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Executive Summary, Conclusions, and Policy Implications

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EXECUTIVE SUMMARY

To our knowledge, this is one of the first in-depth psychological studies on microenterprises in Africa. Two broad issues stand in the foreground of our five studies in four countries (Zambia, Uganda, South Africa, and Zimbabwe). The first area covers psychological topics: goal setting, planning and proactivity, psychological process characteristics of strategies, personal initiative, innovativeness, entrepreneurial orientation, and coping with problems. The second area is concerned with the strength of the relationship between sociodemographic factors and entrepreneurial success. Examples of such factors are human capital of owner, starting capital, loans, firm age, type of industry, family members as employees, formal/informal, linkage to formal sector, and start-up because of unemployment or other reasons. The motive to work in this second area was to replicate and extend findings from other researchers within an in-depth study of a psychological nature.

The theoretical basis is displayed in Chapter 1. Its main assumption is that the actions by the entrepreneurs are central for success. Thus, only when a business owner takes a certain action—for example, buys cheap supplies—can this be translated into success (or failure). The environment is also influenced by these actions; for example, if the owner finds a niche in the market. Therefore, personality, human capital, and environmental forces, all work through the actions by the entrepreneur. There is only one pathway to success and that is through actions. A psychological study is uniquely equipped to study issues of actions, because effective actions (performance) have long been studied within work and organizational psychology (Frese & Zapf, 1994).

We did not conceptually distinguish between entrepreneurs and nonentrepreneurs among the owners/managers/founders of our studies. We looked at those who were all three, founders, managers, and owners of their microbusinesses. We sampled one particular group of micro- and small-business owners; that is, those who had at least one employee. We argue that this group is relevant because it has assumed responsibility for others, it has started to become entrepreneurial, and it is a group from which potential high-growth firms develop. Most of the entrepreneurs studied had two to five employees. Most of the owners worked within the informal sector, although there were large differences between the different countries (e.g., there were no informal-sector participants in our Uganda study; in the other studies, the percentage of participants from the informal sector was about 70%). As we used a one-employee cutoff point for participation in the study, there were more males than females in our samples, because male-owned firms tend to grow faster than female-owned firms (Mead & Liedholm, 1998). However, the percentage of females ranged from quite high—43 percent in Zambia—to low—only 3 percent in Zimbabwe.

Psychological Factors for Entrepreneurial Success

The five studies show that psychological variables are important predictors of success of microbusiness firms. The results are summarized in Table 9.1. This table is to be read as follows: For example, entrepreneurial orientation was measured and analyzed in two studies. In each case, there was a statistically significant finding. In the group which had a low entrepreneurial orientation, there was a 10-percent chance to be among the highly successful owners in the Zambian sample. However, in those with a high degree of entrepreneurial orientation, this percentage was much higher (21% of this group of highly entrepreneurially oriented Zambian entrepreneurs were highly successful). Unfortunately, one cannot compare the percentages across the countries. This can only be done by means of correlations. Therefore, we have presented the average correlation as the last entry in Table 9.1. For this we computed all the correlations in all countries and averaged them across these countries (weighted by the number of participants in the studies; see Chapter 8). For entrepreneurial orientation the average correlation is 0.49 (which is quite high).

Table 9.1
Overview of Psychological Factors and Success

		Percentage of Highly Successful Owners					
		Zambia	Uganda	South Africa	Zimbabwe 1	Zimbabwe 2	Average $\bar{r}$ with success
Entrepreneurial orientation	low	10	10	-	-	-	0.49
	high	21	33	-	-	-	
Innovativeness	low	16	9	-	n.s.	42	0.34
	high	20	40	-		50	
Competive aggressiveness	low	14	12	-	n.s.	33	0.27
	high	17	36	-		42	
Personal initiative	low	-	13	15	-	33	0.38
	high	-	35	34	-	45	
Market niche strategy	low	14	-	-	0	22	0.37
	high	38	-	-	13	54	
Reactive strategy	low	20	-	39	19	52	-0.43
	high	12	-	6	0	30	
Complete planning	low	8	-	n.s.	n.s.	31	0.24
	high	18	-			44	
Critical point strategy	low	n.s.	-	18	n.s.	25	0.22
	high		-	67		46	
Opportunistic strategy	low	4	-	n.s.	n.s.	41	0.19
	high	27	-			44	
Goal difficulty	low	-	-	n.s.	n.s.	n.s.	-0.02
	high	-	-				
Goal specificity	low	-	-	n.s.	n.s.	n.s.	0.00
	high	-	-				

Entrepreneurial Orientation

Entrepreneurial orientation is a specific attitude to strategies. The orientation helps to focus entrepreneurs on certain themes. Eight such themes were differentiated (all eight were researched in the Uganda study, which concentrated on entrepreneurial orientation): risk taking, autonomy, competitive aggressiveness, innovativeness, emotional stability, learning orientation, achievement orientation, and personal integrity. For general entrepreneurial orientation, all eight themes were combined into one scale of entrepreneurial orientation. Table 9.1 shows that general entrepreneurial orientation is highly related to success. This is true for both countries in which we studied entrepreneurial orientation. However, in the Uganda study, which operationalized this variable in the most detail, entrepreneurial orientation is most highly related to success. When the eight themes were analyzed separately, two turned out to be particularly important for success in Africa: innovativeness and competitive aggressiveness. African entrepreneurs often experience difficulties in being innovative. One contributing factor is probably related to the high degree of traditionalism in Africa (Gebert, 1992).

We also hypothesized that most African microbusiness owners would have difficulties competing aggressively because African cultures are characterized by a strong collective orientation (see Chapter 1). However, this hypothesis turned out to be only partially right. There was a large group of people who were able to compete aggressively, as indicated by our descriptive results in the individual chapters. However, those who did not compete aggressively were generally less successful than those who did (although, this factor was less important than innovativeness). Other factors of entrepreneurial orientation clearly related to success were learning orientation (attempting to learn from problems and mistakes), achievement orientation, personal integrity, and, to a lesser extent, risk taking. Emotional stability and autonomy were not related to success. It may be surprising for researchers of entrepreneurial orientation that our results suggest a unifying theme for all of the entrepreneurial orientation factors and that this unifying theme is related to being highly active and initiating in one's approach.

Personal Initiative and Reactive Strategy

The second area is personal initiative and its opposite, the reactive strategy. Personal initiative implies that an owner is self-starting (starts something without being forced, told, or shown by example) and proactive, and changes the environment. The reactive strategy responds to environmental demands, is not proactive, and does not imply any

self-starting. Owners who fall into the category of reactive strategy show the following behaviors: They wait for orders instead of actively finding them "out there," they have other people tell them what they should do rather than going ahead themselves, they react to situational demands but do not attempt to change the situation itself, they do not actively scan for business opportunities, and they do not attempt to plan for events that may be bothersome in the future (e.g., for changes in fashion, for a change in the economy, for new competitors entering the area). Therefore, they have difficulties dealing with problems, with preparing solutions for future events, and with being active in the market. They do not try things out and keep those that work, but instead wait until it is clear what has to be done.

Both personal initiative and reactive strategy were highly and consistently related to success (as shown in Table 9.1). This means that whenever a business owner uses a reactive strategy, he or she will more likely fail. In contrast, business owners with high personal initiative (the opposite of a reactive strategy), were more likely to be successful (a similar result also appeared in an East German sample; see Zempel, 1999). These results were replicated in several studies in different countries. Moreover, personal initiative functions as a background variable that works on both entrepreneurial orientation and success (as shown in Chapter 3). It follows that the most important steps that can be taken to maximize success prospects in a country are to increase the level of initiative taken by microbusiness owners and to reduce the frequency of their use of reactive strategies.

By and large, there are too many microbusiness owners who use a reactive strategy. It is used most frequently in South Africa and Zimbabwe, and least often in Zambia. In South Africa and Zimbabwe, 25 percent or more of owners used this strategy. On the other hand, personal initiative was relatively high in entrepreneurs in all countries sampled.

Niche Strategy

A specific example of an active strategy is to develop niche products or to provide a niche service. It is active because it changes the environment. Once an entrepreneur services a niche market, he or she does not have to worry as much about competition as if he or she supplies a mass market. Niche markets in Africa are different than niche markets in Europe. Thus, the entrepreneur described in Case 1 in Chapter 3, who searched and found a niche by producing business cards, had set up a specially advantageous area of production in Kampala. This would not necessarily be a niche in other cities or countries. The profit rate is usually higher in a niche. A clear result in our studies was that those who developed a niche strategy were more successful than those who did not (see Table 9.1).

Active and Planning Strategies

Complete planning, critical point planning, and opportunistic strategies are differentially related to success, depending upon the countries in which they are used (see Table 9.1). Complete planning implies that a person thinks about the relevant issues and makes an overall plan of action. He or she takes into consideration potential problems in such a planning process and deals with issues of the future. This strategy is always active to a certain extent. A critical point strategy minimizes planning costs but still plans for the most important critical point. Thus, this strategy involves a certain amount of planning, but it minimizes the time and effort that goes into the planning process. An opportunistic strategy implies that there is very little to no planning. However, in contrast to the reactive strategy (which is also a nonplanning strategy), an opportunistic strategy is active. Thus, entrepreneurs actively scan the environment for business opportunities and then use opportunities once they occur.

We have data on these strategies in Zambia, South Africa, and Zimbabwe. In terms of success, a complete planning strategy was mostly positive; however, the exception was South Africa, where it did not show a significant relationship with success. A critical point strategy was also related to success in most countries. It showed the strongest relationship with success in South Africa. Zambia is the exception, where no significant relationship of critical point strategy and success existed. Finally, opportunistic strategy had generally positive effects. However, South Africa was the exception again. Zimbabwe was in the middle, as there were significant positive relationships of all of these strategies to success in the second and more important study.

It may be premature to speculate on why there are country differences in these relationships. We tend to think that they are due to environmental differences (and possibly also to cultural differences). Some of the countries, such as South Africa, have a well-organized and regulated market and give a lot of support to small-scale entrepreneurs. Zambia is clearly the country with the lowest degree of structure and the smallest amount of control of industry. Accordingly, it can be regarded as the country with the highest degree of chaos. Zimbabwe is in an intermediate position, between these two countries. Survival in a chaotic situation may require really detailed planning, which would involve a detailed plan for all things that could go wrong, or no planning at all, but a proactive orientation. This would explain why, in Zambia, either complete planning or an active, nonplanning approach—the opportunistic strategy—was successful. In contrast, in South Africa, with its more regulated market, the moderate planning approach—the critical point strategy—was most successful.

It is important to keep in mind that in some countries there was a positive relationship between these three strategies and success, while in others there was no relationship. However, in no case was there a negative relationship. Thus, at worst, complete planning, critical point planning, and opportunistic strategies do not lead to success, but they do not hurt. Therefore, it pays to increase the use of these strategies, and it would particularly pay to make business owners aware that they can use different strategies and train them in the use of such strategies.

Goal Difficulty and Specificity

Surprisingly, there was no relationship between goal difficulty and specificity and success in any of the countries, as illustrated by the average correlation being near zero (Table 9.1). This is surprising, because we know from motivational experiments and other studies that people are more motivated if they have high and specific goals. However, it is possible that in a complex situation—and entrepreneurs have to deal with a multifaceted situation of high complexity—there is little relationship with success (Wood, Mento, & Locke, 1987). This may be so because having a high goal is not enough as long as many other factors have an influence on success, such as choosing a right strategy with regard to a complex environment.

Other Factors

A number of important results are not shown in Table 9.1 because they have only been ascertained in one of the participating countries. The procedures of systematically motivating employees, training them, and checking employees and products were studied in Zambia. All of these factors turned out to be clearly and strongly related to success. Successful entrepreneurs seemed to use a strategy of motivating employees, but at the same time they checked performance and other factors in the business so that they were able to provide feedback if necessary (see also Gebert [1992] for a similar finding).

Stress and coping have been studied in South Africa. Coping can either involve problem-oriented coping, which entails the attempt to deal with the stressor itself or to get help, or emotionally focussed coping, which is dealing with one's emotions by wishful thinking or distancing oneself from the problem. The most surprising result was that active problem-oriented coping was not significantly correlated with success. In contrast, emotional coping was positively related to success. This may point to the fact that a fatalistic attitude sometimes helps to deal with stressors, particularly in a situation that is noncontrollable, as is true of many South African microenterprises.

Sociodemographic Factors and Entrepreneurial Success

Sociodemographic factors have proven to be by and large of less predictive importance for success than psychological variables. If one compares the average correlations of Table 9.2 with Table 9.1, there are obviously more and larger average correlations with success in Table 9.1 than in Table 9.2. Most of the time, n.s. signifies that no statistically significant finding was found for sociodemographic factors. Note again that the average correlations can be compared across studies and across domains; however, one is not able to compare the percentages of highly successful entrepreneurs directly across the studies. Thus, the main conclusion to be derived from the comparison of the two tables is that it is much more important to pay attention to psychological factors than to the typical sociodemographic factors, which have received more attention in the past and have been focussed on by donor countries, state policies, training concepts of development professionals, and specialists for entrepreneurship. The prediction of success is much higher for psychological factors; therefore, these factors need to be considered in a systematic approach to maximize success in small-scale entrepreneurs. However, there are three substantial relationships with success in Table 9.2: the function of starting capital, whether one works in the formal or informal sector, and the number of links to the formal sector.

Age of Business

The age of a business has a significant relationship with success only in South Africa. In all other countries, the relationship is nonsignificant. The average correlation is nearly 0. This leads us to the conclusion that the liability of newness, a well-established fact in Western countries (Rauch & Frese, 2000; see also Chapter 1), does not exist in Africa in a significant way. Thus, one should not be concerned about this factor at this point in time. There are a number of potential interpretations. First, most enterprises are quite new in the African countries studied. The political climate made it hard or nearly impossible for indigenous would-be entrepreneurs to establish firms prior to 1990. Therefore, our studies have a restricted range of age. This may have contributed to a nonsignificant relationship between age of business and success. Second, it is commonly assumed that the mechanism for the liability of newness is that the stronger companies get selected

Table 9.2
Overview of Sociodemographic Factors and Success

		Percentage of Highly Successful Owners					
		Zambia	Uganda	South Africa	Zimbabwe 1	Zimbabwe 2	Average $\bar{r}$ with success
Age of business	low	n.s.	n.s.	20	n.s.	n.s.	0.02
	high			34			
Line of business	manufacturing						
	trade	n.s.	n.s.	n.s.	n.s.	n.s.	n.s.
	service						
Unemployment as reason	no	n.s.	-	-	18	n.s.	-0.05
for start-up	yes		-	-	0		
Starting capital	low	-	10	24	n.s.	27	0.30
	high	-	45	27		65	
Received loan	low	n.s.	n.s.	-	-	n.s.	0.00
	high			-	-		
Education	no	-	n.s.	n.s.	n.s.	43	0.16
	yes	-				66	
Sector	non-formal	13	-	13	0	16	0.38
	formal	18	-	42	25	68	
Links to formal sector	low	-	-	15	n.s.	14	0.42
	high	-	-	41		58	
Family members as employees	no	-	n.s.	n.s.	n.s.	26	0.05
	yes	-				53	
Perceived environment hostile	low	-	n.s.	37	-	-	-0.10
	high	-	n.s.	20	-	-	
Perceived environment dynamic	low	-	n.s.	17	-	-	0.10
	high	-	n.s.	30	-	-	

the four studies, there are significant relationships of starting capital with success (in the fourth study, the tendency is the same, it just did not become significant due to the lower number of participants in this study). The overall mean correlation is sizeable (mean r = 0.30; see Table 9.2), and approaches the level of correlation that we saw for psychological factors. Thus, the problem of undercapitalization and its effects on reducing success reappears in our studies.

There are two contrasting interpretations of this finding. One argues economically that enough capitalization increases the choices; for example, adequate machines can be bought to produce good quality products. The other interpretation is more psychological and argues that there is an underlying psychological dimension. Those people who have saved a lot of money (or those whose family has been able to save money), are more likely to have high starting capital. Saving is a sign of a deferred gratification pattern (see Chapter 7), which has often been hypothesized to be a prerequisite of becoming a successful entrepreneur. We shall show in the following that getting credit does not help the entrepreneur to be more successful. This speaks for the psychological interpretation, rather than the purely economic one.

Received Loan

Given the fact that the amount of starting capital determines the success of microbusiness owners to a certain extent, it is surprising that receiving a loan does not help at all. There is no country in which there is a significant relationship between receiving a loan and success (see Table 9.2). The average correlation is simply 0; that is, there is truly no relationship between receiving a loan and being successful. The result is a bit less surprising if one knows that bank interest rates are often very high (e.g., about 80% in Zambia and 45% in Zimbabwe at the time of our research). Loans are, therefore, a mixed blessing, because it is difficult to pay the interest rate. Note, however, that the psychological factor of having applied for a loan (thus, having shown a high degree of goal-oriented activity) is an important contributing factor to success, as shown in Zimbabwe Study 2. Thus, if people are active and are showing that by applying for a loan, it helps to be successful. Getting the loan is not necessarily positive. As discussed, this result speaks against a purely economic concept of having enough capital available and points to a psychological interpretation.

Education

Education is often seen as the most important contributing factor to entrepreneurial success. This is not the case in our studies. Only in

one study is there a significant relationship (although, Study 1 in Zimbabwe shows a similar pattern). Education does not play an important role for success in Uganda and South Africa. One should add that the education of the owners sampled was mostly high (as the individual chapters show). The entrepreneurs often had at least the equivalent of the British O level (roughly the American high school level), or even an A level and beyond. But again, our data show that it is possible to overcome handicaps due to lack of education. Some of our most successful entrepreneurs had relatively little education, as some of the case studies exhibit. Education may have a certain entry-barrier function (only people with a higher education or a high determination to become independent may become entrepreneurs), but once they are business owners, it does not play an important role for the development of success.

Formal versus Informal Sector

Whether a business owner works within the formal or the informal sector is highly related to success (this is so in every country in which we had participants from both the formal and the informal sectors). Note, however, that we have only determined a relationship between being formal and being successful and that various causal interpretations of this relationship are possible. One interpretation argues that being formal leads causally to success. We think that other causal relationships are much more plausible. First, a certain degree of success is necessary to be able to actually become formal. Thus, successful entrepreneurs eventually become formal. Second, entrepreneurs who have "the stuff" to become successful are more likely to be able to overcome the barriers that make it so difficult to become formal (as discussed by Harrison in Chapter 7). Thus, a certain degree of initiative, entrepreneurial orientation, and astute strategy make it possible to become successful and are prerequisites to overcoming the formality barriers. A third interpretation combines various interpretations. When we asked microenterprise owners whether they mainly saw advantages or disadvantages in being formal, the advantages dominated: They could more easily participate in official tenders, get orders from large firms and the government (African governments are not always optimal contractors, however, because they often delay payment considerably), use certain tax advantages (for example, not having to pay value-added tax for all their supplies), become more legitimate, and increase their prestige. Thus, being formal may be a prerequisite to continue growing beyond a certain size. Thus, the argument is that success leads to becoming formal. If they choose not to become formal, they have difficulties continuing on a growth path.

and the weaker ones go bankrupt. Maybe this mechanism is not at work in Africa because the subsistence orientation of many entrepreneurs lets them continue even when they are not optimally producing. Third, another potential mechanism is that the entrepreneurs learn from experience and, therefore, the longer they have worked in their business, the better (and more resilient) they become. Maybe there is a higher degree of individual learning from experience in Western firm owners than in Africa. Fourth, older firms are usually also bigger, and bigger companies survive better. Maybe this relationship of size and age does not appear in Africa. Maybe older firms do not grow as quickly because of the survival orientation of many entrepreneurs in the microbusiness sector. Finally, the studies on the liability of newness focussed on mortality data, and we have used success data, which may have produced different results. Although we cannot rule out any of these interpretations at the moment, we tend to think the most plausible interpretation is that the practical importance of the liability of newness has been overrated and it is really a small effect that only appears in very large data sets but that it is not of high practical importance.

While there is no evidence for the liability of newness in our data, there is evidence for the twin concept of liability of smallness. Larger firms are much more successful than smaller ones. However, this is completely due to our use of success as the dependent variable. Obviously, success is highly related to size—bigger firms are, by definition, more successful because they have grown more—and, therefore, this is not an interesting finding per se (therefore, it is not reported in Table 9.2).

Line of Business

Line of business has been suggested to be an important predictor of whether microbusiness firms are successful (Mead & Liedholm, 1998). We did not find any significant differences across the different industries (no average correlation was calculated, because categorical constructs cannot be translated into a correlation and the lack of significance of the relationships made it unnecessary to focus on it). Note, however, the difference between our studies and the ones upon which Mead and Liedholm have based their observations. We only took enterprises with one or more employees into our sample, while the vast majority of Mead and Liedholm's samples were single-person microenterprises. Therefore, we have no single hawkers or tailors in our sample who make up the low end of participants in Mead and Liedholm's studies. We assume that line of business plays a much larger role in those owners who do not have any employees. This is a very optimistic and positive finding. It shows that with ingenuity, initiative, innovativenesss, entrepreneurial orientation, and good strategy, microenterprise owners can grow and be successful in any line of business.

Unemployment as Reason for Start-Up

Many development-aid specialists and others (including Harrison, in Chapter 7) argue that subsistence orientation of microbusiness units is one of the reasons why they do not grow. This is one reason why they are skeptical about the contribution of microbusinesses to the growth of employment and their contribution to the national economies of developing countries. One objective indicator for such a subsistence motivation is unemployment or fear of unemployment as a reason for start-up. Those who are unemployed are desperate to do anything to earn enough to live, and as long as they do not find a job, they work as a business owner. Our hypothesis has been different from the one just outlined. We assume that the reason why one becomes self-employed is not important for eventual success. More important than the reasons for becoming self-employed are the actions of the entrepreneur. We, therefore, hypothesize that there should be no relationship between unemployment and success.

As Table 9.2 shows, there is only one significant relationship between this factor and success, but this relationship is exactly the opposite to the hypothesis advanced in relation to subsistence motivation: In Study 1 in Zimbabwe, those microbusiness owners who started their firm because of unemployment were more successful than those who had other motives (e.g., financial gain, reason in the family, or becoming independent). This is a fascinating finding. It tells us that there is by and large no relationship between start-up motivation and success, but, if anything, it is exactly the opposite of the popular stereotypes among developmental-aid professionals. Incidentally, a similar finding appeared in East Germany. Those who became small-scale business owners because of (fear of) unemployment were not less successful but showed an even higher increase of their personal income than those who had other motives (Galais, 1998). Keep in mind that there is a higher start-up rate in times of crisis (Mead & Liedholm, 1998). Once start-up entrepreneurs pass the threshold of employing one person, their growth is independent of the reasons why they started their firms.

Starting Capital

It is commonly assumed that starting capital is too low in the developing countries, particularly in Africa. This is certainly the case (Gray, Cooley, Lutabingwa, Mutai-Kaimenyi, & Oyugi, 1996). Moreover, starting capital is important to achieve one's goals with a firm. In three of

Being formal may contribute to success and success may be a prerequisite for becoming formal.

It is important to keep in mind that there is no dichotomy of formal versus informal, because there is a process from informal to formal (and probably, though investigated less, also a reverse process, in which some entrepreneurs who have failed in the formal market reappear in the informal sector). A large number of participants in the formal sector originally started in the informal sector some years ago (Neshamba, 1997). There is no doubt that policies that support the conversion of informal business into formal business need to be instituted in Africa, because formal companies are more useful participants in the economy and in society.

Links to the Formal Sector

It is useful to have many links to the formal sector. The average correlation with success was 0.42 and is the highest correlation in Table 9.2. However, we again cannot assume that it is the links with the formal sector that produced success. Rather, we would suggest success breeds more relations to the formal sector. Moreover, those already working in the formal sector also have more links with it. Thus, the two factors—links to the formal sector and working in the formal sector—are not independent of each other. Much of what we said about the formal sector also applies to links to the formal sector.

Employees from the Extended Family

It is often argued that there is pressure on microbusiness owners to employ family members who are ill-equipped for the jobs to be done (Wild, 1994). Yielding to such pressure leads to less success. This hypothesis is not only advanced by researchers and development-aid professionals, but also by the entrepreneurs themselves. Many have commented spontaneously that it is not good to employ family members because they assume "they are special and, therefore, produce ill-feelings among the other employees." Most business owners have thought long and hard about the issue of employing family members, and they came to very polarized conclusions. A large group has firmly decided not to employ any family members (except maybe sons or daughters). Another large group is equally firmly for family-member employment. Our results show that the hypothesis that employment of family members leads to failure is not supported by the facts. In contrast, there was a slight tendency in the second Zimbabwe study for those who employed family members to be even more successful than those who did not.

We assume that the hypotheses and the facts reported here are right, even though they seem to be contradictory. It is useful to employ family members up to a certain point in the lifecycle of a microbusiness. Smaller firms in their first stage of the lifecycle are better off to employ family members because of their loyalty to the firm and their greater acceptance of nonpayment if business is slow. However, at a later stage when the firm has grown and the firm owner is perceived to be successful, family members have a tendency to become demanding. Thus, in a later stage of the lifecycle success may actually be hampered by employing family members.

Perceived Environment

Perceived environmental hostility and perceived dynamism are not related to success. The only exception is South Africa. In this country, it is easier to be successful if the firm works in a nonhostile and friendly environment. We actually thought that a dynamic environment allowed entrepreneurs to use opportunities and, therefore, they should be more successful in a dynamic environment. However, with the exception of South Africa, this does not seem to be the case. Thus, the data suggest that perceived environment has little direct consequences on success. However, there may be indirect effects, because certain strategies work only in certain environments. For example, there is evidence for an interaction of uncertainty and detailed planning in Germany (Rauch & Frese, 1998): Planning a lot only leads to success in the group with high uncertainty. High uncertainty makes it useful to invest in planning so that one has back-up plans available if things turn out not to work well. However, this hypothesis has not been tested in this book and needs to be addressed in future analyses.

Other Results

Some results appeared only in country-specific analyses. One example is that organization of knowledge was found to be an important factor related to success in Zambia. This means that those entrepreneurs who were able to communicate their ideas about the business in an organized fashion (differentiating quickly between important and unimportant issues or developing a small theory on success factors) were more successful than those who did not have a good organization of knowledge.

An interesting finding on goals appeared in Uganda. If the entrepreneurs were mainly interested in making profits, they were less successful than when they had broader interests; for example, when they also wanted to improve the product or use creative marketing strategies.

None of the studies found a significant relationship between the number of hours the entrepreneurs worked and success. This shows that a simple mechanistic model of motivation (in the sense of putting in time) does not work. It is much more important to use clever and thought-out strategies than pure effort.

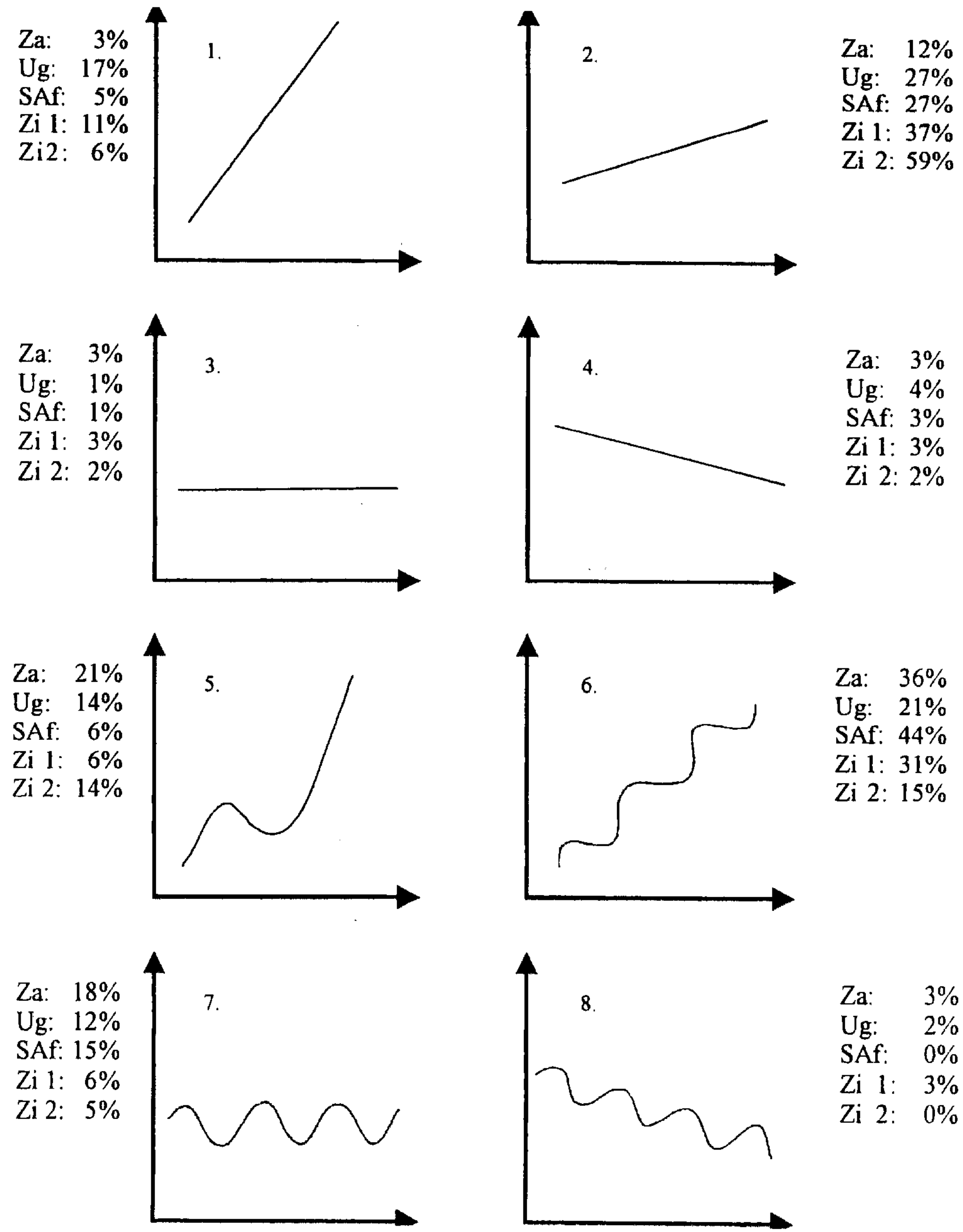
Overall Success

Figure 9.1 presents the overall success rate as seen by the participants themselves (the Zambia data are based on thirty-three participants who filled out a questionnaire that we were not concerned with in this book). This graphical method was taken from the study by Bruederl, Preisendoerfer, and Ziegler (1992), who have used this method successfully. It gives a good overall presentation of how the entrepreneurs see their business success evolving over time. The picture is overwhelmingly positive with few differences between the African countries and studies. A rapid positive development (Graphics 1, 5, and 6 in Figure 9.1) was perceived by 70 percent of the Zambian, 52 percent of the Ugandan, and 55 percent of the South African entrepreneurs, and by 48 percent in Zimbabwe Study 1 and 37 percent in Zimbabwe Study 2. A slow positive development (Graphic 2 in Figure 9.1) was dominant in Zimbabwe. The stagnant Graphics 3 and 7 were ticked by 21 percent of the Zambian, 13 percent of the Ugandan, 16 percent of the South African, 9 percent of the Zimbabwean Study 1, and 7 percent of the Zimbabwean Study 2 participants. A negative trend (Graphics 4 and 8) was perceived by 6 percent of the Zambian, 6 percent of the Ugandan, and 3 percent of the South African owners, and by 6 percent in Zimbabwe Study 1 and 2 percent in Zimbabwe Study 2. Thus, we can take away from Figure 9.1 that microbusiness owners see the development of their firms in a very positive light. While there are small differences between the countries, these differences should not be overinterpreted. The important conclusion suggested by the results presented in Figure 9.1 is the overall positive development in all African countries.

Both the results based on the judgments of the interviewers and the impression by the entrepreneurs themselves paint a positive and moderately optimistic picture of the situation and the success rate of African entrepreneurs. In general, we think that the entrepreneurs do a remarkable job in a difficult environment. While there are clearly areas in which there is room for improvement (e.g., innovativeness, proactive and planning orientation, niche orientation), microbusiness owners show, in general, a high degree of goal orientation and initiative.

When talking to microbusiness owners, we felt (in 5% to 20% of the cases) that some owners were remarkably modern. Issues that are dis-

Figure 9.1
Comparison of Success across Different Countries



Key: Za = Zambia; Ug = Uganda; SAf = South Africa; Zi 1 = Zimbabwe Study 1; Zi 2 = Zimbabwe Study 2.

cussed in modern management textbooks in the West were also discussed by these microbusiness owners; for example, increase of quality, customer orientation, and increasing process efficiency. While there is no doubt that the starting point is lower in Africa than in the West, we found it amazing how similar issues were seen and dealt with among the microbusiness owners in Africa and managers of large firms in the West. Thus, one gets the impression of a high degree of modernity among a sizeable minority of entrepreneurs in Africa.

ISSUES OF INTERPRETATION

The most important result is that psychological factors are very good predictors of success and failure in microbusinesses in Africa. These factors, therefore, need to be understood better and research and practice needs to focus more strongly on these factors. Factors such as entrepreneurial orientation (particularly innovativeness, competitive aggressiveness, learning and achievement orientation), personal initiative, active and planning strategies, and motivating employees are of utmost importance. Most practitioners interested in increasing the competence of entrepreneurs have been at least implicitly aware of the importance of psychological factors. For example, Harper (1976) has shown in case studies that the cry for additional capital is often not really warranted and can be overcome with ingenuity and initiative. However, little to none of these variables have been systematically studied in entrepreneurship research in developing countries, and as far as we can tell there is practically no recourse to psychological knowledge by practitioners in the field of entrepreneurship training and consulting. Manu (1998) has argued that support programs for microbusiness have not been successful enough and we concur with his analysis (albeit not with his conclusion). He suggests that one should only support those firms that have already shown a high degree of growth. We think that whether a firm grows is also a psychological question. The owner must want to grow, must be able to overcome psychological barriers that hinder growth (e.g., dealing with envy, dealing with one's family and demands from them, the difficulties of delay of gratification and reinvestment, innovation, initiative, etc.). Thus, only a psychological approach can actually predict whether a firm owner will be growth oriented or not. We do not agree with the idea that only high-growth firms should be supported; rather, one should support high potentials, that is, those would-be entrepreneurs who have the potential to become high-growth firm owners. A fresh approach is needed, and it ought to take psychological factors into consideration.

There are a number of fascinating new questions once one takes a psychological perspective. One is discussed by Harrison in Chapter 7: The barriers that inhibit owners to register their firm as a formal company are often psychological ones and are not only in the area of taxation and knowledge. Similarly, there are psychological approaches to banks and funding agencies to get adequate funding. Again, a psychological approach helps to understand why some people get their funding while others with similar securities do not. (Some participants mentioned how helpful networking and personal connections—including family connections—were to get access to loans.) Only those entrepreneurs who learn from their mistakes and errors will be successful in the long run. Again, this is a psychological question of under which conditions one learns and under which conditions there is little learning from experience. What are the factors that stimulate personal initiative and innovation? Some situations are seen by some entrepreneurs as unsurmountable barriers while others lead to the feeling of challenge. How can networks be made profitable and which personality, orientation, strategy, and competence compositions lead to failures of networks?

The importance of psychological issues becomes obvious if one takes into consideration that entrepreneurs have to act in order to be successful (or to fail). Thus, all factors that are related to these actions need to be studied in more detail if one wants to improve entrepreneurship in the developing countries.

The Causal Path

Our studies were cross-sectional, which makes it difficult to establish a causal order. Do reactive strategies lead to failure or does failure lead to reactive strategies? Only a longitudinal study would allow us to draw a causal inference. On the other hand, it is plausible that psychological strategy use leads to success. An active orientation in which one flexibly tests what is good and what is bad leads to better results, even in a difficult environment. Moreover, there are some longitudinal data in The Netherlands which show that a reactive strategy leads to failure in the causal sense; however, the reverse is also true. Thus, there is a vicious cycle: A reactive strategy leads to failure and failure leads, in turn, to a reactive strategy (van Gelderen & Frese, 1998). This makes sense, because a crisis often lets people react rather than plan or proactively deal with the crisis.

However, the positive cycle was much more complicated in The Netherlands. Originally, critical point planning was the major determinant of success; however, success did not lead to a higher degree of critical point planning but made the owners become complete planners. And complete planning related to success at this later stage in the business-development process. One possible interpretation of this result is that when companies grow bigger, the owners need to develop more plans because their firms have now become more complex. In addition, when owners do business in a stable environment (such as The Netherlands), they get to know it better and are, therefore, able to plan things out in more detail. Therefore, at a later stage, complete planning is a better strategy. For the Africa studies, our current knowledge does not allow us to decide how the mechanisms work in detail (note that this problem exists for most of the other nonlongitudinal studies as well and, as far as we can see, longitudinal studies have been very infrequently performed and are nearly nonexistent in Africa).

However, our knowledge is good enough to suggest that owners should be taught the necessary skills and knowledge to develop more planning and proactive strategies. Of course, they have to decide in each instance whether the planning costs are too high in a certain area (this would then speak for decreasing the planning costs with a critical point strategy) and whether the environment makes it possible to follow through on plans. A certain amount of flexible use of these strategies should be a part of such a training concept.

Bias

Any research design has pros and cons. In the last analysis, our data are based on what the owners told us about themselves and their companies. Thus, one could argue that there is a bias in our data. Arguably, entrepreneurs are often highly optimistic and, therefore, they paint an optimistic picture of their own abilities and their firms' situations. This may sometimes lead to exaggerated accounts of relationships between owner characteristics and firm success. However, the interviewers acted as safeguards against such a one-sided bias. As discussed in Chapter 8, it was the interviewer who had to make the decision, for example, whether a person's strategy was called reactive or not. We think that they were in a better position to make such distinctions because they were trained to check and to question superficially optimistic statements. With this method, purely presentational exaggerations were probably detected and dealt with by our research design. Therefore, our results present a more valid and true picture of the situation of microbusiness owners and the processes that take place than the results of research projects that use a simpler design and where the data are collected by interviewers who are not specifically trained to be able to call the answers by the entrepreneurs into question. In these studies, the data are not filtered through a more objective lens (the trained interviewer in our case), but are taken directly from the interview participants and have to be believed at face value. Interestingly, many economic studies are based on such procedures.

Another potential bias may result from the interviewer judgments of success. Any success measures for microbusinesses are problematic because professional records are kept very rarely and microbusiness owners simply do not know whether they have made a profit or how high it was. We, therefore, developed an interviewer evaluation as the final judgment on how well an enterprise was doing. We consider this to be a good methodological choice, as this measure is related both to the more subjective and to the more objective economic success measures, without being redundant with them (see Chapter 8).

Our sampling procedure has substantial implications: When comparing our results with the results presented by other research groups, it should be remembered that we are talking about a group of entrepreneurs who have surpassed the first barrier to success: They already have hired their first employee. We think that it was a good choice to sample from this group of entrepreneurs, because they have a higher potential than the self-employed without employees, they probably have a higher commitment to their role as entrepreneur, and they contribute more to employment growth in the developing countries. This is a relevant and large group of microbusiness owners in Africa.

The sample size of each individual study was small. In order to interpret the results, it is necessary to keep in mind that sample size has an influence on whether a relationship becomes statistically significant. Large studies often produce significant findings where we do not; for example, for relationships of success with liability of newness, human capital, or line of business. We did not find such effects in our studies. One possible interpretation is that this is a result of the smaller sample size. When interpreting the results it is important to remember, however, that some relationships may be statistically significant but not necessarily practically relevant. Thus, just being statistically significant is not a good criterion for the importance of a variable. The relationships of success with the psychological variables used in our study were large and should, therefore, be taken seriously. But more important, some of them could be replicated in several studies in several countries in Africa. This is a meaningful sign that they are not only statistically significant but also practically useful.

POLICY IMPLICATIONS

The essential implication of this research is that policy decisions have to consider psychological factors for entrepreneurial success much more strongly than has traditionally been the case. Psychological factors have been shown in this study to be more important than purely economic factors in predicting entrepreneurial success. We do not want to engage in a useless disciplinary confrontation between economic, political, sociological, and psychological approaches. They are necessarily complementary and should be treated as such. However, psychological approaches have often been overlooked. Our studies show that psychological approaches should be taken into account in the process of promoting entrepreneurial success.

It is often difficult to translate psychological issues into dollar terms. Therefore, a hypothetical example is used to underline the importance of psychological changes. Let us assume that we are able to reduce people's use of a reactive strategy by one standard deviation by using certain training. Let us further assume that the average yearly income of the training participants at the moment is 43,000 Zimbabwe dollars (which is roughly equivalent to the income of the metal manufacturing sector in Zimbabwe in 1997; see McPherson, 1998). We also assume a linear relationship between our measure of success and the actual dollar rates that entrepreneurs earn. We can now calculate how much these participants will earn after the training. The average income of those entrepreneurs who participated in such a workshop would be Z$46,500 per year after the training. Thus, the profit margin would increase by 8 percent per year because of this training (the calculation is based on a regression analysis approach using the data of the second study in Zimbabwe). Note that a nonreactive strategy is only one of the many psychological factors contributing to a higher profit margin. In reality, a training workshop would not only reduce reactive strategies of entrepreneurs; it would also increase innovativeness, niche orientation, and personal initiative, and would improve business knowledge on how to calculate profit and prices and improve marketing. Therefore, each area would add additional profits, and the cumulative increase in the yearly profit could be around 15 to 30 percent.

Of course, there are limits to a psychological approach. It is still necessary to further reduce political barriers to the development of microenterprises (e.g., bureaucracy surrounding the tax laws, costs of registration; see Chapter 7), and it is necessary to stimulate small-scale entrepreneurs economically (e.g., by providing sufficient funding for growth). In addition, one has to increase innovation, personal initiative, entrepreneurial orientation, and proactive and planning strategies. We therefore suggest the following program elements.

Psychological Program Elements

Psychological programs are focussed on individuals. They should not just be directed at acting entrepreneurs, but also at the following groups: high potentials, that is, people who would do well as entrepreneurs; people who want to become entrepreneurs; and people forced to become entrepreneurs because of unemployment and poverty. Essentially, there are three approaches: First, detect and select the right people; second, train and counsel in the right way; and third, provide a psychologically supportive infrastructure.

Detection and Selection of the Right People

We do not assume that people are born to be good entrepreneurs or that there is only one best way to be an entrepreneur. As a matter of fact, we think that there is a high degree of plausibility in the approach by Miner (1997), who distinguished four types of successful entrepreneurs: the personal achiever, the real manager, the expert idea generator, and the empathic supersalesperson (much of this is still in the stage of idea generation and not yet tested rigorously enough, however). We also do not believe that a certain personality type makes entrepreneurs successful. Personality is obviously important (and often underrated), but it is not everything. It is more important that people know their strengths and weaknesses and manage their personality. For example, somebody who is not outgoing (high on the personality factor of extroversion) may employ somebody who is very extroverted and leave the customer relations with him or her. Thus, an entrepreneur can compensate for certain weaknesses and be successful.

Nevertheless, we think that it is in principle possible to select high potentials in their middle teenage years. Given our knowledge in this area, high potentials would be people with a high degree of action orientation, achievement orientation, initiative, innovativeness, flexibility, intelligence, good learning, and good people skills. Once they are selected, they can be taught the necessary skills and be expected to become entrepreneurs (of course, many will not and will instead go into other areas, but even here we assume they would probably do well and enhance intrapreneurship in their respective firms; that is, entrepreneurship within a company).

Obviously, selection should not be a government endeavor which determines who is and who is not allowed to become an entrepreneur. Such a program would definitely fail. However, there needs to be a selection whenever resources are scarce, such as when entrepreneurs want to receive extra training (e.g., at the university) or when special needs should be met (e.g., to receive a stall in a growth point at a cheap rent or to get capital from a nongovernmental organization or a bank or advice from expensive consultants). Banks usually select candidates for loans considering, among others, the following factors: How good and promising is the business idea and the business plan? Is the person able to provide collateral for the loan? Are the skills right? We suggest that additional factors to be considered should be the psychological ones mentioned, because they are more highly predictive of success than a good business plan (Rauch & Frese, 2000). (Obviously, there are additional problems and issues related to banking for the informal sector that we did not touch upon in this chapter or anywhere else in this book; see, e.g., Harper, 1998; Yunus, 1989.)

An additional reason why it is useful to select and further high potentials is because many would-be entrepreneurs may not actually even think of becoming an entrepreneur and should be encouraged to do so. We shall take up this point a little later in this chapter.

Training

There are excellent training concepts available that are especially suited for entrepreneurs in developing countries (see Chapter 6; Awasthi & Sebastian, 1996; Harper, 1976; Harper & Finnegan, 1998; Kolshorn & Tomecko, 1992; Nuebler, 1992; Yaffey, 1992). These programs often teach specific skills, such as writing a balance sheet, developing a marketing plan, stock taking, salesmanship, and so on. There is no doubt that training of skills and knowledge in these areas are useful. But again, these skills need to be complemented by general psychological skills, such as learning how to be proactive, planning, initiating, and innovating.

Adult training should be exploratory and give the trainee the "ownership" of the training process. He or she should be an active participant in the training process. At the same time, training should not fall into the other extreme and be "completely open." It should have a clear curriculum and should help the entrepreneur to learn those skills that allow him or her to deal with the environment on his or her terms, as World Bank advisor Ellerman (1999) pointed out. These skills are mainly psychological in character and include the strategies discussed in this book, such as learning from mistakes and increasing one's self-reliance and personal initiative. In this way, training has a sustainable effect, because it makes it possible for the entrepreneur to initiate his or her own changes as they are deemed necessary. Our data suggest that such psychological training should have the following components.

First is learning from mistakes. We have developed a methodology in another context in which one explicitly learns from mistakes (it was originally used for teaching computer skills; see Frese, 1995). This can be transferred to the issue of entrepreneurship; its most important facet is to emphasize that errors and mistakes should be used as learning devices. At least in the Western European context, small and mid-size enterprises with a high mastery orientation toward errors (talking about them, learning from them, and taking them seriously) showed a substantially higher profit rate than companies that did not have a mastery-oriented culture to deal with errors (Van Dyck, Frese, & Sonnentag, 1998; this issue was never studied in the African context, as far as we know). Moreover, in East Germany, a learning orientation with regards to errors and mistakes was also related to success in small-scale entrepreneurs (Goebel, 1998).

Second is learning from others. We do not want to overemphasize this issue, because our impression has been that African entrepreneurs are often too eager to learn from the successes of others around them. This is then translated into imitating the successful ones in their immediate environment and, thus, producing competition for those who have detected a market niche; such a procedure just leads to destroying the niche. The alternative would be to develop one's own market niche rather than just imitating others. On the other hand, benchmarking—learning from the successes of other firms—is a good device if it does not lead to giving up one's strategy too quickly and as long as it looks at the process and deep-level characteristics of the competitors and not only at the superficial level. Thus, it is not very useful to mimic the move by a competitor who starts to offer not only paint for cars but also coke and food during lunch hours. Adding coke to the line of products will not help a lot. Rather, one should learn from this competitor that it may be useful to scan the market for niches that have not been satisfied and to attempt to service this niche in combination with the products that one sells (or produces) at the moment. Therefore, a good training course will attempt to teach how to analyze competitors' performance and draw the right lessons from benchmarking (not just superficial lessons).

Third is encouraging and teaching how to be innovative with regard to product and process. Several issues need to be taught to increase innovativeness: One must learn that one has to increase the pure quantity of ideas to select the best ones from them (the model that is behind brainstorming; see Diehl & Stroebe, 1991). One must also learn to "leave the field" and not to stick to just one framework for the solution of problems. Thus, one should attempt to break out of traditional contexts and traditional orientations to be creative and to attempt completely new solutions to old problems (King & Anderson, 1995). One prerequisite is a certain degree of modernity and, possibly, the rejection of traditions and old solutions (Gebert, 1992). Since African cultures are often quite traditional and do not encourage the search for "other" solutions, this skill is of particular usefulness. To be innovative, one also needs a clear vision or idea of what one wants to achieve, a safe group climate which allows one to even propose nonsense ideas, a climate for excellence in the group, and norms that support innovation (West, 1990). One problem is the high power distance that typically exists in African cultures. High power distance does not help subordinates to come up with new ideas.

Training for innovation is highly related to personal initiative, because innovation not only implies the need to have a creative idea; this idea has to be translated into action, as well. Thus, one has to be willing to push the idea through against barriers and problems and possibly also against resistance from colleagues, family, and employees. The latter is often particularly difficult for members of a collectivist society. (One of the Black entrepreneurs interviewed told us that her employees call her *murungu*, a White person, behind her back because of her Westernized leadership style which encourages employee participation and initiative.)

Fourth is increasing personal initiative. Our research group is currently developing modules to teach personal initiative to German unemployed and employees. We think that some of the skills developed here can also be taught to would-be and de facto informal-sector participants. The training program should include such aspects as development of self-efficacy to overcome problems, change orientation because every initiative changes one's situation, an interest and expectation to control one's situation, skills to produce many ideas of how to overcome barriers and knowledge of what constitutes self-starting, and a firm commitment to a self-starting orientation. Obviously, a training concept that works in the West needs to be adapted to the African context and then needs to be evaluated again.

Such training should be combined with training in marketing and finding a niche. Marketing is an area in which one has to try several approaches and keep what is useful. Proactive approaches work best; namely, an active scanning of the environment for business and marketing opportunities, an active approach to relevant business partners and customers, an active search for feedback from customers and other relevant people, and an active use of this information to formulate a program for the firm. The search for niches requires a high degree of overcoming barriers. For example, one of the participants in our study did not have enough money to buy a machine that would have opened up a niche for his business. He therefore constructed his own machine at a lower cost within a year, continuously experimenting and finally succeeding.

Fifth is planning. Planning does not only refer to developing a good business plan in the beginning stage of one's business. Rather, it means that one continuously develops good plans (either from the top-down or in the sense of critical point planning) throughout one's work for weeks, months, or years. We have sometimes observed entrepreneurs planning for their own sake; they developed nice plans that had little to do with reality and were not translated into action. Therefore, a tight coupling between planning and action has to be emphasized and needs to be a part of the training concept.

Psychologically Supportive Environment

The government, cooperatives, chambers of commerce, nongovernmental organizations, and community workers must develop the right psychological environment. There must be good role models in the community and it would help to give awards to innovative indigenous entrepreneurs to increase the chances to learn from such role models. It is possible to introduce networks that make it possible for the entrepreneurs to buy their supplies and sell their products better (such as ISTARN; see Nell, Kohlheyer, Muza, & Masaka, 1998). Entrepreneurs should also be encouraged to help each other with peer reviews to increase their productivity. Peers (who are not direct competitors and come from other lines of business) are particularly good for suggesting solutions that are appropriate within the culture and the environment. An interesting side effect of a peer review process is that not only the person who is the target of the consultation learns a lot, but the peers who are in the role of consultants learn even more. Consulting peers are forced to make their own ideas explicit and, therefore, the chances are increased they will come up with new solutions for their own problems, as well. Such a peer review strategy may work even better in Africa, since competitive aggressiveness is probably lower in Africa than in Europe or the United States.

A Holistic Regional Approach

We think that it is possible to produce a holistic regional approach from a psychological perspective. Many countries, particularly the early socialist ones (even poor ones), have used an early selection approach of high potentials in the areas of sports and music. Thus, often four- or five-year-old children were selected in competitions and offered unique training opportunities in special schools. We think that a similar model can also be used in the area of entrepreneurship. It is possible to select high potentials in entrepreneurship among the fourteen- or sixteen-year-old youngsters in a country. This program would select young people in schools who already show a high degree of entrepreneurial orientation and personal initiative.

This selected group would then get additional schooling in administration, management, and technical skills. They may get privileged access to funding and venture capital because of their early grooming for a start-up career. Most important is an early hands-on experience with entrepreneurship. We suggest lending these youngsters a few dollars while they are still in school to develop and test their ideas on how to make money. The amount of credit could then be raised continuously after they have shown their talents. These youngsters should be rewarded for their mistakes and encouraged to learn from them (many great entrepreneurs failed for a while before their business actually took off). Local talent can be promoted at relatively low cost in this way. Such a systematic approach could first be developed for a smaller region within a country and could be carefully evaluated (Harper & Finnegan, 1998). Our research suggests that such an approach might have a powerful positive effect on the economies of a region or country.

One might even go one step further and suggest that school curricula should be changed so that practical entrepreneurship can be taught in schools for students fifteen years and older (including all psychological and social-skill factors, business knowledge, and tax issues). It is hoped that the disadvantages that exist in developing countries can actually be transformed into advantages by these countries.

ISSUES FOR FURTHER RESEARCH

Obviously, a set of studies such as those reported in this book do not answer all questions and cannot deal with the full complexity of all issues. We think that the following issues are of particular relevance to be researched in the future.

First, there should be a serious attempt to look at different pathways to success. We are thinking here of using the taxonomy of Miner (1997) as a starting point. Second, we need to know more about the efficacy of psychological strategies for shrinking economies, because African economies often show wild fluctuation from shrinkage to high increases in their gross domestic products. It is possible that different skills are necessary in different economic cycles. Third, we think that there is need to look more into interactionistic models that hypothesize contingent relationships. For example, Rauch and Frese (1998) have shown that planning is useful in hostile environments but not in benign ones (and may even be detrimental because of high planning costs). Similarly, different strategies may be useful at one stage of the development of a firm but not at others. For example, transforming a firm from quick growth to being well-managed requires different goals, skills, and strategies than dealing with a more static firm. Similarly, environmental contingencies related to a high influx of foreign goods or to competing mainly in a domestic market and slowly expanding to neighboring countries need to be researched. All these factors need to be examined as they interact with psychological process characteristics of strategies, strategic orientations, or the content of strategies. Fourth, the more important of these studies should be done longitudinally so as to be able to tease apart cause and effect more clearly. Finally, more controlled interventions should be done that provide the ability to check whether these interventions actually achieve success

and whether they are cost effective. Whatever the specific needs for additional research, it should be obvious from this book that psychological approaches need to be taken seriously in this area and have to be pursued alongside more traditional economic approaches.

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