

AUDITING COGNITIVE STYLE, INFORMATION LOAD AND DECISION QUALITY IN A FINANCIAL DISTRESS DECISION TASK

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ABSTRACT

The purpose of the present study is to investigate the influence of auditor's cognitive style and information load on the quality of their statements about activity continuation. Research questions and hypothesis are based on Schroeder, Driver and Strefert theory about information processing. According to this theory, ability of individuals for information processing depends on their cognitive style and is decreased by increase in information size. The auditors who were tested were senior managers, managers and senior supervisors of audit organization, questioned by "cognitive style test" and "statement about activity continuation test". Acquired data, were analyzed through one-way analysis of variance model and results offered that auditor's ability for information processing is relied on their cognitive style and obeys Schorder, Driver and Strefert theory.

Keywords: information overload, cognitive style, concrete cognitive style, Abstract cognitive style, Activity continuation statement.

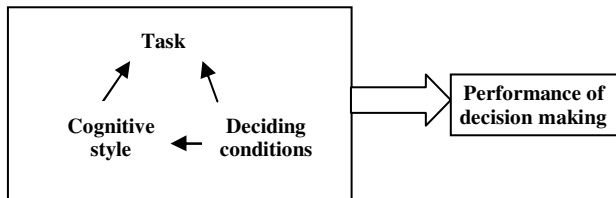
Introduction:

Decision making is the significant and vital section of every audit process, which must be done at every superior level in audit systems. Some people are more successful in decision making regarding the others. Realizing this fact during the past twenty years has formed a considerable note into variables affecting individual's decisions. These variables belong to a range of physiological variables. Noting individual differences has pushed researchers toward forming of decision making behavior as a function of decision maker's personal characteristics and their tasks. Several diverse investigations have been made around difference in performance. In some of them audit program has been used and the ability, knowledge, experience, profession, personality and cognitive style have been employed as of the individual. At present study cognitive style is used as personality variable or component. Because the cognitive style offers unique advantages for inquiring and using information to solve problem (Kutschera, 2002).

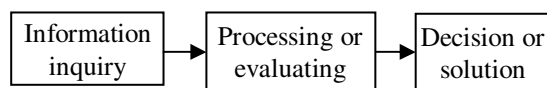
Findings of some researches also show that there is a relationship between cognitive style and deciding conceding conditions. Individuals with analytical cognitive style perform better at analytical tasks and in conditions where necessitates dissection of the processes which have led to their decision (reason condition). And those who have intuitive cognitive style have better performance at experimental tasks and in conditions where they are not obliged to give any reason for their decision (control condition).

Reciprocal dependency of cognitive style, decision making conditions and deciding task (or the subject to be decided for) is reflected in figure 1. If the deciding task, decision making conditions and auditor's cognitive style are proportional to each other, effectiveness of auditor's performance will be promoted and the risk of giving an unjustified statement will be decreased. Effect of task variables (in addition to individual differences) on formation of audit judgment has been also proposed by Hogarth and Einhorn.

It seems that if all people gather information and processes it in a same manner; they would reach to the same decisions and solutions. But several investigations in the fields of psychology, accounting, management, marketing and auditing have shown that individuals don't reach to the same results at stage of gathering and presenting of information (Arabmazar, 2003).



Index1: Three main conceptual models on quality of decision making



Index2: Process of decision making or problem solving

The main emphasis of the present work is on individual differences as the determiner of performance changes. Previous researches who have worked in this field in the audit area, have tried to answer this question that who (based on individual differences) in what kind of task (or subject for deciding on) performs better. In these studies task demands and personal characteristics are mutually combined with each other to assess their effects on the performance. In the present work conditions of decision making is ignored due to the nature and limitations of auditing in Iran, and we focused on impact of auditors cognitive style on decision making performance about continuation of activity, as the task (subject to be decided on). According to requirement of second paragraph of most standard titling continuation of activity “, task variable in present study is correlated and suited: During the process of planning and performing audit procedures and assessing obtained results, the auditor has to survey the suitability of using the management from activity continuation assumption in financial statements preparation (Kutschera, 2002).

Cognitive style:

Results of studies conducted in the field of cognition psychology reveals that people have significant individual differences in the realm of cognition issues, showing that they rely on for problem solving and decision making. One of them is cognitive style which possesses and important place among these classifications. Cognitive studies originate from the works of Max Wertheimer, Wolfgang Koflar and Kurtkoffka. Mc Ghee suggests cognitive style as an intermediate variable among obtained accounting information and the decision made. Cognitive style as the intermediate variable in relationship between accounting

information and decision making has also been approved by Pratt (Pouryousof, 2012).

Dermer States: Information users cognitive characteristics, influence on his or her comprehension, as what piece of data is important and what is irrelevant to the subject of decision. So cognitive characteristics of information user plays a role in impact of information on his or her ultimate behavior. Cognitive style determines individual's intellectual framework. Cognitive style is of great importance because it deals with subtle and through investigation of perceiving stimuli and responding to the individuals surrounding world, and provides a more flexible and suitable model formation enquiry, comprehending, processing and communication. This means that, by considering individuals practices for comprehending and analysis of information and their decision making models, one can supply better for their information needs. Authorities for organizing accounting standards in recognized accounting standards, emphasize on adequate monitoring and appropriate planning during the accounting process (Rezaei, 2004).

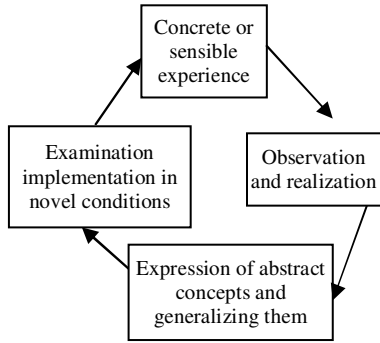
Audit planning, monitoring, controlling and setting are a function of four independent variables which involves audit process complexities, size of audit group, social – political environment and cognitive style of audit. These relationships have been confirmed by a two – phase study in general accounting office (GAO).

Kolb's cognitive style:

Experimental learning model (ELM) which was proposed by Kolb is one of the cognitive information processing models (CIP) that is recognized as state of information organizing and processing. ELM involves four stages concrete experience (CE), reflective observation (RO), abstract conceptualization (OC), and active experimentation (AE). These concepts give rise to attainment of more concrete experiences in new situations. Any of these stages can be regarded as one level of ability. Belkaoui states in description of the Kolb's learning style that:

Primarily for knowledge enquiry we start the work by means of concrete and sensible experiences, individuality of some occasions result in adding to our observations and contemplate about what has been occurred; and if we are stimulated enough, this causes us to present assumptions in the form of experimental concepts and generalizing our insights. This situation makes us examine our assumptions and realize the usages of these conceptions at novel conditions. It means that the operation begins with special realities (observed or interpreted), then leads to special assumptions (conception in mind) and so to general theories (in other conceptions in mind) and afterward ends to general discovered and observed laws (Masihabadi, 2008). These steps are explained in figure 3:

Index3: Steps of Kolb’s learning model.



Individual’s information utilization based on individual differences:

The present study is planned upon Schroder, Driver and Strefert model which offers a pattern for individuals information utilization based on individual differences. This model states that persons apply information based on their individual patterns. This model has been employed in some accounting studies to represent the influence of information processing on decision making. Schoroder and colleagues showed that by increase in data size, individual’s information processing performance increases up to reaching a maximum point. Further by increasing the data size, processing performance dwindles. On the other hand by increase in information size, volume of the information which leads to the decision as an out put also increases. So except to some points, increase in information size causes decrease in out put information of the decision. This level of information processing, is like an inverted U- type graph (Hansen, 1993). Index 4 depicts this process.

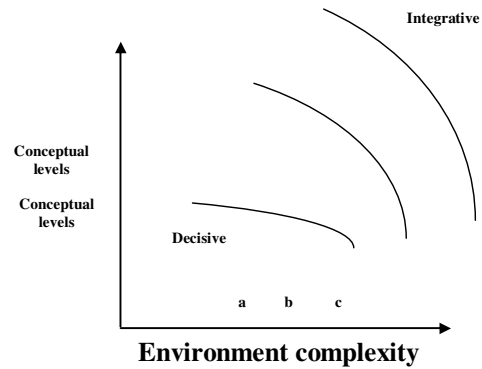
Schoroder and colleagues also assumed that information processing ability is dissimilar in different individuals. This matter is depicted in Index 5, as persons with high conceptual levels (abstract cognitive style) and persons with low conceptual levels (concrete cognitive style). The interrelation between Kolb’s learning style and Schoroder, Driver and streferts model is criterion for abstract and concrete cognitive styles. Itarvey, Hunt and Schoroder identified abstract and concrete styles as the primary dimensions of cognitive development and learning, and Schoroder et al also employed these dimensions to develop their information processing model.

Sieber and lanzetta (1964) described concrete persons as the one who process divergent dimensions of information and utilize a complex combined pattern, and described concrete persons as the ones who process the information in smaller dimensions and use a simple combined pattern. Sieber and Lanzcttas studies are a revision to schoroder, Driver and Streferts model. Schoroder, Driver and Strefert demonstrated that by growth of complexity, information processing by individuals describes a reversed U- type graph.

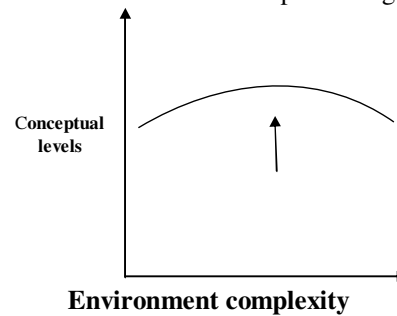
They founded that the abstract type, apply more information with respect to the concrete type. The present

study has originated from the concluding hypothesis of Schoroder and colleagues model for investigation of individual differences on auditor's judgment.

Index4: Inverted U-type graph



Index5: Differences in information processing capabilities



The role of information in audit judgments in the process of declaring about financial statements

Several judgments are made such as audit scheduling, risk evaluation, internal control system evaluation, sustainability evaluation of the company, assessing ultimate effect of provisions paragraphs for reflection in audit report and etc. Judgment comprises of defining the problem or difficulty truly, finding possible solutions to the problem and eventually picking one out of the others. During the whole procedure the dominant role of information is vividly seen. The role of information is to expand decision makers knowledge or to diminish uncertainty and so the chance for making mistakes. Considering important role of information in judgment, it seems rational for auditors to choose the size and type of information required for judgment and decision making in a manner which could improve time length and accuracy of audit judgments.

History of cognitive style studies in accounting:

Masihabadi in a research entitled by "comprehending accounting information, judging them and making investment decision", investigated the impact of accounting information on cognitive processes (comprehending, judging and decision making) in this study, 235 investment professionals were tested. The tests were comprised of two sections: the test for under standing decision making style

and the test for situations and opportunities of investment were carried out and there were 81 received responses. In understanding decision making style test participants were divided into two groups of information – oriented and concept – oriented through MBTI.

Information – oriented individuals process information from the fractions the whole and the data driven processing term is used for describing them. Concept – oriented individuals process information from the whole down to the fractions and based on keynotes and general knowledge and the term conceptually Driven processing is employed for explaining them. The test of situations and opportunities for investment was performed using a questionnaire comprised of financial information belonged to ten real companies for a three years period and its influence on comprehension, judgment and decision making.

In this work extracted principles from psychology were integrated with methodological achievements from Psychometrics, econometrics and statistics in the form of structural covariance modeling and findings demonstrated that accounting information impacts on information – oriented and concept-oriented investors comprehension and judgment and the fact that comprehension and judgment is the main and deciding factors influencing investment or non – investment .On the other hand the comprehension , judgment and decision making processes are not the same in information or concept – oriented investors; the information oriented decision makers decide more accurately and the concept – oriented investors assess more positively (of financial ratios).

Hansen investigated the effect of information load and cognitive style on decision quality in financial distress decision task on prediction of failure of companies. In this study 48 numbers of auditors were separated into concrete and abstract auditors based on Kolb's learning styles (LSI) question sheet, and they were requested to judge the failure or un- failure of 18 real companies in the subsequent year. In this research four, six and eight levels of financial ratios were used. The studies finding which are accounted as a deviation to schoroder, Driver and straferts theory showed that participants did not encounter with any information overload.

Savich investigated the relationship between decision making styles and information load in a research titled "the Use of Accounting information in Decision Making". He Classified 26 senior accounting Staffs into four divisions of determined, flexible, hierarchical and complete decision making styles and exposed them to the buy-sell decision. The researcher expected the participants with flexible and determined decision making styles to process lesser information in comparison with other decision styles, the results of this research demonstrated that the participants with the determined decision making style , process the least information in comparison with others .

Casey in a research entitled by "the usefulness of accounting ratios for subject's prediction of corporate failure" investigated the impact of information processing styles on the correctness of failure prediction. In this study

subject were the heads of credit institutions who were separated into sensory and intuitive processing styles biased on MBTI, According to Karl Jungs theory sensory prefer to deal with details for making a decision and process them distinctly from other of the information while intuitivist stress on general relationships and collection of information . The outcomes of this study revealed that intuitive subjects had better performances in prediction of the failure in comparison with the sensory subjects.

Pincus investigated the connection between cognitive style and decision making in the field of auditing in a research titled "Auditor Individual Differences And fairness of presentation judgments " In this study 119 number of auditors were classified based on the variables depended on independent to the subject and endurance patience against ambiguity and they were asked to judge fairness of presentation of goods Stock account. Findings of this study showed that the auditors who were independent to the subject and endure ambiguity had more accurate statements.

Chewing studied the effect of expansion of accounting information load on information usage and decision quality through a researched entitled by "the Effect of information overload on Decision Makers Cue Utilization levels And Decision Quality in A Financial Distress task." in this research 17 number of auditors and 67 number of accounting students were exposed to a financial distress decision task at level four, six and eight financial ratios for 8 number of hypothetical companies. The relationship between four, six and eight financial ratios was represented with the aid of regression model and beta calculation for each model. The results were demonstrator of low quality by the aid of regression model and beta calculation for each model. The results also showed low quality of decision in information overload group and confirmed the reversed U Style.

Research Hypothesis:

At the present work the effects of information load and cognitive style on statement accuracy in decision making of auditors has been established as the main goal for representation of a clear relationship with Schoroder, Driver and Streferts model the most important research hypothesis is that individuals with abstract cognitive style make more accurate decisions along with increase in information load, in comparison with the ones with concrete cognitive style. In addition it is assumed that the accuracy of decision making obeys a reversed U- type graph, with regarding to the mentioned model.

In this study, the correctness of auditor's statements on activity continuation is assessed through the percentage of right statements. Information load was determined through the quantity of financial ratios in levels four, six and eight of financial ration. At the (LSI) level and for abstract and concrete cognitive styles, it's not supposed that there would not be differences between statement correctness of abstract and concrete auditors by using four financial ratios. Questionnaire of Kolb's cognitive style, because the four

financial ratios don't have much complexity for any of the concrete and abstract groups. At six levels of financial ratios, statement accuracy of both groups promotes, but the abstract group expected to have more accurate statements in comparison with the concrete group. Because at six levels of financial ratios some people in concrete group experience information overloads. At eight levels of financial ratios statement accuracy of both groups' declines, because there might be some persons in both groups who would be exposed to information overload.

Based of these mentioned matters research hypothesis of the present study are codified as follows:

1. Statement quality of abstract and concrete auditors about activity continuation are the same, by utilizing four financial ratios, including ratio of current assets to current debts, ratio of general stock market value for clerical value of debts, pure assets and sales to capital ratio.
2. Statement quality of abstract auditors about activity continuation, by us of six financial ratios including four ratios belonging to the first hypothesis, the ratio of current assets to net assets and the ratio of sales to assets, was more accurate in comparison with concrete auditors.
3. Statement quality of abstract and concrete auditors about activity continuation, declines by usage of eight financial ratios including the six financial ratios belonging to the second hypothesis, the ratio of earning before interest and taxes (EBIT) and tax to the net assets and the ratio of funds to the SWM of assets.

Research Methodology:

The present study is an experimental research and is of point correlation researches types. Data was gathered through question sheets and required analysis was performed on them by means of statistical software's.

At present work, 60 numbers of senior managers, managers and senior supervisors of audit organization were tested. They completed two sections of inventories: "cognitive style test "and" test of statement about activity continuation". Total received responses were 30 in number.

Cognitive style test was carried out through Kolb's learning style (LSI) questionnaire. Eight samples out of the total 30 persons were abstract and the other 22 were concrete, in other words % 27 were abstract and % 73 were concrete. The test of statement about activity continuation was accomplished by using questionnaires based on financial ratios and judgment about activity continuation by using them. Selected companies for each participant were anonymous which their chosen financial ratios for two subsequent years were provided for the participants.

Three companies out of the six selected ones had activity continuation problem and others there hadn't such problem. The base of this classification was as follows:

1. The companies which had paragraph condition prior to the paragraph dealing the ability for activity continuation in 2005 accounting report, or had failed or vanished, were considered as having activity continuation problem and the rest haven't the problem.

2. Based on the statements of the professionals working as senior managers in accounting office, who had through insight to the chosen companies.

The financial ratios used here were same as Harrel and Chewning. Harrel and Chewning verified 20 number of financial ratios which were useful in predicting financial distresses and then reduced them to 8 ones with the aid of functional analysis.

Pearson's correlation coefficient shows a poor relationship between each pair of ratios. The ratios with loose relationship are more proper because in this case each financial ratio reflects some related information which is not reflected through other ratios. These ratios are also similar to the employed ratios in Altman (1968), Libby (1973), Zimmer (1980) and Zargerns (1985) studies.

For the sake of reliability of the statement about activity continuation questionnaires, a pretest was conducted by supervisors of one accounting institute as participants. Due to pretest results, descriptions of questionnaires became more clarified in some cases and one of the companies which the about 90% of the participants didn't have true judgment of its activity continuation was excluded. The reason of the exclusion was the probability of exceptionality of the firm or its chosen financial ratios and increase in true statements.

The Results of Hypotheses Testing:

First hypothesis test:

First hypothesis: statement quality of abstract and concrete auditors about activity continuation is the same by usage of the four financial ratios mentioned throughout the text. Probability value related to Fishers statistic for studying cognitive style was 0.239 which is above 0.05, So with a confidence of % 95 the null statistical hypothesis stating absence of significant difference between the statements of abstract and concrete auditors is not fueled and so the hypothesis is confirmed the mean percentage of correct statements belonged to the concrete and abstract auditors based on the four financial ratios were 27.27 and 43.75 respectively. So, averagely the abstract auditors have stated more correctly but the differences between the accuracy of statements were not to an amount that makes a meaningful difference, and this result confirms the correctness of the alternative hypothesis. Graph 3 also depicts the absence of meaningful difference.

Index6: Test of Between- Subjects effect in level of the four financial ratios

	Sum of squares	f	Mean square	F	ig
Source	1592.803	1	1592.803	1.447	.239
Corrected modle	29592.803	1	29592.803	26.882	0.000
Cognitive Style	1592.803	1	1592.803	1.447	.239
Error	30823.864	28	1100.803		
Total	62500.000	30			
Corrected total	32416.667	29			

Cognitive style	Mean	Std.Error	95 Percentage Confidence Interval	
			Lower Bound	Upper Bound
Concrete	27.273	7.074	12.783	41.763
Abstract	43.750	11.731	19.721	67.779

Second hypothesis test:

Second hypothesis: Quality of abstract auditors statements about activity continuation, by usage of the six financial ratios mentioned throughout the text is more accurate than the concrete auditors.

The value of probability related to cognitive style study was 0.047 which is lower than 0.05 , so with the confidence of %95 the null statistical hypothesis expressing absence of meaningful difference between abstract and concrete auditors statement qualities is rejected and on this basis the second hypothesis of the research is confirmed. The mean percentage of correct statement belonged to the concrete and abstract auditors based on the six financial ratios were 63.636 and 68.750, respectively. So, averagely the abstract auditors have stated more correctly by usage of 6 financial ratios. Graph 4 also depict existence of meaningful difference,

Index7: Test of Between- Subjects effect in level of the six financial ratios

	Sum of squares	df	Mean square	F	Sig
Source	1530.409	1	1530.409	10.209	0.047
Corrected modle	102820.076	1	102820.076	139.779	0.000
Cognitive Style	1530.409	1	1530.409	10.209	0.047
Error	20596.591	28	735.593		
Total	147500.000	30			
Corrected total	20750.000	29			

Cognitive style	Mean	Std.Error	95 Percentage Confidence Interval	
			Lower Bound	Upper Bound
Concrete	63.636	5.782	51.792	75.481
Abstract	67.750	9.589	49.108	88.392

Third hypothesis test:

Third hypothesis: Quality of concrete and abstract auditor’s statements about activity continuation, by usage of the eight financial ratios mentioned throughout the text declines.

The value concerning cognitive style study is 0.036 which is below 0.05 , so with a confidence of %95 the null statistical hypothesis stating absence of meaningful difference between the quality of concrete and abstract auditors is rejected and on this basis the third is rejected and on this basis the third hypothesis is confirmed. The mean percentage of correct statements belonged to the concrete and abstract auditors are rejected and on this basis the third hypothesis is confirmed. The mean percentage of correct statements belonged to the concrete and abstract

auditors, based on the eight financial ratios, were 50.00 and 43.75, respectively.

So, averagely the correctness of concrete and abstract auditors, statement has inclined from the six financial ratios usage to the eight. The following graph also shows the existence of meaningful difference.

Index8: Test of Between- Subjects effect in level of the eight financial ratios

	Sum of squares	df	Mean square	F	Sig
Source	2290.167	1	2290.167	10.289	0.036
Corrected modle	51562.500	1	51562.500	65.070	0.000
Cognitive Style	2290.167	1	2290.167	10.289	0.036
Error	22187.500	28	792.411		
Total	92500.500	30			
Corrected total	22416.667	29			

Cognitive style	Mean	Std. Error	95 Percentage Confidence Interval	
			Lower Bound	Upper Bound
Concrete	50.000	6.002	37.706	62.294
Abstract	43.750	9.952	23.363	64.137

Conclusions:

Participants encountered information overload:

The results of 1, 2 and 3 hypothesis tests showed that auditors statements accuracies obeys reversed U-type pattern: at the four financial ratios, no significant differences was observed between concrete and abstract auditors statements; at the six financial ratios the abstract auditors had more accurate statements than the concrete auditors and at the eight financial ratios the correctness of concrete and abstract audits statements declined.

Hansen’s results gained from study of influence of cognitive style and information load on quality of audit statements does not obey the reversed U-type pattern. However regarding the studies done about the influence of experience and skill. On decision making, participants on overloading are not framed in such studies.

Some researchers based on their investigations suggested that individuals can process 5 up to 9 information dimensions in their short – term memories. On the other hand it’s also possible that some participants would neglect some financial ratios. So if just 5 to 7 financial ratios would be processed by the participants majority, it does not seem that at the eight financial ratios there would be much complexity to an extent so as to cause information overload in short, participants un over loading at similar studies is not a deviation from schoroder, Driver and Streferts theory and could be attributed to un happening of complexity at information loads levels or to accomplished auditors.

As several outcomes have been achieved throughout these researches, more extensive studies on information processing by auditors and the impact of information overloud seem mandatory.

The accuracy of concrete and abstract auditor's statements is different:

At the present work, expectations about absence of difference between concrete and abstract auditors statements accuracy at the four financial ratios level, expectations about abstract auditors statements accuracy rise in comparison with concrete auditors, at the six financial ratios level. And the expectations about decrease in accuracy of both concrete and abstract auditor's statements at the eight financial ratios level were confirmed.

The differences between concrete and abstract auditor's statements, is the reflection of individual differences impact on the quality of judgment and decision making. Other studies in this field of audit also have reported that the difference in cognition styles influences the auditors statements and supports the cognition style differences at the present work, other studies related of accounting also show the impact of cognition style on judgment and decision making. These researches provide evidences of the effect of individual differences (in cognitive styles) on audit judgment and other judgments and decisions in the field of accounting and particularly in management accounting. As the researches in this area are finite, more studies are needed to support these results. As Pincus stated: "our knowledge of auditors judgment process may be enhanced by regarding the individual differences among auditors."

Final effects:

The survey of participant's statements for the six chosen companies revealed an unexpected pattern of accurate statements about one of the companies. Statement accuracy for the number 2 company is very low at the four financial ratios. It's of the companies which has no trouble for activity continuation. But the ratio of sales to capital is negative for it. It means that its capital (excess of current debts to current assets) is negative. As the ratio of current assets to current debts has been 0.94 and 0.92 for two subsequent years, the negative effect of capital is not considerable one possible reason for low accuracy of statements about the company, may be of information decency or order effect occurrence. Because the ratio of current assets to current debts has been presented as the first ratio and the ratio of sales to capital has been presented as the last financial ratio and this matter has caused the participants to emphasize on the ratio of current assets to current debts as a weak predictor and the ratio of sales to capital as a strong one. The reason for this emphasis is the order of these evidences. In other words, the evidences had been presented in the order of "+++" and the last evidence had had more impact on the statements.

Low level of participant's accurate statements:

The percentage of accurate statements was 0.48 for all financial ratios.

Accuracy for predicting financial distresses had been higher in other studies with respect to the current of the differences between the mentioned studies and the present

work is that in these studies a three or five year record of financial ratios has been provided to the participants and that about 0.3 of the chosen sample had financial distresses and activity continuation matters.

The justification which may be given for low level of accurate statements is that the statement about activity continuation by using the given ratios at this work has been more difficult in comparison with the previous studies.

However, low level of correct statements is not contradictory with the research goal which was investigation of impact of auditor's individual differences on their statements. So away from the fact that statements accuracy were low, the aim of the research was to detect differences in statements accuracies with regard to change in information load and their cognitive styles and the correctness of individuals statements are not investigated for proposing a predicting model.

Participant's cognitive styles:

The majority of the tested auditors possessed concrete cognitive style: 0.73 of participants had concrete cognitive style and 0.27 of them owned abstract one. This works finding in this case is opposite to all researches previously done. Callins and milliron (1978) research 0.69 of participants were abstract and 0.31 were concrete. Hansen in his study on experienced auditors also reported that 0.73 of auditors were abstract and so on. Even the studies done on accounting students as participants show the same results. Smith and Kolb (1986) suggested that three factors affecting development of dominant cognitive style, in person, are curriculum specialties, choice of career and jobs influenced. The consequences of the study showed that accounting course and career are susceptible to grow abstract individuals. On this basis its expected accountants, physicians and accounting and medical students to have abstract cognitive styles, which this was confirmed by previous studies. The fact that this result was not observed in this study demands special analysis, but the following reasons can be addressed for exclusively:

- 1- None of the mentioned researches were performed in Iran, while the impact of environmental variables on formation of personality, cognitive style, insight and thinking and learning styles is determined and could not be neglected.
- 2- The selected sample for present work was 50% of whole community, approximately. As no sampling run at present work, so the cognitive style of other community persons is determinant and the finding of this study about cognitive style cannot be generalized.

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