

# ***How to Plan as a Small Scale Business Owner: Psychological Process Characteristics of Action Strategies and Success\****

*by Michael Frese, Marco van Gelderen, and Michael Ombach*

*A theoretical analysis of individual-level planning and action strategies used by small business owners/managers distinguishes five different strategic approaches: Complete (top-down) Planning, Critical Point, Opportunistic, Reactive, and Routine/Habit. Research on 80 owners of small start-up firms in the Netherlands showed that, as hypoth-*

*esized, a Reactive Strategy was negatively related to firm success, while a Critical Point Strategy was positively related. The combination of Critical Point and Opportunistic strategies appeared most successful and the combination of Opportunistic and Reactive was found to be least successful.*

---

This study takes a psychological approach to investigate the process characteristics of action strategies used

---

Dr. Frese currently holds a chair for work and organizational psychology at the University of Giessen and is also a part-time professor at the University of Amsterdam. His research interests are personal initiative, psychological success factors in small-scale entrepreneurs, impact of stress at work, training, errors at work, management errors, and error training.

Mr. van Gelderen is currently working on his dissertation for the Free University of Amsterdam and works as a researcher for EIM Small Business Research and Consultancy. His main research interest is the motivation of entrepreneurs.

Mr. Ombach graduated as a psychologist from the University of Amsterdam. He currently works as a consultant for Oracle.

\*We would like to thank Andreas Rauch and Jeannette Zempel for critical readings of a prior version of this article and Mr. Epping from the Chamber of Commerce of Amsterdam who supported us by providing addresses for our research

by small scale business owners; these strategy characteristics are then related to the firms' success. The objective of this research is to deepen our understanding of how strategies are used and how the owner/manager's strategy-relevant behavior is related to success in the small business.

Founders of new ventures always follow some strategy to reach their goals, though these strategies are not always highly rational or explicit. Research on business strategy frequently differentiates types of strategy by content and process characteristics (Austin and Vancouver 1997; Dess, Lumpkin, and Covin 1997; Hart 1992; Olson and Bokor 1995; Rajagopalan, Rasheed, and Datta 1993; Rauch and Frese 2000). "Content" specifies *which kind* of strategy is used—for example, low costs, differentiation, or focus/niche strategies (Porter 1980). On the other hand, "process"

refers to *how* one formulates and implements the strategy content (Olson and Bokor 1995).

This study concentrates on the process of action strategy. In contrast to most strategy process literature which focuses on the firm level, this research investigates the action strategy process as a characteristic of the founder and manager of the firm (Rajagopalan, Rasheed, and Datta 1993). The pervasive influence of founders on their firms and their dominance in making decisions make it possible to assume a high degree of equivalence between the individual and the organizational levels of analysis.

Strategies have been researched in psychology under the topic of thinking and problem solving. Strategy is defined by a plan of action, that is, a sequence of means to achieve a goal (Miller, Galanter, and Pribram 1960). Thus, the concept of strategy emphasizes *how* to reach a goal; the process of developing the goal itself lies outside the concept of strategy. The function of a strategy is to determine appropriate action in uncertain situations. A strategy presents a template that can be applied to a variety of situations, and thus helps one compensate for the limited processing capacity of the human mind (Frese and Zapf 1994; Hacker 1989; Kahneman 1973).

Cognitive and action theories have differentiated the following process characteristics of strategies: Complete Planning, Critical Point, Opportunistic, and Reactive Strategies (Hacker 1986; Hayes-Roth and Hayes-Roth 1979; Zempel 1994). A person using a Complete Planning Strategy plans ahead and actively structures the situation. Complete Planning Strategy implies a more comprehensive representation of the work process, a longer time-frame in which to plan ahead, a larger inventory of signals, a better knowledge and anticipation of error situations, and a more proactive orientation (Frese and Zapf 1994; Hacker 1986). The Critical Point

Strategy concentrates on the most difficult, most unclear, and most important point first (Zempel 1994). Only after solving the first critical point are further steps planned. This approach constitutes an iterative problem solving strategy—one has a clear goal in mind and concentrates on the tasks relevant to it. In contrast, a person using an Opportunistic Strategy starts out with some form of rudimentary planning but deviates from these plans easily when opportunities arise (Hayes-Roth and Hayes-Roth 1979). Thus, this strategy is neither top-down nor systematic. While there is a certain amount of local planning in the Opportunistic Strategy, it offers the risk of losing sight of goals or letting goals be determined by the opportunities. On the other hand, the Opportunistic Strategy is much more proactive than the Reactive Strategy, which is completely driven by the situation. A Reactive Strategist does not plan or work toward considered goals; rather, one simply reacts to the immediate situational demands without attempting to influence them.

While these four categories describe a considerable amount of strategic behavior, our first pilot interviews and action theory (Frese and Zapf 1994) convinced us that a fifth category exists. In contrast to the strategies already discussed, people sometimes just follow their routines without any explicit or considered choice of strategy. This behavior, named here "Routine/Habit," is not a considered strategy for a given situation but a standardized approach which has developed in redundant environments. When using this approach, there is little planning or proactivity, but people know their environment well. There is also little learning, because one essentially does things the same way as in the past.

The four strategies (Complete Planning, Critical Point, Opportunistic, and Reactive) and Routine/Habit can be differentiated according to degree of

**Table 1**  
**Strategy Characteristics**

<b>Strategies</b>	<b>Orientation to Goal</b>	<b>Long-Term Planning</b>	<b>Situational Responsiveness</b>	<b>Proactiveness</b>	<b>Planning and Action Overlap</b>
Complete Planning	high	high	low	high	low
Critical Point	high	middle	middle	high	middle
Opportunistic	low	low	high	high	high
Reactive	low	low	high	low	no planning
Routine/Habit	low	low	low	low	no planning

goal orientation, length of long-term planning, situational responsiveness, proactiveness, and the overlap between planning and action. Table 1 describes the strategy characteristics on these dimensions.

As can be seen, one can have a high or low goal orientation. One prerequisite of both a Complete Planning Strategy with its top-down approach and the Critical Point Strategy is being highly focused on a goal. This goal orientation is rather low if one uses an Opportunistic or Reactive Strategy. Because Routines/Habits have been developed for redundant environments, this category involves no considered goal orientation and therefore ranks low on this dimension.

Because Complete Planning Strategists plan carefully before taking action, this category rates high on the long-term planning dimension. The "middle" rating for the Critical Point Strategy reflects the fact that this strategy does involve a certain amount of a priori planning. Although the Opportunistic Strategy does involve a small amount of planning while one is acting, there is no long-term planning beforehand so the category is ranked low. The Reactive Strategy, characterized by the absence of planning, and Routine/Habit, characterized by a routine application of behavior previously developed, are both obviously ranked "low" on the long-term planning dimension.

Situational responsiveness is in many ways the opposite of goal-orientation and long-term planning. We assume that Complete Planning is lowest in situational responsiveness because developing a plan sometimes leads to a certain rigidity towards environmental demands (Rauch and Frese 1998). Since there are lower investments in planning in the Critical Point Strategy, this category is assumed to have a middle degree of situational responsiveness. One can be highly responsive to the situation by just reacting to the situation (Reactive Strategy) or by having multidirectional plans with an emphasis

on using environmental opportunities for which one proactively searches (Opportunistic Strategy). Routine/Habit is characterized by a low responsiveness to the situation because the once-developed plan of action just unfolds without consideration of the new situation's particulars. Routines are sometimes continued inappropriately even if environments change (Frese and Zapf 1994).

Proactiveness implies that one actively structures the environment, foresees future problems and adjusts plans accordingly, and systematically searches for opportunities. Proactiveness is ranked high in Complete Planning and Critical Point Planning because in both strategies, one anticipates problems and develops plans to change the situation. The Opportunistic Strategy is highly proactive because it actively scans the environment for potential opportunities. In contrast, proactiveness is absent in the Reactive Strategy and in Routine/Habit.

The dimension of planning and action overlap involves planning that is not done a priori but during the action itself. From a psychological point of view, it is quite possible that one can have no developed plan before starting an action but develop a plan in the process of acting. As Complete Planning is defined by a priori planning, this strategy involves little overlap between planning and action. Because Critical Point Planning only considers the critical point a priori, this strategy is in a middle position. Opportunistic Strategy implies a change in plans if opportunities arise, and this obviously necessitates a certain amount of planning while continuing to act. In contrast, the Reactive Strategy and Routine/Habit are both characterized by no conscious planning.

This categorization of action strategies resembles the models developed by several other researchers. For example, it bears a close similarity to Miles and Snow's (1978) typology, with their Reactor using a Reactive Strategy, the Prospector using

an Opportunistic Strategy, and the Analyzer using a Complete Planning Strategy (see also Doty, Glick, and Huber 1993). However, Miles and Snow's concept of Defender has no equivalence in our categorization derived from cognitive and action theory. There are also some similarities to a typology suggested by Mintzberg (1978) with his Rational Mode being similar to our Complete Planning Strategy and the Entrepreneurial Mode being similar to our Opportunistic Strategy. However, Mintzberg's Bargaining Mode only pertains to large companies and therefore has no equivalence in our categorizations. Finally, our model has some resemblance to Miller and Friesen's (1982) differentiation in innovation between conservative and entrepreneurial firms. These researchers found that the conservative firm uses a reactive strategy while the entrepreneurial firm uses an opportunistic strategy (compare also Chell, Haworth, and Brearley 1991).

The strategies investigated in this study are expected to be differentially related to the success of small scale business owners. Small scale business owners are considered successful if they achieve their goals. It is hypothesized that the Reactive Strategy is counterproductive because not having a clear plan of action puts the owner at the mercy of situational influences. Employees using this strategy have been shown to be less effective (Hacker 1992). All other strategies can be effective depending upon the situation.

Start-up firms usually face a high degree of uncertainty and the necessity to make quick decisions (Bhide 1994). In these conditions, a fully-developed Complete Planning Strategy is probably not very effective because it takes too

much time and effort to plan for the wide range of potential eventualities encountered by start-up firms (Bhide 1994). On the other hand, this strategy has been shown to be advantageous in various contexts (Hacker 1986; Rauch and Frese 1997). However, Complete Planning costs time, money, and effort, and it may lead to a certain rigidity—once one has invested time and effort in a detailed plan, there is considerable resistance to abandoning it.<sup>1</sup>

If only one strategy is used, it is hypothesized that the Critical Point Strategy is probably the best one for start-up firms. This strategy requires the business owner to do some amount of planning in order to decide which issues are most important and need to be tackled first. In contrast to the Complete Planning Strategy, the Critical Point Strategy does not lead to a rigid adherence to an overall plan. Moreover, because business owners are constantly faced with making quick decisions in highly uncertain situations, their mental processing capacity is highly loaded. Focusing only on essential issues lightens the demand on cognitive resources in comparison to developing a full top-down plan. Lumpkin and Dess (1995) argue similarly for the superiority of a simple strategy for new firms. The Critical Point Strategy frees the business manager to be action oriented.

An Opportunistic Strategy may be particularly advantageous in an uncertain environment. Its positive points are that one proactively searches for opportunities as they arise and acts on them. However, in contrast to the Critical Point Strategy, the Opportunistic Strategy may provide too little structure and allow one to lose sight of what is really important.

---

<sup>1</sup>The Complete Planning Strategy as used here is not to be confused with a formal business plan. Rather, it consists of a methodical top-down approach to everyday situations, such as telling personnel what to do or planning a marketing effort for the month.

Strategies can also be used in combination. It is expected that any combination with a Reactive Strategy would be ineffective, particularly when there is no further clear plan, as when Opportunistic and Reactive Strategies are combined. The best combination should be the Critical Point Strategy with the Opportunistic Strategy. With the Critical Point Strategy the owner/manager can establish what is important and then use the Opportunistic Strategy to scan the environment for opportunities to act appropriately.

The approach used in our study, based on cognitive and action theories, is oriented towards strategic planning and action at the individual level. Any simple analogy between individual actions and organizational actions is problematic—organizations do not act in the same sense that individuals do. However, in the case of small scale start-up firms, individual actions are exceedingly important because the owners/managers have such a high degree of influence on their organization. Their personal action strategies will determine the firm's success to a high degree because organizational procedures have not yet been formalized to deal with new situations that constantly arise.

Personal action strategies are not the same as personality variables nor are they completely situationally determined. Action strategies can be changed at will, do not have to be temporally stable, and are changeable depending upon the situation. However, there are limits to the changeability of strategies; people cannot develop new ways of doing things in each situation. Were people to do that, they would have no sense of a coherent self, and their processing capacity would be constantly overloaded (Kahneman 1973). Thus, ready-made strategies allow the person to deal with new situations.

Our conceptualization of the process characteristics of action strategies leads to the following hypotheses:

*H<sub>1</sub>: The Reactive Strategy is negatively related to firm success.*

*H<sub>2</sub>: The Critical Point Strategy is positively related to the success of start-up firms and is the strategy most highly related to firm success.*

*H<sub>3</sub>: The combination of Critical Point Strategy and Opportunistic Strategy is the strategy combination most highly related to firm success.*

No specific hypotheses were advanced with regard to Routine/Habit or the Opportunistic and Complete Planning strategies. Routine/Habit is not really a conscious strategy, and is therefore not the primary interest of this study. Because the Opportunistic and the Complete Planning strategies have both positive *and* negative features for start-up firms, we are not able to differentiate these effects with our research design.

## **Method**

### **Sample**

Our sample consists of 80 small scale business founders who were owners and managers at the same time in Amsterdam, the Netherlands. We chose new firms for several reasons. First, start-up firms are usually small and the influence of the owners is very high. Since our study concentrated on the owners' strategies, we wanted to include those owners who had a high impact on their firms. For this reason, we excluded all businesses with more than 50 employees. Second, success is more varied in small start-up firms because over time a selection process weeds out unsuccessful firms (Bruederl, Preisendoerfer, and Ziegler 1992). We did not draw a distinction between entrepreneurs and small scale business owners (Carland et al. 1984) because our subjects were too new in their business to be differentiated in this way. Further, we wanted to be deliberately broad, with business owners from various industries, because the founder's strategy characteristics may also have influenced in which

industry a business is founded. However, we excluded retail and repair shops, bars, and restaurants because we wanted to choose industries that allowed a high degree of freedom to maneuver and that were of moderate to high complexity.

Our sample is representative of small scale business founders in Amsterdam. The Chamber of Commerce provided us with a random sample of addresses of firms that were founded between 1990 and 1995 and had at least one and at most 50 employees. This provided us with a good data base because all business

owners are required to register with the Chamber of Commerce. The accuracy of the addresses was verified with the yellow pages and other telephone guides. Because we concentrated on start-ups, we also included one center for small scale start-up firms.

In all, 236 firms were contacted. Of these, 60 did not fall into our sample description (for example, they turned out to be an older firm with a changed legal status or were free lancers). Of those who fit our criteria, 76 declined to participate. We additionally excluded

**Table 2**  
**Sample Characteristics**  
**(*n*=80)**

Variable	Percentage
Sex	
Male	85
Female	15
Education	
Academic	52
Non-academic	39
Not known	9
Industry	
Production	32
Trade	28
Service	37
Not classifiable	3
Innovativeness	
Technologically innovative	21
Not technologically innovative	79
Number of employees	
1 to 10	82
11 to 50	18
Amount of start-up capital	
Less than \$ 50,000	55
\$ 50,000 - \$ 1.5 Million	35
Not known	10
Average age of the founder	35 years
Average age of the company	4 years

seven who turned out in the interview not to be the founders of the business, seven whose companies had been so recently established that it was not possible to get a good success measure, one whose company went out of business, and five who turned out to have no employees. This resulted in a final sample of 80 business owners. Table 2 presents the characteristics of the sample. The data indicate that most of them were male, highly educated, not technologically innovative, and had a small amount of start-up capital; the business owners were evenly divided across the different industries. The average company was four years old; while companies of this age are no longer really in the first start-up phase, they are usually not yet completely established in the market.

### **Operationalization of the Variables**

Both structured interviews and questionnaires were used. The interviews were structured in that we asked all subjects the same starting questions and used a numerical coding scheme to rate the responses. However, we also used additional prepared prompts that varied from person to person if the interviewers thought that they needed additional information. Each interview was tape recorded and later coded by two authors. Structured interviews often have very good validity, as meta-analyses show (for example, Wiesner and Cronshaw 1988). The strategy characteristics and some of the success measures could be better ascertained in an interview than in a questionnaire because the interviews allowed us to probe deeper into the answers. Moreover, action strategies are better described via stories told by the participants than via questionnaire items. When interview responses are

coded, there is a single anchor point, thus reducing one source of error common to questionnaire studies. Some variables were ascertained via the questionnaire, which was filled out before the interview but with the interviewers present. Table 3 presents the inter-rater reliabilities, Cronbach's alphas, means, and standard deviations for all the variables studied. By and large the alphas and inter-rater reliabilities are adequate (Nunnally 1978). A procedure of mean substitution of items in scales was used to reduce the problem of missing data.

*Success Variables.* Both personal and economic success measures were used.<sup>2</sup> Research on small business should use multiple measures of success because any one measure is prone to errors which may be due to the tax structure, to memory problems, and/or to reporting biases (for example, social desirability). *Economic success* includes growth or decline of sales, profit, investments, personnel, and personal income since the start of the company. The firm owners provided data for the growth or decline in the amount of personal income and in the number of employees (rated on a five point scale). Additionally, changes in sales, profit, and investment were measured by asking the business owners to draw a graph depicting these changes from the start of the company to the present time. (This measure was modeled after a measure used by Bruederl, Preisendoerfer, and Ziegler 1992). These curves were rated on a scale from 1 to 5. (Since the inter-rater reliability was very high ( $r=.96$ ), we did not use the mean of the two coders for economic success). *Personal success* was measured by asking respondents to indicate the extent to which they felt their start-up goals had been realized. In addition, nine other

---

<sup>2</sup>The coding scheme for the success measures and for the process characteristics (the strategies) can be obtained from the authors upon request.



**Table 3**  
**Means, Standard Deviations, Range, Reliabilities, and Intercorrelations of Variables**

Variable	Mean	S.D.	Range	Reliability	1	2	3	4	5	6	7	8
1. Complete Planning	22.6	21.5	1 - 100	.76 <sup>a</sup>		-.24*	-.60**	-.32**	-.09	.06	.07	.01
2. Critical Point	30.5	15.7	1 - 100	.63 <sup>a</sup>			-.02	-.36**	-.31**	.32**	.30**	.23*
3. Opportunistic	30.0	18.6	1 - 100	.64 <sup>a</sup>				-.17	-.20	-.07	-.14	.11
4. Reactive	11.3	17.3	1 - 100	.70 <sup>a</sup>					-.12	-.35**	-.26*	-.41**
5. Routine/Habit	5.6	12.7	1 - 100	.90 <sup>a</sup>						.09	.08	.10
6. Success total	3.8	.6	1 - 5	.75							.95**	.72**
7. Economic success	3.7	.7	1 - 5	.73								.48**
8. Personal success	3.9	.6	1 - 5	.64								

<sup>a</sup> Inter-rater reliability; all other reliabilities are Cronbach's alphas.

\*  $p < .05$

\*\*  $p < .01$

questions on success were asked (for example, "I can offer my personnel a steady/secure job"). All success items were scored on a five-point scale, and the total scale score was divided by the number of items. We combined the personal and economic success scores into a total success score because they were correlated and doing so would make the presentation of the results more transparent.

*Action Strategy Characteristics.* We used a behavior event procedure (Spencer and Spencer 1993) to analyze the strategy characteristics revealed in the interview. The business owners were asked to report their way of dealing with common aspects of running a business, such as getting customers, dealing with personnel, and product development. Respondents were also asked to give concrete examples of what they were actually doing. For each one of these areas the interviewers ascertained what strategy characteristics were used. The interviewers asked several questions to force the interviewees to become more and more specific in order to make a differential diagnosis of strategies.

The coding procedure was the following: After the interview, each interviewer offered his first impression of the way the interviewee generally operated (across the situations asked about in the interview). This judgment was expressed as a percentage for each of the five strategies. After this, the interviewers listened to the interview tapes and read the questionnaire responses. From this, each interviewer independently adjusted his first impression as needed and came to a final determination. Inter-rater reliabilities for the five strategies averaged .66 (between .61 and .72) for the first impression and .75 (between .63 and .90) for the final assessment. These are adequate reliabilities. Finally, to increase the reliability of the final measure, the mean of both interviewers' estimates was calculated.

Our measurement approach was ipsative (forced choice)—the interviewers were to add up percentages for all the action strategies to a total of 100 per cent for each respondent (in Bertram's 1996 terminology, we used semi-ipsative measures). This means that by design there is a negative correlation between the different strategies (since giving a high score on one strategy automatically reduces the possibility of giving a high score on another). There is a lively debate on ipsative measures in organizational and work psychology that has not been completely resolved (Bartram 1996; Baron 1996; Cornwall and Dunlap 1994; Saville and Willson 1991). An ipsative measurement has advantages and disadvantages. The advantages are that the interviewers are forced to make deliberate comparisons and the scaling of the strategies is done on the same dimension with the same meaning (percentage of time used). It also makes intuitive sense because it mimics the practical situation in which one has to make decisions between alternative approaches (Baron 1996). The disadvantage derives from the fact that the responses are not treated as independent of each other. For this reason, the intercorrelations among the strategies were nearly all negative (if one adopts one strategy very strongly, others automatically get a lower percentage). This results in uninterpretable regression weights from any regression analysis that includes all strategies. To compensate for this, we calculated several regression analyses using only one strategy at a time.

*Control Variables.* Research on small scale business owners has customarily demanded that certain controls be included in the studies (Dess, Ireland, and Hitt 1990). For this reason we asked single questions on the age of the company, on the extent of the owner's industry experience, on industry type (manufacturing, trade, service), and the amount of start-up capital.

## Results

As indicated previously, Table 3 describes the intercorrelations of the variables studied. As discussed, the intercorrelations of the action strategies were mainly negative because of the ipsative nature of measurement. The means for the Planning, Critical Point, and Opportunistic strategies were equal. Only the Reactive Strategy and Routine/Habit were used infrequently.

The relationships between the strategies and the success measures were rather clear-cut and in line with  $H_1$  and  $H_2$ —both the Critical Point and the Reactive strategies were significantly correlated with success in the predicted direction (Critical Point Strategy being positively and Reactive Strategy being negatively related to success). When all the strategies were considered together in a multiple correlation, 19 percent of the variance in the overall success measure could be explained by the strategies. Since strategies are by necessity only one part of a full explanation of firms' and owners' success, this is a high multiple correlation.

Table 4 presents the relationships of the strategy characteristics with success as found in hierarchical multiple regression analyses. The first step in these analyses included various controls that might also impact success (age of company, owner's industry experience, two dummy variables describing the three industries involved, and the start-up capital). In the second step, a strategy was included. (Note, we could not include all of the strategies in one regression analysis because of their ipsative nature of their measurement.) The results confirmed the results of the zero order correlations. Critical Point showed a significantly positive and Reactive Strategy showed a significantly negative relationship with success after controlling for the control variables in step 1. The only significant Beta for the control variables was for age of the company, which replicates the customary "liability of newness" problem (Bruederl, Preisendoerfer, and Ziegler 1992).

Table 5 presents the relationships of the dominant strategies and strategy combinations with overall success. The left column of Table 5 presents the dominant strategy, that is the one most frequently used (15 people did not have a dominant strategy and were, therefore, excluded from this analysis). Planned contrasts showed that the least successful strategy was the Reactive one ( $t=3.25, p<.01$ , comparing Reactive vs. all other dominant strategies) and that the Critical Point Strategy seems to be the most successful ( $t=1.51, p<.10$ , one-tailed for Critical Point vs. all other strategies). While Routine/Habit is not really a strategy (and was not often mentioned), it is a sort of fall back system, in case one does not develop a conscious strategy. The high scores may have been a function of the experience of the business owners who used this frequently.

People used strategies in combination, of course, and the respective results are displayed in the right side of Table 5. Since the  $n$  is partly very low, these are suggestive data only (15 people with a tie and cells with frequencies of  $n<4$  were excluded from this analysis). There were overall ANOVA significant differences. Planned contrasts showed that the most successful combination was to use both Critical Point and Opportunistic Strategies ( $t=2.42, p<.01$  for this combination against all other ones). The least successful combination was Opportunistic and Reactive Strategies ( $t=6.40, p<.01$  for this combination versus all others). These results are in line with  $H_3$  which stated that Critical Point and Opportunistic Strategies should be the best combination. It is interesting to note that the most successful combination (Critical Point/Opportunistic) was also the one most frequently used (with 38 per cent of the business owners using this combination).

## Discussion

Our results showed that process characteristics of action strategies are related to owners' success. Because process

The Relationship of Strategies with Success  
(Standardized Regression Coefficients, Hierarchical Regression Analysis)

Variables	Step 1			Step 2		
	Controls	Complete Planning	Critical Point	Oppor- tunistic	Reactive	Routine/ Habit
Step 1: Control variables						
Age of company	.25*					
Industry experience	-.09					
Industry type dummy 1	.07					
Industry type dummy 2	-.04					
Start-up capital	.02					
	$R^2$					
	$F(5,74)$					
Step 2: Specific strategy						
		.00	.31*	-.02	-.35*	.11
Change in $R^2$		.00	.09**	.02	.12**	.01
Change $F(1,48)$		n.s.	7.79	n.s.	10.34	n.s.
	$R^2$	.07	.16*	.07	.18*	.08
	$F(5,43)$	n.s.	2.26	n.s.	2.72	n.s.

\*  $p < .05$

\*\* $p < .01$

**Table 5**  
**Dominant Strategies, Combinations of Strategies, and Overall Success**

Dominant Strategy	M	n	Dominant Strategy Combination	M	n
Complete Planning	3.87	16	Complete Planning - Critical Point	3.88	15
Critical point	4.04	17	Complete Planning - Opportunistic	3.54	4
Opportunistic	3.72	20	Complete Planning - Reactive	3.54	4
Reactive	3.34	9	Complete Planning - Routine/Habit	3.85	4
Routine/Habit	4.27	3	Critical Point - Opportunistic	4.00	25
			Critical Point - Reactive	3.73	6
			Opportunistic - Reactive	3.17	7
Total	3.81	65	Total	3.79	65
F-value	3.48*		F-value	3.08*	

\*  $p < .05$

characteristics of strategies are related to the owner/managers' actions, it is not surprising that 19 percent of the total success measure is predicted by these strategies. The results were the same for both the economic measures of success (growth in sales, profit, etc.) and the personal measures of success (reaching one's goals)

The most important positive strategy is Critical Point. People who concentrate on the most important or difficult part of a situation will do best in their business. This is an important finding, both for psychology in general and for small business research in particular. Cognitive psychology has not yet considered the concept of Critical Point Strategy. It was introduced by Zempel (1994), in an as yet unpublished master's thesis, who also found the Critical Point Strategy to be particularly useful in her study of German craft masters (Meister). Obviously, it is an important addition to the study of strategies.

In terms of combinations, the best combination of strategies was Critical Point and Opportunistic Strategies, the worst one combining Opportunistic and Reactive Strategies. This shows that localized planning with a clear concept of what is important combined with a quick reaction to environmental opportunities is the best way to run a start-up firm, at least during the first years.

For small business research, the differentiation of planning styles used in this study may be of importance. As Schwenk and Shrader (1993) pointed out, the relationship between strategic planning (as customarily defined by management science) and success is not as high as one would expect. Often, only formal planning (having a formal business plan) is considered in research (Matthews and Scott 1995; Olson and Bokor 1995). A more differentiated conceptualization of what planning means may be very helpful. In our study, there are three strategies related to planning for everyday problems. The

Complete Planning Strategy, which uses a top-down approach, was not related to success. The Opportunistic Strategy, which interjects periods of planning into acting on opportunities, has been deemed an important strategy in cognitive science (Hayes-Roth and Hayes-Roth 1979). However, it was not found to be clearly related to business ownership success, although its combination with Critical Point was successful. The best strategy—Critical Point—also involves some degree of planning, albeit at a rudimentary level. Using a different approach and a different population, Sonnentag (1996, 1998) has also shown that a Complete Planning Strategy process is not as useful as a strategy she calls "local planning." Local planning is quite similar to our concept of the Critical Point Strategy. The opposite of any planning is the Reactive Strategy; it is clearly the least successful strategy in our study. This is in line with Miles and Snow's (1978) hypothesis that reactors are least successful in the market (see also Doty, Glick, and Huber 1993). Our results reinforce the argument that some restricted form of planning is necessary for success.

The major contribution of our study was to develop a process concept of action strategies by differentiating various styles of planning and proactivity for individual business owners. However, our research has limitations. The most important limitation is that we have not looked at interactions between strategies and environmental factors. Miles and Snow (1978) and Mintzberg (1979) have suggested that certain strategies are only useful in a certain environment. Theoretically and empirically, it makes sense that planning is of reduced use in a chaotic and unpredictable environment over which a person has very little control (Frese et al. 1995; Matthews and Scott 1995). However, if planning includes back-up plans for the times when something goes wrong, it may work well in such a situation as well. This implies that

one has to take a detailed look into the planning process in the context of a given situation before one can actually test the interaction of strategies with the environment. This probably requires an experimental or laboratory observational study which has the disadvantage that no realistic success variable can be ascertained.

Nevertheless, environmental factors should be incorporated into studies of strategies in the future. One should not assume, however, that the environmental conditions for small scale business owners show extreme differences. In some sense, being a start-up firm is already a situational characteristic. Nearly all small start-up firms have to operate in an uncertain environment. Moreover, most start-up firms use a simple structure, in Mintzberg's (1979) terminology.

Our process model of strategy could also reasonably interact with the content model Olson and Bokor (1995) provide an example of the interaction between formal planning and innovation. It is a reasonable hypothesis that, for example, a niche strategy should be planned formally (using a Complete Planning Strategy or Critical Point), while individualized customer orientation may work better within the framework of an opportunistic process.

Another limiting factor is culture. While some studies do not find interaction between strategies and national environments (Shane and Kolvereid 1995), a study by Rauch, Frese, and Sonnentag (in press) has shown that in Ireland, a culture with a low degree of uncertainty avoidance (Hofstede 1991), detailed planning was actually counterproductive while there was a high positive relationship between detailed planning and success in Germany, a country with a somewhat higher degree of uncertainty avoidance. The Netherlands shows an uncertainty avoidance score similar to that of Germany. Thus, one can assume that our results would not necessarily be reproduced in low uncertainty avoidance countries, such as Jamaica or Singapore.

Another limitation is related to our methodology. Since we used a cross sectional approach, we had to rely on the owners' memory to determine strategy use. It is a plausible alternative hypothesis that non-successful owners attribute their failures to the environment and emphasize that they were *forced* by the environment to do certain kinds of things (fundamental attributional error, Ross 1977). In our scheme this would show up as a reactive strategy.

A problem of many business ownership studies is the survivor bias. All businesses in our sample were successful in the sense that they had survived thus far. We attempted to control for this problem by restricting our sample to new start-ups who were on the market fewer than 6 years. This restriction also solved to a certain extent the usual problem of how to define the sample.

This study relied on success variables that were measured via interviews. Although interviews start out with the information provided by the respondent, well designed interviews can use prompts to ascertain what the respondents really meant and to check on their answers by asking for concrete examples. In addition, interviews avoid the scale anchor problem of questionnaires because the trained coders use the same scale anchors throughout. Our technique of using interview responses that were later coded by two coders to measure strategies and success avoided some single source problems. One could argue, however, that because we ascertained both strategies and success from the same source (the owner) the study is limited by a common method variance problem. We think that common method variance is unlikely here because strategies have few implications in terms of social desirability. Even reactive strategies were seen by the owners as quite acceptable because such strategists appeared responsive to the situation. Moreover, the strategy characteristics were determined by asking respondents

to describe how they proceed and prompting them to provide concrete detail. Generally, structured interviews of this type have been found to show good reliability in selection research and, therefore, we think that the likelihood of a social desirability bias in the measurement of strategies is low. In contrast, we believe that social desirability does play a role in the success measures. However, it is practically impossible to get other measures from small scale business starters. For example, a measure like profit rate cannot be used because some owners try to reduce profit to minimize taxes. Similar problems appear with nearly all other archival data (Boyd, Dess, and Rasheed 1993). However, our success measure does include items on growth of sales and personnel; these measures are unlikely to be heavily biased and show high correlations with the overall success measure.

The results of this study may have some practical implications for banks and advisors. It is often argued that top-down planning is the preferred strategy. There is some truth to this idea in that the direct opposite of planning (the Reactive Strategy) was found here to be the least successful because it combines little goal orientation, little planning, and little proactivity. Nevertheless, there are other forms of planning, such as Critical Point planning and the Opportunistic Strategy which may sometimes be more successful than top-down planning. Obviously, the relationships between strategies and success found in this study are not static. In certain situations (for example, a major recession—Holland was in a boom situation at the time of the study) and at different stages in the business life cycle, different forms of planning may be differentially successful. For example, it may be more useful to use a planning strategy when the firm becomes larger and when the owner has a better grasp of the operative business conditions.

This study has shown that a paradigm—strategy characteristics—that is highly related to the actions of the owner/managers is related to the success of the firms and the owners. This may be one step toward developing a fuller picture of the psychology of business success.

## References

- Austin, J.T., and J.B. Vancouver (1997). "Goal Constructs in Psychology: Structure, Process, and Content," *Psychological Bulletin* 120, 338-375.
- Baron, H. (1996). "Strengths and Limitations of Ipsative Measurement," *Journal of Occupational and Organizational Psychology* 69, 49-56.
- Bartram, D. (1996). "The Relationship between Ipsatized and Normative Measures of Personality," *Journal of Occupational and Organizational Psychology* 69, 25-39.
- Bhide, A. (1994). "How Entrepreneurs Craft Strategies that Work," *Harvard Business Review*, March-April, 150-161.
- Boyd, B.K., G.G. Dess, and A.M.A. Rasheed (1993). "Divergence between Archival and Perceptual Measures of the Environment Causes and Consequences," *Academy of Management Review* 18, 204-226.
- Bruederl, J., P. Preisendoerfer, and R. Ziegler (1992). "Survival Chances of Newly Founded Business Organizations," *American Sociological Review* 57, 227-242.
- Carland, J.W., F. Hoy, W.R. Boulton, and J.C. Carland (1984). "Differentiating Entrepreneurs from Small Business Owners: A Conceptualization," *Academy of Management Review* 9, 354-359.
- Chell, E., J.M. Haworth, and S. Brearley (1991). *The Entrepreneurial Personality*. London: Routledge.
- Cornwall, J.M., and W.P. Dunlap (1994). "On the Questionable Soundness of Factoring Ipsative Data: A Response to Saville and Willson 1991," *Journal of Occupa-*



- tional and Organizational Psychology* 67, 89-100.
- Dess, G.G., R.D. Ireland, and M.A. Hitt (1990). "Industry Effects and Strategic Management Research." *Journal of Management* 16 7-27.
- Dess, G.G., G.T. Lumpkin, and J.G. Covin (1997). "Entrepreneurial Strategy Making and Firm Performance: Tests of Contingency and Configurational Models," *Strategic Management Journal*, 18, 677-695.
- Doty, D.H., W.H. Glick, and G.P. Huber (1993). "Fit, Equifinality and Organizational Effectiveness: A Test of Two Configurational Theories," *Academy of Management Journal* 36, 1196-1250.
- Frese, M., K. Albrecht, R. Kreuzer, P. von Papstein, J. Pruemper, and H. Schulte-Goecking (1995). "Handlungsstile und Leistungsverhalten: Die Rolle von Plan—und Zielorientierung in Problem—und Lernsituationen," *Zeitschrift fuer Arbeits und Organisationspsychologie* 39, 67-77.
- Frese, M., and D. Zapf (1994). "Action as the Core of Work Psychology: A German Approach," in *Handbook of Industrial and Organizational Psychology*. Ed. H.C. Triandis, M.D. Dunnette, and J.M. Hough. Palo Alto, Calif.: Consulting Psychology Press, 271-340.
- Hacker, W. (1986). *Arbeitspsychologie: Psychische Regulation von Arbeitsstaetigkeiten*. Berlin, Germany: Verlag der Wissenschaften.
- Hacker, W. (1989). "On the Utility of Procedural Rule Conditions of the Use of Rules in the Production of Operation Sequences," *Ergonomics* 32, 717-732.
- (1992). *Expertenkoennen: Erkennen und Vermitteln*. Goettingen, Germany: Hogrefe, Verlag fuer Angewandte Psychologie.
- Hart, S.L. (1992). "An Integrative Framework for Strategy Making Processes," *Academy of Management Review* 17, 327-351.
- Hayes-Roth, B., and F. Hayes-Roth (1979). "A Cognitive Model of Planning," *Cognitive Science* 3, 275-310.
- Hofstede, G. (1991). *Cultures and Organizations: Software of the Mind*. London: McGraw-Hill.
- Kahneman, D. (1973). *Attention and Effort*. Englewood Cliffs, N.J.: Prentice-Hall
- Lumpkin, G.T., and G.G. Dess (1995). "Simplicity as a Strategy-Making Process: The Effects of Stage of Organizational Development and Environment on Performance," *Academy of Management Journal* 38, 1386-1407.
- Matthews, C.H., and S.G. Scott (1995). "Uncertainty and Planning in Small and Entrepreneurial Firms: An Empirical Assessment," *Journal of Small Business Management* 33, 34-52.
- Miles, R. E., and C.C. Snow (1978). *Organization Strategy, Structure, and Process*. New York: McGraw-Hill.
- Miller, D., and P. Friesen (1982). "Innovation in Conservative and Entrepreneurial Firms: Two Models of Strategic Momentum," *Strategic Management Journal* 3, 1-25.
- Miller, G.A., E. Galanter, and K.H. Pribram (1960). *Plans and the Structure of Behavior*. London: Holt.
- Mintzberg, H. (1978). "Patterns in Strategy Formulation," *Management Science* 24, 934-948.
- Nunnally, J. C. (1978). *Psychometric Theory*, 2nd ed. New York: McGraw-Hill.
- Olson, P. D., and D.W. Bokor (1995). "Strategy Process-Content Interaction: Effects on Growth Performance in Small, Start-Up Firms," *Journal of Small Business Management* 33, 34-44.
- Porter, M.E. (1980). *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. New York: MacMillan.
- Rajagopalan, N., A.M.A. Rasheed, and D.K. Datta (1993). "Strategic Decision Processes: Critical Review and Future Directions," *Journal of Management* 19, 349-384.
- Rauch, A., M. Frese, and S. Sonnentag (in press). "Cultural Differences in Planning Success Relationships: A Comparison of Small Enterprises in Ireland, West

- Germany, and East Germany," *Journal of Small Business Management*.
- Rauch, A., and M. Frese, (1998). "A Contingency Approach to Small Scale Business Success: A Longitudinal Study on the Effects of Environmental Hostility and Uncertainty on the Relationship of Planning and Success" in *Frontiers of Entrepreneurship*. Ed. P. D. Reynolds, W. D. Bygrave, N. M. Carter, S. Manigart, C. M. Mason, G. D. Meyer, and K. G. Shaver. Babson, Mass.: Babson College, 190-200.
- (2000). "Psychological Approaches to Entrepreneurial Success: A General Model and an Overview of Findings," in *International Review of Industrial and Organizational Psychology*. Ed. C.L. Cooper, and I.T. Robertson. Chichester, U.K.: Wiley, in press.
- Ross, L. (1977). "The Intuitive Psychologist and his Shortcomings: Distortions in the Attribution Process," in *Advances in Experimental Social Psychology*. Ed. L. Berkowitz. New York: Academic, 173-220.
- Saville, P., and E. Willson (1991). "The Reliability and Validity of Normative and Ipsative Approaches in the Measurement of Personality," *Journal of Occupational and Organizational Psychology* 64, 219-238.
- Schwenk, C.R., and C.B. Shrader (1993). "Effects of Formal Strategic Planning on Financial Performance in Small Firms. A Meta Analysis," *Entrepreneurship Theory and Practice*, Spring, 53-64.
- Shane, S., and L. Kolvareid (1995). "National Environment, Strategy, and New Venture Performance: A Three Country Study," *Journal of Small Business Management* 33, 37-50.
- Sonnentag, S. (1996). "Planning and Knowledge about Strategies: Their Relationship to Work Characteristics in Software Design," *Behavior and Information Technology* 15, 213-225.
- (1998). "Expertise in Professional Software Design: A Process Study," *Journal of Applied Psychology* 83, 703-716.
- Spencer, L.M., and S.M. Spencer (1993). *Competence at Work: Models for Superior Performance*. New York: Wiley.
- Wiesner, W.H., and S.F. Cronshaw (1988). "A Meta-Analytic Investigation of the Impact of Interview Format and Degree of Structure on the Validity of the Employment Interview," *Journal Occupational and Organizational Psychology* 61, 275-290.
- Zempel, J. (1994). "Psychologische Strategien der Handlungsplanung." Giessen, Germany: Department of Psychology, unpublished thesis.