. (2009). A theoretically based field experiment to enhance personal initiative in African small business owners. Manuscript submitted for publication.
- Harper, M., & Mahajan, V. (1995). Evaluating entrepreneurship development programs in practice. *Journal of Education and Work*, 8, 17-26.
- Heckhausen, H. (1971). Trainingskurse zur Erhöhung der Leistungsmotivation und der unternehmerischen Aktivität in einem Entwicklungsland: Eine nachträgliche Analyse

- der erzielten Motivwandels. (Achievement motivation training and entrepreneurial success: A reanalysis of motive change). *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 3, 253-268.
- Katz, J. A. (2007). Education and training in entrepreneurship. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The psychology of entrepreneurship* (pp. 209-236). Mahwah, NJ: Lawrence Erlbaum Associates.
- Klinger, B., & Schündeln, M. (2007). *Can Entrepreneurial Activity be Taught? Quasi-Experimental Evidence from Central America*. Working paper no. 153. Cambridge, MA: Center for International Development at Harvard University.
- Kolvereid, L., & Moen, O. (1997). Entrepreneurship among business graduates: Does a major in entrepreneurship make a difference? *Journal of European Industrial Training*, 21(4), 154-160.
- Kouessi, R. (1995). Training for entrepreneurship and business success in West Africa. In E. English & G. Henault (Eds.). *Agents of Change* (pp. 233-254). Ottawa, ON: International Development Research Centre.
- Leach, F., Abdulla, S., Appleton, H., el-Bashura, J., Cardenas, N., Kebede, K., Lewis, V., & Sitaram, S. (2000). *The impact of training on women's micro-enterprise development*. Report. London: Department for International Development.
- Lopez, R. M. (1999, March). *Short-term results evaluation of a competence-based-training for entrepreneurs – EMPRETEC program*. Paper presented at Entrepreneurship Research Conference. Wellesley, MA: Babson College.
- McClelland, D., & Winter, G. (1969). *Motivating economic achievement*. New York: Free Press.
- McMullan, W.E. & Gillin, L.M. (1998). Entrepreneurship education: Developing technological start-up entrepreneurs. A case study of a graduate entrepreneurship programme at Swinburne University. *Technovation*, 18(4), 275-286.
- Menzies, T. V., & Paradi, J. C. (2003). Encouraging technology-based ventures: entrepreneurship education and engineering graduates. *New England Journal of Entrepreneurship*, 5(2), 57-64.
- Miron, D., & McClelland, D. C. (1979). The impact of achievement motivation training on small businesses. *California Management Review*, 21, 13-28.

- Nguyen, T. T. T. (2001). *Förderung der privaten Klein- und Mittelunternehmer in Vietnam durch Unternehmertraining*. Working paper no. 6. Leipzig: SEPT.
- Patel, V. G. (1981). *Innovations in banking: The Gujarat experiments*. Bombay: Industrial Development Bank of India.
- Pham, H. (2002). *Results of CEFÉ business courses for poor women in Quang Nam and Danang*. Project report. Vietnam: Malteser Hilfsdienst.
- Pharoah, R., & Burton, P. (2001). *Evaluation of the International Labour Office's Start and Improve Your Business Programme in South Africa. Report*. Johannesburg: DRA Development.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality and business creation and success. *European Journal of Work and Organizational Psychology*, 16(4), 353-385.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (in press). Entrepreneurial orientation and business performance: Cumulative empirical evidence. *Entrepreneurship Theory and Practice*.
- Reichert, C., Lempelius, C., & Tomecko, J. (2000). *The Performance Measurement Framework (PMF) for Business Development Services (BDS) applied to CEFÉ projects in Laos, Thailand and Sri Lanka*. Paper presented at the International Conference for Business Services for Small Enterprises in Asia, Hanoi.
- Ruffing, L., & Fulvia, F. (1999). *The Empretec programme in selected Latin American countries*. Internal Report. Geneva: UNCTAD Enterprise Development Branch.
- Saini, J. S., & Bhatia, B. S. (1996). Impact of entrepreneurship development programs. *Journal of Entrepreneurship*, 5, 65-80.
- Shane, S. (2003). *A general theory of entrepreneurship*. Cheltenham, England: Elgar.
- Stel, A. J. van. (2006). *Empirical analysis of entrepreneurship and economic growth* (International Studies in Entrepreneurship Series, Vol. 13). New York: Springer Science.
- Upton, N. B., Sexton, D. L., & Moore, C. (1995). Have we made a difference? An examination of career activity of entrepreneurship majors since 1981 (Abstract). In *Frontiers of entrepreneurship research* (pp. 727-728). Wellesley, MA: Babson College.

CHAPTER 3

A THEORETICALLY BASED FIELD EXPERIMENT TO ENHANCE PERSONAL INITIATIVE IN AFRICAN SMALL BUSINESS OWNERS

PI is arguably at the core of what is demanded from successful entrepreneurs. PI is behavior characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming barriers (Frese, Kring, Soose, & Zempel, 1996). *Self-starting* implies that an entrepreneur starts an action without being told, without being driven by immediate demands, or without an explicit role model. This is essential because there are no supervisors who tell entrepreneurs what to do. *Proactive* implies having a long-term focus. Proactive entrepreneurs anticipate future opportunities and problems and get prepared for them. *Persistence* is necessary for overcoming difficulties that arise when pursuing a goal.

With these components, PI is a prerequisite to successfully identify and exploit opportunities (e.g., the introduction of new, innovative products in order to exploit a market niche). Identifying and exploiting opportunities has been suggested to be the very essence of entrepreneurship (Shane & Venkataraman, 2000). PI means to actively look for future opportunities, get prepared for them now and exploit them in spite of difficulties before competitors do. In addition, PI is essential to successfully master the diverse and complex challenges and demands entrepreneurs have to face, such as dealing with high competition, rapid change, or resource scarcity (e.g., financing, operating assets, knowledge, or information) (Markman, 2007). PI means to actively approach these challenges, to find new solutions for old problems, to consider the long-term consequences of decisions, to start again after the experience of setbacks, and to motivate oneself on a

day-to-day basis. The opposite of PI is a “reactive” approach. Reactive entrepreneurs act on an ad-hoc basis when driven by environmental demands. They wait for others to tell them what to do or imitate competitors and copy their products and services. When faced with obstacles, reactive entrepreneurs stop acting and give up the action process.

Empirically, PI has been shown to be highly related to performance of employees in a recent meta-analysis (Tornau & Frese, 2009) with meta-analytic correlations between PI and subjective performance of .31 and between PI and objective performance of .19. Studies in the specific context of entrepreneurship also found a positive linkage between PI and business success (Koop, de Reu, & Frese, 2000; Zempel, 1999). Proactiveness (one part of PI) has been highly and relatively consistently linked to organizational success in a recent meta-analysis (Rauch, Wiklund, Lumpkin, & Frese, in press) with a meta-analytic correlation of .273 for micro-businesses and to entrepreneurial success in two cross-sectional studies (Koop et al., 2000; Krauss, Frese, Friedrich, & Unger, 2005). A reactive approach, the opposite of PI, was shown to contribute negatively to success (Van Gelderen, Frese, & Thurik, 2000; Frese et al., 2002).

Now, after both longitudinal and cross-sectional studies have found PI to be related to entrepreneurial success, a true experimental field study is needed to confirm the proposed causal relationship that PI leads to entrepreneurial success and thus, is indeed central for entrepreneurship. In such an experimental study, a theoretically derived intervention should be implemented to assess the causal effect between PI and entrepreneurial success. This intervention should first change PI and second change entrepreneurial success. In addition, PI should be a mediator between the intervention and the increase on economic success. If this holds true, the intervention would be a theoretical contribution that would support our assumption that PI is a central variable for entrepreneurship. We developed such an intervention and tested its effects in a long-term field experiment with a randomized control group. The sample consisted of 100 Ugandan small business owners.

3.1 PERSONAL INITIATIVE IN ENTREPRENEURS

Entrepreneurship is based on action as entrepreneurs discover, evaluate, and exploit opportunities (Shane & Venkataraman, 2000), manage their business on a day-to-day basis, and as they have to defend their position in the market. Thus, whether a business operates successfully depends on the actions of the entrepreneur.³ Our central hypothesis is that the actions required for successful entrepreneurship can be specified by PI.

This paragraph describes PI as a complete action in the context of entrepreneurship. Action is goal-oriented behavior (Frese & Sabini, 1985) and unfolds in a sequence (Dörner & Schaub 1994; Frese & Zapf, 1994; Miller, Galanter & Primbram, 1960). This action sequence consists of goal setting, information seeking, planning, monitoring, and feedback processing. Table 5 illustrates what a complete PI action is, that is, what it means to be self-starting, proactive, and persistent in overcoming barriers at each step of the action sequence. The following example of an entrepreneur describes such a complete PI action:

The action is *self-starting* a) when the goal is self-set and implies the introduction of something new, e.g. when an entrepreneur's goal is to introduce an innovative product; b) when the plan is an active plan that includes that the entrepreneur actively approaches providers of resources and uses an active marketing strategy; c) when monitoring, information, and feedback search are based on active search, for instance, when the entrepreneur actively approaches customers for feedback on the product and does not wait for customers' complaints or comments.

The action is *proactive* a) when the goal to introduce a new product is set to serve an anticipated future trend; b) when the entrepreneur prepares in advance for introducing this product when the time is ripe and when back-up plans are ready, for example, when the entrepreneur is in contact with different suppliers that could step in if supply problems occur; c) when, for monitoring, information, and feedback search, presignals are developed that will let the entrepreneur know when opportunities or problems will appear in the future, for instance, the entrepreneur finds out that supply problems always occur half a year after the oil price surpasses a certain limit.

³ A detailed theoretical argumentation for the importance of PI for entrepreneurial success is presented in Chapter 1.1.

Finally, the action is persistent in overcoming barriers a) when the goal is kept even when the entrepreneur is confronted with difficulties or complex situations; b) when the entrepreneur returns to the plan quickly after having been disrupted; c) when monitoring, information, and feedback search are maintained in spite of difficulties that may arise, for example, when a questionnaire that had been developed by the entrepreneur to get customer feedback on the new product reveals only nondifferentiated feedback and he or she subsequently develops and implements another, more sophisticated questionnaire.

We have chosen this approach – the combination of the facets of PI with the actions sequence – as the basis for an intervention, a three-day training program, that we developed to increase PI in business owners: We taught PI at each phase of the action sequence, that is, how to set self-starting, proactive, and persistent goals, how to plan in a self-starting, proactive, and persistent way and so on (more on this in the section 3.2.2). If PI is, as we postulate, central for entrepreneurship, then this theoretically derived training program should increase PI and business success and the increase in PI should be the mediator.

Table 5. Facets of personal initiative along the action sequence

Action sequence	Facets of Personal Initiative		
	Self-starting	Proactive	Overcoming barriers
Goal setting	- Active and self-set goals	- Anticipate future opportunities and problems and convert them into a goal	- Protect goals when frustrated
Information seeking	- Active search, i.e., exploration, active scanning	- Consider potential problem areas and opportunities before they occur - Develop knowledge on alternative routes of action	- Maintain search in spite of complexity and negative emotions
Planning	- Active plan	- Back-up plans - Have action plans ready for opportunities	- Persistence - Return to plan quickly when disturbed
Monitoring and Feedback	- Self-developed feedback and active search for feedback	- Develop presignals for potential problems and opportunities	- Protect feedback search

(Adapted from Frese & Fay, 2001)

3.2 TRAINING PERSONAL INITIATIVE TO BUSINESS OWNERS

In the following sections we first contrast our PI training to already established training programs, second explain how PI was trained, and finally describe the methodology that underlies the training program.

3.2.1 COMPARISON OF THE PI TRAINING WITH ESTABLISHED ENTREPRENEURSHIP TRAININGS

To compare our PI training program with already established entrepreneurial training programs, we draw on evaluation studies. Because the PI training was tested on an African sample, we refer to such studies that evaluate entrepreneurship training programs in the developing world. Table 6 gives an overview of the most widespread training programs and summarizes the findings and methodological features of the central evaluation studies. The studies revealed predominantly positive effects on entrepreneurial success. However, the vast majority of the identified evaluation studies are facing more or less serious methodological problems and results have to be considered with caution.

Table 6. Entrepreneurship trainings and evaluation studies

Training and Target Group	Content of Training	Training Design	Empirical Studies	Results of the Studies	Design and Methodological Features of the Studies
<p>AMT – Achievement Motivation Training Developed by David McClelland in the early 1960s. <i>Target group:</i> small business owners</p>	<p>Theory-based selection of content: only content is achievement motivation</p>	<p><i>Length:</i> 10 to 14 days <i>Follow-up:</i> participants regularly submit written progress reports that are analyzed and commented by the training supplier in order to reinforce achievement thinking</p>	<p>3 studies: McClelland & Winter (1969), Miron & McClelland (1979), Heckhausen (1971)</p>	<p><i>McClelland:</i> TG showed significant improvement in all indicators of economic success and achievement motivation both when compared with themselves before and after the course and when compared with controls after the course. The increase of achievement motivation was responsible for the increase of economic success. Expected positive effect on the economy of the cities where the AMT was conducted was not found. AMT had highest effect on success for participants who scored low in hope of success before the training and had the chance to become active and actually became active after the training. <i>Miron:</i> the AMT group showed a high significant increase in success. Comparing the AMT group with the groups that received additional business training revealed contradictory results</p>	<p><i>Participants:</i> 151 and 186 respectively <i>CG:</i> both studies used several nonrandom control groups. Miron & McClelland compared the AMT with training programs supplementing AMT with business training <i>Data:</i> Longitudinal data was collected from 3 and 2 points of measurement respectively <i>Analyses:</i> Statistical analyses were used that, however do not meet contemporary statistical conventions</p>
<p>EDP – Entrepreneurship Development Program Developed in 1970 in India by the Gujarat Industrial Investment Corporation Ltd. <i>Target group:</i> small business owners and would-be entrepreneurs with a high degree of achievement motivation</p>	<p>Selection of content partly based on empirical studies. No theory-based selection. <i>PECs:</i> achievement motivation <i>Other:</i> project preparation; various business management skills, e.g. bookkeeping and conducting a feasibility study</p>	<p><i>Length:</i> 1 week to 3 months <i>Follow-up:</i> vary in intensity and content, e.g., financial assistance, providing premises and raw material, personal counseling</p>	<p>6 studies: Patel (1981), Awasthi & Sebastian (1998), Leach et al. (2000), Saini & Bhatia (1996), 2 studies in Harper & Mahajan (1995)</p>	<p>Start-up rate of would-be entrepreneurs was around 25%. Positive effect on economic success was found on a few measures while the majority of success measures did not increase through training</p>	<p><i>Participants:</i> 3 out of 6 studies had more than 100, one had less than 20 <i>CG:</i> 5 out of 6 studies used CG. All CG were nonrandom. 1 study compared EDP with financial training. <i>Data:</i> 3 out of 6 studies compared data form before training with data after training, however pretraining evaluation measures were conducted as retrospective data up to 9 years after training. No study sufficiently describes measures and process of measurement <i>Analyses:</i> 1/3 conducted statistical analyses. However, analyses do not meet contemporary statistical conventions</p>

Note. TG = training group; CG = control group; PECs = personal entrepreneurial characteristics.

SIYB – Start and Improve Your Business

Developed in the 1990s by SwedeCorp, promoted by the International Labour Organization <i>Target group:</i> small business owners and would-be entrepreneurs	Selection of content not theory-based. Not clear why exactly this content was chosen. <i>PECs:</i> creativity, social competence, and self-reflection <i>Other:</i> generating a business idea, developing a business plan, conducting a feasibility study, basic business management skills, e.g., book-keeping	Contains 3 components that can be used separately. <i>Length:</i> 5 days to 3 weeks <i>Follow-up:</i> usually none	4 studies: Abeyseriya (2005), Pharoah & Burton (2001), Barwa (2003), Carlsson & Anh (2001)	Start-up rate widely varies between 15% and 48% over studies. All studies report an increase in employment. However, this was low (0.2 to 0.8 employees per participant). In all studies, most participants reported an increase in success after training, frequently, however, this was linked to nontraining support (e.g., giving loans) and not to the training itself	<i>Participants:</i> 3 out of 4 studies had more than 50 <i>CG:</i> No study used a CG <i>Data:</i> All studies had only one point of measurement and used retrospective data from this point of measurement as pretraining baseline data. No study sufficiently describes measures and process of measurement <i>Analyses:</i> No statistical analyses
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CEFE - Competency-based Economies through Formation of Enterprise

Developed in the 1980s by the German Agency for Technical Cooperation (GTZ). <i>Target group:</i> small business owners and would-be entrepreneurs with a high degree of motivation and growth potential.	Selection partly on the basis of empirical studies. Not theory-based selection <i>PECs:</i> motivation, creativity, self-confidence, social competence, self-reflection <i>Other:</i> business management skills, e.g., marketing, business plan development <i>Nontraining:</i> access to credits is facilitated	Different types of CEFE courses for different target groups that vary in content and length. <i>Length:</i> on average 4 to 6 weeks <i>Follow-up:</i> vary, provided on an ad-hoc basis	6 studies: Braun et al. (1995), Nguyen (2001), 3 studies in Reichert et al. (2000), Pham (2002)	Start-up rate varies between 28% and 40%. One study reports an increase in employees of 1.4 per participant. Percentage of participants who showed an increase of success after the training strongly varies across studies between 30% and 86%	<i>Participants:</i> 5 out of 6 studies had more than 100 <i>CG:</i> No study used a CG <i>Data:</i> 3 out of 4 studies compared data form before training with data after training, however, pre-training evaluation measures were conducted as retrospective data up to 4 years after training <i>Analyses:</i> No statistical analyses
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EMPRETEC – “Emprendedores Technologa” (entrepreneurs technology)

Developed in 1988 by Management Systems International (MSI), promoted by the United Nations. <i>Target group:</i> small business owners and would-be entrepreneurs	Selection of content on the basis of empirical studies. <i>PECs:</i> 10 different PECs that were found to be positively related to entrepreneurial success. <i>Other:</i> business plan development	<i>Length:</i> 2 weeks <i>Follow-up:</i> usually in-house advice and additional training on business management skills	4 studies: Cooley (1991), 2 studies in Ruffing & Fulvia (1999), Lopez (1999)	Start-up rate widely varied between 9% and 56%. 1 study found significant positive effects on economic success measures whereas a second study did not confirm these results. PECs increased in all studies but only a few on a significant level	<i>Participants:</i> 2 out of 4 studies had more than 100 <i>CG:</i> 2 studies used a CG, 1 used a random CG, 1 a nonrandom CG <i>Data:</i> 2 out of 4 studies compared non-retrospective pre-and posttraining data and used valid measures <i>Analyses:</i> Only one study used statistical analyses. However, analyses do not meet contemporary statistical conventions
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Note. TG = training group; CG = control group; PECs = personal entrepreneurial characteristics.

The PI training differs in two essential aspects from the training programs listed in table 6: first, in its *content* and second, in its *duration*. In addition, we applied a rigorous approach towards the evaluation of our training program that is more sophisticated than those used by former evaluations of entrepreneurship training programs in the developing world.

Training Content. With its focus on PI, our training differs from the majority of the established training programs in two content-related aspects: First, it is a theoretically derived training that concentrates on a theoretical concept, namely PI, whereas the established training programs are generally not theory based. Second, it is a focused intervention that solely concentrates on one psychological factor. In contrast, the other training programs usually are broadband interventions. They involve various business management skills (e.g., business plan development, marketing, or book-keeping) and psychological factors, frequently they employ follow-up interventions (e.g., personal counselling), and sometimes provide some form of assets (e.g., financial help, working tools). The only other program besides our PI training that is theory based and concentrates solely on one psychological factor is the Achievement Motivation Training that aims to increase the need for achievement motive (i.e., an individual's urge to excel, consisting of preference for moderate risk, initiative, and a desire for feedback).

Duration. With its duration of only three days and without any follow-ups, the PI training is - as far as we know - the shortest evaluated training intervention for business owners that involves psychological content. In general, the established training programs last about two weeks on average and usually range in a time frame of five days up to three months (cf. Table 2 for the duration of the different training programs).

The duration of a training intervention becomes a crucial aspect when considering the related costs for suppliers and participants. Participants are either owner-managers or would-be entrepreneurs. Owner-managers are usually highly involved in manifold business activities and frequently operate under high time pressure. Would-be entrepreneurs usually work in a regular job. Thus, the targeted individuals normally have limited time and resources to devote to training. The longer the duration of a course, the higher the costs for participation, direct costs (e.g. course fees) as well as transaction costs (e.g. loss of revenues because of absenteeism). Based on this fact, long, broadband training programs that incorporate costly follow-up interventions don't seem to be appropriate for the target

group. The focus should rather be on developing efficient and focused interventions of short duration in order to keep costs low. Developing such a short yet effective intervention requires focusing on powerful entrepreneurial factors that are highly related to business success. This is what we did when we put PI in the center of our training program and developed an intervention that, with its duration of only three days, keeps costs for participants and suppliers on a very low level and thus, facilitates implementation and participation.

There is another aspect besides content and duration of the assessed training program that differentiates our study from the former evaluation studies of behavioral entrepreneurship programs: the approach towards *evaluation*. The studies that evaluate the established entrepreneurship training programs are facing different, sometimes serious design problems that diminish the significance of their results (Awasthi, 1996; Harper & Finnegan, 1998; also cf. Table 2). We took the lessons learned from these studies and applied a more rigorous and elaborated approach towards training evaluation to get more conclusive results: We conducted a long-term field experimental study, using a pretest-posttest design (3 points of measurement) with a randomized waiting control group and measures on Kirkpatrick's (1959) four levels of training evaluation (reaction, learning, behavior, success). Thus, we fulfilled the general need for long-term studies with elaborated evaluation designs that is stressed by many scholars (Garavan & O'Connell, 2007; Harper & Finnegan, 1998; Katz, 2007; McMullen, Chriman, & Vesper, 2001).

3.2.2 THE TRAINING

The 3-day PI training program consisted of two consecutive phases. The first phase aimed to develop the capability to identify situations or fields of actions in day-to-day business that can be approached in a PI way and in that a PI approach is supposed to lead to better results than a reactive or passive one. In the second training phase, participants learned how to develop complete PI actions. The following paragraph describes the training, focusing on its main elements (a complete, concrete schedule of the training is provided in the appendix).

First Phase - Identifying Situations and Fields of Action for PI: After an initial introduction, participants identified situations and fields of action for PI in a group work

session on two case studies, one of an entrepreneur who shows PI in different situations and fields of actions and benefits from this and one of a reactive entrepreneur who fails. The participants also exchanged own experiences with PI in important fields of action. Thereby, the following points were highlighted and discussed: 1) in the area of opportunity identification - that it is essential to continuously search for new opportunities to stay ahead of competitors, 2) for the evaluation of opportunities - that active evaluation of an opportunity and of possible long-term consequences of its exploitation is necessary for estimating its true value, 3) for dealing with suppliers - that it is essential to actively approach potential suppliers of resources (e.g., banks in order to get a loan) and to not give up when the initial effort remains fruitless, 4) concerning marketing - that approaching customers with an active and unique marketing strategy is more promising than just waiting for customers to come, 5) for quality testing - that actively testing the quality of products (e.g., by conducting analyses) is better than to wait for feedback through complaints by customers, 6) for dealing with employees – that one will benefit from motivating employees to act in a PI way (e.g., to autonomously look for ways to improve the production process), and 7) concerning problems - that approaching problems actively and that looking for long-term solutions will lead to more success in the long run. On the basis of these considerations, participants reflected on their past working days in order to identify situations and fields of actions where they could show PI in their day-to-day business.

The next part of the training concentrated on opportunity identification as one specific field of action for PI. Opportunity identification was treated separately, because it is basically at the core of entrepreneurship (Shane & Venkataraman, 2000) PI means to apply an active search strategy to identify opportunities. To train such active search, various potential sources of information that can be used to identify opportunities were assembled by the participants and supplemented by the trainer. Participants were asked to consider, for each source, how it could be used in an active, PI way. In addition, participants learned a technique developed by Hamel and Prahalad (1994) for identifying cues for future opportunities: They wrote down their core competencies and strengths, thought about possible changes in their greater business environment, and deduced potential opportunities. Active search techniques are based on Kirzner's (1979) view that opportunities already exist in the environment and have to be detected. In line with

Schumpeter's (1934) approach that opportunities do not just "exist out there" but have to be created by the entrepreneur (e.g., by combining resources in a new way to create new products, services or processes), we taught an active approach towards opportunity creation in addition to the active search techniques: Participants learned different creativity techniques in the training and how to actively apply them in order to create opportunities.

Second Phase – Training PI along the Action Sequence. In this phase, participants learned how to develop complete PI actions. For this purpose, we drew on the concept of action sequence starting with goal setting, continuing with information seeking and planning and concluding with monitoring and feedback search: For each step of these steps, participants learned how to approach it in a PI way. In other words, they learned how to set self-starting, proactive, and persistent goals, how to plan in a self-starting, proactive, and persistent way, and so on. 1) For training goal setting, a case study of a business owner who had goals that could only be reached with PI actions and goals that lead to reactivity was presented. In a group work session, participants identified the goals leading to reactivity and converted them into concrete and measurable goals that trigger PI. In discussing potential effects of the different goals, they linked PI to success and reactivity to failure. Afterwards, participants formulated goals for their own business that could only be reached through PI actions to directly apply their new knowledge to their own business to facilitate transfer. 2) Concerning information seeking, participants discussed how the sources of information that were gathered in the opportunity identification phase (first training section) could be used for information seeking in a PI way. 3) For training planning, a case study of an entrepreneur who had set himself a challenging goal was introduced. Participants again participated in group work to develop an active strategy towards this goal. They discussed potential disturbing factors and developed ways how to respond to these factors in order to protect the plan. 4) Concerning monitoring and feedback, participants developed feedback signals that could be used to monitor the progress of the plan they had developed in the previous exercise.

Concluding the second phase of the training program, participants developed a personal project for their own business. Thereby, they followed the action sequence. They started with the formulation of a PI goal, continued with reflecting where and how to get helpful information, and then formulated a plan and developed signals for feedback and monitoring. In doing so, participants implemented PI at each single action stage.

3.2.3 APPLIED TRAINING METHODOLOGY - ACTION TRAINING

PI is active behavior and thus, best trained by an active approach to training. The applied action training approach was shown to be useful in enhancing various skills and competencies (Carroll et al., 1985; Ford et al., 1997; Frese, Beigel, & Schoenborn, 2003; Martocchio & Duhlebohn, 1994). Our training concept also included components of behavior modeling (Bandura, 1986; Latham & Saari, 1979) by providing examples of successful and less successful owners.

The components of action training (Frese, Beigel, & Schoenborn, 2003; Frese & Zapf, 1994; Semmer & Pfäfflin, 1978) are to develop an action oriented mental model, to develop routines of the newly acquired behaviors, to learn by doing, to motivate by experiencing the difference between present state and future goals, to provide feedback in training, and to support transfer.

First, action training aims at developing an action oriented model. The degree of the elaboration of the model – the cognitive representation of action – determines the quality of an action. The cognitive model is organized by principles or “rules of thumb”, for example in the form of principles of PI goal setting. Training has been shown to profit from such principles (Volpert, Frommann, & Munzert, 1984). For each training component, we presented such “rules of thumbs” of PI behavior to the participants.

Second, a learning-by-doing approach is used via introducing practical exercises into the training. Thus, a common problem of teaching - the difficulty to connect the principles learned to everyday concrete actions - is reduced.

Third, learning requires positive and negative feedback, particularly in the beginning of the training. Negative feedback informs the recipient about what he or she has not yet learned or fully understood and is especially informative when it is specific and when it includes information on how to improve actions (Semmer & Pfäfflin, 1978). Errors are a form of negative feedback. We encouraged participants to make errors, to learn from these errors, and to generally perceive errors as a source for innovation (Heimbeck, Frese, Sonnentag, & Keith, 2003). Positive feedback points to behavioral facets the trainee has learned. Giving feedback was more pronounced in the first phase of training. In the beginning, feedback was provided by the trainer with the rules of thumbs serving as guidelines. Later, the participants became more active in giving each other feedback and

judging their own performance. This training strategy is supposed to make feedback more and more a self-regulatory process.

Fourth, transfer is fundamental for the success of a training program (Baldwin & Ford, 1988). Therefore, we incorporated practice orientation into the training in the following ways: (a) Normal work tasks were used; therefore, all exercises were directly related to the participants' business requirements. (b) The participants were asked to apply the training content to their normal business situation, for instance, writing down goals for their business. (c) Application contracts were used to strengthen the commitment to goals developed in the training (Hesketh, 1997). (d) The participants developed a personal project, in other words, a plan of how they wanted to apply the newly learned skills to their business. (e) Another method to strengthen the commitment to transfer knowledge included choosing an "implementation partner". (f) The rules of thumbs of PI behavior were also implemented to increase transfer.

Fifth, newly acquired behaviors compete with the old well-rehearsed routines (Frese & Zapf, 1994). Therefore, the training offered practical exercises in order to support the routinization of these behaviors.

Hypothesis

We propose that our theoretically derived training intervention increases PI in business owners. More precisely, we assume that the participating business owners learn what PI means in the context of entrepreneurship, that they acquire the knowledge of how to show PI in different business situations, and that they implement this knowledge into their own business. This leads to the following formal hypothesis:

H1: The training program leads to an increase of PI.

As described earlier, PI is a key factor for entrepreneurial success as it is crucial for opportunity identification and exploitation and for mastering the manifold challenges entrepreneurs have to face in their day-to-day business. The cited empirical evidence also positively links PI to business success. Thus, we propose that, if PI is central, it should also lead to an increase of success. Consequently, we derive the following formal hypothesis:

H2: The training program leads to an increase of business success.

If the training is actually responsible for both, the increase of PI and the increase of success, than PI needs to be a mediator, what leads to the following formal hypothesis:

H3: PI is a mediator of the training effect on business success.

3.3 METHOD

3.3.1 DESIGN

We conducted a long-term field experiment using a randomized control group pretest/posttest design with a waiting control group to control for effects of maturation, history, testing, and self-selection (Cook, Campbell, & Peracchio, 1990). Data were collected at four measurement waves: before the training (T1), directly after the training (T2, only training participants), four to five months after the training (T3), and 12 months after the training (T4). Measures at T1, T2 and T4 were obtained during personal meetings either at the premises of the entrepreneurs or at the Makerere University Business School. Data at T3 were collected through telephone interviews.

Participation in the training course was free of charge. Three training courses were conducted, each course by the same experienced trainer who had done business training in Africa before (the first author). The waiting control group was trained directly after the last measurement wave at T4, 12 months after T1.

3.3.2 PARTICIPANTS

This study was conducted with business owners operating their businesses in Kampala, Uganda. Participants had to meet the following criteria: 1) They were currently owners of a business and responsible for managing the firm on a day-to-day basis. This was a necessary prerequisite since such owner-managers are in a position where they are free to make decisions on their own as to whether they want to implement the newly acquired skills into their business or not. 2) They had operated for at least one year, a necessary prerequisite because the viability of younger firms is low in Uganda and a high failure rate could have reduced the sample to a critical size and thereby seriously limit the power of statistical analyses. 3) They were small business owners and thus, by definition, had at least one and maximal 50 employees. 4) They had to have sufficient command of English. Participants were recruited in two ways: First, with the help of four organizations⁴

⁴ USSIA (Ugandan Small Scale Industry Association), UWEAL (Uganda Women Entrepreneurship Association Ltd.), Katwe Metal Fabricators Cluster Association, and the Ugandan Chamber of Commerce.

supporting small-, micro-, and medium-size businesses that supplied us with random samples of their members. Second, in order to include business owners who were not members of these associations, we physically walked through two typical Kampala markets⁵ offering each owner who was present at her or his business the opportunity to participate in the training. 109 business owners met the criteria for participation and were randomly assigned to training ($N = 56$) or control group ($N = 53$). Business owners of the control group were given a guarantee for participation in the training program at T4. Nine individuals assigned to the training group could not take part in the training and, thus, were excluded from the sample. Reasons for absence were illness (2 individuals) or lack of time because of unforeseen business problems (7 individuals). The remaining 47 participants took part in the full training course. The final sample consisted of 100 participants, 47 in the training and 53 in the control group. Training participants were allocated to three training courses. The study experienced no attrition during the data collection period after the training. At T4, five business owners were out of business (all control group). Data from three of these business owners were obtained directly in personal interviews (3 business owners). The other two business owners could not be reached personally at T4 (they had moved to another part of the country) and information on their whereabouts was provided by the business organizations they were members of.

Table 7 presents the characteristics of the sample, separately for training and control group. The average age of the participants was 39 years ($SD = 8.61$) in the training group with a range from 23 to 59 years (control group $M = 39$, $SD = 9.83$, range from 20 to 60 years). The proportion of women was 47% in the training and 51% in the control group. 81% of the training participants were officially registered and operated in the formal sector whereas 19% were informal (control group 79% formal, 21% informal). 62% of the training participants operated in the production and 38% in the service sector (control group 38% production, 62% service). The average years of education in the training group was 13 ($SD = 3.38$) and in the control group 14 ($SD = 3.24$). Business had been started on average 9 years before T1 ($SD = 6.03$) with a range from 1 to 28 years in the training group (control group $M = 7$, $SD = 6.72$, range 1 to 33 years). The training participants had an average of 8 employees ($SD = 8.00$) with a range from 1 to 38 (control group $M = 7$, $SD = 9.75$, range 1 to 50). Average sales in the training group were 2.66 million Uganda

⁵ Small Gate Nakawa Trading Market and Crafts Exposure Market.

Schilling (1,568 US Dollar) in the year before T1 ($SD = 3.27$ million UGS, range 100 thousand to 18 million) and 5.60 million Uganda Schilling (3,301 US Dollar) in the control group ($SD = 12.21$ million UGS, range 0 to 73 million). This high but nonsignificant difference between TG and CG in the mean of the sales level is in line with random variation. There is also a large difference in the standard deviation of the two groups. This suggests that outliers exist that may distort the results of analyses on the sales level. Thus, we tested for outliers by means of a box plot analysis. Eight extreme outliers (i.e. values that lie more than three times the interquartile range to the left and right from the first and third quartiles) were identified. Because of this, we took the logarithm of the sales level that we used as a substitute for sales in all analyses. This is a common procedure in dealing with outliers. Applying box plot analysis on the logarithm of the sales level, we still identified one extreme outlier. Therefore, we excluded this outlier in all calculations including sales⁶.

⁶ The analyses with the original sales level and without exclusion of the outlier are shown in the Appendix.

Table 7. Characteristics of training and control group

Characteristic	Training Group			Control Group		
	M	Range	SD	M	Range	SD
Age	39.47	23 - 59	8.61	39.40	20 - 60	9.83
Years of education	13.36	6 - 22	3.38	14.36	7 - 22	3.24
Number of memberships in business organizations	1.53	0 - 4	.92	1.64	0 - 5	1.29
Age of business	9.23	1 - 28	6.03	7.26	1 - 33	6.72
Sales level (in mill. Uganda Schilling) before the training	2.660	0.1 - 17.983	3.269	5.602	0 - 72.500	12.213
Number of employees before the training	7.88	1 - 38	8.00	6.74	1 - 50	9.75
	N	Percentage		N	Percentage	
Gender						
Male	25	53		26	49	
Female	22	47		27	51	
Sector						
Formal	38	81		42	79	
Informal	9	19		11	21	
Business Location						
Town center	13	28		20	38	
Industrial area/ market	34	72		33	62	
Type of industry						
Production	29	62		20	38	
Service	18	38		33	62	

Note. M = mean; SD = standard deviation; N = number of participants.

3.3.3 MEASURES

We used questionnaires and structured interviews for data collection. The answers to the interview questions were written down and later rated by two independent raters. The mean value of the two raters was used for all subsequent calculations. Interrater agreements were calculated with the two-way mixed effect model (people effect random, measure effect fixed, single measure correlation) of the intraclass correlation coefficient (Shrout & Fleiss, 1979) and were generally good ranging from $r = .64$ to $.98$. Table 8 presents the central measures of the study with reliabilities or item intercorrelations, sample sizes, means, standard deviations, and interrater agreements. Following suggestions by Kirkpatrick (1959), we assessed training effectiveness on four different levels using: 1) reaction measures, 2) learning measures, 3) behavior-based measures, and 4) success measures. In addition to statistical measurement, we made qualitative observations for the evaluation of the training (at T4). *Reaction measures* comprise overall satisfaction with the training, transfer motivation, perceived training utility, and general qualitative statements (measured directly after the training, at T2). A knowledge test was used as *learning measure* (at T1 and T2). *Behavior-based measures* assessed behavior indirectly by means of reported behavior shown in different business contexts, behavior drawn from implementations (e.g., new products or services), and through exercises (at T1 and T3 or T1 and T4). *Success measures* were obtained in terms of perceived short-term growth (at T1 and T3), the sales level of the past year, and the number of employees (both at T1 and T4). In addition, background data were collected from all study participants.

Background Measures

Background data were used to compare the training and the control group at T1. The collected variables included gender, age, type of industry, sector (formal vs. informal), business location, age of business, years of education, membership in business associations, command of English (all via interviews), self-efficacy, proactive personality, risk taking, and cognitive ability (via a questionnaire).

Self-efficacy (in its general form) was ascertained with a 4-point Likert scale (Schwarzer & Jerusalem, 1995) consisting of 10 items (e.g., “I am confident that I could deal efficiently with unexpected events”, with response options ranging from 1 “not at all

true” to 4 “exactly true”). Internal consistency of the scale was $\alpha = .76$. *Proactive personality* was measured by the 10-item proactive personality scale of Seibert, Crant, and Kraimer (1999; e.g., “I am constantly on the lookout for new ways to improve my life”). Items were rated on a 7-point Likert scale ranging from “strongly disagree” to “strongly agree” ($\alpha = .76$). *Risk-taking* was measured with a 5-point-Likert scale (“applies not at all to me” to “applies definitely to me”) adapted from Cable and Judge (1994). The scale consisted of 4 items, for example, “I view risk on the job as a situation to be avoided at all cost”. Internal consistency of the scale was $\alpha = .67$. *Cognitive ability* was assessed with Wechsler's digit span test forward and backward, a subtest to the HAWIE-R (Tewes, 1991). This test is used as a proxy for working memory and correlates well with general intelligence (Jensen, 1985). It consists of rows of three to nine numbers that are read aloud to the participant and need to be recalled.

Table 8. Central measures, reliabilities/item intercorrelations, number of participants, and items, means, standard deviations, and interrater reliabilities

Measure	Time	Internal Consistency/ Item	Number of Participants			Number of	Training group		Control group		Interrater Reliability	
		Intercorrelation	TG	CG	Total	Items	M	SD	M	SD	ICC	
Background Variables (Interview & Questionnaire)	Years of Education	T1		47	53	100	1	13.36	3.38	14.36	3.24	
	Cognitive Ability	T1		47	53	100	2	2.94	.70	2.95	1.00	
	Self-Efficacy	T1	$\alpha = .76$	47	53	100	10	3.38	.48	3.35	0.47	
	Proactive Personality	T1	$\alpha = .61$	47	53	100	10	5.73	.71	5.85	0.74	
	Risk Taking	T1	$\alpha = .67$	47	53	100	4	2.90	.98	3.19	1.00	
Reaction Measures (Questionnaire)	Overall Satisfaction with the Training	T2		47		47	1	2.91	.28			
	Transfer Motivation	T2	$\alpha = .87$	47		47	12	4.43	.46			
	Perceived Training Utility	T2	$\alpha = .79$	47		47	7	4.82	.31			
Learning Measures (Questionnaire)	Personal Initiative Knowledge (Sum Score)	T1		47	53	100	4	2.15	.93			
	Personal Initiative Knowledge (Sum Score)	T2		47		47	4	3.06	.70			
Behavior-based Measures (Interview)	Initiative Behavior	T1	$\alpha = .81$	47	53	100	8	1.44	.58	1.88	0.84	$r_{tt} = .75 - .94$
	Initiative Behavior	T3	$\alpha = .89$	47	53	100	8	2.49	.88	1.47	0.84	$r_{tt} = .80 - .93$
	Initiative for Product/Marketing (3 months)	T1	$\alpha = .78$	47	53	100	4	.84	.72	1.28	1.07	$r_{tt} = .86 - .92$
	Initiative for Product/Marketing (3 months)	T3	$\alpha = .81$	47	53	100	4	2.58	1.02	1.36	0.92	$r_{tt} = .86 - .91$
	Initiative for Product/Marketing (1 year)	T1	$\alpha = .83$	47	53	100	4	1.31	.93	1.65	1.08	$r_{tt} = .92 - .96$
	Initiative for Product/Marketing (1 year)	T4	$\alpha = .88$	47	48	95	4	2.98	1.03	1.48	0.86	$r_{tt} = .83 - .90$
	Overcoming Barriers* ¹	T1	$\alpha = .83$	47	53	100	6	-.08	.74	.07	0.73	$r_{tt} = .70 - .98$
	Overcoming Barriers* ¹	T3	$\alpha = .85$	47	53	100	6	.40	.70	-.36	0.62	$r_{tt} = .64 - .94$
	Overall Personal Initiative Scale* ¹	T1	$\alpha = .76$	47	53	100	3	-.21	.55	.18	0.88	$r_{tt} = .70 - .98$
Overall Personal Initiative Scale* ¹	T3/T4	$\alpha = .82$	47	53	100	3	.57	.67	-.53	0.53	$r_{tt} = .64 - .94$	
Success Measures (Interview)	Short-term Growth	T1	$\alpha = .87$	47	53	100	3	.06	.78	.11	0.78	
	Short-term Growth	T3	$\alpha = .86$	47	53	100	3	.90	.35	.52	0.69	
	Sales Level (logarithm)	T1		48	52	100		14.18	1.18	14.33	1.50	
	Sales Level (logarithm)	T4		47	48	95		14.35	1.27	13.87	1.53	
	Number of Employees	T1		47	53	100		7.88	8.00	6.74	9.75	
	Number of Employees	T4		47	48	95		10.67	12.45	4.98	7.09	
	Failure Rate (0 = still in business, 1 = failure)	T4		47	53	100		.00	.00	.09	0.30	
	Overall Success Index* ¹	T1	$r = .49^{**}$	47	52	100	2	.01	.72	-.01	.98	
Overall Success Index* ¹	T4	$r = .45^{**}$	47	53	100	2	.22	.89	-.22	.76		

Note. T1 = before training; T2 = directly after training; T3 = 4 to 5 months after training; T4 = 1 year after training; TG = training group; CG = control group; M = mean; SD = standard deviation; ICC = two-way mixed effect model of intraclass correlation coefficient; r_{tt} = interrater reliability** significant at the .01 level (2 tailed); α = Cronbach's alpha; r = correlation coefficient; *¹standardized scale.

Reaction Measures

All reaction measures were collected via a questionnaire directly after the training (T2) only from training participants.

Overall Satisfaction with the Training: Participants' satisfaction with the training was assessed with the question: "How overall satisfied were you with the training?" using Kunin's (1955) Faces Scale (faces ranging from frowning -3 to neutral to smiling +3). Wanous, Reicher, and Hudy (1997) found the Kunin Scale (1955) to be the best measure of overall job satisfaction. *Transfer Motivation:* Training participants were asked to estimate the probability of implementation of the training content (e.g., "To what extent do you think that, after this training, you will look for more information from different sources than you did before") on a 5-point Likert scale ranging from 1 ("not at all likely") to 5 ("very likely"). Internal consistency of this 12-item Likert scale was $\alpha = .86$. *Perceived Training Utility:* Perceived training utility generally shows higher predictive validity for transfer than other reaction measures or learning measures (Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997). To measure perceived training utility, a self-developed 5-point, 7-item Likert scale (e.g., "Do you think the section on 'goal setting' is useful for your business?" with response options ranging from 1 ("not at all likely") to 5 ("very likely") was presented to the participants. Internal consistency of this scale was $\alpha = .79$. *Qualitative Statements:* At T2, training participants were asked to provide written comments on the training.

Learning Measures

We developed a multiple-choice test (paper and pencil test) to assess PI knowledge. The test consisted of four items that covered the three components of PI: self-starting and persistent (1 item each), and proactive (2 items). For example, the item concerning self-starting was: "Mr. H. wants to set a goal for his business. If he showed personal initiative, which goal would he set?" Possible answers were presented and participants were asked to choose the correct answer: "A. Introduce a new product competitors don't sell", "B. Copy the product range of the competitors", "C. Keep the product range the same", and "D. Reduce the product range". The correct answers (answer A for this example) were counted and added up to a sum score. The PI knowledge test was presented to the training participants at T1 and T2.

Behavior-Based Measures

We used three different behavior-based measures to assess short- and long-term effects of the training on PI. The measures were collected via personal interview at T1 and T4 and via telephone interviews at T3. Interrater agreement for the behavior-based measures was generally good (cf. Table 8).

Initiative Behavior. We developed this measure to assess PI in the entrepreneurial context. This measure based on the Frese, Fay, Hilburger, Leng and Tag (1997) study in which they assessed PI in a more general context. It consisted of four direct questions on different aspects of past work-related behavior and asked participants 1) how they had approached a goal, 2) how they had handled a problem, 3) how they had tested the quality of their products or services, and 4) if and how they had changed anything in their business. We assessed the answers in terms of quantitative and qualitative initiative (6-point Likert scale) and rated no initiative when participants did not undertake any action. The degree of quantitative initiative depended on the amount of energy invested (e.g., time and money spent). The degree of qualitative initiative depended on the way the situation was approached. Qualitative initiative was high when the behavior included new, innovative ways that differed from the behavior that is expected in such contexts. The measures were completed by both the training and control group at T1 and T3. Quantitative and qualitative initiative was combined and formed the scale *initiative behavior* (T1 $\alpha = .81$, T3 $\alpha = .89$).

Initiative for Product/Marketing. This measure focused on two central aspects of entrepreneurship: product/service and advertising/marketing. It assessed the degree of PI necessary for implementing new products/services and for marketing/advertising, respectively. We asked participants which products or services they had introduced 1) within the last three months (at T1 and T3) in order to assess short-term effects of training on PI and 2) within the last year (at T1 and T4) for measuring long-term effects. We repeated this procedure for the ways of marketing/advertising that had been used. Quantitative and qualitative forms of initiative were rated on a 6-point Likert scale. No initiative was coded when participants had not implemented anything new and had not undertaken any marketing/advertising activities, respectively. Quantitative initiative depended on the amount of implemented products/services and the amount of marketing/advertising, respectively, and by the associated costs. Qualitative initiative was

coded when the implemented products/services or the applied ways of marketing/advertising were innovative and differed from those of the competitors. Quantitative and qualitative initiative were combined to form two separate scales *initiative for product/marketing*, one assessing the past three months (T1 $\alpha = .78$; T3 $\alpha = .81$) and one, assessing the past year. (T1 $\alpha = .83$; T4 $\alpha = .88$).

Overcoming Barriers. The overcoming barriers method assessed PI with the aid of fictional business situations. This measure has been shown to have good construct validity (Fay & Frese, 2001). The following procedure was used to conduct the overcoming barriers method: First, participants were presented a difficult business situation, for example, "Pretend you are out of money and cannot buy necessary supplies, what would you do?" Then, they were asked to think of ways to overcome this problem. Each problem-solving answer was met by "assume that this does not work what else would you do?" The number of problem-solving solutions was recorded. Four such questions were divided into two sets that were counterbalanced across measurement waves to prevent from biases of recall. That is, half of the participants received set 1 before and set 2 after the training, while the others received set 2 before and set 1 after the training. The responses during the overcoming barriers exercise were rated on a 5-point-Likert scale concerning self-starting (was an active approach taken or were the problems delegated) and proactiveness (were long-term or short-term solutions found). These assessments together with the number of problem-solving solutions formed the standardized *overcoming barriers* scale (T1 $\alpha = .83$, T3 $\alpha = .85$).

Overall Personal Initiative Scale. An overall PI scale was formed out of all PI measures collected from both the training and control group before and after the training: *initiative behavior*, *initiative for product/marketing*, and *overcoming barriers*. Internal consistency of this second order *overall personal initiative* scale at T1 was $\alpha = .76$ and after the training (T3/T4), $\alpha = .82$.

Success Measures

All success measures were collected from both, the training and control group before and after the training. Short-term effect was measured at T1 and T3 by the reported change in business growth; long-term effects were assessed by the sales level, the number of employees at T1 and T4, and the failure rate between T2 and T4.

Short-term Growth. The *short-term growth* scale consisted of the reported change in sales, change in profit, and change in customers during the last three months (T1: $\alpha = .87$, T3: $\alpha = .86$). The answer format included “decreased” (coded with “-1”), “stayed the same” (coded with “0”), and “increased” (coded with “+1”).

Sales Level. To calculate the sales level, we used a proxy adapted from McPherson (1998). Participants were asked for the number of months with low, average, and high sales of the year before measurement and the sales level in low, average, and high months. We then calculated the sales level of the past year. As described, we used the logarithm of the sales level for further analyses and excluded the extreme outlier that we had identified.

Number of Employees. We applied the following procedure to measure the number of employees as precisely as possible: We asked participants about their number of full-time employees (fte) and part-time employees (pte) and how many days both were working on average per week. We then calculated the average working days of a full-time employee in our sample ($M = 5.9$) and included this number in the following formula: *number of employees* = $(fte * \text{working days of fte}) / 5.9 + (pte * \text{working days of pte}) / 5.9$. Calculating on the basis of working days enabled us to exclude possible biases due to different definitions of “full-time” and “part-time” employees.

Failure Rate. At T4 the failure rate, that is, the number of entrepreneurs of the sample who had closed down their business between T2 and T4 was recorded. In addition, the reason for failure was assessed: Was the closure due to economical pressure and thus, a reactive response, or was it a proactive action necessary to create the basis for the exploitation of an opportunity or market niche by founding a new venture or getting a good job?

Overall Success Index. The alpha of a potential scale including all success measures that were collected from both the training and control group before (T1) and one year after the training (T4; business growth, number of employees, and logarithm of sales level) was too low. Thus, we formed an *overall success* index out of the number of employees and the logarithm of the sales level that showed the highest item intercorrelation. This item intercorrelation was before the training (T1), $r = .49$, $p < .01$ and after the training (T3/T4), $r = .45$, $p < .01$.

Qualitative Observations

In addition to statistical measurement, qualitative observations for the evaluation of the training program were made during the interviews at T4.

3.4 RESULTS

Table 9 shows the means, standard deviations, and intercorrelations of the central study variables. We randomly assigned participants either to the training or the control group to minimize selection effects. In addition, we tested for possible differences in key variables between training (N = 47) and control group (N = 53) before the training: gender, age, line of business, sector (formal vs. informal), age of business, business location, membership of business organizations, co-owners, experience, education, intelligence, self-efficacy, proactive personality, risk taking, and for all PI and success measures. Training and control group differed in line of business, $\Phi = -.22, p < .05$ (TG: $M = .40, SD = 0.50$; CG: $M = .62, SD = 0.49$ (0 = production, 1 = service)). This is in line with random variation. However, we controlled for *line of business* in all further analyses of covariance (MANCOVA, ANCOVAs) and regression analyses.

To test the overall effects of training, we conducted a MANCOVA on the following dependent variables measured at T1 and T3 or T1 and T4, respectively: *overcoming barriers, initiative behavior, initiative for product/marketing, short-term growth*, number of employees, logarithm of sales level. Results revealed significant effects for group x time (training/nontraining x repeated measures: *Hotelling's t* = 12.77, $p < .01, \eta^2 = .33$), for time (repeated measures: *Hotelling's t* = 10.46, $p < .01, \eta^2 = .29$), and for group (training/nontraining: *Hotelling's t* = 10.61, $p < .01, \eta^2 = .29$). This showed that, overall, the training was effective in changing the experimental group more strongly than the control group (significant group x time effects).

We used univariate ANCOVAs for testing effects of the training on the behavior based measures and success measures (again, these ANCOVAs should show significant interaction effects of group x time) and an ANOVA for testing the effect of training on PI knowledge. Table 10 shows the results.

Table 9. Number of participants, means, standard deviations, and intercorrelations of the central study variables

Variable	Time	N	M	SD	1.	2.	3.	4.	5.	6	7.	8	9.	10.	11.	12.	13.	14	15.
1. Training (0 = No, 1 = Yes)	T1	100	.47	0.50															
2. Gender (0 = Male, 1 = Female)	T1	100	.49	0.50	-.04														
3. Line of Business (0 = Production, 1 = Service)	T1	100	.52	0.50	-.22*	.18													
4. Years of Education	T1	100	.00	0.95	-.10	.07	.22*												
5. Cognitive Ability	T1	100	2.95	0.87	.01	.27**	.16	.39**											
6. Self-Efficacy	T1	100	3.37	0.47	.03	.06	.21*	-.04	.18										
7. Proactive Personality	T1	100	5.79	0.73	-.08	.11	.05	.09	.17	.59**									
8. Risk Taking	T1	100	3.06	1.00	-.15	.26*	.10	.46*	.23*	-.11	.16								
9. Overall Satisfaction with the Training	T2	47	2.81	0.27	.00	.29	.08	.21	.25	.10	.09	.05							
10. Transfer Motivation	T2	47	4.43	0.46	.00	.32*	.09	-.03	.23	.30*	.42**	.19	.33*						
11. Perceived Training Utility	T2	47	4.82	0.31	.00	.34*	-.18	.11	.13	.19	.17	.00	.24	.58**					
12. Personal Initiative Knowledge	T1	47	2.15	0.93	.00	-.06	.01	.36*	.15	.02	.04	.33*	.05	.09	.04				
13. Personal Initiative Knowledge	T2	47	3.06	0.70	.00	.10	-.01	.43**	.18	-.02	.08	.23	.03	.01	.00	.42**			
14. Initiative Behavior	T1	100	1.67	0.76	-.19	.00	-.12	.41**	.22*	.02	.26**	.27**	.16	-.13	-.10	.02	-.01		
15. Initiative Behavior	T3	100	1.95	1.00	.51**	-.14	-.21*	.05	.14	.05	.10	.07	-.18	-.18	-.01	-.07	-.13	.25*	
16. Initiative for Product/Marketing (3 months)	T1	100	1.08	0.95	-.13	.21*	.04	.13	.13	.11	.24*	.21*	.01	.06	.15	-.08	-.08	.42**	.11
17. Initiative for Product/Marketing (3 months)	T3	100	1.93	1.14	.53**	.05	-.17	-.03	.12	.09	.12	.04	-.20	-.07	.13	.07	-.10	.06	.64**
18. Initiative for Product/Marketing (1 year)	T1	100	1.49	1.02	-.17	-.03	-.06	.13	.14	.06	.21*	.14	-.05	.05	.07	-.06	-.11	.42**	.19
19. Initiative for Product/Marketing (1 year)	T4	95	2.22	1.21	.62**	-.03	-.14	.09	.08	.02	-.02	-.12	-.12	-.18	-.14	-.29	-.16	.17	.50**
20. Overcoming Barriers* ¹	T1	100	.00	0.73	-.10	.01	.01	.32**	.28**	.05	.25*	.19	-.02	.04	.23	-.05	.04	.32**	.17
21. Overcoming Barriers* ¹	T3	100	.00	0.76	.50**	-.08	-.08	.26*	.19	-.01	.08	.10	.10	-.04	.03	.01	.04	.17	.64**
22. Overall Personal Initiative Scale* ¹	T1	100	.00	0.76	-.16	.07	.05	.32	.25*	.08	.31**	.26**	.03	.01	.15	-.07	-.06	.70**	.23*
23. Overall Personal Initiative Scale* ¹	T3/T4	100	-.02	0.83	.68**	.06	.20*	.11	.17	.05	.09	.03	-.13	-.15	.01	-.09	-.12	.21*	.87**
24. Short-term Growth	T1	100	.08	0.78	-.03	.09	-.01	.10	.04	-.04	.04	.15	.09	-.11	-.01	-.18	.06	.23*	.15
25. Short-term Growth	T3	100	0.70	0.59	.33**	-.00	-.17	-.15	-.07	.07	.05	-.27**	-.09	-.09	.00	-.31*	-.12	-.14	.22*
26. Sales Level (logarithm)	T1	99	14.26	1.35	-.06	-.17	.20	.26**	.00	-.07	.15	.30**	-.12	.13	-.13	-.01	-.01	.22*	.06
27. Sales Level (logarithm)	T4	95	14.11	1.42	.17	-.19	.05	.34**	.08	-.10	.03	.23*	-.20	.10	.09	.07	-.00	.17	.32**
28. Number of Employees	T1	100	7.27	8.95	.06	-.09	-.13	.08	-.12	-.13	-.05	.08	-.02	-.07	.13	-.04	-.06	.09	.12
29. Number of Employees	T4	95	7.80	10.45	.27**	-.14	-.20	.03	-.02	-.11	-.05	.07	-.27	-.05	.05	-.14	-.05	.11	.23*
30. Failure Rate (0 = still in business, 1 = failure)	T4	100	.05	.22	-.22*	.04	.15*	.03	.02	-.00	-.02	-.01	.00	.00	.00	.00	.00	-.14	-.23*
31. Overall Success Index* ¹	T1	99	-.00	.86	.01	-.16	-.21	.20*	-.07	-.11	.06	.23*	-.08	.03	.01	-.03	-.04	.17*	.11
32. Overall Success Index* ¹	T4	100	.00	.85	.26*	-.19	-.09	.22*	.03	-.13	-.01	.18	-.29	.02	.08	-.06	-.03	.16	.32**

Note. T1 = before training; T2 = directly after training; T3 = 4 to 5 months after training; T4 = 1 year after training; ** correlation is significant at the .01 level (2 tailed); * correlation is significant at the .05 level (2 tailed); *¹standardized scale.

Variable	Time	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.
17. Initiative for Product/Marketing (3 months)	T3	.25*															
18. Initiative for Product/Marketing (1 year)	T1	.80**	.40**														
19. Initiative for Product/Marketing (1 year)	T4	-.02	.54**	.10													
20. Overcoming Barriers* ¹	T1	.36**	.08	.38**	.06												
21. Overcoming Barriers* ¹	T3	-.03	.41**	.09	.45**	.27**											
22. Overall Personal Initiative Scale* ¹	T1	.84**	.26**	.85**	.10	.67**	.16										
23. Overall Personal Initiative Scale* ¹	T3/T4	.11	.81**	.25*	.78**	.19	.78**	.24*									
24. Short-term Growth	T1	.02	-.01	.08	.07	.08	.07	.13	.09								
25. Short-term Growth	T3	-.33**	.20	-.16	.31**	-.14	.32**	-.25*	.33**	.06							
26. Sales Level (logarithm)	T1	-.03	-.03	.03	.02	.10	.02	.10	.01	.14	-.13						
27. Sales Level (logarithm)	T4	-.05	.24*	.09	.23*	.07	.26*	.09	.33**	.24*	.06	.75**					
28. Number of Employees	T1	-.13	.01	-.12	.10	-.16	-.05	-.10	.05	.16	-.08	.43**	.57**				
29. Number of Employees	T4	-.08	.25*	.01	.30**	-.10	.04	-.02	.25*	.23*	-.02	.45**	.51**	.67**			
30. Failure Rate (0 = still in business, 1 = failure)	T4	-.15	-.28**	-.16	.00	-.05	-.22*	-.17	-.29**	-.05	.27**	.00	.00	.01	.00		
31. Overall Success Scale* ¹	T1	-.09	-.00	-.05	.07	-.03	-.02	.00	.04	.17	-.13	.70**	.73**	.86**	.62**	.06	
32. Overall Success Scale* ¹	T4	-.08	.29**	.06	.31**	-.02	.18	.04	.34**	.28**	.02	.85**	.72**	.65**	.85**	.00	.77**

Note. T1 = before training; T2 = directly after training; T3 = 4 to 5 months after training; T4 = 1 year after training; ** correlation is significant at the .01 level (2 tailed); * correlation is significant at the .05 level (2 tailed); ¹standardized scale.

Table 10. Analyses results, means, and standard deviations of training and control group at different times of measurement

Measure			Before Training		After Training		df	Test Value	p	Effect Size			
			M	SD	M	SD				Inter-action effect	Time effect only TG	Group effect after training	
										Eta ²	d	d	
Analysis of Variance (Repeated Measure)													
Knowledge - Learning Measures													
<i>Personal Initiative Knowledge</i>	T1-T2	TG	47	2.15	.93	3.06	.70	48.05	<.01	.51	1.60		
Analyses of Covariance (Training/Nontraining x Repeated Measures Interaction)													
Behavior - Behavior Based Measures of PI													
								F* ¹					
<i>Initiative Behavior</i>	T1-T3	TG	47	1.44	.58	2.49	.88	1	66.08	<.01	.41	1.41	1.19
		CG	53	1.88	.84	1.47	.84						
<i>Initiative for Product/Marketing (3 months)</i>	T1-T3	TG	47	.84	.72	2.58	1.02	1	59.65	<.01	.38	1.97	1.26
		CG	53	1.28	1.07	1.36	.92						
<i>Initiative for Product/Marketing (1 year)</i>	T1-T4	TG	47	1.31	.93	2.98	1.93	1	57.35	<.01	.39	1.10	1.00
		CG	48	1.65	1.08	1.48	.86						
<i>Overcoming Barriers</i> ^{*2}	T1-T3	TG	47	-.07	.74	.40	.70	1	28.83	<.01	.23	.65	1.18
		CG	53	.07	.73	-.38	.62						
<i>Overall Personal Initiative Scale</i> ^{*2}	T1-T3/T4	TG	47	-.21	.55	.57	.67	1	121.38	<.01	.56	1.27	1.82
		CG	53	.18	.88	-.53	.53						
Success - Success Measures													
<i>Short-term Growth</i>	T1-T3	TG	47	.06	.78	.90	.35	1	4.18	<.05	.04	1.39	.69
		CG	53	.11	.78	.52	.69						
<i>Sales Level (logarithm)</i>	T1-T4	TG	47	14.18	1.18	14.35	1.27	1	7.32	<.01	.07	.11	.34
		CG	48	14.33	1.50	13.87	1.53						
<i>Number of Employees</i>	T1-T4	TG	47	7.88	8.00	10.67	12.45	1	6.62	<.05	.07	.27	.56
		CG	48	6.74	9.75	4.98	7.09						
<i>Overall Success Scale</i> ^{*2}	T1-T3/T4	TG	47	.01	.72	.22	.89	1	13.36	<.01	.12	.02	.53
		CG	53	-.01	.98	-.22	.76						

Note. Line of business and control appraisal were included as covariates in all ANCOVAs; *¹Hotellings Trace; *²standardized scale; T1 = before training; T2 = directly after training; T3 = 4 to 5 months after training; T4 = 1 year after training; TG = training group; CG = control group; M = mean; SD = standard deviation; df = degrees of freedom; p = level of significance.

Reaction measures

Results of the reaction measures were generally very positive. The overall satisfaction with the training was very high with a mean of 2.91 (scale ranging from -3 to +3). Transfer motivation was very high for all aspects of the training ranging from 4.19 to 4.68 (scale ranging from 1 to 5). The mean of the *transfer motivation* scale was $M = 4.43$. Participants perceived the training contents as very useful for their business (*perceived training utility*: $M = 4.82$, range from 4.70 to 4.94, scale ranging from 0 to 5). *Qualitative Statements*: Written comments directly after the training also indicated positive effects. They ranged from “eye-opening experience” during the course, for example, “I have realized the mistakes I have been doing in my business” to statements arguing for a high degree of motivation for transfer after the training – in the words of the participants: “I will make sure that I will use what I have learned in my business”, “I have acquired a lot that I am immediately going to apply” or “I will not wait anymore for problems to occur”. Three participants noted that not enough time was provided for some exercises. Apart from that, course delivery and methodology were assessed very positively, for example, “The training was excellent in both training and delivery“, or “it was great that the training has been very interactive and very practical”, and “training was well segmented to prohibit boring sections”. Many participants asked for follow-up courses and wanted to recommend the training, for example, “I would request such trainings to be organized regularly”, or “I will recommend my fellows to take part in your training”. One training group held a prayer at the end of the course, thanking God that they were given the opportunity to take part in this training.

Knowledge and behavior based measures

An ANOVA on *personal initiative knowledge* revealed a significant increase due to training (T1: $M = 2.15$, $SD = .93$; T2: $M = 3.06$, $SD = .70$). Furthermore, ANCOVAS on the behavior-based PI measures indicated significant interaction effects with effect sizes ranging from $Eta^2 = .23$ to $.55$ (cf. Table 10). Means showed a higher increase in the training group. The effect size d for the behavior-based measures was sizeable to very large ranging from $.65$ to 1.97 when comparing the training group before with after the training and very large with d ranging from 1.00 to 1.82 when comparing the training and control group after the training ($d = .5$ is considered as “medium” and $d = .8$ as “large”; Cohen, 1988). These results confirmed Hypothesis 1: The training was successful in increasing participants’ PI.

Success

We measured the short-term effect of the training on success through short-term growth, long-term effects by means of sales level, number of employees, and failure rate.

Training participants reported a higher *short-term growth* three months after the training than the entrepreneurs of the control group did (group x time interaction: *Hotelling's* $t = 4.18, p < .05, \eta^2 = .04$). Long-Term Success measures revealed positive effects: An ANCOVA on the logarithm of the sales level showed a significant interaction effect (group x time interaction: *Hotelling's* $t = 7.32, p < .05, \eta^2 = .07$). The logarithm of the sales level increased for the training group from before the training ($M = 14.18$; absolute sales level $M = 2.660$ million) to one year after the training ($M = 14.35$; absolute sales level $M = 3.389$ million), whereas sales of the control group decreased (T1: $M = 14.33$; absolute sales level $M = 5.602$ million; T4: $M = 13.87$; absolute sales level $M = 3.817$ million). The same pattern appeared for the number of employees. Employees increased for the training group (T1: $M = 7.88$; T4: $M = 10.67$) and decreased for the control group (T1: $M = 6.74$; T4: $M = 4.98$). An ANCOVA on the number of employees revealed significant interaction effects (group x time interaction: *Hotelling's* $t = 6.62, p < .05, \eta^2 = .07$). In addition to sales and number of employees, the *failure rate* one year after the training also counted for the positive effect of the training on long-term business success: Of the 100 participants of the study, five entrepreneurs had closed their former business before T4 measurement. All five belonged to the control group. One unfortunately had an accident and for this reason, had to quit. The other four entrepreneurs reported that the failure was due to high competition and low sales. In contrast, none of the training participants had closed down (in the following, we concentrate further analyses only on the individuals who still owned their business).

These positive findings on all success measures provided support for Hypothesis 2: The training led to an increase in business success.

Mediation of Personal Initiative

We assumed that the training affected business success indirectly through the increase in PI (Hypothesis 3). To test this, we calculated a mediation analysis. We further took a closer look at the failure rate and the qualitative observations. We applied a procedure

suggested by Judd and Kenny (1981) and, in addition, calculated a bootstrapping analysis with a SPSS macro developed by Preacher and Hayes (2004) to test for mediation. According to Judd and Kenny, for a variable to be able to work as a mediator, three conditions have to be met that can be tested by three independent regression analyses: 1) when regressing the mediator on the independent variable, the independent variable must affect the mediator; 2) when regressing the dependent variable on the independent variable, the independent variable must affect the dependent variable; 3) when regressing the dependent variable on both, the independent variable and on the mediator, the mediator must affect the dependent variable. If these conditions are met, perfect mediation holds if the independent variable has no significant effect when the mediator is controlled. To test this, we calculated a fourth regression analysis. We included line of business as control variable in all regression analyses. Table 11 shows that all four conditions are met and the fourth regression analysis counted for perfect mediation: In the first equation, the independent variable training affected the mediator PI ($\beta = .79, p < .01$). In the second equation, the independent variable, training, affected the dependent variable, success ($\beta = .23, p < .01$). In the third equation, the mediator, PI, affected the dependent variable, success ($\beta = .22, p < .01$). Finally, in the fourth equation, when PI was held constant, training did not have a significant effect ($\beta = .09, n.s.$). We employed the bootstrapping technique for significance testing of the indirect effect. As control variable, we included line of business in the analysis. We calculated 2,000 bootstrap resamples to obtain the lower and upper limits of a 95% bias corrected confidence interval for the indirect effect of training on success through PI. The estimated indirect effect was $ES = .2922$ and the resulting interval was $CI_{95} = .0297, .5397$. This showed that the indirect effect differed from zero; thus, there was a significant mediation effect ($p < .05$).

A closer look at the *failure rate* supports our hypothesis that PI was responsible for the positive effect of the training on business success: All four entrepreneurs of the control group who had to close down business due to failure decreased in PI from before the training to three months after the training (*overall personal initiative scale* at T1: $M = -.45, SD = .23$, at T3: $M = -1.01, SD = .15$). In addition, they reported that the reason for failure was high competition and low sales. Three of them opened up new businesses that, however, were rated as not at all innovative because they were founded in already overcrowded markets and just copied products/services of the competitors. This showed that closing down a business

was a reactive response to environmental circumstances and not a self-starting, proactive action necessary to be able to exploit a market niche or a profitable opportunity.

Qualitative observations from one year after the training confirmed the positive effects of the training on PI and business success and the mediating character of PI. The following three examples illustrate participants' behavior change due to training and the subsequent effects on business success: 1) One participant operated in the metal industry and produced cheap aluminum saucepans of low quality. This was a highly competitive market in the Kampala region. Due to his participation in the training, he decided to switch to higher quality production in order to target a different customer group and stand out from his competitors. For this purpose, he invested in testing his products at the National Bureau of Standard (NBS). Based on detailed feedback of quality deficiencies, he managed to improve the production process (e.g., by applying specialty tools) and finally was certified by the NBS. With the quality certificate he approached a wholesaler for household articles and succeeded in getting a large order of about 10 million Uganda Schilling that kept him and three cooperating businesses busy for more than one year. 2) A second participant produced and sold pastries in her small bakery located in a sparsely inhabited and relatively poor neighborhood about three kilometers outside Kampala center. After taking part in the training program, she decided to extend her customer base outside her neighborhood in order to gain independence from the local market and increase profit. She wanted to reach this goal by displaying her pastries in a big supermarket in the town center. She started out by checking the product range of various supermarkets and found one displaying only a few varieties of cakes. She baked cakes that differed by form, color, and some ingredients from those offered by the supermarket and approached the manager with samples. She managed to convince him of the attractiveness of her cakes to potential customers and was permitted to display them in the supermarket on a commission basis. Her plan worked out, both her turnover and profit increased. 3) The third participant, who owned a successful, nationwide funeral service, had already thought about expanding her services to neighboring countries before participating in the training program. What had kept her from realizing this idea were her worries about facing an uncontrollable business environment in these countries. One year after the training she stated that she had realized during the training how important it is to shape the environment and not only react to it in order to stay successful in the long run. She designated this realization the initial spark for expanding into Sudan and Kenya. She was

honored as “Best Ugandan Woman Entrepreneur of the Year” by the Uganda Investment Authority in the year of her expansion.

Summarizing the findings of the mediation analysis, the failure rate, and the evidence from the qualitative observations, we found support for Hypothesis 3: The increase in success after the training was caused by the increase in PI.

Table 11. Testing the necessary conditions for mediation: Results of regression analyses

Predictor / Step	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²	ΔR^2
<i>Analysis 1: Effect of Training on the Post Training Overall Personal Initiative Scale (T3/T4)</i>					
1. Controls				.10	.10**
Line of Business	-.00	.10	-.00		
Overall Personal Initiative Scale at T1	.47	.07	.45**		
2. Training vs. Control Group	1.28	.11	.79**	.64	.54**
<i>Analysis 2: Effect of Training on the Post Training Overall Success Scale (T3/T4)</i>					
1. Controls				.60	.60**
Line of Business	-.01	.11	-.01		
Overall Success Scale at T1	.76	.06	.77**		
2. Training vs. Control Group	.39	.11	.23**	.65	.05**
<i>Analysis 3: Effect of the Post Training Overall Personal Initiative Scale (T3/T4) on the Post Training Overall Success Scale (T3/T4)</i>					
1. Controls				.60	.60**
Line of Business	-.01	.11	-.00		
Overall Success Scale at T1	-.00	.08	-.00		
Overall Personal Initiative Scale at T1	.75	.06	.75**		
2. Training vs. Control Group	.14	.17	.09	.68	.08**
Overall Personal Initiative Scale at T3/T4	.23	.10	.22*		
<i>Analysis 4: Effect of Training on the Post Training Overall Success Scale (T3/T4) when controlled for the Post Training Overall Personal Initiative Scale (T3/T4)</i>					
1. Controls				.67	.67**
Line of Business	-.01	.11	-.00		
Overall Success Scale at T1	.75	.06	.75**		
Overall Personal Initiative Scale at T1	-.00	.08	-.00		
Overall Personal Initiative Scale at T3/T4	.23	.10	.22*		
2. Training vs. Control Group	.14	.17	.09	.68	.00

Note. T1 = before training; T3 = 4 to 5 months after training; T4 = 1 year after training; * significant at .05 level (2 tailed); ** significant at the .01 level (2 tailed).

3.5 DISCUSSION

The crucial finding of this study is that a theoretically derived intervention that was developed to increase PI led to higher PI and that PI, as postulated, was a mediator that led to higher business success. The theoretically derived intervention was a training that attempted to be a real life intervention into a situation of high importance for the small business owners in the African sample. The present study was a field experiment with a randomized control group. All three formal hypotheses were confirmed: The training had profound positive effects on PI (Hypothesis 1) and business success (Hypothesis 2). In addition, PI fully mediated the relationship between training and subsequent success (Hypothesis 3).

There were many indicators that showed that the theoretically based intervention worked directly on the concept that we wanted to change, namely on PI. All PI measures increased due to the training. Participants gained PI knowledge, and the behavior-based measures rose enormously for the training group in comparison with data for the nontrained control group. It is especially noteworthy that this change in behavior was relatively stable over time: *Initiative for product/marketing* was assessed before the training (T1), four to five months after the training (at T3), and again 1 year after the training (at T4). Two analyses, one comparing training and control group data from T1 with T3 and another one, comparing data from T1 with T4 showed significant interaction effects (group x time effects) at the $p < .01$ level with similar effect sizes (comparing T1 with T3: $Eta^2 = .38$, and T1 with T4: $Eta^2 = .39$). Testing only the training group for time effects, a very high effect size for the increase in *initiative for product/marketing* from T1 to T3 was found with $d = 1.97$. Comparing T1 with T4, the effect size was smaller but still very high ($d = 1.10$). These results indicate that the increase of PI was not a mere motivational short-term response of the participants towards the training. It rather resulted from a reflected decision to fundamentally change business-related behavior towards PI. Thus, the theoretically based intervention worked relatively precisely on the theoretical concept that it was supposed to have an impact on.

Positive effects of the training on business success started to appear four to five months after the training (group x time effect for *short-term growth: Hotelling's t* = 4.18, $p < .05$, $Eta^2 = .04$). In the long run, the training's positive effects on success were confirmed: The absolute sales level and the number of employees had increased one year after the training.

Sales level of training participants rose from 2.67 million Uganda Schilling before the training to 3.39 million Uganda Schilling one year later. This constitutes an increase of 27%. The number of employees increased on average by 2.79 employees per training participant from 7.88 to 10.67, an increase of 35%. The control group showed a decrease in sales and employees during this period. This decrease in success in the control group may be due to two incidents that had a direct negative effect on the economy in Kampala during the six months before T4 measurement: First, many parts of the city suffered under a week-long flood which resulted in a temporal breakdown of revenues for some of the affected entrepreneurs. Second, the Queen of England visited the town and parts of industrial areas were closed for security issues for a few weeks. Since the sample of the present study was based on random assignment of entrepreneurs to training and control group, both groups should have been identically affected by these negative circumstances. Qualitative observations suggest that some of the trained entrepreneurs perceived the above mentioned negative circumstances as opportunities to proactively undertake business changes: Several training participants reported that they had seen the flood as a chance to move their businesses to better locations, such as those with better infrastructure, consistent availability of power, or better access to customers. Some training participants also reported that they had used the visit of the Queen for marketing purposes. Entrepreneurs of the control group may have shown a reactive response towards these circumstances, a strategy that may have caused the decline of business success.

Interestingly, there was a small negative correlation between business growth at T3 and the number of employees at T4 ($r = -.02$) and a very small positive correlation between business growth at T3 and logarithm of the sales level at T4 ($r = .02$). These weak correlations may be due to the nature of the success measures. Business growth measures the participants' subjective estimation of the change in success, while sales level and number of employees were objective measures. Participants may have perceived changes in success differently. While some may have interpreted a marginal increase in success as change, others would have stated that the success did not change. The same counts for perceived decrease of success. Along these lines, a subjective measure like business growth may reveal results that may be contradictory to the results of the used objective success measures.

The theoretically proposed role of PI as mediator between the theoretically derived intervention and subsequent success was verified by a mediation analysis. Bootstrapping

revealed a significant mediation effect of PI at the $p < .05$ level (95% bias corrected confidence interval for the indirect effect of training on success was $CI_{99} = .0297, .5397$). The mediating effect of PI was confirmed by qualitative observations. Participants clearly linked business success to PI actions that have their roots in the training.

3.5.1 STRENGTHS AND LIMITATIONS

To mitigate common method biases and increase validity of the results, we have put great effort in the elaboration of the field experimental design and carefully selected and developed measures. We used multiple subjective and objective measures on Kirkpatrick's (1959) four levels of training effectiveness: reaction, learning, behavior, and success measures. A randomized waiting control group allowed us to control for possible effects of history, maturation, and self-selection (Cook, Campbell, & Peracchio, 1990). Three posttraining measurement waves served as a basis for evaluating the sustainability of the training effects. During this period of time, we made great efforts to ensure that there was no attrition. With this rigorous approach towards the assessment of training outcomes, our study positively differs from former evaluation studies on the established entrepreneurship training programs. These field studies indicated that various difficulties and problems might occur when evaluating entrepreneurship trainings that negatively affect the validity of the studies' results (cf. Table 2). However, we show with the present research that it is possible to apply a rigorous approach towards the evaluation of behavioral entrepreneurship training programs and along with this, to overcome the typical, most limiting methodological difficulties and design problems.

A methodological limitation of our research is the behavioral measurement of PI. We could not observe behavior directly and had to assess PI indirectly by means of interviews. We put great effort into getting assessment as valid as possible as we used different, carefully selected, and elaborated PI measures: First, we used the overcoming barriers method that has been shown to have good construct validity (Fay & Frese, 2001), second, we derived PI from participants' reported business behavior (e.g., from the way quality was tested or problems were approached) and third, we deduced PI from introduced products or services and from marketing activities. However, the possibility remains that participants might have tried to distort their behavior in a favorable direction such as to prove that they

had applied the newly acquired skills to their businesses. We tested this possibility by means of the analysis of mediation. If the behavior-based measures were purposely biased, no mediation effect of PI should have been found in the analysis. The result of the bootstrapping analysis argues against such a possible bias. PI fully mediated the relation between training and posttraining success at the $p < .05$ level.

When interpreting the results of the present study, it has to be taken into consideration that this research was conducted in Uganda, the country with the second highest entrepreneurial activity worldwide in the year 2004 (Acs, Arenius, Hay, & Minniti, 2004). This fact raises concerns regarding the generalizability of our finding: Would the training also lead to an increase in PI and through this, to a gain in economic success in other countries? Empirical work has shown that PI is important for entrepreneurship around the globe. For example, studies have been made on PI specifically that found a linkage between PI and business success in different continents (Crant, 1995; Koop, de Reu, & Frese, 2000; Zempel, 1999). Furthermore, the proactivity dimension of PI has been shown to have a positive relationship with success in all countries in the research on entrepreneurial orientation, although the correlation is likely to be higher in developing countries (Rauch et al., 2007). In addition, PI has been found to be generally related to performance in the working context again across a variety of countries (Tornau & Frese, 2009). Thus, there is good evidence that once an intervention is able to change PI it should also lead to an increase in success in various countries. Therefore, if our training program results in an increase in success in other countries, it should also lead to an increase in success in these countries. However, there are issues concerning our training program that are obviously country specific. For instance, we attempted to give country specific examples and models. There is empirical evidence that suggests that, when these issues are adapted to the country of implementation, PI can be increased in these countries. Two studies on similar training programs count for this assumption: Two broadband entrepreneurship trainings in Germany and South Africa that used an action training approach to promote a number of success factors including PI succeeded in increasing PI (Frese et al., 2008). This suggests generalizability of our results across cultures.

3.5.2 PRACTICAL IMPLICATIONS AND NEW DIRECTIONS FOR RESEARCH

We focused our training on one central entrepreneurial variable, namely personal initiative. Focusing solely on PI enabled us to keep the duration of the training course very short. This is of particular importance because most entrepreneurs have limited time available to devote to any training. In this context, our training, with its duration of only three days, meets the needs of participants better than the established entrepreneurship training programs that involve substantially more contact hours, ranging from five days up to three months (cf. Table 2). Our study shows that it is possible to develop an effective training program that accommodates the need of entrepreneurs to keep duration short very well.

The already established, widespread behavioral training programs - except the original Achievement Motivation Training – involve substantially more diverse and larger inputs than our training intervention. Thereby, they follow a frequently recommended approach: to promote a broad basis of competencies and to provide other factors that support or are supposed to support entrepreneurs in founding and successfully managing a small business. They supplement psychological content with managerial or technical components, frequently contain nontraining aspects like establishing linkages between participants and financial institutions in order to facilitate access to credits and offer some kind of follow-up interventions like personal counselling. Through such a broadband approach, these training programs try to cover a variety of potential needs of their participants. However, some participants may not profit from the whole program - either because they already have the knowledge that is taught or because they do not need it for successfully operating their businesses. Focusing on PI, we trained a central entrepreneurial variable, that seems to be useful for all participants. PI leads to entrepreneurial success. entrepreneurs with high PI proactively look for possibilities to acquire knowledge that they need, no matter if it is of managerial, technical, or of any other nature. Thus, increasing PI through training increases participants' motivation to take part in further educational programs that meet their personal needs. This means that participants tailor their own, need based training concept. Supplementing a PI training program with specifically fixed additional contents, therefore, does not seem useful and does not follow.

On the basis of the results of the present study, it may be attractive for donor agencies or governments and for banks or microfinance institutions to use our type of training. The given growth of sales of 27% in the trained group would contribute to the local economy. Financial institutions would profit from an increased probability of full repayment of credits and incurring

interest. With an average increase in employees of 2.79 per participant, the training program would generate employment. Thus, the net benefits of such training programs would most likely outweigh their costs.

The present study suggests that PI is a central variable for entrepreneurship and illustrates an efficient way to increase PI and thereby enhance business success of operating entrepreneurs. Further research should be undertaken to investigate the influence of PI training on would-be entrepreneurs. Here, a promising approach could represent the combination of PI training with the provision of microcredits to facilitate business creation and increase the probability of survival. An interesting line for research would be to directly compare the effects of the 3-day PI training with the established entrepreneurial training programs via experimental field studies.

On the basis of the auspicious results of the present study, we suggest that PI training should be offered on a large scale to entrepreneurs through donors and governmental and financial institutions, especially when keeping in mind the enormous stimulating effect of entrepreneurship on the economy.

3.6 REFERENCES

- Abey Suriya, A., Chandrarathna, D., & Lieshout, S. van (2005). *Start and Improve Your Business Sri Lanka – Impact assessment 2004*. Internal report. Colombo: International Labor Organization.
- Acs, Z. J., Arenius, P., Hay, M., & Minniti, M. (2004). *Global Entrepreneurship Monitor*. Babson Park, MA: Babson College.
- Alliger, G. M., Tannenbaum, S. I., Bennett, W., Traver, H., & Shotland, A. (1997). A meta-analysis of the relations among training criteria. *Personnel Psychology, 50*, 341-358.
- Autio, E. (2005). *Global Entrepreneurship Monitor 2005 Report on High-Expectation Entrepreneurship*. London: London Business School.
- Awasthi, D. N., & Sebastian, J. (1996). *Evaluation of entrepreneurship development programmes*. New Dehli: Sage Publications.
- Baldwin, T. T., & Ford, J. K. (1988). Transfer of training: A review and directions for future research. *Personnel Psychology, 41*, 63-105.
- Bandura, A. (1986). *Social foundations of thoughts and action: A social cognitive view*. Englewood Cliffs. NJ: Prentice Hall.
- Barwa, S. D. (2003). *Impact of Start Your Business (SYB) training on women entrepreneurs in Vietnam*. Working paper no. 1. Vietnam: International Labor organizations.
- Baum, J. R. (2004, August). *Cognitions and behaviors of successful nascent entrepreneurs: A three-year panel study*. Presented at the Academy of Management Meeting, New Orleans, LA.
- Baumol, W. J. (2002). *The free-market innovation machine: Analyzing the growth miracle of capitalism*. Princeton: Princeton University Press.
- Birch, D. (1987). *Job creation in America*. New York: Free Press.
- Braun, G., Hillen, P., & Schneider-Barthold, W. (1995). *Trainingskonzepte für Unternehmer in Entwicklungsländern - Evaluierung der Maßnahme ,Existenzgründungsprogramm CEFÉ' (Training concepts for entrepreneurs in developing countries – evaluation of the the ,program for founders of businesses CEFÉ')*. Internal report. Munich: Ifo Institute.
- Cable, D. M., & Judge, T. A. (1994). Pay preferences and job search decisions: A person-organisation fit perspective. *Personnel Psychology, 47*, 317-348.

- Carlsson, S., & Anh, T. T. L. (2001). *SIYB programme in Vietnam - Impact study 2001*. Vietnam: Vietnam Chamber of Commerce and Industry.
- Carroll, J. M., Mack, R. L., Lewis, C. H., Grischkowsky, N. L., & Robertson, S. (1985). Exploring a word processor. *Human-Computer Interaction*, 3, 123-153.
- Chandler, G. N., & Lyon, D. W. (2001). Issues of research design and construct measurement in entrepreneurship research: The past decade. *Entrepreneurship Theory & Practice*, 25, 101–113.
- Charney, A., & Liebcap, G. (2000). Impact of entrepreneurship education. Kansas City, MO: Kauffman Center for Entrepreneurial Leadership.
- Cohen, J. (1988). *Statistical power analysis for the behavioral science*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Cook, T. D., Campbell, D. T., & Peracchio, L. (1990). Quasi experimentation. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed., Vol.1, pp. 491-576). Palo Alto, CA: Consulting Psychologists Press.
- Cooley, L. S. (1991). Entrepreneurship training and the strengthening of entrepreneurial performance. *Unpublished Management Philosophy Thesis*. Cranfield, UK: Cranfield Institute of Technology.
- DeTienne, D. R., & Chandler, G. (2004). Opportunity identification and its role in the entrepreneurial classroom: A pedagogical approach and empirical test. *Academy of Management Learning & Education*, 3 (3), 242-257.
- Dörner, D., & Schaub, H. (1994). Errors in planning and decision-making and the nature of human information processing. *Applied Psychology: An International Review*, 43, 433-454.
- Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance*, 14, 97-124.
- Fiet, J. O. (2002). *The systematic search for entrepreneurial discoveries*. Westport, CT: Quorum Books.
- Ford, J. K., Kozlowski, S. W. J., Kraiger, K., Salas, E., & Teachout, M. S. (Eds.). (1997). *Improving training effectiveness in work organizations*. Mahwah, NJ: Lawrence Erlbaum.

- Frese, M., & Fay, D. (2001). Personal initiative: An active performance concept for work in the 21st century. In B. M. Staw & R. I. Sutton (Eds.), *Research in Organizational Behavior*, 23, 133-188.
- Frese, M., & Sabini, J. (Eds.). (1985). *Goal directed behavior: The concept of action in psychology*. Hillsdale: Erlbaum.
- Frese, M., & Zapf, D. (1994). Action as the core of work psychology: A German approach. In H. C. Triandis, M. D. Dunnette, & L. Hough (Eds.), *Handbook of industrial and organizational psychology* (Vol. 4, pp. 271-340). Palo Alto, CA: Consulting Psychologists Press.
- Frese, M., Beimeel, S., & Schoenborn, S. (2003). Action training for charismatic leadership: Two evaluation studies of a commercial training module on inspirational communication of a vision. *Personnel Psychology*, 56, 671-697.
- Frese, M., Brantjes, A., & Hoorn, R. (2002). Psychological success factors of small scale businesses in Namibia: The roles of strategy process, entrepreneurial orientation and the environment. *Journal of Developmental Entrepreneurship*, 7, 259-282.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between East and West Germany. *Academy of Management Journal*, 39, 37-63.
- 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 Organizational and Occupational Psychology*, 70, 139-161.
- Frese, M., Glaub, M., Gramberg, K., Hass, L., Friedrich, C., & Solomon, G. (2008). *Training business owners in personal initiative: Two evaluation studies in South Africa and Germany*. Giessen: Univ of Giessen, technical report.
- Frese, M., Krauss, S. I., Keith, N., Escher, S., Grabarwiewicz, R., Luneng, S. T., Heers, C., Unger, J., & Friedrich, C. (2007). Business owners' action planning and its relationship to business success in three African countries. *Journal of Applied Psychology*, 92, 1481-1498.
- Funder, D. C., & Ozer, D. J. (1983). Personality processes and individual differences. *Journal of Personality and Social Psychology*, 44, 107-112.
- Gaglio, C. M., & Katz, J. (2001). The psychological basis of opportunity identification: Entrepreneurial alertness. *Small Business Economics*, 16, 95-111.

- Garavan, T., & O'Connell, B. (2007). Entrepreneurship education and training programmes: A review and evaluation - Part 1. In P. G. Greene & M. P. Rice (Eds.), *Entrepreneurship education* (pp. 437-446). Northampton, MA: Edward Elgar Publishing.
- Hamel, G., & Prahalad, C. K. (1994). *Competing for the future*. Boston: Harvard Business School Press.
- Harper, M., & Finnegan, G. (1998). *Value for money? Impact of small enterprise development*. London: Intermediate Technology Publications.
- Harper, M., & Mahajan, V. (1995). Evaluating entrepreneurship development programs in practice. *Journal of Education and Work*, 8, 17-26.
- Heckhausen, H. (1971). Trainingskurse zur Erhöhung der Leistungsmotivation und der unternehmerischen Aktivität in einem Entwicklungsland: Eine nachträgliche Analyse der erzielten Motivwandels. (Achievement motivation training and entrepreneurial success: A reanalysis of motive change). *Zeitschrift für Entwicklungspsychologie und Pädagogische Psychologie*, 3, 253-268.
- Heimbeck, D., Frese, M., Sonnentag, S., & Keith, N. (2003). Integrating errors into the training process: The function of error management instructions and the role of goal orientation. *Personnel Psychology*, 56, 333-362.
- Henry, C., Hill, F., & Leitch, C. (2003). *Entrepreneurship education and training*. Ashgate: Aldershot.
- Hesketh, B. (1997). Dilemmas in training for transfer and retention. *Applied Psychology: An International Review*, 46 (4), 317-386.
- Hills, G. E., & Shrader, R. C. (1998). Successful entrepreneurs' insights into opportunity recognition. In P.D. Reynolds (Ed.), *Frontiers of entrepreneurship research* (pp. 30-43). Wellsley, MA: Babson College.
- Hisrich, R., Langan-Fox, J., & Grant, S. (2007). Entrepreneurship research and practice: A call to action for psychology. *American Psychologist*, 62, 575-589.
- Jensen, A. R. (1985). The nature of the black-white difference on various psychometric tests: Spearman's hypothesis. *Behavioral and Brain Sciences*, 8, 193-263.
- Judd, C. M., & Kenny, D. A. (1981). Process analysis: Estimating mediation in evaluation research. *Evaluation Research*, 5, 602-619.

- Katz, J. A. (2007). Education and training in entrepreneurship. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The psychology of entrepreneurship* (pp. 209-236). Mahwah, NJ: Lawrence Erlbaum Associates.
- Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. *Journal of the American Society of Training and Development*, *13*, 3-9.
- Kirzner, I. (1979). *Perception, opportunity and profit*. Chicago, IL: University of Chicago Press.
- Kolvereid, L., & Moen, O. (1997). Entrepreneurship among business graduates: Does a major in entrepreneurship make a difference? *Journal of European Industrial Training*, *21*(4), 154-160.
- Koop, S. De Reu, S., & Frese, M. (2000). Entrepreneurial orientation, initiative, and environmental forces in Uganda. In M. Frese (Ed.), *Success and failure of microbusiness owners in Africa: A psychological approach* (pp. 55-76). Westport, CT: Greenwood Publications.
- Krauss, S. I., Frese, M., & Friedrich, C. (2009, in preparation). *Longitudinal effects of planning and entrepreneurial orientation on performance and vice versa: The case of performance cycles*. Giessen: University of Giessen.
- Krauss, S. I., Frese, M., Friedrich, C., & Unger, J. (2005). Entrepreneurial orientation: A psychological model of success among southern African small business owners, *European Journal of Work and Organizational Psychology*, *14*, 315-344.
- Kunin, T. (1955). The construction of a new type of attitude measure. *Personnel Psychology*, *8*, 65-78.
- Latham, G. P., & Saari, L. M. (1979). Application of social-learning theory to training supervisors through behavioural modelling. *Journal of Applied Psychology*, *64*, 239-246.
- Leach, F., Abdulla, S., Appleton, H., el-Bashura, J., Cardenas, N., Kebede, K., Lewis, V., & Sitaram, S. (2000). *The impact of training on women's micro-enterprise development*. Report. London: Department for International Development.
- Lieberman, M. B. & Montgomery, D. B. (1998). First mover (dis-)advantages: Retrospective and links with the resource-based view. *Strategic Management Journal*, *19*, 1111-1125.
- Lopez, R. M. (1999, March). *Short-term results evaluation of a competence-based-training for entrepreneurs – EMPRETEC program*. Paper presented at Entrepreneurship Research Conference. Wellesley, MA: Babson College.

- Markman, G. D. (2007). Entrepreneurs' competencies. In J. R. Baum, M. Frese, & R. A. Baron (Eds.), *The psychology of entrepreneurship* (pp. 67-92). Mahwah, NJ: Lawrence Erlbaum Associates.
- Martocchio, J. J., & Duhlebohn, J. (1994). Performance feedback effects in training: The role of perceived controllability. *Personnel Psychology, 47*, 357-373.
- McClelland, D., & Winter, G. (1969). *Motivating economic achievement*. New York: Free Press.
- McMullan, W.E. & Gillin, L.M. (1998). Entrepreneurship education: Developing technological start-up entrepreneurs. A case study of a graduate entrepreneurship programme at Swinburne University. *Technovation, 18*(4), 275-286.
- McMullen, E., Chrisman, J. J., & Vesper, K. (2001). Some problems in using subjective measures of effectiveness to evaluate entrepreneurial assistance programs. *Entrepreneurship Theory and Practice, 26*, 37-54.
- McPherson, M. A. (1998). *Zimbabwe: A third nation-wide survey of micro and small enterprises*. Final report prepared for USAID. Zimbabwe: Pricewaterhouse Coopers.
- Menzies, T. V., & Paradi, J. C. (2003). Encouraging technology-based ventures: entrepreneurship education and engineering graduates. *New England Journal of Entrepreneurship, 5*(2), 57-64.
- Miller, G. A., Galanter, E., & Primbram, K. H. (1960). *Plans and the structure of behavior*. London: Holt.
- Miron, D. & McClelland, D. C. (1979). The impact of achievement motivation training on small businesses. *California Management Review, 21*, 13-28.
- Nguyen, T. T. T. (2001). *Förderung der privaten Klein- und Mittelunternehmer in Vietnam durch Unternehmertraining*. Working paper no. 6. Leipzig: SEPT.
- Patel, V. G. (1981). *Innovations in banking: The Gujarat experiments*. Bombay: Industrial Development Bank of India.
- Pham, H. (2002). *Results of CEFÉ business courses for poor women in Quang Nam and Danang*. Project report. Vietnam: Malteser Hilfsdienst.
- Pharoah, R., & Burton, P. (2001). *Evaluation of the International Labour Office's Start and Improve Your Business Programme in South Africa. Report*. Johannesburg: DRA Development.

- Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, 36, 717-731.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (in press). Entrepreneurial orientation and business performance: Cumulative empirical evidence. *Entrepreneurship Theory and Practice*.
- Reichert, C., Lempelius, C., & Tomecko, J. (2000, April). *The performance measurement framework (PMF) for business development services (BDS) applied to CEFE projects in Laos, Thailand and Sri Lanka*. Paper presented at the International Conference for Business Services for Small Enterprises in Asia, Hanoi.
- Ruffing, L., & Fulvia, F. (1999). *The Empretec programme in selected Latin American countries*. Internal Report. Geneva: UNCTAD Enterprise Development Branch.
- Saini, J. S., & Bhatia, B. S. (1996). Impact of entrepreneurship development programs. *Journal of Entrepreneurship*, 5, 65-80.
- Schumpeter, J. (1934). *The theory of economic development*. Cambridge, MA: Harvard.
- Schwarzer, R., & Jerusalem, M. (1995). Generalised Self-Efficacy Scale. In: J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35–37). Windsor, UK: Nfer-Nelson.
- Seibert, S., Crant, M., & Kraimer, M. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84, 416-427.
- Semmer, N., & Pfaefflin, M. (1978). *Interaktionstraining. Ein handlungs-theoretischer Ansatz zum Training sozialer Fertigkeiten*. (Interaction training. An action theory approach for social skills training). Basel: Weinheim.
- Shane, S. (2003). *A general theory of entrepreneurship*. Cheltenham, England: Elgar.
- Shane, S., & Venkataraman, S. (2000). The promise of entrepreneurship as a field of research. *Academy of Management Journal*, 25, 217-226.
- Shrout, P. E., & Fleiss, J. L. (1979). Intraclass correlations: Uses in assessing rater reliability. *Psychological Bulletin*, 86 (2), 420-428.
- Smith, J. K., & Smith, R. L. (2000). *Entrepreneurial Finance*. New York: Wiley.
- Stel, A. J. van. (2006). *Empirical analysis of entrepreneurship and economic growth* (International Studies in Entrepreneurship Series, Vol. 13). New York: Springer Science.

- Tewes, U. (1991). Hamburg-Wechsler-Intelligenztest für Erwachsene, Revision 1991 (Hamburg-Wechsler-intelligence test for adults) (HAWIE-R, 1991). Bern: Huber.
- Tornau, K., & Frese, M. (2009). The nomological net of proactivity: A meta-analytic investigation. Manuscript submitted for publication.
- Upton, N. B., Sexton, D. L., & Moore, C. (1995). Have we made a difference? An examination of career activity of entrepreneurship majors since 1981 (Abstract). In *Frontiers of entrepreneurship research* (pp. 727-728). Wellesley, MA: Babson College.
- Van Gelderen, M., Frese, M., & Thurik, R. (2000). Strategies, uncertainty and performance of small business startups. *Small Business Economics*, 15, 165-181.
- Volpert, W., Frommann, R., & Munzert, L. (1984). Die Wirkung allgemeiner heuristischer Regeln im Lernprozeß - eine experimentelle Studie (The effect of general heuristic rules in the process of learning – an experimental study). *Zeitschrift für Arbeitswissenschaft*, 38, 235-239.
- Wanous, J. P., Reichers, A. E., & Hudy, M. J. (1997). Overall job satisfaction: How good are single-item measures. *Journal of Applied Psychology*, 82 (2), 247-252.
- Zempel, J. (1999). Selbstaendigkeit in den neuen Bundeslaendern: Praediktoren, Erfolgsfaktoren und Folgen - Ergebnisse einer Laengsschnittuntersuchung (Independence in the newly formed German states: Predictors, success factors and outcomes – Results of a longitudinal study) . In K. Moser, B. Batinic, & J. Zempel (Eds.). *Unternehmerisch erfolgreiches Handeln*. Goettingen: Hogrefe.

CHAPTER 4

CONCLUSION

We developed and implemented a theoretically derived intervention to increase personal initiative in business owners and, through this, promoted entrepreneurial success. This intervention was a 3-day training program. Chapter 3 describes this PI training and presents an experimental field study that evaluates the training program with a sample of 100 small business owners in Kampala, Uganda. Chapter 2 provides a qualitative review of entrepreneurship trainings that have been implemented in developing countries. It also summarizes the results of the studies that assessed the effectiveness of these training interventions. This qualitative review enables us to compare our PI training with the already established entrepreneurship programs. This concluding chapter briefly summarizes and comments on the major findings of Chapters 2 and 3 and highlights central implications.

The central finding of this dissertation is that our training program led to an increase in PI and through this to higher business success. All PI measures (knowledge as well as behavior-based measures) and success measures increased due to the training. These effects were documented after three months and were still evident after one year posttraining, indicating that the training led to a stable change in behavior based on higher PI. Bootstrapping analysis showed that PI was a mediator between training and subsequent business success. The positive impact of our theoretically derived intervention on the targeted variable PI and the role of PI as mediator confirmed the causal proposition of PI theory and strengthen the suggestions drawn from previous studies on PI that used causally ambiguous designs: PI leads to business success and thus, is a central variable for entrepreneurship.

Comparing our PI training with the already established training programs in developing countries, we find essential differences concerning content and duration. Of the 10 training programs that were reviewed in Chapter 2, only one training intervention besides our PI training solely focuses on one psychological factor: the Achievement Motivation Training (McClelland & Winter, 1969). All other entrepreneurship trainings are broadband interventions that combine training of psychological factors with teaching business

management skills. Frequently they employ follow-up interventions and facilitate access to assets. These broadband interventions aim to provide participants with a wide array of skills and knowledge that are deemed required by entrepreneurs to successfully operate their businesses. Training a wide array of skills implies that some participants may not profit from the whole training course, either because they already have the knowledge that is taught or because they do not need it at the current phase of the entrepreneurial process. For example, two studies of the review presented in Chapter 2 suggested, that would-be entrepreneurs, which are at the beginning of the entrepreneurial process may profit much more from business plan training than participants that already operate a successful business (Klinger, & Schündeln, 2007; Miron & McClelland, 1979). In contrast to broadband interventions, our PI training focuses on only one variable that we assume to be central for entrepreneurship across the different phases of the entrepreneurial process. In addition, it is assumed that increasing PI should lead to higher motivation in participants to proactively acquire the knowledge or skills that they need. This may mean that participants take part in additional training programs, consult experts, join a business association, and so forth. Training PI, therefore, should be useful for any participant at any stage of the entrepreneurial process. From the review in Chapter 2, a conclusion of whether broadband interventions or training programs that focus on one central variable lead to higher success could not be determined. All the reviewed training programs seemed to positively affect entrepreneurial success. A direct comparison between the different training programs was not possible because of methodological problems of the majority of the reviewed studies and the lack of sufficient data for calculating effect sizes.

Eight of the ten reviewed training programs require more contact hours (around one to two weeks on average) than our three-day PI training. Longer course duration leads to higher costs for suppliers (e.g., rent for training facilities, trainer's fee) and participants (e.g., course fees, transportation, and loss of revenue because of absenteeism). Participants are usually would-be entrepreneurs that work in regular jobs or entrepreneurs that manage their businesses on a day-to-day basis and thus, have only limited resources (time and money) to devote to training. Hence, it seems reasonable to keep the duration of a training course short. Focusing only on PI enabled us to develop a training program with a three-day duration and thus to very well accommodate the needs of the participants.

Final findings concern the amount of evaluation studies identified for the review of entrepreneurship training programs (Chapter 2) and the quality of the methodology applied by these studies: The research presented in Chapter 2 represents – to our knowledge - the most extensive review of evaluation studies of training programs in the entrepreneurship literature. However, only 27 studies were identified and included. This relatively small number of identified studies seems to reflect a lack of interest by training developers and suppliers to conduct proper empirical evaluations of their training programs. The quality of the methodology used by the majority of the 27 reviewed studies was rated as low. The frequent methodological problems limit the studies' conclusions that the evaluated entrepreneurship trainings positively affect entrepreneurial success.

This dissertation has a number of practical implications. First, we contributed to the ongoing debate among scholars whether entrepreneurship can be taught or not. We found in our experimental field study that a training program can change PI, a variable that we suggest to be central for entrepreneurship. In addition, we reviewed 27 studies that evaluated 10 different training programs. This review suggests that the evaluated training programs strengthened psychological factors and business management skills and that they led to higher business success. Thus, we provide support to the assumption that entrepreneurship can be taught.

The second implication concerns training providers. On the basis of the positive results of this research, we suggest that PI training should be offered on a large scale to entrepreneurs through donors and through governmental and financial institution. The positive development of participants' economic success increases the probability of full repayment of credits and incurring interest, contributes to the local economy, and generates employment. In addition, the short duration of a three-day course limits the costs for suppliers and participants. Thus, the net benefits of implementing the PI training would most likely outweigh its costs. With this, the PI training is a promising alternative to the more cost-intensive broadband training programs.

The third implication concerns training developers. We propose that training programs would be enhanced by including a component like PI because PI should increase participants' motivation to proactively acquire the knowledge and skills that are considered necessary for success. Continuous learning after the training session is necessary; first, because even a comprehensive training program will have difficulty in meeting every individual need of the

participating business owners and second, because a business owner's needs change along the entrepreneurial process and new skills may be required to be successful. Thus, we encourage training developers to include a PI component in their entrepreneurship training programs.

The final implication concerns the evaluation of entrepreneurship trainings. The methodologically weak designs applied by the majority of reviewed evaluation studies (Chapter 2) limits the ability to emphatically draw the conclusion that entrepreneurship trainings promote entrepreneurial success. Bearing in mind that tens of thousands of would-be entrepreneurs and entrepreneurs join these training programs in the developing world each year, there should be valid evidence that the benefits of these training interventions outweigh their costs. As a result, we recommend providers and developers of entrepreneurship trainings to apply proper evaluation designs to assess the impacts of their training programs before promoting their distribution. The study presented in Chapter 1 shows that implementing a rigorous approach towards training evaluation is possible in the developing world.

This dissertation suggests that PI is a central entrepreneurial success factor that can effectively be increased through a brief training program.

4.1 REFERENCES

- Klinger, B., & Schündeln, M. (2007). *Can Entrepreneurial Activity be Taught? Quasi-Experimental Evidence from Central America*. Working paper no. 153. Cambridge, MA: Center for International Development at Harvard University.
- McClelland, D., & Winter, G. (1969). *Motivating economic achievement*. New York: Free Press.
- Miron, D., & McClelland, D. C. (1979). The impact of achievement motivation training on small businesses. *California Management Review*, 21, 13-28.

APPENDIX

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A1 MEASUREMENT INSTRUMENT T1 (Study 2)**Interview of Small Scale Entrepreneurs / Business Owners****In Uganda 2007**

Interview Nr:				
Interviewee Name:				
Name of Business:				
Address:				
Telephone Nr: (Telephone Nr. of close relative or any other telephone Numbers)				
E-Mail:				
Interviewer Name:				
Date and Time of Interview:				
Group:				
Training date:				
Set A or B (overcoming barriers)				
Setting:				

GI	General Information	
1.1.	<u>Demographic data</u>	
<p>Make sure the person is the owner of the business, he has at least 1, highest 50 employees, he can read and write in English (good to test: “write down your name and address on the 1st page”), and he has some telephone number.</p>		
DD1.	(F) Are you the owner of this business?	
DD2.	(F) Are there any other owners?	
DD3.	(F) What is your business line? (What do you do exactly?)	
DD4.	(F) Did you start this business yourself?	
DD5.	(F) When did you start your business?	
DD6.	(F) Are you a member of the chamber of commerce?	
DD7.	(F) Are you member of a co-operative? (group of people)	
DD8.	(D) Are you member of any other association society or club that helps you to enhance your business? Please specify.	
	Human Capital	
DD9.	(F) For how many years did you go to school?	
DD10.	(F) What’s your highest degree of formal education?	
DD11.	(F) Were you ever employed while you were a business owner? (When?)	
	Exact numbers:	
DD12.	(F) How many rooms/how much space do you use for your business?	
DD13.	(F) How many employees do you have?	
DD14.	(F) How many employees did you have three years ago?	

DD15.	(F) How many employees did you have one year ago?	
DD16.	(F) How many of these are full-time employees? (F) How many of these are part time employees? (F) How many days per week do your part-time employees work?	
DD17.	(F) How many days a week are you in business?	
DD18.	(F) During the last six month, could you always pay your employees the usual money or did you have to reduce it, delay it, or could you sometimes not pay? Or did you pay extra?	
DD19.	(F) Do you do book-keeping? What does it exactly look like? E.g. Write down all sales, all expenses, ...	

Initiative Behavior

1. During the last three months, did you test if the quality of your service or product is good? (e.g. ask somebody)
What did you do? (What did you do exactly?) How did you do this?
How much time went into this? Did this cost you any money? Did anybody help you? Who? How often did you do this?
Did anybody ask you to do this or was it your own idea to do so?
Was it necessary to look for the quality of your product/service? If yes, why?
Do your competitors do that as well?

2. Have you introduced changes in your work/business during the last three months?
What did you do? (What did you do exactly?) How did you do this?
How much time went into this? (How often did you do this?) Did this cost you any money? Did anybody help you? Who?
Did anybody ask you to do this or was it your own idea to do so?
Was it necessary to do that change? If yes, why?
Do your competitors do that as well?

Initiative for Product / Marketing

- 1. Did you take part in any event where you've learned something for your business within the last year? (e.g., training course, lectures, something at the MUBS or at organizations...). Or: Did you do anything to learn something for your business?**

In how many events did you take part? (How many things did you do to learn something for your business?). Or: how many things did you do?

What was it about?

Where was it?

How many days did it take?

Why did you take part? / How did you come to the idea to take part?

Any other event in which you took part? (If yes, repeat questions)

! What of this was within the last three months? If no, ...

..."Please think again. Did you do anything in the last three months to learn something for your business?"
(if yes, repeat questions above)

<p>2. What did you do to make other people or potential customers to get to know your business within the last year? How did you advertise?</p> <p>What exactly did you do?</p> <p>Do your competitors do this as well? Anything else that you did? (if yes repeat questions above)</p> <p>! Which of these things did you do during the last three months? if no,”Please think again. Did you do anything in the last three months to make other people know your business?” (if yes, repeat questions above)</p>
<p>3. Did you start selling or offering new products/services within the last year? Did you start selling/offering anything new within the last year?</p> <p>Which new products/services did you start to sell/offer? What was it exactly?</p> <p>Do your competitors sell/offer this product/service as well?</p> <p>Anything else that you did? (if yes, repeat questions above)</p> <p>! Which of these new products/services did you add within the last three months? What of this did you do within the last 3 months? If no,”Please think again. Did you do add any new product/service within the last three months?” (if yes, repeat question above)</p>

Success

Approximate numbers:		
	When you think of last year's sales:	
T1 AN1 1	How many months did you have average sales?	
T1 AN1 2	What is the sales level (UG Shilling) in months of average sales?	
T1 AN1 3	How many months did you have low sales?	
T1 AN1 4	What is the sales level (UG Shilling) in months of low sales?	
T1 AN1 5	How many months did you have high sales?	
T1 AN1 6	What is the sales level (UG Shilling) in months of high sales?	
	When you think of last year's expenses:	
T1 AN2 1	How many months did you have average expenses?	
T1 AN2 2	What is the level of expenses (UG Shilling) in months of average expenses?	
T1 AN2 3	How many months did you have low expenses?	
T1 AN2 4	What is the level of expenses (UG Shilling) in months of low expenses?	
T1 AN2 5	How many months did you have high expenses?	
T1 AN2 6	What is the level of expense (UG Shilling) in months of high expenses?	
	When you think of last year's customers:	
T1 AN3 1	How many months did you have average amount of customers?	
T1 AN3 2	How many customers do you have in months of average amount of cust.?	
T1 AN3 3	How many months did you have low amount of customers?	
T1 AN3 4	How many customers do you have in months of low amount of customers?	
T1 AN3 5	How many months did you have high amount of customers?	
T1 AN3 6	How many customers do you have in months of high amount of customers?	

Subjective Increase:			
Have the following measures changed within the last three months and within the last year?			
SE 1	<u>Did the sales within the last year</u>		
<u>T1 SE S</u> <u>1Y</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage? / How much percent?		
	<u>Did the sales within the last three months</u>		
<u>T1 SE S</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage? / How much percent?		
SE 2	<u>Did the profit within the last year</u>		
<u>T1 SE P</u> <u>1Y</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage?		
	<u>Did the profit within the last three months</u>		
<u>T1 SE P</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage?		
SE 3	<u>Did the expenses(including supplies, wages, rental...) within the last year</u>		
<u>T1 SE EX</u> <u>1Y</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage?		
	<u>Did the expenses(including supplies, wages, rental...) within the last three months</u>		
<u>T1 SE EX</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage?		

SE 4	Did the number of customers within the last year		
T1 SEC 1Y	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage?		
	Did the number of customers within the last three months		
T1 SEC 3M	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	Reason for change: _____		
	What percentage?		

Objective success:	
	(F) Are you registered?
	(F) Do you pay tax?
	(F) Do you have a business plan?
	(D) What time period does your business plans cover?
	(F) Do you have a bank account?
	(F) Are you in a business directory?
	(F) Have you got a business card?
	(F) Do you have a computer?
	(F) Do you use a computer?
	(F) Do you have and use the internet?
	(F) Do you use it?
	(F) What is your age?
	(F) How much do you pay all in all to your workers/ employees every month?
	(F) Now we ask you a couple of questions concerning things you own for your business. Do you have:
	A car?
	A mobile phone?
	Electricity in the shop:
	Do you own the shop or is it rented from another person?
	Do you own special equipment in your business?
	Where is your business located? In a Market, a commercial centre, a Mall, etc. Describe the Location as detailed as possible. Or: "If you want to describe the location of you shop to someone who doesn't know your shop, what would you say?"

Intelligence: Digit Span Test (Wechsler)

“We would just like to do a little memory quiz: **I will tell you a line of numbers and you just repeat the numbers that I now read to you.**”

task no.	1. trial	Correct?	2. trial	Correct?
1.	5-8-2		6-9-4	
2.	6-4-3-9		7-2-8-6	
3.	4-2-7-3-1		7-5-8-3-6	
4.	6-1-9-4-7-3		3-9-2-4-8-7	
5.	5-9-1-7-4-2-8		4-1-7-9-3-8-6	
6.	5-8-1-9-2-6-4-7		3-8-2-9-5-1-7-4	
7.	2-7-5-8-6-2-5-8-4		7-1-3-9-4-2-5-6-8	

“**Now you should reverse it. For example when I say 7-1-9, you say ...9-1-7**” ... If the subject couldn't complete the example, correct him/her and give another example (3-4-8). Then start with the first trial of the first task.

task no.	1. trial	Correct?	2. trial	Correct?
1.	2-4		5-8	
2.	6-2-9		4-1-5	
3.	3-2-7-9		4-9-6-8	
4.	1-5-2-8-6		6-1-8-4-3	
5.	5-3-9-4-1-8		7-2-4-8-5-6	
6.	8-1-2-9-3-6-5		4-7-3-9-1-2-8	
7.	9-4-3-7-6-2-5-8		7-2-8-1-9-6-5-3	

Now give the questionnaire to the interviewee!

T1 - Questionnaire**Interview Nr:****Name of the Participant:**

With the following questionnaire we want to get to know a little bit about you and the way you do your business.

Please answer all questions. Read them carefully and tick the answer that best applies to you. If you do not understand a question, please ask the interviewer.

	Not at all True	Barely True	Moderately True	Exactly True
Selef1: I can always manage to solve difficult problems if I try hard enough.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef2: If someone opposes me, I can find means and ways to get what I want.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef3: It is easy for me to stick to my aims and accomplish my goals.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef4: I am confident that I could deal efficiently with unexpected events.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef5: Thanks to my resourcefulness, I know how to handle unforeseen situations.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef6: I can solve most problems if I invest the necessary effort.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef7: I can remain calm when facing difficulties because I can rely on my coping abilities.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef8: When I am confronted with a problem, I can usually find several solutions.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef9: If I am in a bind, I can usually think of something to do.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Selef10: No matter what comes my way, I'm usually able to handle it.	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4

		Strongly disagree	Disagree	Partly disagree	Neither agree nor disagree	Partly agree	Agree	Strongly agree
PrPers 1	I am constantly on the lookout for new ways to improve my life	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 2	Wherever I have been, I have been a powerful force for constructive change.	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 3	Nothing is more exciting than seeing my ideas turn into reality	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 4	If I see something I don't like I fix it.	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 5	No matter what the odds, if I believe in something I will make it happen.	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 6	I love being a champion for my ideas, even against others' opposition.	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 7	I excel at identifying opportunities	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 8	I am always looking for better ways to do things	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 9	If I believe in an idea, no obstacle will prevent me from making it happen.	() 1	() 2	() 3	() 4	() 5	() 6	() 7
PrPers 10	I can spot a good opportunity long before others can.	() 1	() 2	() 3	() 4	() 5	() 6	() 7

	applies not at all to me	applies a little to me	medium	applies a lot to me	applies definitely to me
risk1_r I am not willing to take risks when choosing a job or a company to work for.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
risk2_r I prefer a low risk and high security job with a steady salary over a job that offers high risks and high rewards.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
risk3_r I prefer to remain on a job that has problems that I know about rather than take the risk of working at a new job that has unknown problems even if the new job offers greater rewards.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5
risk4_r I view risk on a job as a situation to be avoided at all cost.	<input type="radio"/> 1	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5

With the next part of the questionnaire we want to find out what you already know about personal initiative.

Please answer every question.

You will find situations of small-business owners. Always think about how somebody would act in the described situation if she/he showed personal initiative. Please tick the answer which you think is correct. Only **one statement** is correct.

Example: Here a person has answered that the goal „decreasing the expenses in the next month“ would be the best goal.

(X) „decreasing the expenses in the next month“

1. Mr. H. wants to set a goal for his business. If he showed personal initiative: which goal would he set?

- introduce a new product competitors don't sell
- copy the product range of the competitors
- keep the product range the same
- reduce the product range

2. Mr. C. wants to set goals for his business and thinks about the time range. If he showed personal initiative: what would he do?

- set goals with a time range up to maximum 3 weeks
- set goals with a time range up to maximum 3 months
- set goals with a time range up to maximum one year
- set goals with a time range up to two years

3. Mr. C wants to increase his profit by 20 percent within the next year. After two months he notices that this is not as easy as he thought. If he showed personal initiative: what would he do?

- give up the goal
- keep the goal
- change the goal to 10 percent increase
- change the goal to 5 percent increase

4. Mrs. K. sells clothes. Considering designs, what would she do if she showed personal initiative?

- Not try to find out anything about fashion.
- Try to find out the actual fashion and what the fashion will be in the next year.
- Only find out what the actual fashion is.
- Remember what the fashion was last year.

A2 MEASUREMENT INSTRUMENT T2 (Study 2)

Dear participants,

Thank you for participating in our training program.

Before you leave we would like you to complete the following short questionnaire. We ask you a couple of questions on how you liked the training, how useful you thought it was for you and your business. Please, be honest with your answers!

Please, answer all questions. Read them carefully and tick the answer that best applies to you:
How useful do you think is the training for your own business?

Do you think the part "self-starting and innovation" is useful for your business?

Not at all				Very much
1	2	3	4	5

Do you think the part seeking information is useful for your business?

Not at all				Very much
1	2	3	4	5

Do you think the part goal setting is useful for your business?

Not at all				Very much
1	2	3	4	5

Do you think the part making a plan is useful in your business?

Not at all				Very much
1	2	3	4	5

Do you think the part feedback is useful for your business?

Not at all				Very much
1	2	3	4	5

Do you think the problem solving techniques are useful for your business?

Not at all				Very much
1	2	3	4	5

Do you think the component future thinking that was trained is useful for your business?

Not at all				Very much
1	2	3	4	5

To what extent will you use the learned skills in your business:

1. To what extent do you think that after this training you will look if your product/service fits the future needs of your customers more than you did before the training? FM/ft

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

2. To what extent do you think that after this training you will look for more information from different sources than you did before? IS/ss

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

3. To what extent do you think that after this training you will seek more information that you can use at a later point of time than you did before? IS/ft

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

4. To what extent do you think that after this training you will use more resources to get information that are rare and difficult to get than you did before? IS/ob

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

5. To what extent do you think that after this training you will spend more time anticipating possible business problems than you did before? P/ob

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

6. To what extent do you think that after this training you will not wait until things happen in your business, but act out plans immediately than you did before? P/ss

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

7. To what extent do you think that after this training you will plan towards future opportunities more than you did before? P/ft

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

8. To what extent do you think that after this training you will introduce more new things into your business than you did before? G/ss

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

9. To what extent do you think that after this training you will have more goals with a longer time frame of possibly two to three years for your business than you did before? G/ft

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

10. To what extent do you think that after this training you will keep your goals even in spite of difficulties more often than you did before? G/ob

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

11. To what extent do you think that after this training you will look for more different sources of feedback than you did before? FM/ss

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

12. To what extent do you think that after this training you will use more sources of feedback that are rare and difficult to find than you did before? FM/ob

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

13. Would you recommend this training to your colleagues?

Not at all likely	Not likely		Likely	Very likely
1	2	3	4	5

After the training, what do you know about personal initiative?**Please answer every question.**Only **one statement** is correct. Please, tick the response!

1. Mr. H. wants to set a goal for his business. If he showed personal initiative: which goal would he set?

- introduce a new product competitors don't sell
- copy the product range of the competitors
- keep the product range the same
- reduce the product range

2. Mr. C. wants to set goals for his business and thinks about the time range. If he showed personal initiative: what would he do?

- set goals with a time range up to maximum 3 weeks
- set goals with a time range up to maximum 3 months
- set goals with a time range up to maximum one year
- set goals with a time range up to two years








3. Mr. C wants to increase his profit by 20 percent within the next year. After two months he notices that this is not as easy as he thought. If he showed personal initiative: what would he do?

- give up the goal
- keep the goal
- change the goal to 10 percent increase
- change the goal to 5 percent increase








4. Mrs. K. sells clothes. Considering designs, what would she do if she showed personal initiative?

- Not try to find out anything about fashion.
- Try to find out the actual fashion and what the fashion will be in the next year.
- Only find out what the actual fashion is.
- Remember what the fashion was last year








How satisfied were you with the content of the training?

						
() -3	() -2	() -1	() 0	() 1	() 2	() 3








How satisfied were you with the delivery of the training?

						
() -3	() -2	() -1	() 0	() 1	() 2	() 3

How satisfied were you with the exercises during the training?

						
() -3	() -2	() -1	() 0	() 1	() 2	() 3

How overall satisfied were you with the training?

						
() -3	() -2	() -1	() 0	() 1	() 2	() 3

Please, write down your comments concerning the training:

Thank you very much for your participation!

A3 MEASUREMENT INSTRUMENT T3 (Study 2)

T3 - Interview of Small Scale Entrepreneurs / Business Owners
In Uganda 2007

Interview Nr:					
Interviewee Name:					
Name of Business:					
Datum:					
Set A or B (overcoming barriers):					

Let's talk about your business "NAME"

I have the following address: IS THIS STILL CORRECT

I have the following telephone numbers:

ARE THEY STILL CORRECT

Comments:

Initiative for Product / Marketing

- 1. Did you take part in any event where you've learned something for your business within the last 3 months? (e.g., training course, lectures, something at the MUBS or at organizations...). Or: Did you do anything to learn something for your business?**

In how many events did you take part? (How many things did you do to learn something for your business?). Or: how many things did you do?

What was it about?

Where was it?

How many days did it take?

Did you pay for this?

Why did you take part? / How did you come to the idea to take part?

Any other event in which you took part? (If yes, repeat questions)

2. What did you do to make other people or potential customers to get to know your business within the last three months? How did you advertise?

What exactly did you do?

Did this cost you any money?

Do your competitors do this as well?

Anything else that you did? (if yes repeat questions above)

3. Did you start selling or offering new products/services within the last three months? Did you start selling/offering anything new within the last year?

Which new products/services did you start to sell/offer? What was it exactly?

Did this cost you any money? How much?

Do your competitors sell/offer this product/service as well?

Anything else that you did? (if yes, repeat questions above)

2. During the last three months, did you test if the quality of your service or product is good? (e.g. ask somebody)
What did you do? (What did you do exactly?) How did you do this?
How much time went into this? Did this cost you any money? Did anybody help you? Who? How often did you do this?
Did anybody ask you to do this or was it your own idea to do so?
Was it necessary to look for the quality of your product/service? If yes, why?
Do your competitors do that as well?

3. Goal setting and personal initiative**Goal of the last 3 months:****Perform better than competitors, new marketing strategy, make more profit, show initiative, improve your business, make more profit...**

Goal:

+ Did anybody ask you to set this goal (or to do this?)

+ was it necessary to do this? (or to have this goal?)

+ Do your competitors have that goal as well? (or do this as well?)

Planning:

+ did you make a plan how to reach this goal?

+ did you write down actions that you wanted to undertake?

+ how much time went into making a plan?

+ did the things you did cost you any money?

Information seeking:

Did you look for information how to reach your goal?

Where did you look for information?

Feedback:

Did you look for feedback to find out if you really reached your goal? How did you do this?

<p>4. Have you introduced changes in your work/business during the last three months? (e.g., new employees, new marketing, new machines...)</p>
<p>What did you do? (What did you do exactly?)</p> <p>How did you do this?</p>
<p>How much time went into this?</p> <p>(How often did you do this?)</p> <p>Did this cost you any money?</p> <p>Did anybody help you? Who?</p>
<p>Did anybody ask you to do this or was it your own idea to do so?</p>
<p>Was it necessary to do that change? If yes, why?</p>
<p>Do your competitors do that as well?</p>

Success

<u>Subjective success</u>			
Have the following measures changed within the last three months and within the last year?			
	<u>Did the sales within the last three months</u>		
<u>T1 SE S</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	<u>Did the profit within the last three months</u>		
<u>T1 SE P</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	<u>Did the expenses(including supplies, wages, rental...) within the last three months</u>		
<u>T1 SE EX</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>
	<u>Did the number of customers within the last three months</u>		
<u>T1 SE C</u> <u>3M</u>	(-1)Decrease <input type="checkbox"/>	(0)Stay the same <input type="checkbox"/>	(1)Increase <input type="checkbox"/>

DD T3 1.	(F) How many rooms / space do you use for your business? DD T3 5.2 Did that change during the last three months?	
DD T3 2.	(F) How many employees do you have: DD T3 5.1 Did that change during the last three months?	
DD T3 3.	<i>If not changed:</i> (F) than YOU TOLD US THAT ... of these are full-time employees. Did that change? How many? (F) YOU TOLD US THAT ... of these are part-time employees. Did that change? How many? (F) YOU TOLD US THAT your part-time employees work ... days per week? Did that change? How? <i>If number changed:</i> (F) How many of these are full-time employees? (F) How many are part-time? (F) How many days do your part-time employees work?	

A4 MEASUREMENT INSTRUMENT T4 (Study 2)

Interview – version “still in business”	
Interviewee Name:	
Name of Business:	
Date of interview: Location of interview:	Interviewer name:

(F) Are you Mr./Mrs.?

(F) Let's talk about your business (-> *say name of business*)

(F) Do you still have this business?
 → *if no: use Interview “out of business”*

Some questions may seem similar than questions you've already been asked....

1. Education:

Did you take part in any event where you've learned something for your business within the last year? (e.g. training course, lectures, something at the MUBS or at organizations...). Or: Did you do anything to learn something for your business?

- **What** was it/was each of them about? (-> *list events*)
- **Where** did it/ they take place? (-> *ask for each of the mentioned*)
- **How many days** did it/each of them take? (-> *ask for each of the mentioned*)
- How much did participation **cost**? (-> *ask for each of the mentioned*)
- **Why** did you take part? / How did you come to the idea? (-> *ask for each of the mentioned*)

What & Why

Where

Days/weeks Cost

Any other event in which you took part? (-> *If yes, repeat questions*)

2. Advertising/Marketing

What did you do to make other people or potential customers to get to know your business within the last year? How did you advertise? (*record everything he/she did the last year*)

- **What** exactly did you do? (-> list all marketing/advertising)
- Did this **cost** you any money? (-> ask for each of the mentioned)
- Do your **competitors** do this as well? (-> ask for each of the mentioned)

What

cost competitors

Anything else that you did? (-> if yes repeat questions above)

3. Product/Service

Did you start selling or offering new products/services within the last year? Did you start selling/offering anything new within the last year? (*record only the new products/services*)

- **Which** new products/services did you start to sell/offer? What was it exactly? (-> list all)
- Did the implementation **cost** you any money? How much? (*ask for each of the mentioned*)
- Do your **competitors** sell/offer this product/service as well? (*ask for each of the mentioned*)

Which products/services

cost competitors

Anything else that you did? (if yes, repeat questions above)

SUCCESS

Employees:	(F) How many employees do you have:	
	<i>I nothing changed:</i> (F) How many of them are full-time employees? (F) How many days per week do your full-time employees work? So you have..... part-time employees? (give him/her calculated number) (F) How many days per week do your part-time employees work?	
<u>Approximate numbers (sales, profit, expenses):</u>		
Now I ask you about your sales, the profit you make, expenses you have. I ask you how they were during the last year. First I ask you how many months of the year you had low sales, average sales and high sales.		
	<u>When you think of last year's sales:</u>	
	How many months did you have average sales?	
	What is the sales level (UG Shilling) in months of average sales?	
	How many months did you have low sales?	
	What is the sales level (UG Shilling) in months of low sales?	
	How many months did you have high sales?	
	What is the sales level (UG Shilling) in months of high sales?	
	<u>When you think of last year's profit:</u>	
	How many months did you make average profit?	
	What is the profit level (UG Shilling) in months of average profit?	
	How many months did you make low profit?	
	What is the profit level (UG Shilling) in months of low profit?	
	How many months did you make high profit?	
	What is the profit level (UG Shilling) in months of high profit?	
	<u>When you think of last year's expenses:</u>	
	How many months did you have average expenses?	
	What is the expenses level (UG Shilling) in months of average expenses?	
	How many months did you have low expenses?	
	What is the expenses level (UG Shilling) in months of low expenses?	
	How many months did you have high expenses?	
	What is the expenses level (UG Shilling) in months of high expenses?	
	<u>When you think of last year's customers:</u>	
	How many months did you have average customers?	
	What is the amount of customers in months of average customers?	
	How many months did you have low customers?	
	What is the amount of customers in months of low customers?	
	How many months did you have high customers sales?	
	What is the amount of customers in months of high customers?	
The last month, did you have low, average, high sales? What was the reason?		

<u>Alternative success measures</u>	
	Do you do book-keeping
	-> What exactly do you do (<i>have it in my head; write down sales/expenses...; use computer system; give it to accountant; have own accountant...</i>)
	Are you registered?
	Do you pay tax?
	Do you have a written business plan?
	-> What time period does this business plan cover?
	Do you have a bank account?
	Are you in a business directory?
	Do you have a business card?
	Do you have a computer?
	Do you use a computer for business?
	Do you use the internet for business?
<u>Exact measures:</u>	
	How many rooms/ space do you use for your business?
	Do you own this room/space? or is it rented?
	How much do you pay all in all to your workers/ employees every month?
	During the last six month, could you always pay your employees the usual money or did you have to reduce it, delay it, or could you sometimes not pay?
	How many days per week are you working for your business?
	Do you own a car for your business?
	Are you a member of any business association, like USSIA, UWEAL, Chamber of Commerce? Please tell us all the associations: (<i>find out which and how many</i>)

Interview T4 – Out of business**Name:****No.****Date:****Rater:****Initiative of implementation****1. Education:**

Qualitative in.

1 () 2 () 3 () 4 () 5 ()

Quant init

1 () 2 () 3 () 4 () 5 ()

no init ()

open another business

() no

() yes, than rate PI in the following questions and build one PI:

1. “Why did you open this business” -> high PI when: new innovative idea, niche, own idea, if market analysis before opening, if not copying, if doing something special

2. “how many competitors do you have” -> high PI if it is a niche and no/few competitors, low PI if many competitors

-> PI:

1 () 2 () 3 () 4 () 5 ()

A5 RATING SHEETS (Study 2)

<p>Rating T1</p> <p>Name: No. Date:</p> <hr/> <p>Initiative of implementation</p> <p>1. Take part in training Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p> <p>2. Advertising Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p> <p>3. New product Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p> <hr/> <p>initiative in process</p> <p>1. Remember problem Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p> <p>2. Test quality Qualitative in. 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p>	<p>3. Goal setting Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p> <p>Goal no 0 () yes 1 ()</p> <p>Planning 0 () 1 () 2 () 3 () 4 () 5 ()</p> <p>Information seeking 0 () 1 () 2 () 3 () 4 () 5 ()</p> <p>Feedback 0 () 1 () 2 () 3 () 4 () 5 ()</p> <p>4. Introduce Changes Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()</p> <hr/> <p>Overcoming barriers:</p> <p>SET: A Out of money cannot buy necessary supplies Number of barriers: 5 Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 () Machine breaks down workers cannot fix it Number of barriers: 4 Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 ()</p> <p>SET: B Big order from new client Number of barriers: Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 () One of your employees quits Number of barriers: Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 ()</p> <hr/> <p>Success</p> <p>Sales Decrease -1 () stay the same 0 () increase +1 ()</p> <p>Profit Decrease -1 () stay the same 0 () increase +1 ()</p> <p>Expenses Decrease -1 () stay the same 0 () increase +1 ()</p> <p>Customers Decrease -1 () stay the same 0 () increase +1 ()</p> <p>Rooms: Number of employees: Full time employees: Part-time employees: How much days do they work:</p>
--	--

Rating T3 Name: No. Date: PERSONAL PROJECT: Not implemented 0 () 1 () 2 () 3 () 4 () 5 () fully implemented	3. Goal setting Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init () Goal no 0 () yes 1 ()
Initiative of implementation 1. Take part in training Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init () 2. Advertising Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init () 3. New product Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()	Planning 0 () 1 () 2 () 3 () 4 () 5 () Information seeking 0 () 1 () 2 () 3 () 4 () 5 () Feedback 0 () 1 () 2 () 3 () 4 () 5 () 4. Introduce Changes Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()
initiative in process 1. Remember problem Qualitative initiative 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init () 2. Test quality Qualitative in. 1 () 2 () 3 () 4 () 5 () Quantitative initiative 1 () 2 () 3 () 4 () 5 () no init ()	Overcoming barriers: SET: A Out of money cannot buy necessary supplies Number of barriers: 5 Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 () Machine breaks down workers cannot fix it Number of barriers: 4 Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 () SET: B Big order from new client Number of barriers: Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 () One of your employees quits Number of barriers: Self-starting 1 () 2 () 3 () 4 () 5 () Proactivity: 1 () 2 () 3 () 4 () 5 () Not solved 0 () Success Sales Decrease -1 () stay the same 0 () increase +1 () Profit Decrease -1 () stay the same 0 () increase +1 () Expenses Decrease -1 () stay the same 0 () increase +1 () Customers Decrease -1 () stay the same 0 () increase +1 () Rooms: Number of employees: Full time employees: Part-time employees: How much days do they work:

Rating T4

Name:
No.
Date:
Rater:

Name:
No.
Date:
Rater:

Initiative of implementation					
1. Education:					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
2. Advertising					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
3. New product					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					

Initiative of implementation					
1. Education:					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
2. Advertising					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
3. New product					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					

Name:
No.
Date:
Rater:

Name:
No.
Date:
Rater:

Initiative of implementation					
1. Education:					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
2. Advertising					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
3. New product					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					

Initiative of implementation					
1. Education:					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
2. Advertising					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					
3. New product					
Qualitative in.					
1 ()	2 ()	3 ()	4 ()	5 ()	
Quant init					
1 ()	2 ()	3 ()	4 ()	5 ()	
no init ()					




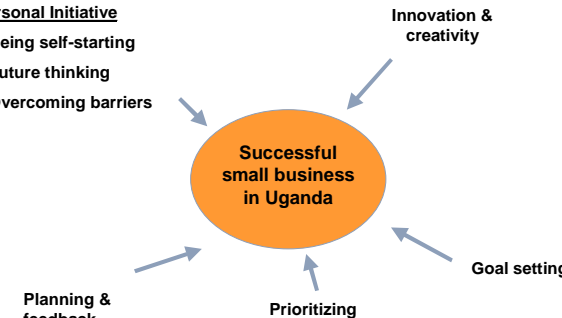
A6 TRAINING SCHEDULE (Study 2)

Label	Methods	Description/purpose	Time (min)
<i>Day 1</i>			
Official opening and introduction	Lecture, presentation	Purpose and content of training and organizational matters are explained, initial questions are answered.	30
Describe business	Partner interview, work sheet, photographs	Two participants interview each other and present the other to the whole group. Participants gain knowledge about each other and the others' businesses.	60
SECTION 1: IDENTIFYING SITUATIONS AND FIELDS OF ACTION FOR PI			
Concept of PI	Lecture, examples, discussion	Concept of PI in the entrepreneurial context is explained. Participants realize that PI is important for sustainable business success.	30
How much PI do you show?	Self-rating questionnaire	Participants reflect their behavior concerning the degree on PI.	10
What do "self-starting" and "innovativeness" mean?	Lecture, examples, discussion, rules of thumb	Participants know how one could act self-starting.	30
Identifying fields of action for PI in business	2 case studies, work sheets, group work, discussion	Participants look for starting points for PI in case studies of a negative and a positive role model respectively. The ability to identify starting points for PI behavior in the own business is learned.	60
Finding situations for showing PI in day-to-day business	Case study, exercise, work sheet, two partners, presentation, discussion	A typical daily schedule of an entrepreneur is presented and starting points for PI in routinized everyday behavior are identified. Participants afterwards record their last working days, look for potential situations for showing PI, and discuss them with a partner. Ability to identify PI in everyday business is learned.	60
Think out of your box	Creativity exercise "9 dots", work sheet, discussion	A creativity exercise highlights the importance of taking new perspectives in order to be successful.	10
Focusing on opportunity identification:			
Discover vital actions	Active search technique, case study, exercise, work sheet, two partners, discussion	Participants learn how to apply an active search strategy for opportunities. They identify core competencies, own strengths, and possible changes in the environment and deduce potential opportunities – first by means of a case study, then for their own business.	60
Review of content Transfer sheet Feedback by participants	Lecture Work sheet Discussion	Participants reflect and record how they want to apply the learned knowledge and skills to their business.	20
End of day 1			

Label	Methods	Description/purpose	Time (min)
Day 2 Review	Lecture, questions	Content of first day is reviewed, open questions are answered.	15
Possible uses of object	Creativity exercise, brain writing	Participants identify (crazy) possibilities how to use a cup. Afterwards, the same is done for selected products/services of the participants.	20
Drawing business situations	Creativity technique, cases, discussion	Future goals and the starting situation are pictured by drawing them on the board. Potential ways to reach the goals are discussed.	30
Creativity exercise: squares	Creativity exercise, discussion	A creativity exercise highlights that one can be innovative in spite of limited resources.	5
Reviewing self-rating questionnaire on PI behavior	Single work	Participants review the self-rating questionnaire on PI and record if and how they want to change behavior in order to show more PI.	10
SECTION 2: TRAINING PI ALONG THE ACTION SEQUENCE			
Goal setting: How do you set your goals?	Self-rating questionnaire	Participants reflect how they set goals for their business.	5
What does PI in goal setting mean?	Lecture, examples, discussion, rules of thumb	Participants know how a PI goal should look like.	20
Reformulate goals	Exercise, presentation	It is practiced how to reformulate non-PI goals in a PI way.	15
Venus and her restaurant	Case study, work sheet, group work, discussion	Participants identify in a case study PI and non-PI goals and reformulate the latter in a PI way. PI goals are linked to success.	60
Pursuit of mini-goal	Work sheet	Participants formulate a goal that they can accomplish in the training room and act it out. It is underlined that it costs "energy" to act out goals.	10
Goals for own business	Work sheet, discussion	Participants set PI goals for their own business: short-term, medium and long-term goals. Importance of long-term goals is highlighted.	30
Reviewing self-rating questionnaire on PI goal setting	Self-rating questionnaire	Participants review the self-rating questionnaire on PI goal setting and record if and how they want to change their goals in order to show more PI.	10
Information seeking: What does PI in information seeking mean?	Lecture, discussion, rules of thumb	Participants know how one could look for information in a PI way.	10
Sources of information	Brainstorming, discussion	Participants collect potential sources of information. Ways how to use these sources in a PI way are discussed.	40
Planning: How do you plan?	Self-rating questionnaire	Participants reflect how they plan towards their goals.	5
What does PI in planning mean?	Lecture, examples, discussion, rules of thumb	Participants know how one can plan in a PI way.	20
The shoemaker – Part 1	Work sheet, group work, discussion	Participants practice by means of a case study how to formulate a plan in a PI way and discuss the results.	60
Reviewing self-rating questionnaire on PI planning	Self-rating questionnaire	Participants review the self-rating questionnaire on PI planning and record if and how they want to change their own plans in order to show more PI.	10
Review of content Transfer sheet Feedback by participants	Lecture Work sheet Discussion	Participants reflect and record how they want to apply the learned knowledge and skills to their business.	20
End of day 2			

<u>Label</u>	<u>Methods</u>	<u>Description/purpose</u>	<u>Time</u>
Day 3 Review	Lecture, questions	Content of second day is reviewed, open questions are answered.	15
Monitoring and feedback: How do you monitor and search for feedback?	Self-rating questionnaire	Participants reflect how they monitor the execution of their plans and how they look for feedback.	5
What does PI in monitoring and feedback mean?	Lecture, examples, discussion, rules of thumb	Participants know how one could monitor a plan and search for feedback in a PI way.	20
The shoemaker – part 2	Case study, work sheet, group work	Participants practice by means of a case study how to monitor a plan and look for feedback in a PI way.	50
How to use sources of information for getting feedback	Discussion, list of sources of information	Participants learn how to use the list of potential sources of information (developed in section 1 of the training) for active feedback search.	15
Reviewing self-rating questionnaire on monitoring and feedback search	Self-rating questionnaire	Participants review the self-rating questionnaire on monitoring and feedback search and record if and how they want to change their behavior in order to show more PI.	10
Overcoming barriers in executing a plan: Are you persistent in overcoming barriers?	Self-rating questionnaire	Participants reflect how they act when confronted with barriers.	5
What does PI with regard to barriers mean?	Lecture, examples, discussion, rules of thumb	Participants learn how one can approach barriers in a PI way.	20
Overcoming barriers in business	Creativity technique, discussion, cases	Participants learn and apply a creativity technique to cases of entrepreneurs to overcome barriers and develop long-term solutions for problems.	40
Reviewing self-rating questionnaire on overcoming barriers	Self-rating questionnaire	Participants review the self-rating questionnaire on overcoming barriers and record if and how they want to change their behavior in order to show more PI.	10
Promoting transfer Personal project	Work sheet	Participants develop a complete PI action for their own business, starting with setting a PI goal, looking for feedback in a PI manner in order to reach the goal, etc.	60
Review of content	Lecture	The training content is summarized and the rules of thumb are repeated.	20
Application contract	Application contract	Participants sign a contract that they take home. They signed contract states that they're going to apply the learned knowledge to their business.	10
Motivational speech	Speech	The trainer highlights that the responsibility for showing PI is on the participants.	5
Implementation partner	Two partners, work sheet	Participants choose an implementation partner to whom they present their personal project. Phone numbers are exchanged and an appointment is made when to call or meet each other in order to talk about the progress of the personal project.	30
“Ceremonial”	Certificate	Certificates for successful participation are handed out.	20
Feedback and evaluation	Questionnaires, discussion	Participants fill in evaluation forms and give oral feedback.	30
Official End			

A7 TRAINING PRESENTATION (Study 2)

<h1 style="text-align: center;">Training for Success</h1> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>University of Gießen</p>  <p>© Copyright University of Giessen, Germany</p> </div> <div style="text-align: center;"> <p>Makerere University Business School</p>  </div> </div> <p style="text-align: center; font-size: small;">1</p>	<div style="text-align: right; font-size: x-small;">JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN</div> <h3>Get to know each other</h3> <hr style="border: 1px solid gray;"/> <p>Instructions</p> <ul style="list-style-type: none"> ▪ look for partner (person you don't know yet) 10 minutes: ask partner about his business and record the answers about <ul style="list-style-type: none"> - Line of business - Products / services - Additional information (e.g. other businesses, interests, family...) ▪ 10 minutes: partner asks you about your business <p style="font-size: x-small; display: flex; justify-content: space-between;">Uganda, Kampala 2 © Copyright University of Giessen, Germany</p>
<h3>Research project</h3> <hr style="border: 1px solid gray;"/> <p>10 years of research in Uganda (Kampala) and other African countries → entrepreneurial skills most important for success</p> <div style="text-align: center; margin: 10px 0;">  </div> <div style="border: 1px solid gray; padding: 10px; text-align: center; margin: 10px auto; width: 80%;"> <p>Interview</p> <p>↓</p> <p>in 3 to 4 month: phone call from Germany</p> <p>↓</p> <p>in 2008: Training for Success</p> </div> <p style="font-size: x-small; display: flex; justify-content: space-between;">Uganda, Kampala 3 © Copyright University of Giessen, Germany</p>	<div style="text-align: right; font-size: x-small;">JUSTUS-LIEBIG-UNIVERSITÄT GIESSEN</div> <h3>You'll learn the entrepreneurial skills necessary for success in Uganda</h3> <hr style="border: 1px solid gray;"/> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 45%;"> <p>Personal Initiative</p> <ul style="list-style-type: none"> ▪ Being self-starting ▪ Future thinking ▪ Overcoming barriers </div> <div style="width: 10%; text-align: center;"> <p>↓</p> </div> <div style="width: 45%; text-align: center;"> <p>Innovation & creativity</p>  </div> </div> <p style="font-size: x-small; display: flex; justify-content: space-between;">Uganda, Kampala 4 © Copyright University of Giessen, Germany</p>

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Personal Initiative: Being self-starting

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Self-rating questionnaire "self-starting and innovation"

Please take the self-rating questionnaire on "self-starting and innovation" and tick how the statements suit to you.

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Learning points "self-starting and innovation"

Self-starting	Learning points	Reactive
start an action yourself	vs.	wait until you have to react
change - your environment - unfavorable circumstances	vs.	just react to environmental changes
act first – be ahead of your competitors	vs.	complain, wait and hope that things get better
new - try new ways - <i>actively look for new ideas</i>	vs.	react – wait until your competitors act first
- <i>implement new ideas</i>	vs.	always stick to old routines
different – be different from your competitors!	vs.	wait until ideas pop up from alone
Advertising – use different ways	vs.	let your ideas be only thoughts and dreams
Information - actively look for information	vs.	offer the same than your competitors
Learning - look actively for possibilities to learn	vs.	always use the same way of advertising
	vs.	wait until people give you information
	vs.	do not actively extend your business knowledge

↓

Success

↓


Failure

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Think out of your box!!!

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Self-starting means extra effort

Self-starting also means that you have to:

- spend energy
- face uncertainties and obstacles while trying new ways
- take some risks
- keep on trying inspite of obstacles!!!

↔ **successful business owners inspite of this show self-starting behavior!!!**

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Exercise: Case studies self-starting vs. reactive behavior

Instruction:

This exercise consists of two **case studies** of African business owners. The business owner in case 1 acts self-starting whereas the owner in case 2 shows reactive behavior.

For this exercise build small groups


Group 1:

- read **case 1 „self-starting business owner“**
- identify self-starting behavior and its consequences and write it down.

Group 2 :

- read **case 2 „reactive business owner“**
- identify reactive behavior and its consequences

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Exercise: Daily routine


Identifying self-starting and reactive behavior in your daily routine

Instruction

Part 1:

Instructions: Please write down the business activities of your last working day (write down even small activities like cleaning up your shop/your desk).

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Possible daily routine of the owner of a small grocery store

Time	Business activity
8.00	Open store and put up the usual advertisement outside the store.
- 8.45	Waiting for the first customer to come.
9.00	Phone call from supplier: he is not able to deliver fresh fruits today. This happens already the third time within the last two weeks. Hope it will get better soon.
9.30	Serving the customers. Some leave the store without buying anything because they were only looking for fresh fruits. Sending these customers to competitor next street.
11.00	Not many customers today, thus calling some friends by phone to use the time for chatting
13.00	Cleaning the outside-advertisement and the display.
14.30	Serving customers.
20.00	Closing the store.
- 20.20	Counting sales and calculating the turnover for today – not a good day...

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Instruction:

Part 2 :

Instructions: Look at your daily plan: What was not good? Where have you been passive and reactive? Where did you not act self-starting?

Write down alternative good and self-starting behavior you could have shown.

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Example

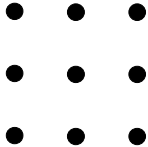
Possible daily routine of the owner of a small grocery store

Time	Business activity
6.30	Open store and put up the usual advertisement outside the store.
- 7.15	Waiting for the first customer to come.
7.20	Phone call from supplier: he is not able to deliver fresh fruits today. This happens already the third time within the last two weeks.
7.30	Serving the customers. Some leave the store without buying anything because they were only looking for fresh fruits. Sending these customers to competitor next street.
11.00	Not many customers today, thus calling some friends by phone to use the time for chatting
12.30	Closing for lunch break.
13.00	Open store. Again not many customers.
14.30	Cleaning the outside-advertisement and the display.
15.00	Serving customers.
20.00	Closing the store.
- 20.20	Counting sales and calculating the turnover for today – not a good day...

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Please connect all nine dots with four straight lines without lifting your pencil/pen off the paper or retracing a line, as this counts as two lines.



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Innovation

Do something new your competitors don't do!

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Exercise: how to use „old things“ in new and creative ways

Creativity technique “Brain writing”

Instruction:

Think of possible uses for this object. Write down as many ideas as you can find. It is important that you also write down crazy ideas!

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There are 3 categories in which you can be innovative

3 categories of innovation

Innovation concerning...

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You have to put your ideas into reality

3 phases of innovation

Develop innovative idea
Actively look for innovative ideas by using different sources of information

Evaluate idea
Is it a good idea?

Implement idea
Make a plan how to realize the idea.
This phase requires action and energy.
You have to overcome barriers that occur.

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Excercise: Sources of information

Generating a list with sources of information that you can use to get innovative ideas. Write down all your ideas.

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Sources of information

Source of information	For you?	How to use these sources to get innovative ideas	How to use sources to get FEEDBACK



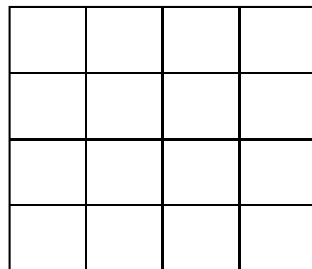
Learning points “Gathering information“

- **different sources:** use different sources of information, not only one.
- **difficult to get and rare:** also look for information that is difficult to get and rare. This information has innovative power.
- **Personal Initiative:** - *self-starting:* look actively for information. Don't wait until people tell you.

- *future thinking:* think what information you could use in the near or far future.



How many squares can you find or count?



Exercise: Discover possibilities for innovation and vital actions

1. Actual state

Which is your most important product/service?

Who are your customers?

Who are your competitors?

Which special skills do you have for doing your business?

What makes you better than your competitors?

What makes you unique and different?

2. Changes in your environment/market

3. Resulting opportunities

4. Actions necessary to use opportunities:

<p>Example of copy shop in Kampala Road</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top; border: none;"> <p>1. Actual state</p> <p>Which is your most important product/service? - Making high quality copies</p> <p>Who are your customers? - Business people from surrounding offices - Some students - Some other persons</p> <p>Who are your competitors? - 3 other copy shops in Kampala Road</p> <p>Which special skills do you have for doing your business? - technician, can repair copier on my own - good social skills important for customer care</p> <p>What makes you better than your competitors? - permanent high quality of copies - always at least two copiers working</p> <p>What makes you unique and different? - color copies</p> </td> <td style="width: 33%; vertical-align: top; border: none;"> <p>2. Changes in your environment/market</p> <p>New offices in downtown Kampala in near future</p> <p>Probably one competitor will close his shop</p> </td> <td style="width: 33%; vertical-align: top; border: none;"> <p>3. Resulting opportunities</p> <p>Expand business: - target new business people in near future - take over shop of competitor</p> </td> </tr> </table> <p style="text-align: center;">4. Actions necessary to use oportunities:</p> <p>-Make calculation how many new offices may open and how many new customers may be approached - Find out if and when competitor closes - find ideas about possible marketing</p> <p style="font-size: small;">Uganda, Kampala 25 © Copyright University of Giessen, Germany</p>	<p>1. Actual state</p> <p>Which is your most important product/service? - Making high quality copies</p> <p>Who are your customers? - Business people from surrounding offices - Some students - Some other persons</p> <p>Who are your competitors? - 3 other copy shops in Kampala Road</p> <p>Which special skills do you have for doing your business? - technician, can repair copier on my own - good social skills important for customer care</p> <p>What makes you better than your competitors? - permanent high quality of copies - always at least two copiers working</p> <p>What makes you unique and different? - color copies</p>	<p>2. Changes in your environment/market</p> <p>New offices in downtown Kampala in near future</p> <p>Probably one competitor will close his shop</p>	<p>3. Resulting opportunities</p> <p>Expand business: - target new business people in near future - take over shop of competitor</p>	<p style="text-align: center;">Be self-starting!</p> <hr style="border: 2px solid gray; margin: 10px 0;"/> <p style="text-align: center; margin-top: 100px;">Review the self-rating questionnaire on self-starting and innovation and mark where you want to improve.</p> <p style="font-size: x-small; text-align: center;">Uganda, Kampala 26 © Copyright University of Giessen, Germany</p>
<p>1. Actual state</p> <p>Which is your most important product/service? - Making high quality copies</p> <p>Who are your customers? - Business people from surrounding offices - Some students - Some other persons</p> <p>Who are your competitors? - 3 other copy shops in Kampala Road</p> <p>Which special skills do you have for doing your business? - technician, can repair copier on my own - good social skills important for customer care</p> <p>What makes you better than your competitors? - permanent high quality of copies - always at least two copiers working</p> <p>What makes you unique and different? - color copies</p>	<p>2. Changes in your environment/market</p> <p>New offices in downtown Kampala in near future</p> <p>Probably one competitor will close his shop</p>	<p>3. Resulting opportunities</p> <p>Expand business: - target new business people in near future - take over shop of competitor</p>		
<p style="text-align: center;">Goal setting</p> <div style="text-align: center; border: 1px solid gray; padding: 10px; margin: 20px auto; width: 80%;"> <p>Goal setting</p> <p>↓</p> <p>Planning</p> <p>↓</p> <p>Feedback</p> </div> <p style="font-size: x-small; text-align: center;">Uganda, Kampala 27 © Copyright University of Giessen, Germany</p>	<p style="text-align: center;">Self-rating questionnaire on goal setting</p> <p>Please take the self-rating questionnaire on goal setting and tick what suits to you.</p> <p style="font-size: x-small; text-align: center;">Uganda, Kampala 28 © Copyright University of Giessen, Germany</p>			

Learning points - „good goal setting“

- **Measurable** (exact numbers, percentage...)
- **Terminated** (exact date when goal should be reached)
- **Specific** (exact description of what you want to achieve)

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Excuse: from unspecific to specific goals

Unspecific goal	Specific goal
New marketing strategy	→ make a cooperation with Mr. J.: He recommends you to his customers and displays your brochures while you display his.
Perform better than competitors	→ Introduce at least 1 product competitors don't sell every half year. Start by introducing spares (40 different nails and screws) in addition to furniture.
Improve my business	→ Buy material of higher quality by changing supplier and get together with others to be able to buy in bulk for reducing the price of good quality material.

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Learning points - „good goal setting“

- **Measurable** (exact numbers, percentage...)
- **Terminated** (exact date when goal should be reached)
- **Specific** (exact description of what you want to achieve)
- **High** but still realistic
- **Prioritized**

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Prioritize your goals

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Prioritize your goals

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Prioritize your goals

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Learning points - „good goal setting“

- **Measurable** (exact numbers, percentage...)
- **Terminated** (exact date when goal should be reached)
- **Specific** (exact description of what you want to achieve)
- **High** but still **realistic**
- **Prioritized**
- **Personal Initiative**
 - *Self-starting* → introduce something new!
 - *Future thinking* → also set long-term goals with a time frame of 2 to 3 years!

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Set goals with different time frames – also long-term goals


Time frame of goals

Future thinking!!!: 2-3 years: → long-term goal

6 months to 1 year: → middle-term goal

1 to 3 months: → short-term goals


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Learning points - „good goal setting“

- **Measurable** (exact numbers, percentage...)
- **Terminated** (exact date when goal should be reached)
- **Specific** (exact description of what you want to achieve)
- **High** but still **realistic** → this motivates you
- **Prioritized**
- **Personal Initiative**
 - *Self-starting* → introduce something new!
 - *Future thinking* → also set long-term goals with a time frame of 2 to 3 years!
 - *overcoming barriers* → when obstacles occur on the way towards your goal, keep your goal! Try other ways!

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Exercise: Reformulating goals

Goals to be reformulated in plenum:


On December, 31st of this year, I will have won 20% more customers compared to the beginning of this year. This is an average of 15 customers per day.

I will ask every 10th customer who comes into my business whether he is satisfied with my products.

I want everything to stay the same.

My employees should be more motivated.

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Exercise: Setting goals for your own business

Instruction:
Take the sheet "setting goals for your own business" and set goals concerning the learning points of "good goal setting".

Part 1: Long-term goal (future thinking)
Write down one goal that you want to reach within 2 to 3 years.

Part 2: Short-term goals
Write down two short-term goals that you want to achieve within 2 to 3 months.

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Set goals concerning the learning points of "good goal setting"

Review the self-rating questionnaire on goal setting and mark where you want to improve.

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Planning

Goal setting

↓

Planning

↓

Feedback

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Self-rating questionnaire "planning"

Please take the self-rating questionnaire „seeking information & planning“ and state for yourself, how much the displayed statements suit to you.

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Learning points: Planning

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- consider **what you need** to reach the goal (material, money, time etc.)→ *Work sheet 2*


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Work sheet 2: Gathering information

Goal:

What do you need to reach the goal	Where do you get this from
Material:	
Employees and other persons:	
Own time per week :	
Costs:	
Informations:	
Other:	

Learning points: Planning




- consider **what you need** to reach the goal (material, money, time etc.)→ *Work sheet 2*
- **write down actions** → develop plan of action → *Work sheet 3*

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Work sheet 3: Planning
Goal:

Actions	Start	Finish	PROGRESS ✓ = done o = in progress ! = delay

Learning points: Planning



- consider **what you need** to reach the goal (material, money, time etc.)→ *Work sheet 2*
- **write down actions** → develop plan of action → *Work sheet 3*
- **monitor the progress** → *Work sheet 3*
- **weekly plan with next steps** → *Work sheet 4*

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Work sheet 4: Weekly plan of next steps
Goal:

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

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Learning points: Planning

- consider **what you need** to reach the goal (material, money, time etc.)→ *Work sheet 2*
- **write down actions** → develop plan of action → *Work sheet 3*
- **monitor the progress** → *Work sheet 3*
- **weekly plan with next steps** → *Work sheet 4*
- **Personal Initiative:**
 - *self starting* → your plan must imply that you can execute it without waiting for things to happen
 - *future thinking* → what opportunities may occur in the future?
 - *overcoming barriers* → anticipate possible problems and develop a back-up plan

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Exercise: From a goal to a plan

Example for using the worksheets:

Designer of clothes wants to get new supplier who sells materials of higher quality

1. **Set innovative goal** -> *worksheet 1*
2. **Gather information to reach goal** -> *worksheet 2*
3. **Plan actions towards goal** -> *worksheet 3*
4. **Write down next steps** -> *worksheet 4*

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Work sheet 1: Set goal and look for feedback

Write down your GOAL here: Get new supplier who sells material of better quality till end of July

Is your goal formulated concerning the learning points of "good goal setting"?:

(no) Measurable: quality: cloth that does not tear and not shrink after first washing

(✓) Terminated:

(✓) Specific:

(✓) High:

(✓) Realistic:

(✓) self-starting (introduce something new):

Re-write goal concerning learning points here:

Get new supplier who sells cloth that does not tear and not shrink after first washing till end of July

FEEDBACK:

How will you measure if you reached your goal (also look for negative feedback):
Wash the cloth two times to see if it shrinks and try to tear the colth with hands

When will you measure if you reached your goal (exact date): before buying first time from new supplier

Work sheet 2: Gathering information

Goal: Get new supplier who sells cloth that does not tear and not shrink after first washing till end of July

What do you need to reach the goal	Where do you get this from
<p>Material:</p> <ul style="list-style-type: none"> - different types of cloth - washing machine 	<ul style="list-style-type: none"> - from different suppliers - friend who has one
<p>Employees and other persons:</p> <ul style="list-style-type: none"> - Different suppliers, designer with clothes of best quality cloth - Employee who goes to different shops and compares quality in other area 	<ul style="list-style-type: none"> - go to shops and look for high quality cloth personally - own employees
<p>Own time per week :</p> <p>5 hours</p>	<ul style="list-style-type: none"> - no fixed day
<p>Costs:</p> <ul style="list-style-type: none"> - Phone calls and transportation: 20.000 - Costs for cloth to test: 20.000 - use washing machine: 5.000 	<ul style="list-style-type: none"> - profit of last month and current month
<p>Informations:</p> <p>Where to find suppliers, who knows good suppliers</p>	<ul style="list-style-type: none"> - Go to shops and look for high quality cloth personally and send employee to other area. Also ask people if they know
<p>Other:</p>	

Work sheet 3: Planning
Goal: Get new supplier who sells cloth that does not tear and not shrink after first washing till end of July

Actions	Start	Finish	PROGRESS ✓ = done ○ = in progress ! = delay
Choose one of the employees to look for high quality cloth and motivate him by giving responsibility.	May 1 st	May 2 nd	
Determine together with the employee the areas where you go to look for supplier.	May 4 th	May 4 th	
Find at least 6 different possible suppliers (3 yourself, 3 by employee).	May 4 th	June 6 th	
Regularly talk with employee about progress	May 4 th	June 6 th	
Buy 3 different pieces of cloth from each supplier.	June 6 th	June 20 th	
Compare cloth of the suppliers by washing with machine and trying to tear.	June 20 th	June 28 th	
Make a ranking of the quality of the suppliers.	June 28 th	June 28 th	
Negotiate prices with the two best suppliers.	June 28 th	July 10 th	
Make contract with one supplier and buy cloth.	July 10 th	July 22 th	

Work sheet 4: Weekly plan of next steps
Goal: Get new supplier who sells cloth that does not tear and not shrink after first washing till end of July

Monday (May, 1 st)	Tuesday	Wednesday	Thursday (May 4 th)	Friday	Saturday	Sunday
<p>Morning: Choose one of the employees to look for high quality cloth and motivate him by giving responsibility.</p> <p>Talk to him about that at least for 30 minutes</p>			<p>Afternoon: Determine together with the employee the areas where you go to look for supplier.</p>	First time go to other are to look for supplier		

Exercise: From a goal to a plan

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Case study The shoemaker – Part 1: Goal setting and planning

Jeffrey is a shoemaker. He makes shoes in a total of 4 different styles. They are well made, of high quality and thus, durable. They had sold on a regular basis in the village for many years. He does book-keeping since he started his business and thus, knows exactly his monthly sales, expenses and customers (how many, who came and what they bought). In average, he had 25 customers a month. Now, he decides to put more energy in increasing the number of customers and sets himself the goal:

"Increase the number of customers within the next year from 25 to 35 per months **by adding a new, creative way of advertising / marketing**".

What you should know about Jeffrey:

- His shop is located in an enclosed business area.
- Only uses word-of-mouth advertising.
- Has limited money available. Prefers advertising that does not cost much.

Instruction:

1. Think about a creative way of marketing that Jeffrey could use to increase the number of customers. Formulate a goal concerning this way of marketing. Use "worksheet 1"
2. Think about what he will need to reach this goal and where he can get this from. Use "worksheet 2"
3. Write down the activities Jeffrey has to undertake to reach his goal. Use "worksheet 3"

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Review self-rating questionnaire on planning

Please review the „self-rating questionnaire seeking information & planning“. Concerning which points do you have to / want to improve?

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Feedback

Goal setting

↓

Planning

↓

Feedback

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Self-rating questionnaire “feedback“

Please take the self-rating questionnaire „feedback“ and state for yourself, how much the displayed statements suit to you.

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Feedback is an important source for improvement

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You have to look for feedback:

1. **To find out if you reached your goal completely** → *work sheet 1*
2. **To find possibilities to improve:**
 - is quality of your products / service good enough?
 - are you working efficiently?
 - are customers satisfied?
 - are all employees working well?
 - do you offer different things than competitors?
 - are your expenses, stocks, etc. efficiently organized and calculated

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Learning points: Feedback

- **different sources** → use your list „sources of information“.
- **negative feedback** → shows you where you can improve.
- **difficult & rare** → highest innovative power.
- **Personal initiative:**
 - *self-starting* → go and actively gather feedback. Don't wait until somebody gives it to you.
 - *future thinking* → does your product / service meet future needs?
- **compare sales and expenses** → with which products / services you make profit, with which not?

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Review self-rating questionnaire “feedback“

Please review the „self-rating questionnaire feedback“.

This questionnaire follows the learning points of „feedback“. Concerning which points do you have to / want to improve?

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Overcoming barriers

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self-rating questionnaire on overcoming barriers

Please take the self-rating questionnaire „overcoming barriers“ and state for yourself, how much the displayed statements suit to you.

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Learning points on how to overcome barriers / solve problems

- think before problems occur
- act & self-start → Look for creative ways how to overcome barriers.
- do not give up!
- try different and new ways
- accept and learn from mistakes
- find a long-term solution

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The consequent use of problem solving techniques increases the probability to overcome barriers

Problem solving techniques to overcome barriers

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The consequent use of problem solving techniques increases the probability to overcome barriers

Problem solving techniques to overcome barriers

- Describe problem**
Write down problem
- Specify problem (Worksheet 5)**
Answer all the questions: **What? When/how often? Where? Who? Why?** This makes the problem clearer and makes it easier to find possible solutions.

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Worksheet 5: overcoming barriers / problem solving – example of metal fabrication & repair

Describe problem exactly: Power company twice a week switches off power. Machines are not working and thus, I'm not able to produce the spares necessary to repair the cars/machines of the customer. Therefore, car is not repaired in time.

What?

- Lack of power → get generator (own, hire, share with others...)
- machine not working → buy machine that does not need power for this case
- no spares → have few spares in storage (those you have to produce with the machine)
- repair car for customer not in time
- no work meanwhile

When / how often?

- twice a week
- days not predictable
- daytime not predictable

→ think about what you could do when no power before (e.g. think of innovations, plan, market, customer care, pricing, calculating stock, book-keeping etc.)
→ diversify work

Where?

- whole area → buy spares from someone of another area
- cooperate with someone from other area who does the same
- open a branch in other area

Who is involved?

- power company
- myself
- employees have no work → give them other work
- competitors have same problem → flexible payment

Why?

- power company switches off power

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The consequent use of problem solving techniques increases the probability to overcome barriers

Problem solving techniques to overcome barriers

- Describe problem**
Write down problem
- Specify problem (Worksheet 5)**
Answer all the questions: **What? When/how often? Where? Who? Why?** This makes the problem clearer and makes it easier to find possible solutions.
- Different sources of information:** Use different **sources of information** to get ideas how to solve the problem. Use your list „sources of information“.
- Brainstorming/Brainwriting:** Include your employees/friends/family/supplier...
- Formulate a plan** and write down the **necessary actions** to overcome the problem. Use **worksheet 3 “Planning“**

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<p>Work sheet 3: Planning Goal:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 70%;">Actions</th> <th style="width: 10%;">Start</th> <th style="width: 10%;">Finish</th> <th style="width: 10%;">PROGRESS ✓ = done o = in progress ! = delay</th> </tr> </thead> <tbody> <tr> <td style="height: 150px;"></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Actions	Start	Finish	PROGRESS ✓ = done o = in progress ! = delay					<div style="text-align: right; font-size: small;">  </div> <p style="text-align: center;">Everybody can overcome barriers that occur while pursuing an important goal!</p> <hr style="border: 2px solid gray; margin: 10px 0;"/> <p style="text-align: center;">Review self-rating questionnaire on overcoming barriers</p> <p style="text-align: center; margin-top: 20px;">Please review the „self-rating questionnaire overcoming barriers“. Concerning which points do you have to / want to improve?</p> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 20px;"> Uganda, Kampala 72 © Copyright University of Giessen, Germany </div>
Actions	Start	Finish	PROGRESS ✓ = done o = in progress ! = delay						
<p>Personal project</p> <div style="text-align: right; font-size: x-small;">  </div> <hr style="border: 2px solid gray; margin: 10px 0;"/> <p>Develop your personal project by using all skills you've learned in this training course</p> <ol style="list-style-type: none"> 1. Choose one of the short-term goals you've set for your business and write it down. Also write down how you will get feedback to find out if you completely reached your goal. → use “wksheet 1 – Set goal and look for feedback” 2. Gather information of what you need to reach your goal. → use “wksheet 2 – Gathering information” 3. Make a plan by writing down the activities needed to reach the goal. Write down for each activity when you want to start and finish it. → use “wksheet 3 – Planning” 4. Write down a plan for next week: write down the first steps you will undertake to reach your goal. → use “wksheet 4 – Weekly plan” 5. Think about one problem that could occur on your way towards your goal. Write it down and think about possible solutions. → use “wksheet 5 – Overcoming barriers / problem solving” <p>Also find an „implementation partner“ and explain him your personal project. Then switch roles. After you have both finished, make an appointment for next week to talk about the progress of your personal projects by phone or at a personal meeting. Write down the exact date and time for your appointment. Continue this exchange by weekly phone calls or personal meetings.</p> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 20px;"> Uganda, Kampala 74 © Copyright University of Giessen, Germany </div>	<div style="text-align: right; font-size: x-small;">  </div> <hr style="border: 2px solid gray; margin: 10px 0;"/> <p style="text-align: center; font-size: large; margin-top: 20px;">Review content</p> <div style="display: flex; justify-content: space-between; font-size: x-small; margin-top: 20px;"> Uganda, Kampala 75 © Copyright University of Giessen, Germany </div>								

Only people who actually use the skills learned in the training in their business profit from taking part in the training course!

The mean sales strongly increased within two years after the training...

...but only for those business owners who actually used the training content in their business!

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Application contract

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Contract with myself

I am conscious that I am responsible for the success and future of my business: I can influence the circumstances affecting my business by **acting self-starting** and **going new ways**, by **overcoming barriers** and by considering **future opportunities**.

Starting today, I actively take this responsibility:

- I will introduce new ideas, products or services and ways of marketing.
- I will actively use different sources of information.
- I will set goals for my business and consequently pursue them and not give up facing obstacles.
- I will consider future opportunities and set goals for at least 2 to 3 years.

In the training I've learned the necessary skills to do so. Starting today, I will use these skills in my business. I am aware that this will cost energy, that sometimes I will have to face obstacles or that sometimes new ideas won't work out. However, I will stay on track and try again. In the course of time these efforts will pay off.

Starting today, I take the full responsibility for the future and the success of my business.

Place/Date _____ Signature _____

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Show Personal Initiative and use your newly learned skills in your business!

GOOD LUCK and ALL the BEST!!!!

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A8 TRAINING EXERCISES (Study 2)

Transfer Sheet - DAY 1

Please reflect and answer on this paper the following questions:

- What of the things that I've learned today is important for me?
- What of the things that I've learned today do I want to implement into my business?
- What do I want to change in my business or in the way I'm managing my business?

Transfer Sheet - DAY 2

Please reflect and answer on this paper the following questions:

- What of the things that I've learned today is important for me?
- What of the things that I've learned today do I want to implement into my business?
- What do I want to change in my business or in the way I'm managing my business?

Transfer Sheet - DAY 3

Please reflect and answer on this paper the following questions:

- What of the things that I've learned today is important for me?
- What of the things that I've learned today do I want to implement into my business?
- What do I want to change in my business or in the way I'm managing my business?

Exercise: Case studies self-starting vs. reactive

Case no. 1 – self-starting business owner. Mr. C is in the carpentry business and produces wardrobes, kitchen units, room dividers, and shop fittings. The owner and his two partners started their business two years ago as a cooperative. It has since changed into a partnership and is in the process of becoming registered and enrolled for tax payments. The 28 year old business owner was formerly employed as a foreman in a big furniture manufacturing company. For acquiring knowledge in how to run a business he had joined a book keeping course at the local business school. Mr. C.'s business steadily grew within the past two years. He has recently set himself the goal: “double the size of the business within another two years”.

Thus, he approached a larger furniture sales company in a nearby area to offer his products. After being rejected first, he made another try offering chairs of a special design he had seen in a European furniture magazine which he buys once a month. Finally he got a contract.

In addition, Mr. C. sends out an employee once a month to surrounding areas to distribute pamphlets to business owners. The pamphlets show high quality pictures of his array of products and advert special offers. For being able to offer free door delivery to the surrounding areas, he rents a van every second Saturday from a plumber in his neighborhood. Mr. C won many clients in the surrounding areas.

Mr. C. actively approaches people working in the carpentry business in other districts to discuss manufacturing problems, exchange magazines and discuss new designs.

Case no. 2 – reactive business owner. Mr. N. is also a carpenter who buys and renovates antique style furniture for resale. He started his business, which is informal up to the present date, in 1980. He had acquired his business knowledge during his time as a delivery driver for one of the larger furniture manufacturers in town. He has never sought training or any other source to get better ideas of antique furniture. He struggles to classify the different pieces of furniture he is working with, what makes marketing and pricing more than difficult. For the past years he has been using a book from one of his colleagues in town for classifying his furniture.

His workshop is located in an enclosed industrial area. Since customers living outside this area are his main clients, access is one of his most pressing problems. He has no own motorized means of transport what forces him to sell his goods at the roadside of the nearby highway. He has no intentions to change this situation and is not looking for a different approach of gaining access to his customers.

Case studies: “Innovation”

- **Innovation concerning product**

Case study: Mrs. D. and her husband were unemployed and next to poverty when they decided to start a business in manufacturing wood. They started in 1991 and had no employees. Because of the bad economical situation they actively searched for other small business owners in order to link up with them and form a joint venture.

Consequently, they obtained cheaper supplies and could handle larger orders. They searched for a market niche and focused on manufacturing double banks (bedsteads) for all hostels in the area. They did not wait for customers. In the beginning, Mrs. D. did the marketing herself, she went from hostel to hostel with pictures and a price list on her double banks. Because of the good “word-of-mouth” propaganda they nowadays have too many orders to be able to handle them all.

- **Innovation concerning process**

Case study: Mr. A. is a formally-registered consultant for taxation and accounting. He established his firm in 1990 and has two employees. He wants to reach his goals of “improving the way to offer a service” by adding management consultancy to his services and work on a more international scale. He also wants to improve customer care, which he intends to do by delegating more work to his employees and by spending more time with the customers himself. His main advantage on the market is his firm’s personalized customer care, which goes far beyond that of larger, more anonymous companies. He combines this advantage with his more advanced professional and educational background, which goes far beyond that of other smaller firms.

- **Innovation concerning advertising**

Case study: Mr. S. and his brother started their own business of manufacturing and distributing biscuits in 1993. They deal with stores and sell in bulk and business took off well building up a solid client base. To also target single households they have been working on a „bonus-system“ for customer referrals similar to the clicks club card. Satisfied customers who bring in new clients will be giving a choice of free biscuits at the end of each month depending on the number of referrals by them, giving them an incentive for active word-of-mouth advertising.

Sources of information for innovative ideas – case studies of innovative business owners from Africa

Mr. F. is a plumber. He took part in a course for book keeping at a local NGO. He is now on the mailing list and regularly gets information about business courses. Also he is invited once a year to an event organized by the NGO where exchange of ideas between business owners from different lines of business is initiated. At this event he had a conversation with a constructor about different ways of marketing. From this day on they started a cooperation in advertising: whenever one of them gets a contract he recommends the business of the other one to his customer.

Mrs. H. invites her best customers twice a year for a little “shoe-party” in her shoe store. They chat, have coffee and try on various shoes. Mrs. H. uses these parties to find out what additional products her customers would like to find in her store and why they also buy from her competitors. These “shoe-parties” enable her to identify new trends and stay ahead of her competitors.

Mrs. P. sends out an employee in regular terms to analyze the displays of her competitors’ shops. Afterwards, the employee designs the display of her own shop in a way that differs from all the others. He also includes a special offer the others not make.

Mr. S. wanted to increase his marketing activities by adding one new way of marketing. He decided to gather ideas by walking around in different parts of the town. He paid attention to the ways of marketing of various stores. On the counter in a hairdresser’s shop he saw pamphlets of a shoe store that was located in the same street. The pamphlets could be used as discount tickets in the shoe store. Mr. S decided to design pamphlets worth 5% discount and display them in shops in his area.

Mr. K. owns a grocery store. Last time visiting his brother, who lives in a different city, he used this chance to walk around and gather new ideas. When he bought a newspaper, the shop assistant gave him a little paper and put a stamp on it. He was told that having five stamps he will get one newspaper for free. Mr. K introduced this kind of marketing in his own grocery store.

Mr. M. drives to other districts every third month. There he actively approaches business owners in the same line of business to chat about trends, marketing ideas and to exchange magazines.

Mr. J. is making furniture. On a regular basis he goes into internet cafes. He visits the websites of American and European furniture stores to gather ideas about new designs. This enables him to always make furniture of the latest style. Thus, he’s always one step ahead of his local competitors.

Mrs. G. was always irritated when driving the highway because of the missing median strip. She went to the local town council offering to paint it. A contract was made allowing her to employ two workers on a daily basis. Two months later she owned her own business specialized in street painting.

Goal setting exercise “Venus - right & wrong goals”

Venus started a catering service in 1994 after various jobs in formal employment, including work as a food parasite controller for the health care section of the government. Before starting her catering enterprise, she had made a plan in which she determined several goals for his business:

- She wanted to start a restaurant with a cooking area
- She wanted to cater lunch and dinner for companies in town
- She wanted the restaurant to offer good food, which people would enjoy eating.
- She wanted to offer a good service and a nice environment for having dinner. She planned to get as much feedback by the customers as possible find out if her service is good enough and if she reached that goal
- She wanted to become the best-known restaurant in his area.

Venus considered all of these goals to be equally important and was therefore unsure about which goal she should start with.

Instructions:

Applying the “goal setting learning-points” to this case study,

- Venus’ goals: *what is good?*

- Venus goals: *what should be different?*

Exercise: Goals for your own business

1. Write down a long-term, a goal you want to reach in 2 years, here:

Is your goal formulated concerning the learning points of “good goal setting”?

- Measurable:
- Terminated:
- Specific:
- High:
- Realistic:
- self-starting (introduce something new):

Re-write goal concerning learning points here:

2. Write down a middle-term goal, a goal you want to reach in 1 year, here:

Is your goal formulated concerning the learning points of “good goal setting”?

- Measurable:
- Terminated:
- Specific:
- High:
- Realistic:
- self-starting (introduce something new):

Re-write goal concerning learning points here:

3. Write down a short-term goal, a goal you want to reach in 2 to 3 months:

Is your goal formulated concerning the learning points of “good goal setting”?

- Measurable:
- Terminated:
- Specific:
- High:
- Realistic:
- self-starting (introduce something new):

Re-write goal concerning learning points here:

Case study “Overcoming barriers”

Mrs. V., thirty-three years old, owns a business in the township of Khaelitsha. She makes school uniforms that are sold locally to a school in Khaelitsha. She started her business in 1995 because she was unemployed.

While working at a tailor shop, she received practical training, gained knowledge about machinery and fabrics and learned about what was needed to run a business. After a year of unemployment she decided that she wanted to start her own business. From money she had saved, about 2.000 Rand, she bought a second-hand sewing machine and fabrics to start with. She started to work at home to save money.

Because of the competition from Asia in the clothing industry, she decided to make school uniforms, which were not imported from other countries. Thus, she thought she had found a niche in the market. She went to her children’s primary school in Khaelitsha and tried to get a contract with the school so that she could at least sell some of her products. This was not successful and she found that she certainly had not been the only person to have the idea of producing school uniforms.

She then chose the personal approach and asked parents if they needed school uniforms for their children. This proved to be a better strategy and provided her at least with some customers. She used the word-of-mouth advertising as her marketing strategy. After a year she was able to buy another second hand sewing machine.

In order to be able to produce more school uniforms, she realized that she needed more space than she had at home but unfortunately she could not afford to pay for the rent of workplace all by herself. Thus, she asked a number of friends and then finally found another business owner, who was looking for someone to share a workplace with. Thus, Mrs. V. only had to pay low rent and was satisfied with having a workplace.

Although the number of customers and sales increased during the last year, she continues to look for new opportunities for her business.

Self rating questionnaire on “self-starting & active behavior & innovation”

How many new products/services did you start to produce or offer within the last year?	More than 2	2	1	None
How many products do you produce or sell or how many services do you offer that your competitors do not do?	More than 2	2	1	None
How many sources to learn did you use within the last year (e.g. take part in course, read books...)?	More than 3	3	1 to 2	None
How many different sources of information (e.g. asking customers) do you use to get new ideas for your business?	More than 3	3	1 o 2	None
How many different ways of marketing & advertising did you use within the last year (e.g. distributing pamphlets)?	More than 4	3 to 4	1 o 2	None

Self rating questionnaire on “goal setting”

How many goals do you have for your business?	More than 3	2 to 3	1	none
How many of your goals do you have written down?	all	some	only for 1	none
How many goals do you have about introducing something new (new product/service, way of marketing...)?	More than 3	2 to 3	1	none
How many goals do you have for the future (goals that you want to reach in two years or later)	More than 2	2	1	none
If difficulties occur when trying to reach my goals I keep my goals in spite of these difficulties.	totally true	rather true	rather not true	not at all true

Self rating questionnaire on “planning”

For how many of your goals do you know already what things you have to do in order to reach them? (e.g. what material, how much money, how much time you need)	More than 2	2	1	none
For how many of your goals do you have written down the things you have to do in order to reach them?	More than 2	2	1	none
I also make plans for goals that I will reach in one or two years.	totally true	rather true	rather not true	not at all true
For how many problems that could occur when trying to reach your goals do you already know how you will try to overcome them?	More than 2	2	1	none

Self rating questionnaire on “feedback”

How many different sources of information do you use to find out how you could improve your products or services (e.g., asking customers is one source of information)?	More than 4	3 to 4	1 to 2	none
How much time per week do you spend in getting information to find out how you could improve your products or services?	More than 2 hours	30 minutes to 2 hours	Less than 30 minutes	none
Do you also ask customers what is <u>not</u> good concerning your products instead of what is good or what they like?	regularly	sometimes	seldom	no
I also think what the feedback I get means for the future of my business and products/services.	totally true	rather true	rather not true	not at all true
I also look for feedback from sources of information that are rare and difficult to use.	totally true	rather true	rather not true	not at all true

Self rating questionnaire on “overcoming barriers”

How many creativity techniques do you use to solve your problems?	More than 2	2	1	none
How many different sources of information do you use for getting ideas to solve your problems?	More than 3	2 to 3	1	none
I always think about problems that may occur in the future and about possible solutions for those problems.	Not true	Rather not true	Sometimes true	Totally true
When problems occur when you want to implement something new: is it better not to spend much energy in trying to solve the problems?	Spend a lot energy	You should spend energy	Don't spend much energy	don't spend any energy

Contract with myself

I am conscious that I am responsible for the success and future of my business: I can influence the circumstances affecting my business by **acting self-starting**, by **going new ways** and by **not giving up**.

Starting today, I actively take this responsibility:

- I will introduce new ideas, products or services and ways of marketing
- I will set goals for my business, consequently pursue them and not give up when facing obstacles
- I will actively use different sources of information
- I will think about the future consequences of my actions

In the training I've learned the necessary skills to do so. Starting today, I will use these skills in my business. I am aware that this will cost energy, that sometimes I will have to face obstacles or that sometimes new ideas won't work out. However, I will stay on track and try again. In the course of time these efforts will pay off.

Starting today, I take the future and the success of my business in my hands.

Place/Date

Signature

Training for Success



MUBS

Name:

Name of business:

Location:

Line of business:

Products / services:

Additional information (age, interests...)

Phone number:

A9 MANUAL OF SCALES (Study 2)**Scale:** Self-Efficacy**Source:** Schwarzer, R., & Jerusalem, M. (1995). Generalised Self-Efficacy Scale. In: J. Weinman, S. Wright, & M. Johnston (Eds.), *Measures in health psychology: A user's portfolio. Causal and control beliefs* (pp. 35–37). Windsor, UK: Nfer-Nelson.

	Scale
Alpha	.761
Mean	3.37
SD	.47
N	100

Item	Scale	Label	ITC
t2selef1	1-4	I can always manage to solve difficult problems if I try hard enough.	.430
t2selef2	1-4	If someone opposes me, I can find means and ways to get what I want.	.347
t2selef3	1-4	It is easy for me to stick to my aims and accomplish my goals.	.400
t2selef4	1-4	I am confident that I could deal efficiently with unexpected events.	.452
t2selef5	1-4	Thanks to my resourcefulness, I know how to handle unforeseen situations.	.295
t2selef6	1-4	I can solve most problems if I invest the necessary effort.	.407
t2selef7	1-4	I can remain calm when facing difficulties because I can rely on my coping abilities.	.508
t2selef8	1-4	When I am confronted with a problem, I can usually find several solutions.	.489
t2selef9	1-4	If I am in a bind, I can usually think of something to do.	.491
t2selef10	1-4	No matter what comes my way, I'm usually able to handle it.	.494

Note: ITC = Corrected Item Total Correlation.

Scale: Proactive Personality

Source: Seibert, S., Crant, M., & Kraimer, M. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84, 416-427.

	Scale
Alpha	.605
Mean	5.79
SD	.73
N	100

Item	Scale	Label	ITC
t2sppers1	1-7	I am constantly on the lookout for new ways to improve my life	.172
t2sppers2	1-7	Wherever I have been, I have been a powerful force for constructive change.	.340
t2sppers3	1-7	Nothing is more exciting than seeing my ideas turn into reality	.030
t2sppers4	1-7	If I see something I don't like I fix it.	.072
t2sppers5	1-7	No matter what the odds, if I believe in something I will make it happen.	.522
t2sppers6	1-7	I love being a champion for my ideas, even against others' opposition.	.276
t2sppers7	1-7	I excel at identifying opportunities	.260
t2sppers8	1-7	I am always looking for better ways to do things	.411
t2sppers9	1-7	If I believe in an idea, no obstacle will prevent me from making it happen.	.532
t2sppers10	1-7	I can spot a good opportunity long before others can.	.416

Note: ITC = Corrected Item Total Correlation.

Scale: Risk Taking

Source: Cable, D. M., & Judge, T. A. (1994). Pay preferences and job search decisions: A person-organisation fit perspective. *Personnel Psychology*, 47, 317-348.

	Scale
Alpha	.672
Mean	3.06
SD	1.00
N	100

Item	Scale	recoded	Label	ITC
t2risk1r	1-5	Yes	I am not willing to take risks when choosing a job or a company to work for.	.416
t2risk2r	1-5	Yes	I prefer a low risk and high security job with a steady salary over a job that offers high risks and high rewards.	.472
t2risk2r	1-5	Yes	I prefer to remain on a job that has problems that I know about rather than take the risk of working at a new job that has unknown problems even if the new job offers greater rewards.	.457
t2risk2r	1-5	Yes	I view risk on a job as a situation to be avoided at all cost.	.474

Note: ITC = Corrected Item Total Correlation.

Scale: Transfer Motivation

Source: Self-developed

	Scale
Alpha	.870
Mean	4.43
SD	.46
N	47

Item	Scale	Label	ITC
t2lsps	1-5	To what extend do you think that after this training you will look if your product/service fits the future needs of your customers more than you did before the training?	.682
t2lsids	1-5	To what extend do you think that after this training you will look for more information from different sources than you did before?	.665
t2lsis	1-5	To what extend do you think that after this training you will seek more information that you can use at a later point of time than you did before?	.416
t2lsri	1-5	To what extend do you think that after this training you will use more resources to get information that are rare and difficult to get than you did before?	.578
t2lsanp	1-5	To what extend do you think that after this training you will spend more time anticipating possible business problems than you did before?	.597
t2lspla	1-5	To what extend do you think that after this training you will not wait until things happen in your business, but act out plans immediately than you did before?	.583
t2lsplaf	1-5	To what extend do you think that after this training you will plan towards future opportunities more than you did before?	.569
t2lsint	1-5	To what extend do you think that after this training you will introduce more new things into your business than you did before?	.241
t2lsgo	1-5	To what extend do you think that after this training you will have more goals with a longer time frame of possibly two to three years for your business than you did before?	.551
t2lskeeg	1-5	To what extend do you think that after this training you will keep your goals even in spite of difficulties more often than you did before?	.618
t2lsdsfe	1-5	To what extend do you think that after this training you will look for more different sources of feedback than you did before?	.562
t2lsfe	1-5	To what extend do you think that after this training you will use more sources of feedback that are rare and difficult to find than you did before?	.605

Note: ITC = Corrected Item Total Correlation.

Scale: Perceived Training Utility

Source: Self-developed

	Scale
Alpha	.793
Mean	4.82
SD	.31
N	47

Item	Scale	Label	ITC
t2usss	1-5	Do you think the part "self-starting and innovation" is useful for your business?	.704
t2usis	1-5	Do you think the part seeking information is useful for your business?	.479
t2usgs	1-5	Do you think the part goal setting is useful for your business?	.570
t2uspla	1-5	Do you think the part making a plan is useful in your business?	.266
t2usfe	1-5	Do you think the part feedback is useful for your business?	.510
t2usps	1-5	Do you think the problem solving techniques are useful for your business?	.743
t2usft	1-5	Do you think the component future thinking that was trained is useful for your business?	.514

Note: ITC = Corrected Item Total Correlation.

Scale: Initiative Behavior

Source: Self-developed, based on 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 Organizational and Occupational Psychology*, 70, 139-161.

	Scale	
	T1	T3
Alpha	.805	.894
Mean	1.67	.195
SD	.76	1.00
N	100	100

Item		Scale	Label	ITC		ICC	
T1	T3			T1	T3	T1	T3
t1ip1qn	t3ip1qn	0-5	Initiative in behavior – quantitative initiative in quality testing	.495	.723	.941	.908
t1ip1ql	t3ip1ql	0-5	Initiative in behavior – qualitative initiative in quality testing	.551	.789	.928	.904
t1ip2qn	t3ip2qn	0-5	Initiative in behavior – quantitative initiative in problem solving	.529	.497	.894	.888
t1ip2ql	t3ip2ql	0-5	Initiative in behavior – qualitative initiative in problem solving	.584	.598	.900	.914
t1ip3qn	t3ip3qn	0-5	Initiative in behavior – quantitative initiative in approaching a goal	.495	.734	.872	.890
t1ip3ql	t3ip3ql	0-5	Initiative in behavior – qualitative initiative in approaching a goal	.565	.778	.875	.889
t1ip4qn	t3ip4qn	0-5	Initiative in behavior – quantitative initiative in introducing changes	.447	.648	.966	.945
t1ip4ql	t3ip4ql	0-5	Initiative in behavior – qualitative initiative in introducing changes	.500	.665	.951	.963

Note: ITC = Corrected Item Total Correlation; ICC = two-way mixed effect model of intraclass correlation coefficient.

Scale: Initiative for product/marketing assessing the past three months

Source: Self-developed, based on 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 Organizational and Occupational Psychology*, 70, 139-161.

	Scale	
	T1	T3
Alpha	.782	.806
Mean	1.08	1.93
SD	.95	1.14
N	100	100

Item		Scale	Label	ITC		ICC	
T1	T3			T1	T3	T1	T3
t1ii2bn	t3ii2qn	0-5	Quantitative initiative in advertising	.575	.593	.925	.920
t1ii2bl	t3ii2ql	0-5	Qualitative initiative in advertising	.586	.583	.945	.927
t1ii3bn	t3ii3qn	0-5	Quantitative initiative in product/service	.637	.682	.956	.934
t1ii3bl	t3ii3ql	0-5	Qualitative initiative in product/service	.568	.638	.942	.954

Note: ITC = Corrected Item Total Correlation; ICC = two-way mixed effect model of intraclass correlation coefficient.

Scale: Initiative for product/marketing assessing the past year

Source: Self-developed, based on 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 Organizational and Occupational Psychology*, 70, 139-161.

	Scale	
	T1	T4
Alpha	.813	.876
Mean	1.49	2.22
SD	1.02	1.21
N	100	95

Item		Scale	Label	ITC		ICC	
T1	T4			T1	T4	T1	T4
t1ii2an	t4iiaqn	0-5	Quantitative initiative in advertising	.543	.715	.918	.906
t1ii2al	t4iiaql	0-5	Qualitative initiative in advertising	.657	.693	.939	.906
t1ii3an	t4iipqn	0-5	Quantitative initiative in product/service	.722	.806	.942	.947
t1ii3al	t4iipql	0-5	Qualitative initiative in product/service	.618	.759	.961	.911

Note: ITC = Corrected Item Total Correlation; ICC = two-way mixed effect model of intraclass correlation coefficient.

Scale: Overcoming barriers

Source: Fay, D., & Frese, M. (2001). The concept of personal initiative: An overview of validity studies. *Human Performance*, 14, 97-124.

	Scale	
	T1	T3
Alpha	.826	.853
Mean	.00	.00
SD	.73	.76
N	100	100

Item		Scale	Label	ITC		ICC	
T1	T3			T1	T3	T1	T3
zt1ob13b	zt3ob13b	factual	Number of barriers overcome – set 1 (big order & employee quits)	.634	.677	.957	.948
zt1ob13s	zt3ob13p	0-5*	Proactivity in overcoming barriers	.613	.662	.837	.818
zt1ob13p	zt3ob13s	0-5*	Persistence in overcoming barriers	.597	.646	.845	.809
zt1ob24b	zt3ob24b	0-5*	Number of barriers solved	.564	.536	.971	.950
zt1ob24s	zt3ob24p	0-5*	Proactivity in overcoming barriers	.575	.733	.835	.862
zt1ob24p	zt3ob24s	0-5*	Persistence in overcoming barriers	.582	.586	.832	.832

Note: * z-standardized; ITC = Corrected Item Total Correlation; ICC = two-way mixed effect model of intraclass correlation coefficient.

Scale: Overall personal initiative scale

Source: Self-developed, second order scale

	Scale	
	T1	T3/T4
Alpha	.640	.771
Mean	-.00	-.02
SD	.76	.83
N	100	100

Item		Scale	Label	ITC	
T1	T3/T4			T1	T3/T4
zxt1lipov	zxt3ipov	0-5*	<i>Initiative behavior</i>	.414	.622
zxt1obto	zxt3obto	0-5*	<i>Overcoming barriers</i>	.489	.528
zxt1iaap	zxt4iap	0-5*	<i>Initiative for product/marketing</i>	.445	.668

Note: * z-standardized; ITC = Corrected Item Total Correlation; ICC = two-way mixed effect model of intraclass correlation coefficient.

Scale: Short-term growth

Source: Self-developed, second order scale

	Scale	
	T1	T3
Alpha	.872	.861
Mean	.08	.70
SD	.78	.59
N	100	100

Item		Scale	Label	ITC	
T1	T3/T4			T1	T3
t1ses3m	t3ses3m	-1 - +1	Did the sales within the last three months decrease/stay the same/increase?	.794	.796
t1sep3m	t3sep3m	-1 - +1	Did the profit within the last three months decrease/stay the same/increase?	.763	.717
t1sec3m	t3sec3m	-1 - +1	Did the amount of customers within the last three months decrease/stay the same/increase?	.709	.701

Note: ITC = Corrected Item Total Correlation.

Scale: Overall success index

Source: Self-developed, second order index

	Index	
	T1	T4
Alpha	.661	.622
Mean	.00	.00
SD	.87	.85
N	100	95

Item		Scale	Label	ITC	
T1	T4			T1	T4
zt1empto	zt4empto	Factual*	Number of employees	.494	.451
zaverslo	zt4sallo	Factual*	Sales level (logarithm)	.494	.451

Note: * z-standardized; ITC = Corrected Item Total Correlation.

A10 ALTERNATIVE CALCULATIONS SUCCESS (Study 2)

Because of outliers in the sales level measurement, we took the logarithm of sales and excluded one outlier. Presented below are the results of the calculations with the original sales level and without exclusion of outliers.

Results of ANCOVAs

Measure			Before Training				After Training		Test		Effect Size		
			M	SD	M	SD	df	Value*1	p	Eta ²	d	d	
											Inter- action effect effect	Time effect only TG	Group effect after training
Analyses of Covariance (Training/Nontraining x Repeated Measures Interaction)													
<i>Sales Level (in Mill. Ugandan Schilling)</i>	T1-T4	TG	47	2.660	3.269	3.389	4.192	1	4.00	< .05	.04	.19	.06
		CG	48	5.602	12.213	3.817	9.430						
<i>Overall Success Scale*2</i>	T1-T3/T4	TG	47	-.05	.58	.20	.57	1	13.36	< .01	.12	.43	.66
		CG	53	.04	.83	-.25	.78						

Note. Line of business and control appraisal were included as covariates in all ANCOVAs; *¹Hotellings Trace; *²standardized scale; T1 = before training; T2 = directly after training; T3 = 4 to 5 months after training; T4 = 1 year after training; TG = training group; CG = control group; M = mean; SD = standard deviation; df = degrees of freedom; p = level of significance.

Testing the necessary conditions for mediation: Results of regression analyses

Predictor / Step	B	SE B	β	R ²	ΔR^2
<i>Analysis 1: Effect of Training on the Post Training Overall Personal Initiative Scale (T3/T4)</i>					
1. Controls				.17	.17**
Control Appraisal	-.13	.05	-.26**		
Line of Business	-.29	.15	-.19*		
Overall Personal Initiative Scale at T1	.26	.10	.24*		
2. Training vs. Control Group	1.25	.11	.77**	.65	.48**
<i>Analysis 2: Effect of Training on the Post Training Overall Success Scale (T3/T4)</i>					
1. Controls				.30	.30**
Control Appraisal	-.03	.04	-.06		
Line of Business	-.24	.12	-.17*		
Overall Success Scale at T1	.53	.09	.52**		
2. Training vs. Control Group	.47	.12	.33**	.39	.09**
<i>Analysis 3: Effect of the Post Training Overall Personal Initiative Scale (T3/T4) on the Post Training Overall Success Scale (T3/T4)</i>					
1. Controls				.31	.31**
Control Appraisal	-.03	.04	-.06		
Line of Business	-.24	.12	-.18*		
Overall Success Scale at T1	.53	.09	.53**		
Overall Personal Initiative Scale at T1	-.07	.08	-.08		
2. Training vs. Control Group	-.05	.19	.04	.44	.14**
Overall Personal Initiative Scale at T3/T4	.33	.17	.38**		
<i>Analysis 4: Effect of Training on the Post Training Overall Success Scale (T3/T4) when controlled for the Post Training Overall Personal Initiative Scale (T3/T4)</i>					
1. Controls				.44	.44**
Control Appraisal	-.02	.04	.05		
Line of Business	-.14	.11	-.10		
Overall Success Scale at T1	.52	.08	.52**		
Overall Personal Initiative Scale at T1	-.16	.08	-.17*		
Overall Personal Initiative Scale at T3/T4	.36	.08	.40**		
2. Training vs. Control Group	-.05	.19	.04	.44	.00

Note. T1 = before training; T3 = 4 to 5 months after training; T4 = 1 year after training; * significant at .05 level (2 tailed); ** significant at the .01 level (2 tailed).

Bootstrapping revealed a strong, significant mediation effect of PI at the $p < .01$ level (99% bias corrected confidence interval for the indirect effect of training on success was $CI_{99} = .0762, .8037$).

A11 GERMAN SUMMARY

Unternehmertum ist von fundamentaler Bedeutung für die Entwicklung der Wirtschaft. Hierüber herrscht Einigkeit unter Wissenschaftlern verschiedenster Fachgebiete (e.g., Autio, 2005; Baumol, 2002; Birch, 1987; van Stel, 2006). Unternehmertum wirkt als Katalysator für Innovation, für die Schaffung von Arbeitsplätzen und für eine gesunde Wirtschaft. Eine besondere Bedeutung kommt Unternehmertum in Entwicklungsländern zu, wo es gezielt als Mittel zur Bekämpfung von Armut und Arbeitslosigkeit gefördert wird. Die Erkenntnis der wirtschaftlichen Bedeutung von Unternehmertum regte das akademische Interesse an diesem Thema an. Wissenschaftler aus unterschiedlichen Disziplinen widmen sich der Forschung nach Faktoren, die erfolgreichem Unternehmertum zugrunde liegen und versuchen zu ergründen, wie diese Erfolgsfaktoren gefördert werden können.

Die vorliegende Dissertation konzentriert sich auf einen dieser Erfolgsfaktoren, den wir als einen zentralen unternehmerischen Faktor sehen. Dieser Faktor ist Eigeninitiative. Eigeninitiative ist ein Verhaltenssyndrom, das sich durch selbstinitiiertes, proaktives Verhalten und durch Beständigkeit angesichts von Schwierigkeiten und Hindernissen auszeichnet (Frese, Kring, Soose, & Zempel, 1996). Kleinunternehmer mit hoher Eigeninitiative initiieren ihre Handlungen selbst und warten nicht, bis ihnen äußere Umstände Handeln aufzwingen. Sie bereiten sich vorausschauend auf zukünftige Probleme und Möglichkeiten vor. Sie geben nicht auf, wenn Hindernisse die Verwirklichung ihrer selbstgesetzten Ziele erschweren.

In Korrelationsstudien und Langzeituntersuchungen wurde der theoretisch postulierte Zusammenhang zwischen Eigeninitiative und unternehmerischem Erfolg (Koop, de Reu, & Frese, 2000; Zempel, 1999) und Eigeninitiative und Leistung von Mitarbeitern (Tornau & Frese, 2009) bestätigt. Auch für Proaktivität (eine Komponente von Eigeninitiative) wurde empirisch eine positive Korrelation mit unternehmerischem Erfolg nachgewiesen (Rauch, Wiklund, Lumpkin, & Frese, in press; Koop et al., 2000; Krauss, Frese, Friedrich, & Unger, 2005). Eindeutige kausale Aussagen, dass Eigeninitiative zu höherem unternehmerischem Erfolg führt, können aus diese Studien jedoch nicht abgeleitet werden. Hierzu müsste ein experimenteller Versuchsaufbau angewandt werden.

Die vorliegende Dissertation präsentiert eine Feldstudie mit einem experimentellen Versuchsaufbau. Wir haben, abgeleitet aus der Eigeninitiativetheorie, eine Intervention entwickelt, um Eigeninitiative bei Kleinunternehmern zu fördern. Wenn diese theoretisch abgeleitete Intervention in einem Feldexperiment zu einer Erhöhung von Eigeninitiative führt, und wenn diese Erhöhung der Eigeninitiative wiederum eine Steigerung von unternehmerischem Erfolg bewirkt, dann ist der theoretisch vorgeschlagene Kausalzusammenhang zwischen Eigeninitiative und unternehmerischem Erfolg nachgewiesen. Dieses Ergebnis würde für die Annahme sprechen, dass Eigeninitiative ein zentraler Faktor für erfolgreiches Unternehmertum ist. Die Intervention, die wir entwickelt haben, um Eigeninitiative zu fördern, ist ein dreitägiges Eigeninitiative-Training.

Die vorliegende Dissertation enthält zwei separate Studien. Studie 2 evaluiert das Eigeninitiative-Training an 100 Kleinunternehmern in Kampala, Uganda. Studie 1 ist ein Review von Trainings für Kleinunternehmern. Betrachtet wurden 27 Evaluationsstudien von Trainings, die in Entwicklungsländern durchgeführt wurden. Dieser Review ermöglicht, das von uns entwickelte Eigeninitiative-Training mit bereits bestehenden Trainings zu vergleichen und Unterschiede herauszuarbeiten.

Die zweite Studie bestätigte unsere Annahme, dass Eigeninitiative ein zentraler Faktor für unternehmerischen Erfolg ist. In einem Langzeit-Feldexperiment mit vier Messzeitpunkten und einer wartenden Kontrollgruppe evaluierten wir die Effekte des Trainings auf den vier Ebenen nach Kirckpatrick (1959; Reaktion, Wissen, Verhalten und objektiver Erfolg). Die 100 Studienteilnehmer wurden per Zufall auf Trainingsgruppe und Kontrollgruppe aufgeteilt. Das Eigeninitiative-Training führte zu einer signifikanten Erhöhung von Wissen und eigeninitiativem Verhalten. Zudem stieg der Unternehmenserfolg in der Trainingsgruppe signifikant an, während in der Kontrollgruppe der Erfolg sank. Diese Daten wurden vier bis fünf Monate nach dem Training erhoben. Die positiven Effekte des Trainings bestätigten sich in einer erneuten Messung ein Jahr nach dem Training. So stieg beispielsweise die Anzahl der Mitarbeiter in der Trainingsgruppe um durchschnittlich 2.8 Mitarbeiter pro Teilnehmer, während in der Kontrollgruppe die Mitarbeiterzahl sank (-1.8 Mitarbeiter pro Unternehmer). Diese Langzeiteffekte sprechen dafür, dass das Training zu einer stabilen Verhaltensänderung in Richtung höherer Eigeninitiative geführt hat. Wie angenommen fungierte Eigeninitiative als Mediator zwischen Training und Steigerung des

Unternehmenserfolgs. Eine Bootstrapping-Analyse bestätigte eine volle Mediation durch Eigeninitiative auf dem .05 Signifikanzniveau.

In der ersten Studie, einem Review, wurden 27 Evaluationsstudien von Unternehmenstrainings betrachtet. Die Studien untersuchten die Effekte von 10 Unternehmertrainings. Es wurden alle veröffentlichten und unveröffentlichten Studie in diesen Review aufgenommen, die in Entwicklungsländern durchgeführt wurden und über Literaturrecherche identifiziert werden konnten. Diese Studie stellt somit die (meines Wissens nach) umfangreichsten Review in der Literatur zu Unternehmertum dar. Der Review deutete darauf hin, dass alle 10 untersuchten Trainingsprogramme zu einer Steigerung in unternehmerischem Erfolg führten. Unser neuentwickeltes Eigeninitiativetraining unterscheidet sich von den bereits existierenden Unternehmenstrainings bezüglich Inhalt und Trainingsdauer. Außer unserem Eigeninitiativetraining konzentriert sich ein weiteres Unternehmenstraining auf einen einzelnen psychologischen Faktor: das Achievement Motivation Training von McClelland (McClelland & Winter, 1969). Die übrigen acht betrachteten Trainingsprogramme verfolgen einen Breitbandansatz. Sie beinhalten neben dem Training von psychologischen Faktoren (z.B. Kreativität, Proaktivität oder Emotionsregulation) die Förderung von Managementfertigkeiten (z.B. Erstellung eines Businessplans oder Kenntnisse in Buchhaltung), beinhalten nachgeschaltete Interventionen (z.B. persönliche Beratung) und erleichtern den Zugang zu finanzieller oder materieller Unterstützung. Auf der einen Seite haben solche Breitbandansätze den Vorteil, dass sie ein breites Spektrum an möglichen nützlichen Inhalten abdecken, auf der anderen Seite beinhaltet diese Ansätze das Risiko, dass Teile des Inhalts für einige Teilnehmer überflüssig sind. Dies ist der Fall, wenn die Teilnehmer das vermittelte Wissen bereits besitzen oder gar nicht erst benötigen. Unser Eigeninitiativetraining und das Achievement Motivation Training hingegen konzentrieren sich auf jeweils einen zentralen unternehmerischen Faktor, von dem angenommen wird, dass er für alle Teilnehmer von Wichtigkeit ist. Hohe Eigeninitiative bei Kleinunternehmern geht zudem mit der Motivation einher, proaktiv auch außerhalb des Trainings Wege zu suchen, sich das Wissen anzueignen, das für das erfolgreiche Führen des eigenen Unternehmens benötigt wird.

Die Trainingsdauer bildete ein weiteres Unterscheidungsmerkmal zwischen unserem Eigeninitiativetraining und den untersuchten existierenden Unternehmertrainings. Acht der 10 betrachteten Trainings erforderten mehr Anwesenheitsstunden (durchschnittlich ca. zwei

Wochen) als unser Eigeninitiativetraining. Dieses ist mit einer Dauer von drei Tagen sehr kurz. Eine höhere Trainingsdauer geht in der Regel einher mit höheren Kosten für Teilnehmer (z.B. Teilnehmergebühr, Verlust an Produktionsstunden im Unternehmen) und Trainingsanbieter (z.B. Trainerhonorar oder Raummiete).

Auf Basis der Ergebnisse von Studie 1 und Studie 2 scheint unser neu entwickeltes Eigeninitiativetraining eine vielversprechende Alternative zu bereits etablierten Unternehmertrainings darzustellen: Erstens, das Training führt zu einer Steigerung des Unternehmenserfolgs; zweitens, es konzentriert sich auf einen zentralen Faktor für unternehmerischen Erfolg und enthält daher keine überflüssigen Inhalte; drittens es ist mit einer Dauer von drei Tagen sehr kurz und daher kostengünstig für Teilnehmer und Anbieter.

Eine weitere Erkenntnis aus Studie 1 betrifft Anzahl und Qualität der identifizierten Studien, die Unternehmertrainings in Entwicklungsländern evaluieren. 27 Studien wurden identifiziert, eine relativ geringe Zahl, wenn man in Betracht zieht, dass jedes Jahr zehntausende Unternehmer diese Trainingskurse besuchen. Zudem ist die methodische Qualität der Mehrheit der Studien auf einem niedrigen Niveau.

Die vorliegende Dissertation liefert einen Beitrag zur Entwicklung evidenzbasiertem Unternehmertums (vgl. Frese, Schmidt, Bausch, Rauch, & Kabst, 2005; Rauch & Frese, 2007). Experimentelle Feldstudien mit aus der Theorie abgeleiteten Intervention können die Kausalzusammenhänge zwischen Faktoren und unternehmerischem Erfolg testen. Die Interventionen können anschließend zur Förderung von unternehmerischem Erfolg eingesetzt werden. Die Arbeit zeigt die Relevanz eines individuumzentrierten psychologischen Ansatzes in der Kleinunternehmerforschung. Mit dem Verhaltenssyndrom Eigeninitiative wurde ein individuumsbasiertes, praktisch brauchbares Konstrukt im Kontext des Kleinunternehmertums untersucht und angewandt.

REFERENCES

- Autio, E. (2005). *Global Entrepreneurship Monitor 2005 Report on High-Expectation Entrepreneurship*. London: London Business School.
- Baumol, W. J. (2002). *The free-market innovation machine: Analyzing the growth miracle of capitalism*. Princeton: Princeton University Press.
- Birch, D. (1987). *Job creation in America*. New York: Free Press.
- Frese, M., Kring, W., Soose, A., & Zempel, J. (1996). Personal initiative at work: Differences between East and West Germany. *Academy of Management Journal*, 39, 37-63.
- Frese, M., Schmidt P., Bausch, A., Rauch, A., & Kabst, R. (2005). Evidence based entrepreneurship: A systematic approach to cumulative science. University of Giessen: Technical Report.
- Kirkpatrick, D. L. (1959). Techniques for evaluating training programs. *Journal of the American Society of Training and Development*, 13, 3-9.
- Koop, S. De Reu, S., & Frese, M. (2000). Entrepreneurial orientation, initiative, and environmental forces in Uganda. In M. Frese (Ed.), *Success and failure of microbusiness owners in Africa: A psychological approach* (pp. 55-76). Westport, CT: Greenwood Publications.
- Krauss, S. I., Frese, M., Friedrich, C., & Unger, J. (2005), Entrepreneurial orientation: A psychological model of success among southern African small business owners, *European Journal of Work and Organizational Psychology*, 14, 315-344.
- McClelland, D., & Winter, G. (1969). *Motivating economic achievement*. New York: Free Press.
- Rauch, A., & Frese, M. (2007). Let's put the person back into entrepreneurship research: A meta-analysis on the relationship between business owners' personality and business creation and success. *European Journal of Work and Organizational Psychology*, 16(4), 353-385.
- Rauch, A., Wiklund, J., Lumpkin, G. T., & Frese, M. (in press). Entrepreneurial orientation and business performance: Cumulative empirical evidence. *Entrepreneurship Theory and Practice*.

Stel, A. J. van. (2006). *Empirical analysis of entrepreneurship and economic growth*

(International Studies in Entrepreneurship Series, Vol. 13). New York: Springer Science.

Zempel, J. (1999). *Selbstaendigkeit in den neuen Bundeslaendern: Praediktoren,*

*Erfolgsfaktoren und Folgen - Ergebnisse einer Laengsschnittuntersuchung (Independence in the newly formed German states: Predictors, success factors and outcomes – Results of a longitudinal study) . In K. Moser, B. Batinic, & J. Zempel (Eds.). *Unternehmerisch erfolgreiches Handeln*. Goettingen: Hogrefe.*

Erklärung

Ich erkläre: Ich habe die vorgelegte Dissertation selbständig und nur mit den Hilfen angefertigt, die ich in der Dissertation angegeben habe. Alle Textstellen, die wörtlich oder sinngemäß aus veröffentlichten oder nicht veröffentlichten Schriften entnommen sind, und alle Angaben, die auf mündlichen Auskünften beruhen, sind als solche kenntlich gemacht.

Frankfurt, den 22.07.2009

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