The Role of Planning in Small Firms: Empirical Evidence from a Service Industry†

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ABSTRACT. The relation between planning behaviour and performance is analyzed for a large number of small real estate firms in the Netherlands. A firm's planning behaviour appears to be influenced by the way it perceives its environment (in terms of complexity and dynamics) as well as its own characteristics (size, age and activities). The explanation of performance is dominated by a firm's size and the nature of its activities. Hardly any effect of planning on a firm's performance is found, though it appears that in an environment perceived as highly dynamic, planning is merely counterproductive.

1. Introduction

This article deals with the relations between demographic characteristics of a firm, the way a firm perceives its environment, a firm's strategic position, a firm's planning behaviour and its performance. The central factor in the analysis is planning. Planning behaviour is supposed to be influenced by both external — environmental — and internal — demographic — factors. Performance is influenced by both demographic factors and planning behaviour. A direct relation between a firm's environment and its performance is not incorporated in the model. Of course different environments yield different soils for performance. The interaction between environment and performance is incorporated in the definition of performance. The central theme of this article is the impact of planning on a firm's performance. If there is such an impact, it should be determined whether different types of planning are apt for different kinds of firms and circumstances. Cyclical effects and feed back mechanisms in the link between planning and performance are neglected.

The analysis is based on a survey (undertaken in 1991) among a homogeneous small business population: 1211 owners/managers of real estate agencies in The Netherlands, all members of the major Dutch estate broker's association NVM.[1] Preceding the survey, 15 interviews were held with managers of mainly large broker's firms. From these interviews it appeared that *operational* planning is the most commonly used type of planning. Most plans are made for the current fiscal year, plans with a longer range are seldom concrete. Important issues in planning are firm image, assortment and motivation of personnel.

While the results of this analysis are unlikely to have relevance for all small business, they may well yield valuable insights into the performance of small service sector businesses, though clearly further investigation and testing is necessary.

2. Research hypotheses

2.1. *Planning*

Environment. The relation between environmental factors and a firm's behaviour is associated with *uncertainty.* Planning is used as a tool to reduce this phenomenon. As Bracker and Pearson (1986) suggest, entrepreneurs who employ structural strategic planning may be better prepared to develop a framework for anticipating and coping with future change.

When uncertainty is zero, planning is a deterministic way of scheduling business activities. In

Final version accepted on March 9, 1993

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Small Business Economics **6**: 313–322, 1994.

such a case, entrepreneurs will not feel a strong urge to make formal business plans. On the other hand, when uncertainty is very high, and forecasting is difficult even in the short run, (long run) planning is useless. Under such circumstances, entrepreneurs need to be very alert and flexible. The rigidity of a formalized plan may even work against them.

Shrader et al. (1989) define environmental uncertainty in terms of top manager's uncertainty with respect to suppliers, customers, competition, socio-political forces and technology. They find a positive correlation between perceived uncertainty and both operational and strategic planning. Matthews (1991) finds a reverse relationship: firms prefer to plan under *low* uncertainty.

In the questionnaire used in this present study, the environment is defined as all external factors influencing a firm's performance. Environmental uncertainty is measured in two dimensions: the way firms perceive environmental dynamics and environmental complexity.[2] The assumption that planning intensity[3] increases with uncertainty is translated into hypotheses 1 and 2. In the analysis a keen eye will be kept on possible non-monotonous effects.

HYPOTHESIS 1 *Planning intensity increases with environmental complexity.*

HYPOTHESIS 2 *Planning intensity increases with environmental dynamics.*

Firm characteristics. Demographic attributes used in the analysis are firm size, age (as a derived factor of the business cycle) and strategic position. The latter aspect is a combination of the type of activities a firm employs and the rate in which it is specialized.

Size. The economic literature is practically in agreement on the relation between size and planning: the smaller the firm, the less effort it spends on planning. Unni (1981) sketches small entrepreneurs as being too involved with day-to-day operations to be able to spend time on the endeavour of strategic planning. An obstacle is lack of planning knowledge. This vision is confirmed by Robinson and Pearce (1984), who find that most small firms do not plan, due to lack of time, expertise, trust and openness.

Aram and Cowen (1990) stress that formal strategic planning needs to blend with team development and effective management teamwork to create the concept of 'strategy in use'. In order to develop a team, a minimum number of employees is needed, which is not always provided for in the case of small firms. Within micro- ('mom & pop') firms, the team coincides with the entrepreneur(s).

Shrader et al. (1989) (analyzing firms between 10 and 100 employees) find that small firms plan operationally rather than strategically. They define a strategic plan as a written long range plan, including both a corporate mission statement and a statement of organizational objectives. Operational planning includes short-run objectives for specific functional areas. The literature yields enough reasons to expect a positive correlation between size and planning intensity, which leads to hypothesis 3.

HYPOTHESIS 3 *Planning intensity increases with firm size.*

Age. The literature does not provide many clues on the relation between a firm's age and its planning behaviour. Yet there are reasons to assume that very young firms show a higher planning intensity. As Schöllhammer and Kuriloff (1979) stress, (financial) planning is a necessary step in the process of raising venture capital for both new and growing businesses. Financial planning falls into two broad categories: planning for liquidity and planning for profit. In determining a company's financial needs, the cash flow projection is of great use. Entrepreneurs enforce their solvency by making a business plan. When a firm has proven its viability, it builds equity by retaining earnings and thus becomes less dependent on loans or venture capital. After the first stages of growth and survival, the explicit need to convince external participants diminishes, and so does the need to plan. Hypothesis 4 is formulated in accordance with these assumptions.

HYPOTHESIS 4 *Planning intensity decreases with a firm's age.*

Strategic position. A firm's strategic position is defined as a blend of two attributes of its assortment: the specialization rate and the share of recurrent sales in total sales.

A high specialization rate is a two-edged sword: specialization can yield economies of scale and a strong market-position and thus improve a firm's performance. On the other hand, specialization can easily transform into monoculture, which makes a firm vulnerable in times of conjunctural instability.

The wider the scope of a firm's activities, the stronger will be the need for internal adjustment of employees' activities. The more specialized a firm is, the more it can rely on daily routine and existing experience, and the lesser the need to make formal plans for an unknown future. Thus planning intensity is expected to be negatively related to a firm's specialization rate.

HYPOTHESIS 5 *Planning intensity decreases with specialization rate.*

In estate broking, two kinds of activities are distinguished. The most important share of estate agents' revenues comes from mediating in singular transactions. The regularity of this source of income heavily depends on conjuctural cycles. However, a substantial share of brokers' revenues has a recurrent, portfoliolike nature, such as insurance-broking and administration of real estate. The higher the share of these portfoliolike activities, the lower the uncertainty a firm has to cope with as far as sales are concerned. Analogous to the considerations on environmental uncertainty, firms with a relatively high share of portfoliolike sales are expected to spend less energy on planning. In a way, planning is incorporated in the product. Firms with a high share of portfoliolike activities are expected to plan less intensively, as is stated in hypothesis 6.

HYPOTHESIS 6 *Planning intensity decreases with the share of portfoliolike revenues.*

2.2. *Performance*

There are many measures to express a firm's performance: profits, productivity, growth etc. In this article a firm's performance is defined as its labour productivity (sales per person) in the year before the survey was held.[4] See section 3 for a further elaboration.

Environment. Because of the subjective way environmental complexity and dynamics are measured, a direct relation between environmental uncertainty and a firm's performance is omitted in the model. A different environmental aspect however is incorporated. Brokers' business has a strong local nature. Because regionally separated markets provide different soils for sales and profits, individual firms' performances are deflated by a local performance indicator (see section 3).

Firm characteristics. The existence of economies of scale and learning effects vary strongly between economic sectors. According to Bracker and Pearson (1986) (reporting on dry cleaning businesses), no differences in financial performance exist between young and old firms, nor between small and large firms. Absence of a relationship between size and performance is also reported by Bracker et al. (1988), based on a study on electronic businesses. Earlier research among estate brokers (Masurel and Risseeuw (1988—91)) gives reason to assume that in estate broking large firms perform better.

HYPOTHESIS 7 *Performance increases with firm size.*

Literature on the relation between age and performance is rare. In a Schumpeterian view, a new entrepreneur is the economic actor who tries to make profits out of a new situation, that is not yet recognized by others. In such a scheme, starters should show a better performance than older firms. On the other hand young firms have a lot of specific young firm's problems, distracting the entrepreneur from his or her core activities.[5] Because of the lack of theoretical support and empirical evidence, a 'directed' hypothesis is omitted. The matter will be examined in an explorative rather than a positive way.

HYPOTHESIS 8 *There is no relation between age and performance.*

Strategic position. Firms in the sample are very small (see section 3), presumably too small to be able to benefit from *economies of scope.* Firms with a high specialization rate are assumed to perform better: no efforts fritter away in a wide range of heterogeneous activities.

There is another effect strengthening this

assumption. Specialization implies vulnerability. A firm's stakeholders will demand compensation in terms of rentability for this additional uncertainty. Hence firms with a high specialization rate are expected to perform better.

HYPOTHESIS 9 *Performance increases with specialization rate.*

Normally, portfoliolike activities are either based on contracts that last longer than one year or have a recurrent nature, like insurance policies with an automatic prolongation. Maintaining portfoliolike activities reduces the uncertainty about annual sales — at least to a certain amount. Such a reduction of uncertainty implies a reduction of *risk*. In a competitive environment, activities with a low risk are expected to attain a corresponding modest financial performance as opposed to activities with a high risk-performance profile.

HYPOTHESIS 10 *Performance increases with the share of portfoliolike activities.*

Planning. Empricial research on the relationship between planning and performance has yielded ambiguous results. Robinson and Pearce (1983) find small banks engaged in formal planning not performing better than their non-formal planning counterparts. On the other hand Bracker et al. (1988) and Matthews (1991) find a positive relationship between planning sophistication and financial performance.

Shrader et al. (1989) find different impacts on performance for different types of planning in the case of small firms. They mention a positive impact of operational planning on performance, but no relation between strategic planning and performance.

The effectiveness of planning will be highly dependent on industrial and conjunctural factors. As Thurston (1983) concludes, there is no best approach in strategic planning. Success of planning merely depends on internal strengths and weaknesses and external opportunities and threats. Robinson (1982) finds the effectiveness of small firms engaging in outsider-based strategic planning to be significantly higher than that of firms not engaging in such planning. Robinson and Pearce (1984) support strategic planning with a short time horizon (i.e. lesser then two years) for small businesses.

In spite of this ambiguity, a positive relationship between planning and performance is assumed. The sole existence of a planning process makes a firm's management think about the future, business targets and the means to reach these targets.

HYPOTHESIS 11 *Performance increases with planning intensity.*

In the empirical part, cross-effects between planning, environment and performance will be examined, in order to establish whether different types of planning are better or worse apt for different circumstances. Because of the explorative nature of this section, no hypothesis on such cross-effects are formulated.

3. Operationalization

Environment. Both environment complexity and dynamics are measured on a three point scale (*hardly — moderate — very*). Because the fraction of respondents perceiving a *very* complex environment (2.7%) is very small,[6] the categories *moderate* and *very* complex are combined. Table I shows the distribution of perceived complexity and dynamics.

TABLE I
Perception of the firm's environment

%	complex	dynamic
hardly	44.5	24.5
moderate	52.8	56.7
very	2.7	18.8
n	1071	1072

Characteristics. Firm size is measured in terms of employment. Firms in the sample are extremely small: the average number of (full time) employees is 4.7, the median is 3.0. Firm age is measured in years since the founding of the firm. Average age is 23 years, the median is 17 years.[7]

The specialization rate is calculated as the highest share among the seven distinguished

activities in total sales. Observed maxima vary between 0.214 and 1. In the latter case, a firm focused on one activity. The median is 0.665, with an average of 0.662, and a standard deviation of 0.164.

Portfolio-position is defined as the total share of insurance-broking and administration of real estate in total revenues. Average share is 0.208, with a standard deviation of 0.247. The median is 0.095. 1008 of the 1211 firms in the panel actually derive revenues from these activities.

Pearson correlations of specialization rate with number of employees and age are −0.215 and −0.184. The share of portfoliolike activities is positively correlated with size and age: Pearson correlations are 0.200 and 0.301.

Environment and characteristics. The correlation between a firm's characteristics and the way it perceives its environment is low. Very young firms (less than four years old) experience their environment as slightly more complex than older firms. There are two groups of firms perceiving their environment as no more than moderately dynamic than the other firms: those with a relatively *high* share of portfoliolike activities and those with a *low* specialization rate.

It follows that the way a firm perceives its environment is independent of its demographic characteristics, both modules having their own impact on the firm's planning and performance.

Planning behaviour. Planning intensity is measured in two dimensions: planning *sophistication* and planning *period.* The operationalization of planning sophistication has both elements of the classification of Bracker and Pearson (1986) and of Shrader et al. (1989). A *structured* plan is defined as a business plan in a written form, with a financial paragraph. Only one out of seven firms (14.3%) mentions the existence of such a structured plan. *General* plans are defined as business plans that either remain unwritten or lack a financial paragraph. 21.6% of the firms claim to apply this kind of a business plan. The remaining 64.2% is assumed to have an *intuitive* plan.

The second attribute of planning intensity is the time-span involved. One third of the firms that actually plan (either general or structured) do so only for the short run (associated with operational planning): one year ahead. Two out of every three firms that actually plan, plan two years ahead or more (associated with strategic planning).

There is not much difference in the regularity of planning between firms that plan for a short period and firms that plan for a long period. About 70% of the firms in the sample review their business plan on a regular basis (usually yearly), about 30% review the plan irregularly.

Performance. A firm's performance can be measured in many ways: profit margins, return on assets, return on equity, growth of sales and/or employment etc. Here performance is expressed in terms of labour productivity, defined as the ratio of total sales and total employment.

Because local housing prices vary strongly, labour productivity is corrected for local differences by using mean *local* labour productivity as a deflator. In this way the influence of the local market as an environmental factor is controlled for by incorporating it in the definition of performance. By definition average corrected labour productivity is 1. The standard deviation is 0.427. The distribution of relative productivity is shown in Figure 1.

4. Empirical results

4.1. *Planning*

Tables II and III show the bivariate relations between the distinguished environmental variables and planning intensity. Tables are to be read horizontally, row totals add up to 100 percent. As stated in hypothesis 1, firms perceiving their environment as highly complex tend to plan more sophisticatedly and with a longer time-span, though the latter observation is not confirmed as statistically significant. It follows that hypothesis 1 can be partially confirmed: uncertainty caused by environmental complexity has a positive influence on planning sophistication.

The relation between perceived dynamics and planning is more complicated. Planning intensity is highest in an environment that is perceived as *moderately* dynamic. This means hypothesis 2 is to be rejected. In a very static environment, there is probably little need for planning. In a very

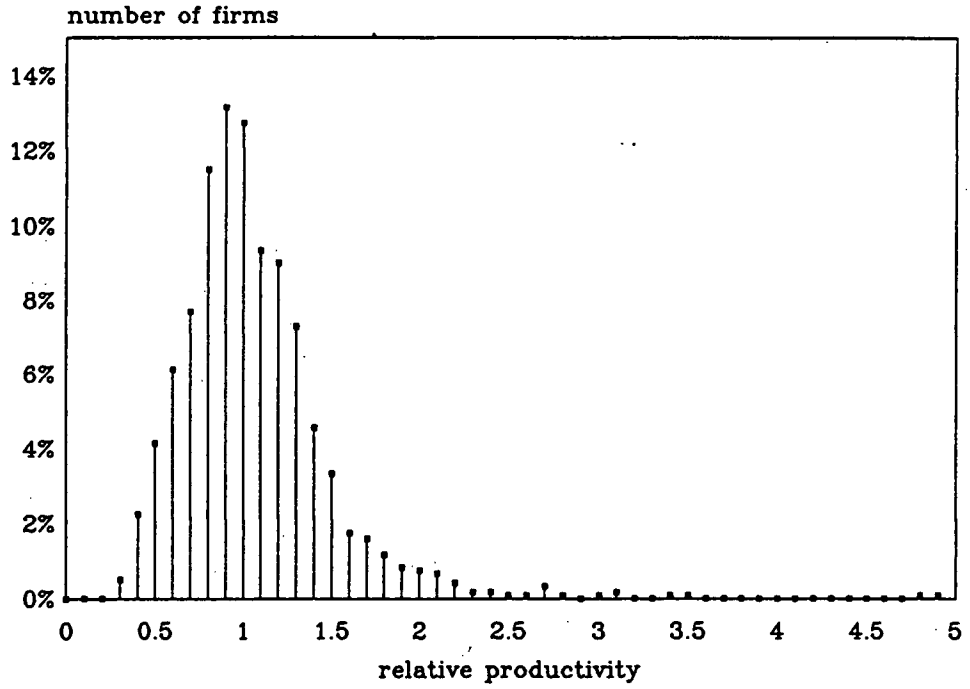

Fig. 1. Performance.

TABLE II
Planning sophistication vs. perception of the environment

%	level of planning sophistication		
	intuitive	general	structured
perceived complexity			
— low	71.1	18.7	10.3
— high	51.2	28.3	20.5
χ^2 (df = 2)	45.1		**
perceived dynamics			
— low	65.8	24.7	9.5
— moderate	56.9	24.0	19.1
— high	62.7	22.4	14.9
χ^2 (df = 4)	13.6		**

** Significant with 99% confidence.

TABLE III
Planning period vs. perception of the environment

%	planning period	
	short	long
perceived complexity		
— low	38.9	61.1
— high	28.8	70.2
χ^2 (df = 1)	3.0	
perceived dynamics		
— low	30.0	70.0
— moderate	33.0	67.0
— high	32.8	67.2
χ^2 (df = 2)	0.2	

dynamic environment planning apparently cannot keep up with reality.

As Table III indicates, uncertainty does not have much influence on the period firms plan ahead.[8] Though it seems that increasing complexity induces a longer period, no statistical significance is found to enforce this assumption.

The combined effects of environmental and firm characteristics are analyzed by means of a multinomial logit procedure, in which planning

sophistication is the dependent variable. Independent variables are size and age (both expressed as logarithms), the rate of specialization, the share of portfoliolike activities and dummy variables for perceived environmental complexity, moderate environmental dynamics and high environmental dynamics.

In a logit estimation probabilities are estimated that observations (i.e. firms) choose one alternative among a set of mutually exclusive alternatives. In this case the alternatives are the three levels of planning intensity. Table IV shows the results of this regression analysis.

TABLE IV
Logit estimates of environment and firm characteristics on planning sophistication

level of planning sophistication	general		structured	
	coeff.	*T*	coeff.	*T*
constant	0.187	0.38	−2.192	−3.46**
D-complex	0.725	4.59**	1.022	5.19**
D-dynaM	−0.049	−0.27	0.523	2.08**
D-dynaH	−0.082	−0.34	0.369	1.18
size	0.504	4.43**	1.024	7.69**
age	−0.224	−2.47**	−0.110	−0.99
specialization	−2.009	−3.92**	−1.295	−2.07**
portfolio	−0.674	−1.83*	−1.652	−3.40**

$n = 1067$
Correctly predicted: 61.9%
A 'D' as first character of a variable name denotes a dummy-variable.
** Significant with 99% confidence.
* Significant with 95% confidence.

The table is to be read as follows. The estimated coefficients in the second column show the effect the variables in the first column have on the probability that firms apply general planning rather than intuitive planning. In the third column the corresponding *T*-values are shown. Column four (the coefficient for *structured* planning) shows the effect the variables have on the probability that firms apply structured planning rather than intuitive planning. Column five shows the corresponding *T*-values.

A significant positive regression coefficient for a variable means that a firm with a high value on this particular variable is more likely to apply the type of plan concerned (either general or structured) than an intuitive plan. In the case of *size* for example, both coefficients (for a general and a structured plan) are positive: larger firms are more likely to apply a general or structural plan than smaller firms. Because the coefficient for a *structured plan* is twice as large as the coefficient for a general plan, the probability to apply a structural plan is affected twice as strong. A significant negative coefficient means that the probability is influenced downwards. Both probabilities for general and structured planning decrease with increasing specialization.

Variables need not have a significant coefficient for both alternatives. See for instance the dummy-variable for an environment that is perceived as *moderately dynamic*: the probability to use a structured plan is — positively — affected by this perception, while the probability that firms use general plans is not.

Although total explanatory power of the regression is far from strong, some conclusions can be drawn from Table IV. As far as planning sophistication is concerned, all hypotheses concerning environment, firm and planning are confirmed, except hypothesis 2 on perceived dynamics. Planning sophistication increases with perceived complexity and size of the firm, and decreases with age, specialization rate and durability (i.e. portfoliolike nature) of activities. Planning is more sophisticated when the environment is neither too static, nor too dynamic.

Some notes should be added: an environment perceived as moderately dynamic affects only the probability of *structured* planning. Increasing age decreases the probability of firms to use *general* plans, but does not affect the probability of a firm to use *structured* plans.

4.2. *Performance*

Table V shows relative labour productivity broken down by the two planning dimensions. *F*-statistics of this analysis of variance do not give reason to assume a close relation between planning and performance. Table VI shows there are no cross-effects either. Though no statistical significance is present, it seems that for firms applying general plans, a longer planning period yields a somewhat better performance than a short period.

TABLE V
Means of labour productivity by planning sophistication and by planning period

level of planning sophistication	productivity	planning period	productivity
intuitive	0.995	short	0.987
general	1.018	long	1.021
structured	0.996		
$F(p(F))$	8.3 (0.752)		0.8 (0.364)
n	1210		367

F-statistics correspond to F-test on equality of the means.

TABLE VI
Means of labour productivity by planning sophistication × planning period

planning period	sophistication general	structured	$F(p(F))$
short	0.976	1.001	0.2 (0.675)
long	1.028	1.011	0.2 (0.692)
$F(p(F))$	1.0 (0.310)	0.0 (0.853)	0.4 (0.763)

$n = 367$
F-statistics correspond to F-test on equality of the means.

TABLE VII
OLS-estimates of environmental, demographic and planning variables on labour productivity

		coeff.	T
α	constant	1.016	0.23
β_1	size	0.046	2.82**
β_2	age	−0.021	−1.55
β_3	specialization	0.024	0.33
β_4	portfolio	−0.132	−2.56**
γ_1	D-general	0.111	1.81*
γ_2	D-structured	0.020	0.21
γ_3	D-long period	0.029	0.79
δ_1	D-complex × D-general	−0.069	−1.41
δ_2	D-dynaM × D-general	−0.076	−1.36
δ_3	D-dynaH × D-general	−0.147	−2.01**
δ_4	D-complex × D-struc	−0.021	−0.32
δ_5	D-dynaM × D-struc	−0.011	−0.14
δ_6	D-dynaH × D-struc	−0.222	−2.16**

Specification: $y = \alpha + \Sigma_{i=1}^{4} \beta_i \cdot x_i + \Sigma_{i=1}^{3} \gamma_i \cdot D_i + \Sigma_{i=1}^{6} \delta_i \cdot D_{i1} \times D_{i2} + u$
$n = 1067$
$R^2 = 0.03$
$\hat{\alpha}$ not significantly different from 1.
$F(H_0: \delta_{1,\ldots,6} = 0) = 2.222$ (df = 6, 1053)
$F(H_0: \Gamma_{1,2,3} = 0, \delta_{1,\ldots,6} = 0) = 1.625$ (df = 9, 1053)
A 'D' as first character of a variable name denotes a dummy variable.
** Significant with 99% confidence.
* Significant with 95% confidence.

The combined effects of firm characteristics, environmental influence and planning behaviour is measured by means of an OLS-estimation with labour productivity as defined in section 3 as the dependent variable. Table VII shows the results of this regression.[9]

Which conclusions can be drawn from Table VII? Hypothesis 7 is confirmed: larger firms perform better, hence there must be some form of economies of scale. Age does not have a significant coefficient. It is however remarkable, that in every estimated specification, the sign of age was negative. It seems performance deteriorates when firms grow older, though no statistically significant evidence was found. Hypothesis 8 remains as it is.

No confirmation of hypothesis 9 was found. The rate of specialization does not have a significant influence on a firm's performance. The share of portfoliolike revenues gets the expected negative sign: the reduction of uncertainty has its price in terms of a deterioration of the performance. Hypothesis 10 is accepted.

The conjecture arising from Table V is confirmed: the appliance of *general* planning has a positive effect on a firm's performance. Structured planning as such and the period firms plan ahead to not seem to have such an effect.

The joint effect of all the dummy-variables and their cross-products fails a F-significance test. The joint effect of the cross-product of the dummies alone however yields a significant F-score. There appears to be an interaction between environmental dynamics and planning sophistication. Table I showed that the relation between perceived dynamics and planning sophistication is non-monotonous. This is reflected in the influence on performance. The contribution of the cross-effect of environmental variables and planning behaviour is limited to the dummy of *highly dynamic*. As soon as firms regard their environment as highly

dynamic, both the existence of a general and a structured plan are negatively correlated with performance. Here the question rises in which direction causality flows: does planning prevent firms from being flexible in a dynamic environment or do firms assess the environment as very dynamic because their performance does not reach target?

5. Conclusion

In this article some questions concerning the relations between environment, firm, planning and performance are dealt with. Planning is found to be stimulated by perceived environmental complexity. Perceived environmental dynamics has its effect on planning behaviour too, though the relation is not monotonous: firms tend to plan more intensively when they perceive their environment as *moderately* dynamic.

Large firms plan more intensively than small firms. This might be a consequence of increasing professionalism with increasing firm size. However, there is a large group of *very* small, entrepreneurial firms in the sample. In such firms, where the entrepreneur in most cases is the only employee, an internal planning process is not necessarily communicated explicitly and there is not much need for a written business plan. Planning intensity decreases slightly with increasing firm age. Firms that have proven their viability have less need to convince external stakeholders that business is solid.

Besides planning, firms can reduce uncertainty by the choice of their strategic position, i.e. the type of activities and the rate of specialization. The more specialized a firm is, the more it can thrive on existing expertise and routine. The more recurrent the nature of annual sales, the less market uncertainty a firm experiences. Both aspects of the strategic position can be seen as *substitutes* for planning.

The explanation of a firm's performance is dominated by its size. There are obviously economies of scale in real estate brokerage. No significant relation between a firm's age and its performance was found, though it seems that young firms perform slightly better. A high share of recurrent sales has a negative effect on a firm's performance. It is remarkable that a high rate of specialization does not seem to influence performance at all. As a high rate of specialization is associated with high vulnerability, one might expect compensation in terms of a better performance.

The relation between planning and performance is weak. Firms seem to be better off with a general plan than with a structured plan or without a plan at all. Especially when the environment is perceived as very dynamic, the use of a structured plan is either useless or even counterproductive. These surprising conclusions may be explained by the scale and the nature of the firms in the survey. Capital investment is low, and most firms are extremely small, with short communication channels. Such firms can react to developments in the environment by being alert and flexible, instead of thriving on a (rigid) long run plan.

A last note can be made on the emphasis that is put on the existence of a business plan. As Bracker and Pearson (1986) point out, it is the planning process, and not the plan itself, that is a key component of a firm's performance. This process consists of the chemistry within the firm (cf. Aram and Cowen's (1990) *team building*), and the interaction of the firm with external participants: advisors, auditors, venture capitalists, banks (Robinson (1982)). Further research on this topic should take the role of these participants in the planning process into account. Others extensions may consist of tests of the findings in other sectors, and a dynamic approach, in which the relation between planning and business growth is examined.

Notes

† The authors wish to thank Jan Eppink and Ingrid van Rijn, and are especially grateful to Roy Thurik and two anonymous referees for valuable comments on earlier drafts. It goes without saying that errors and omissions remain the full responsibility of the authors.

[1] The survey was carried out as an additional component of an annual project sponsored by the NVM, in which participation is compulsory for all members of this organization (± 1400 firms). 1211 firms returned their questionnaire in time to be incorporated in this analysis.

[2] Of course a *firm* as such does not perceive anything, it is its human participants who do the job. For reasons of convenience we will however refer to firms perceiving and acting.

[3] Exact operationalization of the variables in the analysis is dealt with in section 3.

[4] The dominant reason for this choice is that costs (and thus

profits) are very arbitrary, and are usually influenced by fiscal arrangements.

[5] See Cromie (1991) for an overview of problems experienced by young firms.

[6] Perhaps there is a psychological reason preventing one to admit such a thing.

[7] This high average is caused by the real estate-boom in the mid-seventies in The Netherlands, which caused an acceleration of birth rates of real estate firms. A lot of the firms founded in this period managed to survive the real estate recession in the late seventies and early eighties. Continuity and stability are important factors in Dutch small business culture.

[8] This period is observed only for those firms that apply either general or structured plans.

[9] The crossproducts in the list of endogenous variables are incorporated as a result of a systematic search of bi- and trivariate relations between the variables involved. No significant interaction between demographic factors and planning behaviour was found.

R^2 of the regression is 0.03, which is extremely low, even for a cross-section analysis. The signs and levels of significance of the endogenous variables however yield interesting information. Nevertheless, the results should be interpreted very carefully.

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