

November 2021

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Recommended Citation

Motvaseli, Mahmoud and Lotfizadeh, Fariba (2021) "Entrepreneurs` Cognitive and Decision Making Styles," *ASEAN Marketing Journal*: Vol. 7 : No. 2 , Article 3.

DOI: 10.21002/amj.v7i2.5264

Available at: <https://scholarhub.ui.ac.id/amj/vol7/iss2/3>

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Entrepreneurs' Cognitive and Decision Making Styles

Mahmoud Motvaseli¹ and Fariba Lotfizadeh²

The main purpose of this study is to explore the relation between decision-making styles which are measured by the General decision-making style (GDMS) test and information processing styles which are often termed cognitive styles and are, in this study, measured by Cognitive Style Inventory. The authors directed a survey research on 162 Iranian students. Structural equation modeling techniques were used to measure the impact of cognitive styles on decision-making styles. The authors found that cognitive styles have a positive impact on decision-making styles. In spite of the abundant research on factors that affect decision-making styles, few researches have tested the relationship between cognitive styles and decision-making styles. This study examines the impact of cognitive styles on decision-making styles in Iran. This study, like most research paper studies, cannot easily be generalized. Furthermore, the results of this study could be affected by economic conditions.

Keywords: decision-making styles, general decision-making style, information processing style, cognitive style inventory, structural equation modeling

Tujuan utama dari penelitian ini adalah untuk mengeksplorasi hubungan antara gaya pengambilan keputusan, diukur dengan tes gaya umum pengambilan keputusan (GDMS) dengan gaya pengolahan informasi yang sering juga disebut sebagai gaya kognitif, dalam penelitian ini, diukur dengan cognitive style inventory. Para penulis melakukan penelitian secara langsung pada 162 mahasiswa Iran. Teknik structural equation modeling digunakan untuk mengukur dampak dari gaya kognitif terhadap gaya pengambilan keputusan. Para penulis menemukan bahwa gaya kognitif memiliki dampak positif pada gaya pengambilan keputusan. Terlepas dari penelitian mengenai faktor-faktor yang mempengaruhi gaya pengambilan keputusan, beberapa penelitian telah menguji hubungan antara gaya kognitif dan gaya pengambilan keputusan. Studi ini mengkaji dampak dari gaya kognitif pada gaya pengambilan keputusan di Iran. Penelitian ini, seperti kebanyakan studi makalah penelitian lainnya, tidak dapat dengan mudah digeneralisasi. Selanjutnya, hasil penelitian ini dapat dipengaruhi oleh kondisi ekonomi.

Kata kunci: gaya pengambilan keputusan, gaya umum pengambilan keputusan, gaya pengolahan informasi, persediaan gaya kognitif, structural equation modeling

Introduction

What stimulates entrepreneurs? Why do some people choose to become an entrepreneur while others do not? What aspects of entrepreneurship are flexible through education, and what aspects are not?

Seeking answers to such questions have substantially advanced our understanding of specific factors which have an impact on entrepreneurship. The number of research on entrepreneurship has expanded since its start

in the 1930s, and has developed to include a number of concepts, frameworks and attitudes (Katsikis & Kyrgidou, 2009).

It is now about a century that systematic research on human cognition is being continued. During the past two decades, progress in this field has been particularly rapid. As a result of these recent researches, a relatively clear image of the many aspects of human cognition has been created (Barsalou, 1992). Many conclusions have been provided by the latest scientific literature and the most relevant ones to entrepreneurship are

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as follows (Baron, 1998): First, people's ability to process new information about the world is restricted. The outcome cognitive psychologists defined as overload. For example the notion that someone who is not capable of following arguments which are presented too quickly by a speaker, is entirely related to these limitations. Second, as human beings, people try to minimize cognitive effort, just as they try to minimize physical effort. As a result, people frequently use various "short-cuts" in their thinking techniques that decrease mental activity.

Although these results hold true for all people, they appear to have a special relation with entrepreneurs for the subsequent reason: entrepreneurs may recognize themselves in conditions that have inclination to maximize the impact of several biases and errors (Baron, 1998). Research on this topic recommends that cognitive processes are more likely to be affected by different forms of bias and error when: First, overload happens – people are faced with more information than they can process at a specified time (Gilbert et al., 1992). Second, people confront conditions which are novel to them and contain high levels of ambiguity-conditions in which they cannot easily clarify based on their pre-established mental structure (Fiske & Taylor, 1991). Third, emotions run high- there is a complicated interaction among feelings and thought, and powerful emotions can result in distortions in many facets of cognition (Oaksford, et al., 1996).

The next section briefly reviews decision-making style and cognitive style literature, and then goes on to presents the research hypotheses. Subsequently, the hypotheses are developed, the methodology discussed, and the results presented. Finally this study ends with the discussion of the results and its implications, the limitations of the research and the summarizing conclusion.

Literature Review

Decision Making Style (DMS)

People's approach to decision-making is different. Some emphasize on an aim, a detached way, gathering more information and doing clear analyses. Others regard themselves as a holistic and intuitive person. Some people act independently, whereas, others operate

based on input from others which helps them direct their processes. Some people with a spontaneous decision-making style are in contrast with those who are consultative and intended. Other individuals attempt to postpone the process completely. People think that these individual's differences are independent of cognitive abilities (Galotti et al., 2006).

Decision-making style is a habitual pattern which used by individual in decision-making (Driver, 1979). According to Driver et al., (1993) the main difference between styles is related to the quantity of information considered during a decision process.

Many suggestions have been presented for dimensions of decision-making styles (Berzonsky & Ferrari, 1996; Blustein & Phillips, 1990; Niles et al., 1997).

Their investigation evaluates five various stylistic dimensions:

Based on Scott and Bruce (1995) decision-making styles are learned-habitual response patterns which are shown by individuals when confronted with a decision-making situation. Decision-making styles are not identity features but habits to respond in a special way in a particular decision situation. Under this definition, Gambetti et al. (2008) proposed five decision-making styles: *the rational style*, described by seeking for information and by logical appraisal of alternatives; *the intuitive style*, characterized by consideration of details and by an inclination, based on intuition and feelings; *the dependent style*, demonstrated by seeking for counsel and guidance from other people; *the avoidant style*, specified by decision-making postponement, and the *spontaneous style*, defined by a feeling of urgency and a requirement to finish the decision-making process, as rapidly as possible.

Cognitive Style

Background and development of the Cognitive-Style Model: Based on the first experimental studies conducted in the 1940s and early 1950s, it was revealed that people have differences in simple cognitive tasks such as perception and categorization (Hanfmann, 1941; Klein, 1951; Klein & Schlesinger, 1951; Witkin, 1950; Witkin & Ash, 1948). Individuals have stable cognitive functioning manners. This Stability has been referred to a psychological

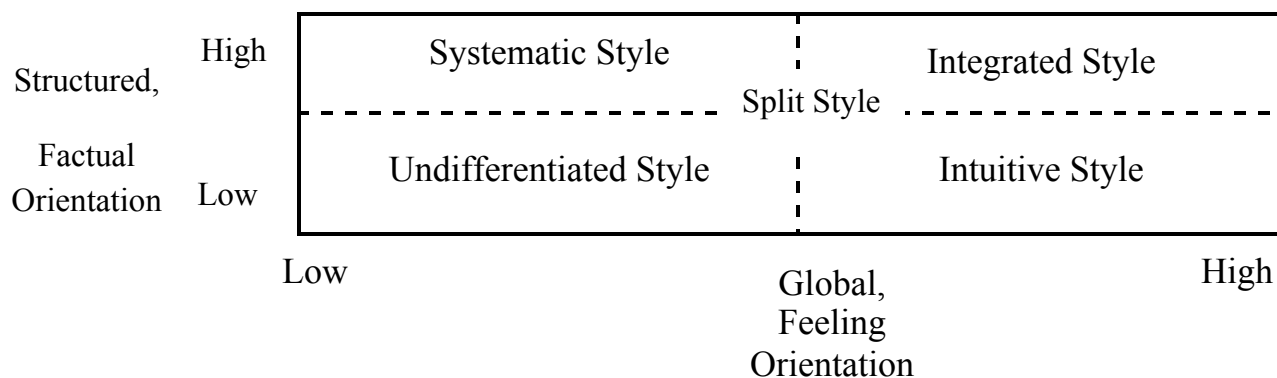


Figure 1. Conceptual Model (Martin, 1998, p.3)

dimension, named cognitive style (Ausburn & Ausburn, 1978). According to Messick (1976) and Witkin, et al. (1977) cognitive style is stable attitudes, preferences or habitual strategies that specify an individual's manner of perceiving, remembering, thinking, problem solving, and decision-making.

Theories regarding cognitive style are expanded as a result of studies directed by Witkin et al. (1962) and Bruner (1966). Both these and other studies caused theories that generally supposed a single dimension for cognitive style, with an individual's style falling somewhere on a continuum between the extremes of this dimension. Many theories in this field allotted a positive value to one of the extremes and a negative value to the other (Martin, 1998). These extremes are demonstrated by Keen (1973), McKenney and Keen (1974) and Botkin (1974): the systematic style which is in regard to logical, rational behavior which is based on a serial approach to thinking, learning, problem solving and decision-making; as opposed to, the intuitive style which is in regard to a spontaneous, holistic and visual approach.

These theories can be related to left brain/right brain thinking theories. In the late 1960s and early 1970s, brain research brought up the discovery that each of the sides of the brain has different mental functions (Buzan, 1983). Based on Wonder and Donovan (1984) most people, because of their specific genetic inheritance, their family life and their early training, have a preference to employ one side of the brain more than the other. Behaviors of each sides of

the brain are as follows (Wonder & Donovan, 1984):

Left brain: analytical, linear, sequential, concrete, rational and oriented; and

Right brain: intuitive, spontaneous, holistic, symbolic, emotional and visual.

Explanation of the Cognitive-Style Model:

In spite of the fact that the systematic and intuitive styles are the bases of the cognitive-style Model, these two styles have not before been displayed to reflect the complete spectrum of an individual's behavior such as thinking, learning and specifically problem solving and decision-making. Hence, a multidimensional model was created to reflect the whole spectrum (Martin, 1983).

This model is comprised of two continua: (1) High systematic to low systematic; and (2) High intuitive to low intuitive.

Ongoing observational studies have lead to a developed version of the original model. This expanded model is demonstrated in Figure 1.

The styles showed on the grid in Figure 1, are as follows:

Systematic style: A person who scores high on the systematic scale and low on the Intuitive Scale is characterized by having a systematic style. Based on findings in the Harvard studies, a person who operates with a systematic style employs a well-explained and sequential approach; searches for an overall pattern and then creates a pattern for problem solving;

Intuitive style: A person who scores low on the systematic scale and high on the intuitive scale is defined as having an Intuitive style.

An individual with an intuitive style, during problem solving employs an analytical process which has unpredictable ordering steps (Botikin, 1974; Keen, 1973; McKenney & Keen, 1974);

Integrated style: An individual with an integrated style is one who scores high on both scales and is capable of switching styles rapidly in a matter of seconds. Integrated people are also named “problem seekers”, because they regularly try to recognize potential problems as opportunities to discover better ways of doing things;

Undifferentiated style: A person with an undifferentiated style is one who scores low on both systematic and intuitive scales. Undifferentiated individuals do not differentiate between the extremes of two styles and so, seem not to display a style. These people in a problem-solving or learning situation, may have an inclination to accept others’ guidelines;

Split style: A person who scores in the middle range on both the Systematic and the Intuitive scale is described as having a split style. At first glance, the difference between split and integrated style seems to be their degree of specialization. However an individual with a split style does not possess an integrated behavioral response. In fact, in a problem-solving or learning situation, split people select the appropriate style (Martin, 1998). As an entrepreneur’s decision-making leads to the creation of wealth and value, his/her decision-making style is of great importance. So, it is crucial to survey their cognitive style which may affect their decision-making style. Hence, in this study, the impacts of cognitive style on decision-making style among entrepreneurs were investigated.

Hypotheses

Cross-sectional survey, proposes that cognitive style is identified as a factor that has significant impact on decision-making. Because of the success of entrepreneurs in decision-making, their cognitive style and decision-making style can be considered as a pattern for making profitable and successful decisions.

So in this study, the relation between different kinds of cognitive styles and decision-making styles has been investigated among Iranian students of entrepreneurship. The specific hypotheses for investigations here are as following:

- H1 - types of cognitive style affect Rational decision making styles, among Iranian students of entrepreneurship.
- H2 - types of cognitive style affect Intuitive decision making styles, among Iranian students of entrepreneurship.
- H3 - types of cognitive style affect Avoidant decision making styles, among Iranian students of entrepreneurship.
- H4 - types of cognitive style affect Dependent decision making styles, among Iranian students of entrepreneurship.
- H5 - types of cognitive style affect Spontaneous decision making styles, among Iranian students of entrepreneurship.

Methods

Questionnaire

In this study a self-administrated questionnaire was used to gather empirical data. The questionnaire was distributed to 162 entrepreneurship students of University of Tehran.

The questionnaire consisted of three sections:

Section A dealt with demographics which contained questions on age, gender and experience.

Section B was a self-administered questionnaire, consisting of 23 items (Scott & Bruce, 1995). It was prepared according to five distinctive measures, each depicting a special decision-making style: (1) Rational, described by a logical and organized approach to decision making (e.g., “I explore all of my options before making a decision”); (2) Intuitive, characterized by an inclination to rely upon intuitions, sensations and emotions (e.g., “I generally make decisions that feel right to me”); (3) Dependent, portrayed by a need of aid and backup of others (e.g., “I rarely make important decisions without consulting other people”); (4) Avoidant, demonstrated by the effort to defer and evade decisions (e.g., “I postpone decision making whenever possible”); (5) Spontaneous, described by the inclination to make decisions with no prior thinking involved way (e.g., “I make quick decisions”). The 23 items were submitted to respondents in a five-point Likert scale ranging from strongly agree (1) to strongly

Table1. Good Fit Indexes

	χ^2	Df	χ^2/df	CFI	RMSEA	AIC
Decision-making	199.01	125	1.59	0.931	0.60	325
Cognitive style	102.55	74	1.38	0.907	0.049	191

disagree (5). The Iranian GDMS version was an interpretation of the primary questionnaire, with precisely a similar item numbering. The goodness of translations was confirmed by 6 expert translators.

Section C was Cognitive Style Inventory (based on Martin, 1983) which measured the styles of information processing and was composed of 23 items. These items were presented to respondent using five preferences ranging from (1) strongly agree to (5) strongly disagree.

Results and Discussion

Profile of the respondents

There was an almost identical dispensation of male and female respondents. The majority (37 percent) of respondents were 26-28 years old, 35.2 percent were between 23 to 25 years old, 16 percent were 29-31 years old, 5.6 percent were 32 years and older, and 1.2 percent were younger than 23 years old. Among respondents, the experience of 24.7 percent of them was less than 3 years, 4.9 percents had more than 10 years and 16.7 percent of them did not have any experience. In this field, the experience of 21.6 percent of respondents was between 3 to 6 years and at last the experience of 9.6 percent of them was between 7 to 10 years.

Exploratory Factor Analysis (EFA)

The statistical package, SPSS Version 16, was applied to do the required exploratory factor analysis. Factor analysis was used to decrease the 46 items in the questionnaire to a more efficient number. In other words EFA was done in order to examine the structure of GDMS and cognitive styles. The extraction method was the principal Axis Factoring, with Varimax rotation. The total factors were taken out in each case were supposed to be suitable based

on the values of Cronbach coefficient alpha and factor loadings. In the field of decision-making only factors with Eigen values equal to 1 were regarded meaningful and selected for interpretation and only items with loadings of 0.4 or higher were comprised (Malhotra, 2004). Ultimately the five factors of decision-making styles were named rational, intuition, dependence, avoidance and spontaneous and the five factors of cognitive styles were termed systematic, undifferentiated, split, integrated and unstable. The rotated pattern coefficient matrix of decision making was accounted for 61.95% of the post-rotational variance, and 43.62% for cognitive style.

Confirmatory Factor Analysis (CFA)

Before proceeding with hypothesis testing, at first we directed a confirmatory factor analysis implementing the software AMOS 17.0 and appraised measurement reliability and validity. To make certain reliability, we eliminated items with a factor loading which was less than 0.4 (Hulland, 1999). We computed Cronbach's alpha (threshold = 0.7), composite reliability (threshold = 0.7), and average variance extracted (AVE) (threshold = 0.5) and obtained sufficient reliability for all constructs (DeVellis, 2003).

According to Hulland (1999), two items of cognitive style because of their low factor loading, were eliminated and the last three items (Systematic, Integrated and Split) were remained. , whereas hypothesizes of this study were about the effect of the kinds of cognitive styles on kinds of decision-making styles, each hypothesis was divided into three sub-hypotheses.

The appropriateness of the model was evaluated using various indexes: χ^2/df , CFI, TLI, RFI, RMSEA, PCFI and PRATIO. The ratio of χ^2/df should mostly be less than 3 (Bollen,1989). Hu and Bentler (1999) suggested the following as a sign of a good

Table 2. Results of Reliability and Convergent Validity

	Chronbach`s alpha	AVE	Composite reliability
Cognitive style	0.77		
Systematic		0.58	0.69
Split		0.55	0.69
Integrated		0.64	0.92
Decision making style	0.76		
Rational		0.59	0.79
Intuition		0.59	0.77
Dependence		0.61	0.84
Avoidance		0.73	0.81
Spontaneous		0.82	0.67

Table 3. Discriminant validity for Decision-Making Style

Cognitive style	Systematic	Split	Integrated
Systematic	1		
Split	0.369	1	
Integrated	0.021	0.312	1

Table 4. Discriminant validity for Cognitive Style

Decision making	Rational	Intuition	Dependence	Avoidance	Spontaneous
Rational	1				
Intuition	-0.138	1			
Dependence	0.353	-0.032	1		
Avoidance	0.001	0.034	0.188	1	
Spontaneous	-0.376	0.262	0.123	0.174	1

fit: CFI \geq .95 and RMSEA \leq .05. In order to appraise the degree of parsimony of the models, we employed the AIC index, with relatively low values of similar index implying a better fit and parsimony of a model than higher values (Raykov&Marcoulides, 2001). The indicators are shown in table 1.

After achieving certainty of these validities, we tested our hypotheses. For the main hypotheses, initially we examined the relationship between decision making styles and cognitive styles. As explained in the hypothesis, cognitive style's influence on decision making style is significantly positive. Furthermore, we examined the model and gained an adequate model fit [(Goodness of Fit Index χ^2/df = 1.77; Normed Fit Index (NFI)=0.7; Comparative Fit Index (CFI)=0.78; Root Mean Square of Approximation (RMSEA)=0.05)] (Hu & Bentler, 1999).

Reliability and Convergent validity

Reliability and convergent validity of the factors were appraised by composite reliability and Average Variance Extracted (AVE) (Fornell & Larcker, 1981). Based on the calculating procedures demonstrated by Fornell and Larcker (1981), the results are displayed in Table 2. If Reliability Coefficients are lower than 0.60, a doubtful situation would be considered, adjacent to 0.70 factors means admissibility, and higher than 0.80 figures shows a good condition (Sekaran, 2003). In this research, Coefficient Alphas for the 23-item decision-making style, 23-item cognitive style and for all 46 items are 0.76, 0.77 and 0.83, which are higher than the suggested value and are in line with reliabilities for that measure reported in different studies (e.g., Netemeyer et al., 1991; Sharma et al., 1995; Shimp & Sharma, 1987).

Table 5. Structural Equation Modeling (SEM)

Hypotheses				Confirmed/ Not confirmed	Beta	t value	Significant Level
H1a	Systematic	→	Dependence	Confirmed	0.95	3.41	P<0.05
H1b	Systematic	→	Rational	Confirmed	1.09	3.79	P<0.05
H1c	Systematic	→	Spontaneous	Confirmed	-0.68	-2.79	P<0.05
H1d	Systematic	→	Avoidance	Not confirmed	0.30	1.46	P=0.143
H1e	Systematic	→	Intuition	Not confirmed	-0.26	-1.79	P=0.703
H2a	Split	→	Intuition	Confirmed	0.43	2.67	P<0.005
H2b	Split	→	Dependence	Not confirmed	0.22	1.38	P=0.167
H2c	Split	→	Avoidance	Not confirmed	-0.34	-1.68	P=0.091
H2d	Split	→	Rational	Not confirmed	0.11	1.00	P=0.317
H2e	Split	→	Spontaneous	Not confirmed	-0.15	-0.95	P=0.338
H3a	Integrated	→	Rational	Confirmed	0.44	2.36	P<0.05
H3b	Integrated	→	Spontaneous	Confirmed	-0.71	-2.36	P<0.05
H3c	Integrated	→	Intuition	Not confirmed	-1.96	-1.38	P=0.166
H3d	Integrated	→	Avoidance	Not confirmed	-1.42	-1.20	P=0.230
H3e	Integrated	→	Dependence	Not confirmed	-0.69	-0.94	P=0.344

Discriminant validity

Adequate discriminant validity is available when a construct shows a higher variance in comparison to other constructs in the models (Fronell & Larcker, 1981). We made sure that all our contemplatively indicated constructs matched this measure.

Moreover, we checked for items’ discriminant validity and obtained satisfactory levels since all items apportioned more variance with their own constructs than with any other construct. Therefore, we discover satisfactory discriminant validity. Discriminant validity was calculated for decision making style (Table 3) and cognitive style (Table 4) separately.

Structural Equation Model (SEM)

Measurement model

This study used SPSS 16.0 and AMOS 17.0 to analyze the model, run the SEM and test the hypotheses. The measurement model of constructs first appraised the fitness of each multi-item scale in taking its constructs. This research examined internal consistency reliability, convergent validity, and discriminant validity before testing the hypotheses by casual model (Anderson & Gerbing, 1988b). First, according to exploratory factor analyses (EFA), this research recognized constructs and in accord with confirmatory factor analyses (CFA), this research eliminated items and compacted dimensions.

Second, in the reliability aspects, in accordance with the results of table 1, the Cronbach α is above 0.70 which is suggested by Nunnally and Bernstein (1994). The composite reliability (CR) is above 0.60 which has been recommended by Bagozzi and Yi (1998) and Fornell and Larcker (1981), showing that the research variables are in the acceptable range.

At last, this study measures validity based on convergent validity and discriminant validity suggested by Anderson and Gerbing (1988b). The average variance extracted (AVE) of measureable variable is between 0.55 and 0.82, which is above the 0.5 figure suggested by Fornell and Larcker (1981), and the other variables are all accepted. So, this measurement model has good convergent validity. In the test of discriminant validity shown in table 1, the $\Delta\chi^2$ among variables all are as $p<0.001$. Therefore the results support the existence of discriminant validity (Anderson, 1987; Anderson & Gerbing, 1988a; Bagozzi & Phillips, 1982; Venkataraman, 1989).

Structural model

After the preparatory test model of reliability and validity, this study moved on to comprehend the structural model fitness. In order to verify model fitness, the structural equation modeling (SEM) analysis, usually χ^2 is calculated. However, as indicated by the literature, the sample influences χ^2 (Bentler &

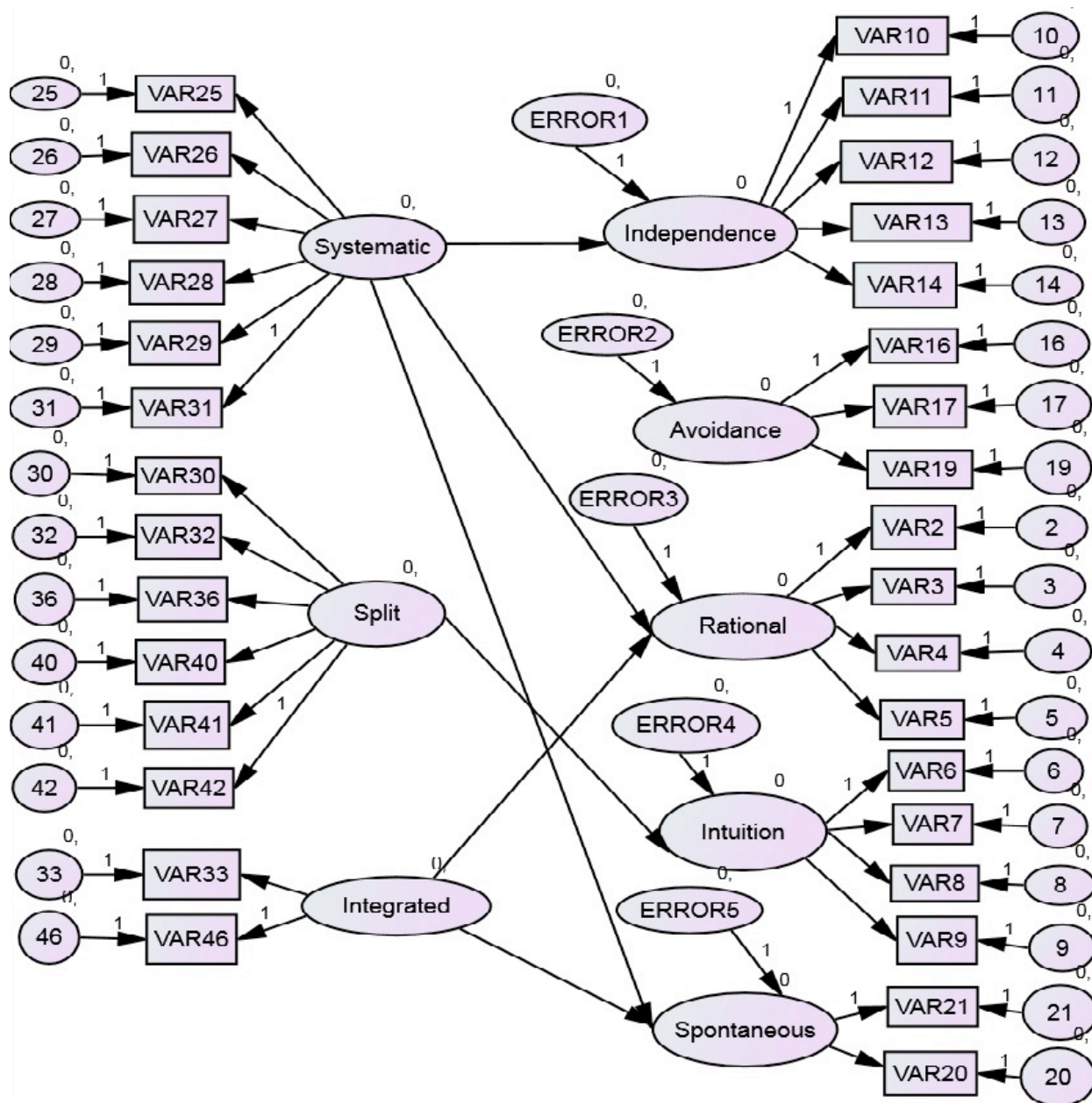


Figure 2. Conceptual Model

Bonett, 1980; Marsh & Hocevar, 1985; Marsh et al., 1988). Hence, not taking sample size into consideration (Bagozzi & Yi, 1988), when evaluating the χ^2 and the degree of freedom to assess model, it is required that the standard should not be over three (Chin and Todd, 1995).

By AMOS, the model was appraised using the maximum likelihood method. In this study, we examined for every relationship whether there were any significant straight influences. A total of 15 structural paths were appraised for the model containing the eight constructs.

The model's estimation resulted in the subsequent fit statistics: RMSEA=0.06; NFI=0.69; CFI=0.78; PRATIO=0.86;

PCFI=0.68; PNFI=0.53. These suitable statistics reveal the model to be a good fit for the data.

Standardized path coefficients for the model are described in table 2. Nine of the tested paths (systematic \rightarrow avoidance; systematic \rightarrow intuition; split \rightarrow dependence; split \rightarrow avoidance; split \rightarrow rational; split \rightarrow spontaneous; integrated \rightarrow dependence; integrated \rightarrow avoidance; integrated \rightarrow intuition;) are not statistically significant ($p > 0.05$). Hence, H1-d, H1-e, H2-b, H2-c, H2-d, H2-e, H3-c, H3-d, H3-e are not confirmed. All other paths are statistically highly significant ($p < 0.05$). Moreover, all the paths meet the suggested causal directions.

So, H1-a, H1-b, H1-c, H2-a, H3-a, H-3b are completely confirmed. In other words, Split style affects intuition decision making style, integrated style affects rational and spontaneous decision making styles and systematic style has straight impacts on dependence, rational and spontaneous decision making styles (Table 5).

After measuring the path relationship between dependent variables and independent variables of the model with AMOS, this study proposed 15 hypotheses. The supported hypotheses are as follow:

According to the results, Systematic style ($t=3.79$, $p<0.005$) and Integrated style ($t=2.36$, $p<0.005$) have positive impact on Rational decision-making style. So other kinds of cognitive styles do not have any impact on Rational decision-making style. Therefore 3 sub-hypotheses of hypothesis 1 are not supported. Regarding intuition decision-making style, only split style has an impact on it ($t=2.67$, $p<0.005$), in other words, other kinds of cognitive style does not have any impact on Intuitive decision-making style. Therefore 4 sub-hypotheses of hypothesis 2 are not supported. Regarding the third hypothesis, results show that no cognitive style has an impact on the Avoidant decision-making style. Therefore any sub-hypotheses of hypothesis 3 are not supported. Based on the results, only one of the sub-hypotheses of hypothesis 4 is supported. In other words only Systematic style ($t=3.41$, $p<0.005$) impacts Dependent decision-making style. As for other kinds of cognitive style (Split and Integrated style), they do not have any impact on Dependent decision-making style and the 4 sub-hypotheses of hypothesis 4 are not supported. Finally, regarding Spontaneous decision-making style, results show that only Systematic style ($t=-2.79$, $p<0.005$) and Integrated style ($t=-2.36$, $p<0.005$) impact Spontaneous decision-making style. In this sense, other kinds of cognitive style do not have any impact on this decision-making style. Therefore the 3 sub-hypotheses of hypothesis 5 are not supported.

Conclusion

Our quantitative study provides some insight into the impact of cognitive styles on decision-making styles. We found that three types of cognitive styles and five types

of decision-making styles existed among Iranian students. This conclusion suggests that educational systems can consciously try to develop the most common cognitive style employed by entrepreneurs. Moreover, one important implication of this study is for stakeholders in entrepreneurial ventures. In this sense, it is significant to understand how entrepreneurs make decisions more effectively and to help stakeholders trust them with their money. For researchers and educators, this study contributes to the literature by creating a rather novel and qualitative view to examining the impact of cognitive styles on decision-making styles. In addition this research can be useful for startup business. The businessman can make use the result of this research as a pattern to follow, in order to act and think as an entrepreneur. Thinking and deciding like an entrepreneur, make people aware of the opportunities of their society in order to help them to be more successful in their business. Because the most failure is came from ignorance of the opportunities that surrounded us.

Although many evidence has been made in support to the fact that a market orientation (Kirca, Jayachandran, & Bearden, 2005) and an entrepreneurial orientation (Barringer & Bluedorn, 1999) are dependent with high and positive firm performance. It has been resulted that when marketing has a top influence as an orientation within a high level of entrepreneurial oriented firm, there may be considerable performance achieves for the firm (Matsuno, Mentzer, & Ozsomer, 2002).

The fact that an efficient marketing operation seems to make no sensible difference performance-wise in entrepreneurial firms makes some support for firms about the marketing function's disability to operate as a source of imaginative ideas. Marketing professionals have been reviewed by senior managers for being unable to formulate innovative strategies and for leaning on traditional ways of competing (Webster, 1989). They have been imputed of having an imitator mentality, for lacking a proactive vision (Lorange, 2005) and for being unimaginative (Kotler, 1999). Our results can be adaptable with these firms, as they prove that in an entrepreneurially oriented firm, the marketing unit is probably not the source of those innovative and creative ideas that exist at the heart of entrepreneurship.

Future Research

In this section, some limitations of this study and suggestions for future research are presented. The first limitation is that this study only concentrated on students of entrepreneurship; not capturing other entrepreneurs. It is suggested that future researchers investigate this topic on entrepreneurs. Second, this study did not consider the effects of economic conditions,

so it is recommended future researchers to consider this factor. Also note that this study was done on graduated students, who may not had prior experience in business. Of course, adults are more eager to run a business and are valid people for such a study. Moreover, we cannot generalize the result of this study to everyone. To establish further generality, it must be administrated to other populations, particularly entrepreneurs.

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