

Psychological Success Factors of Small Scale Businesses in Namibia: The Roles of Strategy Process, Entrepreneurial Orientation and the Environment

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Abstract

It is hypothesized that psychological strategy process characteristics, such as complete planning, critical point planning, opportunistic, and reactive, as well as entrepreneurial orientation (autonomy, innovativeness, competitive aggressiveness, and risk taking) are related to entrepreneurial success. In addition, the research examined whether perceived environmental difficulties moderate this relationship. A cross-sectional interview-based study of 87 small-scale business owners in Namibia was used. Results show that complete planning and a high entrepreneurial orientation of the owners was positively and a reactive strategy was negatively related to business success. Moreover, there were moderator effects of perceived environmental difficulties on the relationship between entrepreneurial orientation and success.

Key words: Small business, Africa, psychology, entrepreneurial orientation, contingency theory, environment

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This study uses a psychological approach to predict entrepreneurial success in a developing country-Namibia. The article makes three contributions: First, it looks at strategies from a psychological perspective; second, it shows that psychological and individual aspects of strategies used by business owners (specifically, strategy characteristics and entrepreneurial orientation) are highly related to the entrepreneurial success of the businesses; third, the article reveals this to be true for owners from a developing country, which is seldom the focus of such research.

Strategy Process Characteristics

Recently, there has been an increased interest in the psychological aspects of strategy development and strategy use (Hodgkinson, 2001). This current article concentrates on one issue—strategy process. In contrast to most of the strategy process literature, which focuses on the organizational level, strategy process is regarded here on the level of the founder and manager of the business (Frese, van Gelderen, & Ombach, 2000; van Gelderen, Frese, & Thurik, 2000).

A psychological perspective is warranted for several reasons. First, the main actor in a micro- and small business is usually the founder and owner. He or she is the one who has founded the firm, dominates its processes, and manages its daily affairs. He or she is particularly important in small enterprises (of 1 to 10 employees), which are typical for developing countries and particularly for Africa (Mead & Liedholm, 1998). Second, there is no success without action (Herron & Robinson, 1993) and strategy process characteristics have a direct effect on actions. Third, as long as researchers were primarily interested in strategy content (e.g., differentiation, cost strategy, etc., Porter, 1980), they did not need to consider psychological issues. However, once strategy process became important, psychological approaches needed to be taken into consideration as well (Rajogopalan, Rasheed, & Datta, 1993) because process issues are concerned with how entrepreneurial actions are regulated. Thus, the theoretical starting point of the current research is the actions taken by the owners and the description of these actions. Action-related concepts in this article are based on two concepts, strategy process characteristics and entrepreneurial orientation.

Strategy process concerns itself with how strategic decisions are formulated and implemented (Olson & Bokor, 1995). Strategy process characteristics are specific ways to deal with this strategy process. In another paper, it was argued that cognitive and action theories suggest a differentiation into four different characteristics of strategy process (Frese et al., 2000): complete planning, critical point planning, opportunistic and reactive. These characteristics can be differentiated along the lines of goal orientation, long term planning, knowledge base, proactiveness, and situational responsiveness.

Complete planning means that owners develop and implement strategies with high goal orientation, high long term planning, high knowledge, and high proactiveness. The goals and plans are developed with a long-term perspective. The

owners can draw on a good knowledge base to develop goals and plans. Planning is an active strategy because it influences and changes the environment and predicts future problems. These future problems are then dealt with proactively. Using complete planning has many advantages because it actively structures the situation and makes it possible to work with a long-term anticipation and knowledge. However, there are also disadvantages as planning is time consuming and costly. Once one has developed a plan, one is likely not to change it and to not respond quickly to the situation (thus, situational responsiveness is low). If an owner has a goal, for example, to build a hut for his make-shift open air auto-repair shop, we would call him or her to be a complete planner, if he or she would think of ways to finance the timber to build the hut, would be worried about planning permits (if applicable and would have checked with the authorities whether it was needed and where else the hut could be built if he or she would fail to get the planning permit), would have asked the question whether this is a good site for customers and would have thought of how to build it in such a way that a strong storm would not blow it away.

Critical point strategy (Zempel, 1994) starts out with the most difficult and important point and plans and acts on this one first. It can be described as a rather economic way of structuring one's course of action (Sonnentag, 1996). It is a sort of main-issue-planning, meaning that the person has one clear goal in mind and concentrates on the main issues of his or her tasks. Thus, it is goal oriented, but it does not go as far into the future and does not deal with potential future problems as much as complete planning. Thus, the major difference to complete planning is the amount of planning and the orientation to one issue vs. many issues. Critical point strategy has the advantage of allowing a certain degree of situational responsiveness because the owners have invested less into their plans. Critical point planning implies the following in the example of an owner who wants to build a hut for his or her auto repair shop; he or she would think of all details of where to build the hut so as to optimize business both from the perspective of customer contact and from the feasibility to build a hut in this area. However, issues of money for the timber, where to get the timber, and the construction would not be thought about until the issue of site is resolved.

An *opportunistic* process characteristic constantly scans the environment for business opportunities. Once an opportunity is found, this person deviates easily from his or her prior plans. Thus, situational responsiveness and activeness are high, but planning and goal setting are low. Thus, the major difference to complete planning and critical point planning is that opportunistic planning leads people to plan little, to have a low future orientation and to be easily distracted from a plan of action. People characterized by opportunistic strategy might put aside a plan quickly and might not plan enough to stay on course in a difficult environment because they are attracted by newly perceived opportunities. An opportunistic owner might, for example, see that timber is especially inexpensive and would immediately buy it to eventually build a hut without ever having developed such a

plan beforehand. As a matter of fact, this person might actually have looked for a paint machine beforehand and use the money saved for the paint machine to buy the lumber.

A *reactive* strategy characteristic implies that the owner is driven by the situation and there is little or no proactive and planned use of information. There is little goal orientation, no long term planning, the knowledge base is not well developed because feedback cannot be understood since these owners do not have hypotheses about what went right or wrong (hypotheses are developed as parts of plans). There is, however, a high degree of situational responsiveness; in contrast to opportunistic planning, owners with a reactive strategy are not actively searching for opportunities and other environmental changes; rather they stumble upon these changes or are made aware of them by their competitors or other people. No systematic search for feedback is done and, therefore, the information is often too late or too lacking detail to be useful. Therefore, it is believed that a reactive strategy would only be useful in a completely random environment (which does not exist in reality); thus, the reactive strategy is most probably negatively related to success.

In the example of hut-building, a reactive owner would have seen others in the area to build huts; a foreign aid worker, who is often in the area, might have suggested that he or she should also build a hut for his or her make-shift auto repair shop. The reactive owner would then have the goal of building exactly the same hut as his or her neighbor. Since he or she would have started to think about the hut after most others have already built huts, his approach would come rather late. Moreover, he or she would not think of feasibility and customer issues; possibly after starting to build the hut, he or she would notice that a permit is still needed or that there was actually not enough money to finalize the hut. The result might be that the hut is not completely built or that new debts are added to the bad state of financing of the business. Another possibility might be that there is a wish to build a hut, but that no steps have been done at all yet to transfer this wish for a hut into a concrete goal that influences the actions of the owners.

The current research postulates that process characteristics are related to entrepreneurial success. This works via the dimensions of proactiveness and planning. Both should be positively related to success because planning and goal orientation go hand and in hand with the owners knowing what to expect. With planning, there is better knowledge of the situation and the plans include back-up plans for potential problems. Proactively structuring and influencing the situation should also have a positive impact on success. To be proactive means that the owner can change the situation, knows potential future difficulties and deals with them in anticipation. Therefore, all the strategies that use some kind of planning and/or proactiveness are hypothesized to be positively related to success. Complete planning and critical point planning imply both planning and proactiveness and are, therefore, more highly related to success than opportunistic planning which is only proactive. On the other hand, a reactive approach means that there is no planning

and no proactiveness. There are no clear-cut goals, which keep business owners from dealing with potential problems before they occur. A reactive strategy is a passive adaptation and does not attempt to influence the situation. All of this suggests that a reactive strategy is dysfunctional for success. Empirically, it has been shown that this strategy is negatively related to success in various studies (Frese, van Gelderen & Ombach, 2000; Frese, 2000).

Hypothesis 1: Complete planning, critical point, and opportunistic strategies are positively related (with complete planning and critical point planning being more highly related than opportunistic) and reactive strategy is negatively related to entrepreneurial success.

Entrepreneurial Orientation

The concept of entrepreneurial orientation (EO) has been used as a quasi-psychological concept to understand the emergence and success of businesses in the organizational literature (Lumpkin and Dess, 1996). This article focuses only on the success issue. Originally, Miller (1983) and Covin and Slevin (1989) described entrepreneurial orientation to be involved in innovative products, to undertake somewhat risky ventures and to be proactively orientated. Lumpkin and Dess (1996) incorporated two additional dimensions: autonomy (propensity to act autonomously) and competitive aggressiveness (tendency to act aggressively towards competitors). Covin and Slevin (1989) argued that all dimensions of EO were interrelated and overlapped and, therefore, collapsed the EO dimensions into one. The EO dimensions should be related to success because they influence how situations are perceived and what strategic decisions are taken.

Lumpkin and Dess (1996, p.140) described autonomy as “the ability and will to be self-directed in the pursuit of opportunities”. Thus, an autonomous owner is motivated to act and make decisions independently. It helps a business owner to be successful, because self-direction allows quick and self-reliant decisions. Competitive aggressiveness refers to the will to outperform competitors and keep them from entering the same market (Lumpkin et al., 1996). Competitively aggressive business owners try to secure a larger share of the market and are, therefore, more likely to be successful. Innovativeness leads to the tendency to engage in and support new ideas, experimentation and creative processes that may result in new products, services or technological processes (Lumpkin et al., 1996; Miller & Friesen, 1983). These new ideas do not have to be absolute novelties, but should be new for the relevant group. Innovative orientation should be positively related to success because with new ideas, one can capture important segments of the market. Risk taking involves the willingness to commit significant resources to opportunities, which have a chance to fail. Risk taking can be seen as venturing into the unknown, e.g. investing in unexplored technologies (Lumpkin et al., 1996). Risk taking should allow the owners to make lucrative deals and it should, therefore, be positively related to success.

Entrepreneurial orientation influences strategic decisions. Specifically, the EO dimensions explain why owners take a certain strategic stance (Frese & DeKruif, 2000). For example, competitive aggressiveness is an attitude or orientation toward one's competitors. Similarly, autonomy implies that one takes a look at strategic choices from the notion of whether it helps or reduces autonomy. Similarly, risk taking is an attitude. Innovative orientation implies that one is positively inclined to produce new products and with new production processes. Thus, we think of entrepreneurial orientation as a psychological concept in the sense of an attitude or orientation. In contrast to some researchers in the field (e.g., Covin & Slevin, 1989; Lumpkin & Dess, 1996; Miller, 1983), proactiveness is not included in the concept of entrepreneurial orientation because proactiveness is a concept central to the understanding of process characteristics. Conceptually, proactiveness is more strongly related to how (process) an owner works with his or her chosen strategy, rather than to why he or she chooses a certain strategy. Therefore, the concept of entrepreneurial orientation used here includes autonomy orientation, innovative orientation, competitive aggressiveness orientation, and risk orientation.

Hypothesis 2: Entrepreneurial orientation is positively related to success.

Perceived Environmental Influences

In keeping with a contingency view of organizations (Davis & Powell, 1992), it was expected that the effects on success of strategy process EO dimensions would be dependent on the (perceived) business environment. Various organizational dimensions have been used: First, uncertainty (or dynamism) describes the degree to which an environment is predictable or unpredictable (Miller & Friesen, 1983; Mintzberg, 1983). Second, complexity refers to intricacy and the qualitative nature of the environment (Mintzberg, 1983). Third, an environment can be seen as hostile, if there is a lot of pressure from competitors, if there is a negative business climate and if there is a relative lack of exploitable opportunities (Covin & Slevin, 1989).

These three approaches can be combined. A difficult environment is high in uncertainty, hostility, and complexity and is an easy one if it is low on these dimensions. An uncertain, hostile and complex environment exists, for example, when there are many competitors who reduce prices; when it is hard to predict the macro-economic development for the next few years; and when there are many product and process innovations. The group of small-scale business owners has a moderate amount of unemployment with many competitors entering the market, with a slow development of the economy, which is sometimes highly affected by world economy, prices for raw material (Namibia) and war in neighboring countries. At the same time, there is little aggressive pricing, there are few sharp changes in products and work process and there is little aggressive pricing by international competitors.

EO and strategy process characteristics interact with environmental conditions in various ways (Covin & Covin, 1990; Covin & Slevin, 1989; Dess, Lumpkin & Covin, 1997; Miller & Friesen, 1983; Rauch & Frese, 1998). For instance, owners have to be high in EO in a difficult environment in that threatening and dynamic conditions demand more innovation and aggressiveness. In contrast, EO is of less importance for success when conditions are more placid or predictable (Covin & Slevin, 1989). Separately, the literature also suggests a moderating effect of environmental difficulties on the relationship between planning and success (Frese & De Kruif, 2000; Rauch, 1998; Rauch & Frese, 1998). A difficult environment produces challenges and uncertainties to a business; therefore, efforts must be devoted to plan how to deal with potential threats. Business owners in a difficult environment should be more successful if they plan well, because planning makes better use of scarce resources, reduces production costs and compensates for little maneuverability, whereas in an easy environment there should be no relationship between planning and success. A similar argument can be made for critical point strategy, which should also be more useful in a dynamic and difficult environment.¹

Logically, an opportunistic strategy should be especially useful in those situations where opportunities are in greater abundance (Frese & De Kruif, 2000), for instance, in boom periods. Thus, an easy environment should be better for an opportunistic strategy than a complex, unpredictable, and hostile environment. The reactive strategy should be negative under all circumstances, because lack of planning and lack of proactiveness reduces the chances of a business owner to be successful (Frese, Krauss & Friedrich, 2000). A reactive strategy does not attempt to influence or structure the environment, does not anticipate future problems and is a passive adaptation to the environment without an attempt to influence it.²

Hypothesis 3A: Entrepreneurial orientation is positively related to entrepreneurial success in a difficult environment, whereas there is no relationship with success in an easy environment.

Hypothesis 3B: In a difficult environment, complete planning and critical point planning are positively related to entrepreneurial orientation and there is no relationship with success in an easy environment.

Hypothesis 3C: In an easy environment, opportunistic strategy is positively related to entrepreneurial success and it is negatively related to entrepreneurial success in a difficult environment.

Hypothesis 3D: There are no moderator effects of environmental conditions for the relationship between reactive strategy and entrepreneurial success.

The Study

The Research Context

In common with other African countries after independence, the Namibian government focused most strongly at first on large scale, government-owned industry.

Little was done to promote the small-scale business sector, although this sector is quite efficient in generating job opportunities and satisfying basic needs at very low costs (Seiche, 1995). Gray, Cooley, and Lutabingwa (1997) argued that in a continent with a shortage of capital and an abundance of labor, it is useful to promote small-scale business because it offers labor-intensive work. Small-scale business owners are more flexible than large companies and can react more quickly to crises. Estimates suggest that small businesses are the major source of employment and income in Namibia. They provide employment and income to 160,000 people, approximately one third of the Namibian workforce outside of agriculture (Erastus-Sacharia, Hansohm & Kadhikwa, 1999).

On the other hand, small business faces some important problems. Growth levels are not adequate in Africa – only 20% of the businesses show any growth at all and only 1% of the enterprises reaches a size of more than 10 employees (Mead, 1995). The Namibian government has done little with respect to the development of entrepreneurship, like vocational training in business skills (UNDP, 1998). Most business owners who enter the Namibian small-scale business sector do not have previous business experience or knowledge of business aspects such as marketing, financial management and basic accounting (Hansohm & Mupotola-Sibongo, 1998). Lack of appropriate skills needed at start-up leads to poorly managed businesses and to high rates of business failure. Hansohm (1997) argues, that Namibian business owners would do better if they would think and plan ahead more carefully. In addition, potential business owners are not encouraged to start a business with an interest-rate of 80% for loans and very high taxes.

The Sample

The data were collected in Windhoek in 1999 with most of the businesses being located at sites in the suburban industrial areas of Windhoek. Four sources were used to acquire participants. (a) The Namibian National Chamber of Commerce and Industry (NNCCI) provided us with addresses and telephone numbers of approximately 100 registered small businesses in Windhoek. (b) The Yellow Pages were used to randomly pick address to be approached. (c) Participants were asked, after the interview, to recommend other owners. (d) A final source was to approach those who were not listed with a random walk procedure (walking along townships and entering businesses to ask whether they qualified for participation).

The following selection criteria were used. We only included founders, owners, and managers of their firm who had at least one employee and at most 50 employees (mean = 7.2 employees). The businesses had to be in existence for at least one year because we wanted to get reliable data on their success. Of those owners who fit the selection criteria, the rejection rate was 22%. In total 87 business owners ($n = 32$ Whites, $n = 35$ Blacks, $n = 20$ so-called Coloureds – a term used in Namibia to signify people of mixed descent; since there was less discrimination against coloureds than against Blacks during South African occupation, this is a

meaningful sociological category and is also used by the owners themselves) participated in this study (17 were women and 70 were men).

Table 1 presents descriptive statistics for the sample. Industries represented included manufacturing (36 %), construction (8%), trade (26%), service (25%),

Table 1: Interview Sample Descriptives (N = 87)

Variable	N	%	M (years)
Sex:			
—Male	70	80.5	
—Female	17	19.5	
Line of business:—Manufacturing	2	35.9	
—Construction	9	7.7	
—Trade	30	25.7	
—Service	29	24.8	
—Other	7	5.9	
Informal sector:			
—Not registered and no tax	29	33.3	
—Registered only	5	5.7	
—Tax only	1	1.2	
—Does not know	1	1.2	
Formal sector:			
—Registered and tax	51	58.6	
Number of employees:			
—1–10 (micro business)	71	81.6	
—≥11 (small business)	16	18.4	
Age of business:			
—≤5 years	31	35.6	
—>5 years	56	64.4	
—Average age (1–30)			8.9
Age of entrepreneur:			
—(Min = 25, max = 64)			42.0
Years of education:			
—(Min = 4, max = 18)			10.8

other (6%). Forty-one percent of the businesses were in the informal sector (which was broadly defined as non-registered and not paying tax) and 59 % in the formal sector. Most participants (82%) were micro business owners (between 1 and 10 employees) and 18 % were small-scale business owners (more than 10 up to 50 employees). The average age of the businesses was 9 years.

Interview Procedures

Structured interviews were employed, both in the sense of a structured script for the interview (with additional prompts as needed) and with a structured analysis scheme to code the answers, and a so-called interviewer evaluation. The interviews were done in English, which is the second language for most Namibians; there were no problems understanding the questions. Tape recordings of the interviews were not possible because the noise level at the business sites was often too high. Therefore, the interviewers wrote down the answers as verbatim as possible in detailed notes. The interview notes were then coded by the interviewer. Usually, the codings were done on a 5-point Likert format. To calculate inter-rater reliability, 46 of the interviews were coded by a second rater (inter-rater reliability were calculated with intraclass correlation coefficients (ICCs)).

Immediately following the interview, the interviewers also filled out an interviewer evaluation questionnaire, which assessed the interviewers' impressions on important issues, such as risk taking.

Operationalization of the Variables

Table 2 presents the measures (Cronbach's alphas for scales with more than two items, r for those with two items, means (M), standard deviations (SD), the potential range of the answer format, N, and interrater reliabilities).

The four process characteristics—complete planning, critical point planning, opportunistic, reactive—were measured in an extended structured in-depth interview. We first asked participants to rank order a list of common business goals displayed on cards (developed in prior studies, e.g. new marketing strategy, expanding, making more profit). The respondents were asked to describe the first and second goal in more detail. This usually led to a description of sub-goals, which were more or less loosely related to the goals presented on the cards. The cards were pure stimulus material and were not in and of themselves important. In further steps the sub-goals were repeated and participants were asked how they go about achieving them. They were also asked what they had done so far to reach their goals. Several prompts were used, e.g. What do you mean by . . . ? Can you give me an example? Can you give me an example for . . . ? Care was taken, not to use any words like “plan” or “active” so as to not influence the participants' answers. This part of the interview took up to 40 minutes to complete.

The coding process was done with the help of anchors in the coding description. The following are examples of such anchors used when assessing the various constructs:

Table 2: Scale Characteristics of the Main Variables in the Interview

Scale/Index	# of Items	α	M	SD	Range	N	Interrater ¹
Subjective success	3	.67	.00	.78	—	87	—
Size success	3	.63	.00	.79	—	85	—
Growth success	7	.88	.00	.75	—	87	—
Complete planning strategy ³	2	(.87)	1.64	1.08	1-5	87	.87
Critical point strategy ³	2	(.87)	1.62	1.13	1-5	87	.85
Opportunistic strategy ³	2	(.82)	2.22	1.34	1-5	87	.81
Reactive strategy ³	2	(.84)	2.79	1.86	1-5	87	.80
Entrepreneurial orientation ³	4	.88	.00	.78	—	87	.75
Autonomy orientation ³	2	(.78)	3.15	1.14	1-5	87	.78
Innovativeness ^{2,3}	2	(.83)	.00	.92	—	87	.81
Competitive aggressiveness ²	3	.70	.00	.79	—	87	.70
Risk taking	1	—	2.80	1.39	1-5	87	.72
Environment overall difficulty ²	8	.76	.00	.61	—	87	—
Age of participant (years)	1	—	41.30	8.12	25-84	87	—
Participant's gender (1 = male, 2 = female)	1	—	—	—	—	87	—
Starting capital (Namibian Dollars)	1	—	46526	145341	0-1, 2 Mill-	86	—
Age of business (years)	1	—	8.99	6.23	1-30	87	—
Ethnic background 1	1	—	—	—	1-2	87	—
Ethnic background 2	1	—	—	—	1-2	87	—
Ethnic background 3	1	—	—	—	1-2	87	—
Line of business: manufacturing	1	—	—	—	1-2	87	—
Line of business: construction	1	—	—	—	1-2	87	—
Line of business: trade	1	—	—	—	1-2	87	—
Line of business: services	1	—	—	—	1-2	87	—
Line of business: other	1	—	—	—	1-2	87	—

Note: ¹Intraclass correlation coefficient

²z-scored

³no α calculated, only the correlation of the two items (in parentheses)

Ethnic background: 1 = White; 2 = Coloured; 3 = Black

- a) complete planning: "Things are planned out in detail, e.g. all necessary steps including some sub-steps."
- b) critical point planning: "One important and crucial point is described in detail, everything else is left vague; however, high goal orientation – keeps goal in mind."
- c) opportunistic strategy: "Does not plan in advance, but actively looks for business chances and exploits them; easily deviates from a goal".
- d) reactive strategy: "Goes from one issue/problem to the other; does not produce changes, but waits for them to happen and reacts then, no goal orientation."

The coders first had to decide whether the answers implied preplanning or not. Planning did not imply formal planning, but that steps to reach the goal had been formulated. If there was some form of planning, the coders differentiated whether only one or several issues were planned out in detail. In the latter case, it was called complete planning, in the former case, critical point planning. In each case, preplanning also implies that the goals were actively pursued and kept in mind. In the case of minimal or non-planning, the amount of proactiveness was judged. If a respondent was observing issues and areas related to his or her goal in an active way and attempted to get additional information on chances for entrepreneurial activities and acted upon this information, we called this opportunistic. If the person reacted primarily to obvious signals from the market, from customers, competitors, suppliers, or others, we called it a reactive strategy. In both instances the respondents may have deviated from their goals (more details in Frese, van Gelderen & Ombach, 2000).

Entrepreneurial orientation-the extent of innovativeness, autonomy, competitive aggressiveness and risk taking - was measured based on interview responses and on the interviewer evaluation. The factor of risk taking was measured by only one item based on the interviewer evaluation. The EO dimensions were factor analyzed with an exploratory principal component analysis. A single factor solution appeared (eigenvalue > 1) with high loadings of all the EO dimensions. This is in accordance with results of Covin and Slevin (1986) and made it possible to combine all EO dimensions into one construct of EO (EO-overall).

Three different dimensions of perceived environment-complexity, hostility, and uncertainty-were measured during the interview. For every dimension the business owner was asked to point out on a scale to what extent the description corresponded to his or her situation. We used an overall scale of perceived environmental difficulty after a principal component analysis revealed one factor (the items were z-standardized before adding them into a scale, $\alpha = .76$).

Success was also ascertained during the interview. Subjective success is a 3-item measure of the subject's own opinion about his or her business success ($\alpha = .67$). Sample items included how successful the participants thought they were compared to other business owners and how successful other owners saw them.

Owners in Namibia do not usually keep precise books. Therefore, approximate estimates were used for the two economic success measures, size and growth. Size success consisted of current number of employees, sales figures of last year, and estimated value of total business equipment (all z-standardized). The growth measure is based on increase, decrease, and no-change in number of employees, number of customers, sales, and profit (all z-standardized). The two economic success measures were significantly correlated (Table 3).

Control variables were employed to control for starting capital, age of business, line of business (with manufacturing, construction, trade, service, and other - dummy variables) and ethnic background (dummy variables).

Results

The inter-correlation matrix is shown in Table 3. A partial correlation analysis was employed to test the hypotheses (cf. Table 4). The partial correlations kept the influence of starting capital, different lines of business, and ethnic background constant. Hypothesis 1 (suggesting a positive relationship of complete and critical point planning strategy with economic success, a smaller positive relationship between opportunistic and economic success and a negative relationship of reactive strategy with success) was partially confirmed. Complete planning strategy was significantly and positively correlated with all three success measures after holding the control variables constant. Negative correlations were found between reactive strategy and the subjective success and size success but the partial correlation with growth success was not significant. However, there were no significant positive relationships of critical point strategy and opportunistic strategy with success (Table 4).

Hypothesis 2 (suggesting a positive relationship between EO and success) was confirmed for all three success measures (Table 4). As a matter of fact, each of the dimensions of overall entrepreneurial orientation-autonomy orientation, innovativeness, risk taking and competitive aggressiveness was significantly and positively correlated with entrepreneurial success (these correlations are not shown in the tables).

We tested the moderator effects (suggested in Hypothesis 3) with hierarchical regression analyses. In these analyses, the first step included all control variables. The second step included the linear component of the predictor and the expected moderator. The last step included the product of the predictor and the presumed moderator (Baron & Kenny, 1986). In the service of conserving space, Table 5 only provides the results for the last step of the regression analyses – note that the size of the standardized regression coefficients should not be interpreted; only the increment of R^2 should be interpreted. For reasons of multicollinearity we did a separate regression analysis for each combination of independent variable and moderator (in all, 15 regression analyses).

Table 3: Intercorrelations of the Main Variables in the Interview

	1	2	3	4	5	6	7
01. Subjective success	1.00						
02. Size success	.32**	1.00					
03. Growth success	.44**	.23*	1.00				
04. Complete planning strategy	.29**	.67**	.21	1.00			
05. Critical point strategy	.07	.18	.13	.10	1.00		
06. Opportunistic strategy	-.02	-.09	.07	-.09	-.02	1.00	
07. Reactive strategy	-.23*	-.42**	-.22*	-.56**	-.48**	-.52**	1.00
08. Entrepreneurial orientation	.34**	.42**	.29**	.57**	.25*	.41**	-.79**
09. Environment overall difficulty	.04	.13	-.10	.04	-.16	-.08	.05
10. Age of participant	.07	-.08	-.20	-.15	-.06	-.16	.24*
11. Participant's gender	.16	-.15	.16	.04	.18	-.21*	.08
12. Starting capital	.05	.16	-.02	.24*	.11	.03	-.23*
13. Age of business	-.16	.18	-.37**	.17	-.19	-.07	.10
14. Ethnic background 1	.07	.16	.16	.25*	.23*	.23*	-.48**
15. Ethnic background 2	.03	.04	-.04	.02	-.16	.04	.08
16. Ethnic background 3	-.10	-.19	-.12	-.26*	-.09	-.26*	.41**
17. Line of business: manufacturing	-.01	-.21	-.01	-.19	-.18	-.19	.38**
18. Line of business: construction	-.12	-.10	-.03	-.17	-.09	.19	.16
19. Line of business: trade	.13	.30**	.02	.32**	.11	-.02	-.25*
20. Line of business: services	.03	.00	.10	.17	.18	.07	-.37**
21. Line of business: other	-.06	.27*	.09	.06	.12	.01	-.10

Note: ** $p < .01$ (1-tailed).

* $p < .05$ (1-tailed).

Ethnic background: 1 = White; 2 = Coloured; 3 = Black.

(continued on following page)

Hypotheses 3B and 3C (on interactions between planning/opportunistic strategies and environmental difficulties) have to be rejected. While there was one significant beta for the interaction term of complete planning and perceived environmental difficulty, this was the only significant finding among nine calculations involving the strategy process characteristics complete and critical point planning and opportunistic. Therefore, this is interpreted to be a random effect. In line with hypothesis 3 D, there is no significant interaction effect of reactive with perceived environmental difficulty. Thus, it was concluded that there were no moderator effects of perceived environmental difficulty on the strategy process -

Table 3: (continued)

8	9	10	11	12	13	14	15	16	17	18	19	20	21
1.00													
-.08	1.00												
-.22*	-.07	1.00											
-.01	-.10	.12	1.00										
.24*	-.11	.00	.12	1.00									
-.08	-.05	.26**	-.08	-.15	1.00								
.46**	-.11	-.16	.11	.21	-.11	1.00							
-.09	.05	.10	-.27**	-.11	.03	-.42**	1.00						
-.37**	.07	.08	.13	-.11	.09	-.63**	-.45**	1.00					
-.31**	-.02	-.04	-.07	-.22*	.05	-.31**	.13	.19*	1.00				
-.10	-.01	-.06	-.02	-.10	.05	-.10	.08	.03	-.18	1.00			
.34**	-.05	-.03	.01	-.30**	-.05	.45**	-.17	-.30**	-.31**	-.25*	1.00		
.22*	.01	-.01	.02	-.08	-.17	.22*	-.16	-.08	-.34**	-.24*	-.05	1.00	
-.03	-.04	-.13	-.04	-.00	.20*	.13	-.16	.02	-.03	.04	-.22*	.15	1.00

success relationships (including complete planning, critical point planning, opportunistic, and reactive).

The results are in line with Hypothesis 3A (interaction of entrepreneurial orientation and environmental difficulties). The perceived environmental difficulty scale showed a clear moderator effect on the relationship between the entrepreneurial orientation and the two economic success measures size and growth while there was no such effect on the subjective success measures. Figures 1 and 2 (calculated according to Aiken & West, 1991) showed the two significant interaction effects of entrepreneurial orientation and perceived environmental difficulty. In

Table 4: Partial Correlations of the Main Variables in the Interview

	1	2	3
1 Subjective success	1.00		
2 Growth success	.45**	1.00	
3 Size success	.32**	.24*	1.00
4 Complete planning	.26*	.19*	.65**
5 Critical point	.06	.10	.13
6 Opportunistic planning	-.02	.03	-.12
7 Reactive planning	-.23*	-.18	-.40**
8 Entrepreneurial orientation	.36**	.30*	.41**
9 Environment difficulty	.05	-.09	.18

Note: Controlled for: starting capital, age of business, line of business (manufacturing, construction, trade, service, other), ethnic background (1, 3).

** $p < .01$ (1-tailed).

* $p < .05$ (1-tailed).

line with Hypothesis 3A, there is a positive relationship between entrepreneurial orientation and size and growth success if the environment is perceived to be difficult, while the correlation is near zero for those who perceive the environment to be easy.

Discussion

This study provides insight about process strategies, entrepreneurial orientation (EO), perceived environment, and entrepreneurial success in Namibia. Our results showed that complete planning was related to success as hypothesized (Hypothesis 1). This result is consistent with the theory by Frese and De Kruif (2000). A person who uses complete planning has concrete goals and develops knowledge and a good interpretation of the situation. It implies anticipation and the use of back-up plans for unforeseen situations. All of these factors could lead to success. We did not find positive relationships between critical point strategy and success and

Table 5: Moderator Effect of Perceived Environmental Difficulty on the Relationship of Strategy Process Characteristics and Entrepreneurial Orientation with Success (Hierarchical Regression Analyses)

Moderator Effects		Size	Growth	Subjective Success
Complete planning	β	.27**	.01	.05
× difficulty	ΔR^2	.05**	.00	.00
Critical point planning	β	.13	.14	-.09
× difficulty	ΔR^2	.01	.01	.01
Opportunistic strategy	β	-.04	-.06	.04
× difficulty	ΔR^2	.00	.00	.00
Reactive strategy	β	-.16	-.13	-.22
× difficulty	ΔR^2	.02	.01	.00
EO overall ^a	β	.21**	.27*	.14
× difficulty	ΔR^2	.04**	.06*	.02

Note: Table presents the results of the third step of the moderated regression analyses only (standardized regression coefficients (β) and increment of explained variance R^2). Therefore, the results are controlled for control variables (starting capital, age of business, line of business, ethnic background (step 1), and the linear effects of the predictors and the moderator (step 2) (cf. text for explanation).

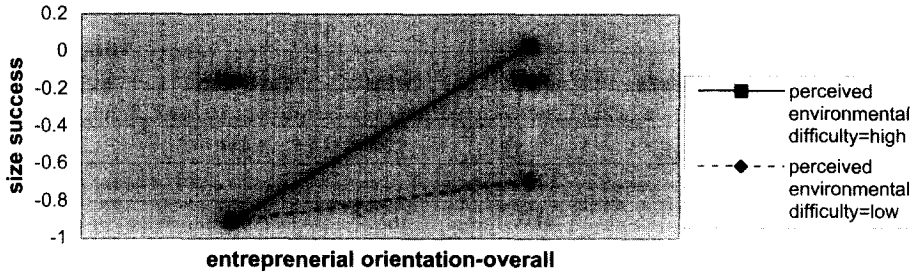
^aEO overall = entrepreneurial orientation overall scale

* $p < .05$

** $p < .01$

between opportunistic strategy and success (in contrast to Hypothesis 1). Both of these strategies are proactive, but there may not have been enough planning to make them successful. Business owners using critical point planning may have stopped pursuing their goals and since they planned for fewer issues, they may not have had an answer for unexpected events. Business owners who used opportunistic strategy may have been deviating from their goals too often to be successful over the long term.

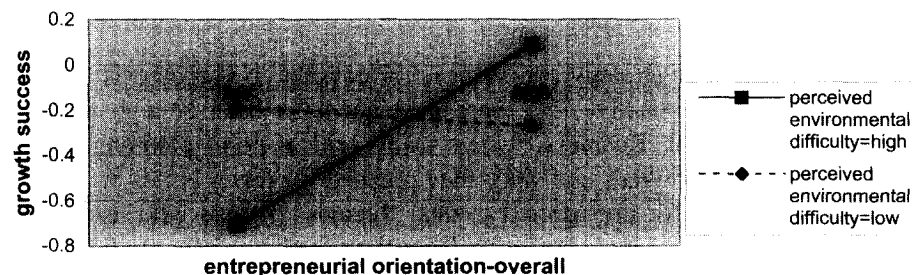
Figure 1
The Significant Interaction Between Entrepreneurial Orientation and Perceived Environmental Difficulty (Dependent Variable Size)



The results confirmed Hypothesis 1 that reactive strategy was related to non-success (at least for subjective success and size success – the partial correlation for growth just missed the significance level). A reactive strategy implies that one is driven by the situation and one does not actively influence the situation. Therefore, this strategy should be related to failure. Our results for this scale are in line with Miles and Snow’s (1978) hypothesis that reactors are least successful in the market and with the results of Frese, Van Gelderen and Ombach (2000) and the longitudinal results by van Gelderen, Frese and Thurik (2000). Small-scale business owners should, therefore, avoid using a reactive strategy.

The findings indicated that entrepreneurial orientation (innovativeness, autonomy, competitiveness aggressiveness, and risk taking) was positively related to success (Hypothesis 2). These results are consistent with Lumpkin and Dess (1996). Business owners who develop new ideas on products, services and tech-

Figure 2
The Significant Interaction Between Entrepreneurial Orientation and Perceived Environmental Difficulty (Dependent Variable Growth)



nologies, who are self-directed, who risked more, and who challenge their competitors more are more successful than people with a low degree of entrepreneurial orientation. A study on entrepreneurship in Uganda (Koop et al., 2000) found similar results. This means that entrepreneurial orientation is an important success factor and may in turn be influenced by success.

In terms of moderator effects (Hypotheses 3A to D), only two of the hypotheses were confirmed (A and D). In contrast to our hypotheses, there were no clear and consistent moderator effects of perceived environmental difficulty on the relationship between the strategy process characteristics of complete planning, critical point planning, opportunity and success. The lack of a moderator effect of environmental difficulty on the reactive strategy-success relationship was consistent with our hypothesis (Hypothesis 3D). In interpreting these results, we must keep in mind that moderator regression analyses are highly conservative (Aiken & West, 1991). Therefore, it is very possible that there were small moderator effects, which we were not able to pick up. This is particularly so, because it should be more difficult to get significant effects with a perceived environment measure because perceptions also affect the dependent and independent measures to a certain extent. On the other hand, it is also possible that the perceived environment has less of an effect on issues of planning and proactivity than conceptualized by contingency viewpoints (Davis & Powell, 1992). Further studies are needed in this area.

There was a clear and consistent moderator effect of environmental difficulty on the relationships of entrepreneurial orientation with success (Hypothesis 3A). Business owners who were highly innovative, autonomous, competitively aggressive, and risk takers were more successful in an environment perceived as difficult, than those with a low degree of entrepreneurial orientation. It makes sense that entrepreneurial orientation is more important in a difficult environment because high entrepreneurial orientation should improve decision-making and should lead to better information search, and better search for feedback.

When interpreting the results, it should be noted that in all the analyses to test the hypotheses, industry, ethnic background, age of business, and starting capital were held constant. This means that the significant zero order correlations between trade on the one hand and size, strategy process characteristics, and entrepreneurial orientation on the other hand (cf. Table 2) were held constant, when testing our hypotheses.

There was a high correlation between reactive strategy and entrepreneurial orientation (cf. Table 2). This relationship has not been emphasized in this article. However, this relationship needs to be considered in more detail. Note, however, that a simple integration of these two variables is not called for. Theoretically, these are different constructs on different levels (reactive strategy is a description of the action process, entrepreneurial orientation is related to values and attitudes). Moreover, empirically, reactive strategy and entrepreneurial orientation show differential results—in this case in the moderator effects, which held only for entrepreneurial orientation.

Limitations and Strengths

As other field research on business success, there are limitations in this study as well. Most of the information was obtained from the business owners themselves. Most business owners did not keep any records. Therefore, we had to rely on the owners' memory. Potential biases may operate here, for example, more optimistic owners may exaggerate their entrepreneurial orientation and their profits. On the other hand, care was taken to obtain economic success measures with as little bias as possible in the way questions were asked and by assuring the owners of the confidentiality of their answers (the fact that we were foreigners in Namibia helped reinforce this promise).

A positive feature of the current study is the use of the three measures of success: size, growth and subjective success. The moderator hypotheses on entrepreneurial orientation were only confirmed with growth and size and not with subjective success. It may be that the subjective success measure is adjusted by the owners' goals and aspirations. Since, entrepreneurial orientation should affect goals, it should be more difficult to get significant interaction effects for subjective success. A particular problem is the fact that the research did not include an objective measure of the environment. This may have contributed to the lack of a moderator effect of environment on the relationship between process characteristics and success.

Another limitation is the fact that a cross-sectional study design was employed, which does not allow for the testing of causal hypotheses. Thus, no definite causal ordering can be done. However, by holding starting capital constant, the starting size of the company was held constant and, therefore, the results are not just an effect of how well the enterprises have started out. In a longitudinal study van Gelderen et al. (2000) showed that a two way process occurs: A certain degree of planning led to success, but success led to more planning. A reactive strategy led to a higher degree of non-success and non-success led to a more reactive strategy. It is plausible that a similar circle effect also underlies the relationships in Namibia. As with any one study, there is a question whether these results can be generalized. Generalizability of the results is highly likely, given similar relationships in other African countries (overview in Frese, 2000).

One strength of this study is the careful interview technique, which made it possible to get good and reliable data with as little social desirability as possible in an African environment. The interview procedure used a lot of prompts and looked at strategy characteristics and entrepreneurial orientation in detail; this proved to be exceptionally time consuming, but provided rich qualitative material. This qualitative material was then coded into quantitative numbers. Quality data was generated with such an approach, which may have contributed to the clear and strong relationships between the psychological variables and economic indicators of success. It should be pointed out that both the partial correlations as well as additional explained variance of the moderator effects constitute substantial ex-

plained variance in a difficult area. Psychological factors of the business owners show important relationships with the economic success of the business (Frese, 2000).

Practical Implications

The study should be of interest for several reasons. First, by providing business owners with knowledge about the way they do business and with the resulting consequences, business owners can become more conscious of their business and its surroundings, work on their weaknesses and improve how they deal with their businesses.

Second, cumulative results in this area can be used to produce educational and training programs. Business owners could be more successful if they knew how to plan and anticipate situations better, if they would make back up plans and if they would show a higher degree of entrepreneurial orientation. Both strategy process characteristics and entrepreneurial orientations can be changed. They are not highly general and highly stable personality traits. They are characterized by their nearness to action, their specificity, and their changeability. Many theorists have argued that we should concentrate on those variables that are near to the specific situation and action because those variables can be changed more readily, while the more general personality variables tend to be more constant (cf. e.g., Bandura, 1997). Practically, this means that one can advise people to use different strategies to deal with their markets and, thus, to become more successful. This also implies that it is possible to develop a training program to change strategy process characteristics and entrepreneurial orientations. It might be useful to complement micro- and other credit programs with such training programs to help people become more successful business owners. Such an approach may be useful both in developing as well as in developed countries.

When small-scale business owners become more successful, they can contribute to the growth of their country's economy (Engelmann, 1992). Although the Namibian government sets aside some of its budget for education and training for the small scale sector every year, it is important that this budget (and other subsidies) are invested in an efficient way. This is "only possible on the basis of a certain amount of knowledge" (Hansohm, 1997, p. 6). This study was supposed to highlight the factors that could be used in developing the small-scale business sector in Namibia.

Endnotes

1. It is important to note that it is not hypothesized that a difficult environment produces planning and proactivity. There is no direct impact hypothesis of the environment in this paper; environment is used only as a moderator.
2. Only under extreme conditions, when market movements are completely random, should a reactive strategy make sense and be superior to other strategies.

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