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The Importance of Behavioural and Situational Characteristics for Entrepreneurial Success: An International Rating Study

Marise Ph. Born* and Wieby M.M. Altink

A judgemental analysis has been executed of the job of entrepreneur in terms of the required behavioural, or 'human', attributes and in terms of the relevance of 'situational' attributes for entrepreneurial success. Ratings were given by 235 consultants and starting entrepreneurs from five European countries. By means of generalizability analysis it was investigated whether ratings generalized across countries: Nationality barely had an influence on the ratings. Next, it was questioned whether the type of judge, i.e. consultants or starting entrepreneurs, made a difference. No difference was found for the situational attributes. However, the behavioural attributes as a whole were judged to be more important by starters than by consultants. In general, it was not so much the type or nationality of the judge, as individual differences between judges that had an effect on the ratings. Overall, consensus was higher among consultants than among starting entrepreneurs, and higher on the importance of the situational than of the behavioural attributes. The three situational attributes judged as most important were: Number of Clients, Type of Product, and Competition. The three most important behavioural attributes were judged to be Market Orientedness, Perseverance, and Independence (consultants), and Perseverance, Independence, and Financial Control (starters).

This article deals with an analysis of the job of entrepreneur by means of a rating study. The practical inducement of the study was the intention to assist the work of consultants who assess the viability of business plans of starting entrepreneurs. A raising economy strongly attracts potential starting entrepreneurs, as is recently the case, e.g. in The Netherlands. The job analysis contains so-called 'job specifications' and 'job descriptions' (cf. Cascio 1991).

Job specifications comprise the first element of a job analysis, i.e. the job is described in terms of which behavioural attributes are required to perform it. Next to the assessment of (financial aspects of) the business plan and to training and certificates of the starting entrepreneur (indicators of specific skills), an assessment of the behavioural characteristics of starting entrepreneurs is important to answer the question of whether the presented business plan is viable and whether therefore the requested financial support can be given.

Job descriptions form the second element of a job analysis and imply the determination of environmental/physical aspects of the job relevant for success. Such 'situational' aspects

should aid the assessment of a business plan. Job analysis forms a core subject in the area of personnel psychology. Its relevance cannot be underestimated as a basis for advice and decisions in the general area of human resource management; likewise an analysis of the elements of entrepreneurship forms the basis for consultants' activities in assessing starting entrepreneurs.

Elaborating on research in which a rating scale has been developed (cf. Altink and Born 1993; Altink, Van der Flier and Born 1993), the point of focus of the present article is the generalizability across (types of) judges of the estimated importance of the job specifications and job descriptions contained in this scale.

The question of generalizability is specified as follows: To what extent is the importance of behavioural and situational attributes viewed in the same way by (1) judges from different European countries, and by (2) consultants and starting entrepreneurs? In other words, does the type of rater make a difference or is there one consonant view? Differences in ratings may also be related to mere differences between individual judges instead of differences between groups; i.e.

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ratings may be due to differences between (subjective) views of individuals. This focus is relevant for practical reasons; inter-subjectivity of the importance of the behavioural and situational attributes forms an important basis for the validity of the (positive or negative) advice given to a starting entrepreneur.

Method

Rating scale

Consultants working at the Dutch institute for small and medium-sized business firms (the so-called 'Instituut voor Midden- en Kleinbedrijf Nederland IMK'), among others, regularly perform the assessment of behavioural attributes of starting entrepreneurs. Previously, as part of this assessment, determining their behavioural attributes used to take place more or less intuitively and unstructuredly during an interview. The consultants now use a rating scale containing a list of 20 relevant characteristics to assess the required attributes in a more structured way. Table 1 contains this list, which has been derived from several sub-studies. (For more information on its

construction, refer to Altink and Born 1993). It should be mentioned that a substantial percentage of the list ($\pm 75\%$) overlaps with the list developed independently by Timmons, Smollen and Dingee (1985) and *vice versa*; Timmons *et al.*'s research resulted in 19 highly desirable behaviours for entrepreneurs.

In the present study, judges assessed to what extent an entrepreneur needs to possess each of the 20 behavioural attributes. The scores were expressed on a five-point scale (0 = 'not required', 1 = 'hardly relevant', 2 = 'more or less relevant', 3 = 'relevant', 4 = 'necessary').

Also, the importance was rated of a list of twelve situational attributes on the same five-point scale — see Table 2. (For the development of the list of situational attributes, which were derived from several sub-studies, see Altink and Born 1993).

Samples of judges

In total 235 judges participated in the study, of which 165 ($\pm 2/3$) were consultants, and 70 ($\pm 1/3$) were starting entrepreneurs. The consultants came from five different European countries, namely The Netherlands, Britain, Ireland,

Table 1: Twenty behavioural attributes

Behavioural Attribute	Description
1 Creativity	developing new methods instead of using standard procedures
2 Problem Analysis	recognizing problems, identifying possible causes of problems, taking decisions based on logical assumptions
3 Reflection/Learning Capacity	critically judging one's own actions
4 Realistic Attitude	taking into account the actual situation and existing possibilities in defining goals and plans
5 Tolerance for Stress	reacting adequately to misfortune, opposition, and time pressure
6 Reliability	showing consistent behaviour, keeping promises
7 Independence/Decisiveness	making decisions by oneself and taking corresponding actions
8 Flexibility	improvising and adjusting to changes in the environment
9 Perseverance	being determined to reach a fixed objective
10 Initiative	undertaking business of one's own accord
11 Social Relations	entering and maintaining relations (with personnel, colleagues, clients, customers etc.)
12 Verbal Communication Skill	clearly formulating one's own thoughts and ideas orally
13 Written Communication Skill	clearly formulating one's own thoughts and ideas in writing
14 Task-Oriented Leadership Skill	assigning work and responsibilities to the suited employees and ensuring a good task performance
15 Person-Oriented Leadership Skill	motivating employees and being open to aspects that are important to them (e.g. working conditions, career, personal situation)
16 Planning and Organizing Capacity	systematically arranging and controlling one's own activities and the activities of others
17 Negotiating Skill	acting well in situations in which one's own interests and the interests of others play a role
18 Market-Orientedness	being sensitive to the market and the changes in it
19 Environmental Awareness	being open to information from outside the organization (social economical and political developments, and developments in one's own business)
20 Financial Control	using financial information in management activities

Table 2: Twelve situational attributes

Situational Attribute	Description
1 Starting Position	does the enterprise exist or is it new at the time the entrepreneur starts
2 Commitment of Clients/Customers	the degree of commitment of clients/customers the entrepreneur has before starting the enterprise
3 Starting Capital	amount of starting capital (equity and loans taken together)
4 Size of the Enterprise	number of personnel
5 Growth Orientation	stage in which the enterprise is (expanding or plateauing)
6 Type of Product/Service	assortment (in terms of quality/price)
7 Fixed Costs	costs of personnel, financial obligations, business real estate, etc.
8 Location	accessibility, visibility, and quality of the premises
9 Number of Clients/Customers	number of clients/customers as well as the extent to which the enterprise is known to potential clients
10 Competition	degree of competition from other enterprises
11 Technological Developments	innovation in automation, production techniques, telematics, and robotics
12 Buying Behaviour of Clients/Customers	the rate to which preferences, fashion, and tastes of customers change

Finland, and Slovakia. More than half of the sample of consultants were Dutch. Regarding the starting entrepreneurs, the great majority were Dutch and about one fifth consisted of ethnic minorities in The Netherlands, e.g. from Mediterranean countries.

The judges were contacted through several key persons. Due to practical reasons (time and distance difficulties) not all samples consisted of the same number of judges, and not all samples were involved in all ratings. The British and Slovak judges, for instance, were not involved in rating the situational attributes. Table 3 gives the samples of judges. In all cases, the number of judges that rated the situational attributes formed a sub-sample of the judges rating the behavioural attributes.

Results

The agreement among judges was investigated

by means of so-called generalizability analysis (Cronbach, Gleser, Nanda and Rajaratnam, 1972; see also Crick and Brennan 1984; Shavelson and Webb 1991). Through generalizability analysis, an estimation can be given of the percentage of variance explained by each of a number of potential sources of variance defined by the researcher. In this way, it is possible to simultaneously compare the variance in the ratings that can be attributed to differences between judges, with the variance that can be attributed to differences between the attributes themselves. In case, for instance, the judges disagreed among themselves a lot, a large percentage of variance can be expected for the judges. And in case the attributes themselves differed to a large extent in their judged importance, a large percentage of variance can be expected for the attributes.

A series of generalizability analyses was performed for the behavioural attributes and the situational attributes separately. Use was

Table 3: Samples involved in the ratings of the attributes (figures in parentheses indicate the subsamples involved in ratings of situational attributes)

Type of judge: consultants or starting entrepreneurs?	Nationality	Sample size
Consultants	The Netherlands	85 (47)
	Slovakia	42 (0)
	United Kingdom	8 (0)
	Ireland	12 (10)
	Finland	18 (15)
Starting Entrepreneurs	Netherlands	57 (54)
	Minorities in The Netherlands	13 (13)

made of the computer programme GENOVA (Crick and Brennan 1984). As GENOVA's restriction is that it needs a balanced design, different sections of the samples had to be used for different analyses: i.e. within an analysis each group (e.g. nationality) had to contain the same sample size. When necessary, a random subset of a sample (obtained by SPSS for Windows 5.0.2) provided for the matching size.

Behavioural attributes

First, generalizability analyses were executed on the ratings of the behavioural attributes. One generalizability analysis was aimed at possible differences between the ratings given by consultants and starting entrepreneurs. To this end, the ratings by 57 Dutch consultants and 57 Dutch starting entrepreneurs were used. It can be seen from Table 3 that these two groups have the largest sample sizes when comparing ratings of consultants and starting entrepreneurs. (A random subsample of 57 was taken from the 85 Dutch consultants to match the 57 starting entrepreneurs.)

Next, two analyses were specifically executed to investigate possible differences in ratings due to the nationality of the judges. One of these analyses concerned consultants. Here, the ratings of 8 Dutch, 8 Slovak, 8 British, 8 Irish, and 8 Finnish consultants were included. (As can be seen from Table 3, the 8 consultants from the U.K. formed the smallest sample of consultants, to which size the other groups had to be adjusted.) The other analysis concerned starting entrepreneurs. Here, as can be deduced from Table 3, the ratings given by 13 Dutch and 13 Ethnic Minority entrepreneurs were included.

The results of the analyses concerning the behavioural attributes are given in Table 4.

A preliminary and general remark regarding Table 4 is that in this type of analysis, the two-way interaction term between behavioural attribute and individual judge is confounded with error; relatively large percentages can be expected for such a source of variance confounded with (un)systematic error.

Moreover, in all cases the two-way interactions between behavioural attribute and judges' background (nationality or type (consultant versus entrepreneur)) were negligible, ranging from 0% to 5% of explained variance. These two-way interactions were added to the fourth, residual, source of variance in Table 4. These small percentages imply that the relative standing of the attributes in rated importance hardly changes between categories of judges.

As Table 4 shows, in all analyses except one, the spread in ratings due to different behavioural attributes is smaller than the spread due to the differences between judges, individual and group differences taken together. Still, overall the spread in importance of the 20 attributes cannot be called negligible.

In general, the background of the judge — type or nationality — seems to have much less influence compared to the influence of individual judges. The relatively largest background effect comes from the difference between consultants on the one hand and starting entrepreneurs on the other hand (12% of variance explained), whereas differences in nationality were practically absent. This implies the difference between consultants and starting entrepreneurs in the average rated importance of the attributes is non-negligible. Results showed the starting entrepreneurs gave a higher average rating than the consultants: the mean rating of entrepreneurs was $M = 3.35$ on the five-point scale from 0 to 4, versus a mean rating of $M = 2.91$ given by the consultants. This finding is recognizable in Table 5, which contains the rank order and average rating for each behavioural attribute given by consultants, and, between brackets, the rank order and average rating given by starting entrepreneurs. A possible explanation for the general difference between consultants and starting entrepreneurs is that due to their experience, the consultants have a more realistic view by emphasizing the importance of human requirements to a lesser extent than starting entrepreneurs do; it could be that a starter feels that the whole success of the enterprise will depend on the capacities and attributes of the one

Table 4: Percentages of variance for behavioural attributes; left part: type of judge as source of variance; right part: nationality of judge as source of variance for consultants and starting entrepreneurs separately

Source of Variance		Percentage of Variance Explained	Source of Variance	Percentage of Variance Explained — Consultants/ Starting Entrepreneurs
1	behavioural attributes	9%	behavioural attributes	12%/4%
2	type of judge (consultant or starting entrepreneur)	12%	nationality of judge	2%/1%
3	individual judges	23%	individual judges	10%/25%
4	interactions/error	56%	interactions/error	75%/70%

starting it all — i.e. will depend on themselves and thus (over)emphasizes their importance. (The fact that starters, overall, judge the attributes to be so important is also a cause for the relatively small difference between attributes in importance: 4% of variance according to Table 4.) The few attributes which consultants and starters ranked differently are the following (cf. Table 5): Consultants higher than starters — Flexibility, Problem Analysis and (somewhat) Market-orientedness; and consultants lower than starters — Financial Control and Social Relations. In accentuating Flexibility, Problem Analysis and Market-orientedness to a larger extent than starters do, consultants seem more aware of existing turbulence in and around (new) organizations and of the necessity to react effectively. On the other hand, consultants seem to down-grade the importance here of Financial Control, as they look into financial skills by means of other assessment techniques (blueprint of enterprise and certificates). The low rank consultants gave to Social Relations points to their view that entering and maintaining relations is not one of the main behaviours in providing entrepreneurial success.

The large differences between individual judges (Table 4) mentioned above implies that to reliably differentiate the attributes in terms of their rated importance generalized across judges, generally necessitates quite a number of judges. It was, for example, calculated that the average attribute rating of at least some 25 consultants is

necessary to reach a generalizability coefficient ρ (indicating consistency) higher than 0.80. The average of at least some 40 starting entrepreneurs is necessary to reach the value of 0.70, concurring with the finding that consultants agree among themselves more than starting entrepreneurs do (see Table 4).

The overall picture of Table 5 shows that no one human requirement is thought to be unimportant. Most attributes are rated as 'relevant' to 'necessary'; the attributes' mean ratings differed significantly among each other (for consultants: Friedman's test $\chi^2 = 402$, df 19, $N = 163$, $p < 0.0001$; for starters: Friedman's test $\chi^2 = 77$, df 19, $N = 70$, $p < 0.0001$). The three attributes judged as most relevant by consultants are Market-orientedness, Perseverance and Independence, and by starting entrepreneurs Perseverance, Independence and Financial Control.

Situational attributes

Similar analyses were performed for the situational attributes. One generalizability analysis was aimed at possible differences between the ratings given by consultants and starting entrepreneurs. To this end, using the same rationale as for the behavioural attributes, the ratings by 47 Dutch consultants and 47 Dutch starting entrepreneurs were used (see Table 3). Next, two analyses were specifically executed to investigate possible differences in

Table 5: Average importance for each behavioural attribute across consultants ($N = 163$) (in parentheses ranking and average importance given by starting entrepreneurs ($N = 70$))

Rank	Behavioural attribute	Mean rating of importance (scale from 0–4)
1 (5)	Market-orientedness	3.49 (3.44)
2 (1)	Perseverance	3.44 (3.74)
3 (2)	Independence/Decisiveness	3.20 (3.54)
4 (15)	Flexibility	3.18 (3.20)
5 (4)	Reliability	3.16 (3.51)
6 (8)	Realistic Attitude	3.13 (3.39)
7 (12)	Problem Analysis	3.10 (3.31)
8 (6)	Initiative	3.12 (3.40)
9 (3)	Financial Control	3.07 (3.51)
10 (9)	Planning and Organizing Capacity	3.05 (3.39)
11 (13)	Creativity	3.02 (3.26)
12 (10)	Tolerance for Stress	2.99 (3.30)
13 (11)	Negotiating Skill	2.94 (3.31)
14 (16)	Person-oriented Leadership Skill	2.83 (3.16)
15 (14)	Verbal Communication Skill	2.87 (3.27)
16 (18)	Reflection/Learning Capacity	2.85 (3.19)
17 (17)	Task-oriented Leadership	2.83 (3.16)
18 (7)	Social Relations	2.70 (3.36)
19 (19)	Environmental Awareness	2.61 (3.07)
20 (20)	Written Communication Skill	2.07 (2.89)

Table 6: Percentages of variance for situational attributes; left part: type of judge as source of variance; right part: nationality of judge as source of variance for consultants and starting entrepreneurs separately.

Source of variance		Percentage of variance explained	Source of Variance	Percentage of variance explained: consultants/starting entrepreneurs
1	situational attributes	17%	situational attributes	17%/12%
2	type of judge (consultant or starting entrepreneur)	2%	nationality of judge	0%/2%
3	individual judges	9%	individual judges	8%/17%
4	interactions/error	72%	interactions/error	75%/69%

ratings due to the nationality of the judge. One of these analyses concerned consultants. Here, the ratings of 10 Dutch, 10 Irish, and 10 Finnish consultants were included. (As can be seen from Table 3, the 10 consultants from Ireland form the smallest sample of consultants, to which size the other groups had to be adjusted.) The other analysis concerned starting entrepreneurs. Here, as can be deduced from Table 3, the ratings given by 13 Dutch and 13 Ethnic Minority entrepreneurs were included. Table 6 contains the results. These are comparable to the findings on the behavioural attributes in that judges' background in terms of nationality or status (consultant or starting entrepreneur) didn't have a substantial influence on the ratings. Again — as in Table 4 — the fourth, residual, variance is large. In general, however, the agreement between judges is larger for the situational attributes as compared to the behavioural attributes. An obvious explanation for this difference is the more abstract nature of the behavioural attributes (e.g. 'flexibility') in contrast to the concreteness of the situational attributes (e.g. 'location') — the assumption being that it is more difficult to attain agreement on more abstract concepts. Moreover, the situational attributes themselves show more variance in importance than the behavioural attributes do. Therefore, in comparison to the

behavioural attributes less judges are necessary to reach a generalizability coefficient ρ of 0.80 — it was calculated that around 16 are needed.

Table 7 gives the average importance for each situational attribute across all judges ($N = 134$; nationality and type of judge are taken together because of the similarity in ratings). The mean attribute ratings differed significantly among each other (Friedman's test: $\chi^2 = 211$, $df = 11$, $N = 134$, $p < 0.001$). As can be seen, no attribute was judged to be unimportant. Number of Clients, Type of Product, and Competition are thought to be the three most important ones. In our view it is somewhat surprising that Technological Developments are given a relatively low ranking of importance.

In comparison to the ratings of the behavioural attributes (Table 5), the overall importance of the situational attributes was rated somewhat lower than the overall importance of the behavioural attributes. This implies that personal attributes of an entrepreneur are certainly thought to have a strong influence on the success of an enterprise, whereas at least some situational factors are hardly thought to have an effect.

Conclusion

The study presented can be regarded as an

Table 7: Average importance for each situational attribute across all judges ($N = 134$)

Rank	Situational attribute	Mean rating of importance (scale from 0–4)
1	Number of Clients/Customers	3.33
2	Type of Product/Service	3.22
3	Competition	3.20
4	Fixed Costs	3.14
5	Buying Behaviour of Clients/Customers	3.10
6	Starting Capital	3.10
7	Location	2.90
8	Commitment of Clients/Customers	2.90
9	Growth Orientation	2.75
10	Starting Position	2.42
11	Technological Developments	2.49
12	Size of the Enterprise	2.01

exercise in searching for some borders of generalizability of judgements about the relevance of personal attributes of an entrepreneur and attributes of the situation of a starting enterprise. Some support was found for the generalizability of ratings between European countries, and between consultants and starting entrepreneurs.

An important finding is that a relatively large influence on the score variance comes from differences between individual judges as contrasted to nationality or type of judge. This implies that for a trustworthy description of the importance of situational and behavioural attributes, the opinion of a relatively large group of judges needs to be combined — at least some 16 are needed for situational and some 25 for behavioural attributes. The average ratings as reported in Tables 5 and 7 to our opinion form a rather stable profile of the relevance of both types of attributes, Market-orientedness, Perseverance and Independence being the three most important personal attributes according to consultants, and Number of Clients, Type of Product, and Competition being the three most important situational attributes for success according to all judges.

One of the aspects not dealt with here is the differential effect on the ratings of the type of business sector an enterprise belongs to. Although data on this point have been collected, the sample sizes are unfortunately not large enough to empirically put this issue to the test. This type of research is the next step necessary to look into the possibility of reducing the large percentages of variance as yet remaining unexplained in Tables 4 and 6.

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