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The Effects of Audit Methodology on the Development of Auditors' Knowledge of the Client's Business

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Abstract

This study examines the differences between strategic systems audit approach compared with traditional based audit approach and its impact on development of auditors' knowledge of the client's business, has been discussed. Strategic systems audit approach advocates argue that this approach creates a better development of auditors' knowledge of the client's business than the traditional-based audit approach.

Statistical population in this study, auditors (with different positions) employed in Auditing Organization in Iran was determined. The study sample selection (auditors) had been done randomly and questionnaire was distributed between auditors. The statistical results indicate that the auditors should be chosen about 90 people who are working in Auditing Organization. The data analyzed with F and t-student test to test the research hypotheses. Normal data test were used with Kolmogorov-Smirnov test.

The results had showed auditors that used strategic systems audit approach have better knowledge of the client's business than the traditional based audit approach.

Keywords: Strategic-Systems Audit, Traditional-Based Audit, Development of Auditors' Knowledge.

Introduction

Recent audit-market pressures have led to "radical and pervasive changes to the audit methodologies of some accounting firms. In an effort to reduce audit costs while increasing both an audit's effectiveness and its value to the client, these firms have developed a new audit methodology. The methodology incorporates the analysis of a client's business and strategic risks into client business models that allow the formation of knowledge-laden expectations about the client's financial position and results of operations. In addition to being documented in audit work papers, some form of these client business models is likely stored in the auditor's long-term memory.

Content and psychological complexity-based audit firm, regardless of the type of approach was used to be an important subject to study. This new approach emphasize in the deeper understanding of the entity. In this paper evidence that could lead to deeper understanding of the client's business, has been studied.

In strategic systems audit (SSA) approach, the auditor after deep knowledge of client's business finds, concentrated on financial statements and transactions that they made, so a strategic systems audit (SSA) approach is an up- down approach. In contrast, the traditional based audit (TBA) approach is a down-up approach, because auditor focuses on transactions and accounts initially, and then focuses on the financial statements. Another difference that is more important than the first, raising the level of client's business knowledge in strategic systems audit (SSA) approach, because client's business is such a chain ring of auditing evidence. Studying the effects of different methods to improve the knowledge of the client's business is important, because it makes just deeper understanding of client's business (Bell et al. 1997). Although both auditing methodologies prescribe procedures intended to assist auditors in integrating business and misstatement risk, SSA may represent a sufficiently different alternative to differentiate it from the TBA approach. There is a dearth of research that has examined whether alternative audit methodologies influence the extent to which auditors integrate business risks into subsequent audit judgments (Robsonet al. 2007).

This article examines the relationship between auditing methods and development of auditors' knowledge of the client's business briefly. This study indicated to show how differences in development of auditors' knowledge of the client's business with using the different methods will be existed.

2- Literature Review

Strategic-systems auditing (SSA) is a relatively recent advance in financial statement auditing. As such, there is relatively little extant literature describing either the nature of the approach or the practical application of the approach. The primary source of information is a monograph by Bell et al. (1997), which describes the nature of and concepts underlying an SSA while also providing detailed insights into how an institute or

organization is applying this approach in practice.

The SSA approach has four major components:

1) Strategic Analysis
2) Business Process Analysis
3) Risk Assessment
4) Business Measurement

Strategic Analysis

Integral to the formation of this SSA model is an understanding of the client's business strategy. In a strategic analysis, the auditor evaluates the client's industry, the client's strategy to attain a sustainable competitive advantage in that industry, the risks that threaten the strategy's success, and the client's responses to these risks. Tools from the strategy literature, such as PEST (Political-legal, Economic, Social, and Technological) analysis and Porter's Five Forces Model (Porter, 1980), are commonly used by an SSA auditor to aid the evaluation.Upon completion of the strategic analysis, the SSA auditor will have a framework for understanding the client's strategic business risks.A business risk is a threat that an event or action will adversely affect an organization's ability to achieve its business objectives and execute its strategies (Lemon et al. 2000).

Factors that are germane to a PEST analysis include (Salterio&Werich, 2002):

1) Political factors: (a) government stability, (b) taxation policy, (c) government spending, (d) government relations with other countries, (e) industrial policy (e.g., towards privatization, regulation and nationalization).
2) Legal factors: (a) employment law, (b) monopolies and mergers legislation, (c) environmental protection laws, (d) foreign trade regulations.
3) Economic factors: (a) inflation, (b) employment, (c) disposable income, (d) business cycles, (e) interest rates, (f) GNP growth rates, (g) exchange rates, (h) energy and basic raw materials prices.
4) Social and cultural factors: (a) population demographics, (b) income distribution, (c) levels of education, (d) lifestyle changes, (e) attitudes to work and leisure, (f) consumerism, (g) social mobility.
5) Technological factors: (a) new discoveries/developments in our own or related (e.g., supplier) industry, (b) speed of technology transfer (diffusion), (c) government spending on research, (d) rates of obsolescence.

Business Process Analysis

The business process analysis provides the auditor with an in-depth understanding of the client's key business processes. A business process is a structured set of activities, which produces a specific output and creates value for the organization. For example, a retail client's key business processes might include brand and image delivery, product and service delivery, customer service delivery, and customer sales. In turn, each process will have several sub-processes, such as customer service policies, store staffing, operational standards, customer loyalty, and after-sales service within the customer service delivery process. It is important for the

auditor to gain a basic understanding of each of the client's processes and sub-processes, but special attention is devoted to the analysis of key processes.

The auditor chooses key processes by subjectively weighing at least three factors: (1) the strategic relevance of the process, that is, how vital the process is to achieving a client's strategic objectives, (2) the process's inherent business risk, that is, how likely it is that a business risk will occur in the process, ignoring the effects of related controls, and (3) the strength of the client's control environment, that is, management's attitude, awareness, and commitment toward the importance of controls. Once chosen, the auditor studies each key process to gain an understanding of significant process objectives and related business risks, the controls in place to mitigate these risks, and the financial statement implications of these risks and controls. To assist with the generation of financial-statement expectations, the auditor identifies classes of transactions within each process that pose differential misstatement risks (e.g., routine versus non-routine transactions and accounting estimates) and relates these risks to specific account balances. Upon completion of the business process analysis, the auditor has an updated understanding of (1) how the client creates value, (2) whether the client has effectively aligned the process activities with the business strategy, (3) the significant process risks that threaten the achievement of the business objectives, (4) how effective the processes are at controlling the significant strategic and process risks, and (5) the financial statement implications of process activities and their related risks and controls (Bell et al. 1997). This detailed knowledge of the client's business allows the auditor to develop expectations about its operating results and financial condition.

Ballou et al. (2004) present experimental evidence of how the strategic positioning aspect of the auditor's business process analysis can hinder audit effectiveness. They examine the effects of changes in the strategic positioning of one critical client business process on the auditor's evaluation of another (unrelated) critical business process. Based on prior findings in the cognitive psychology and auditing literatures, the authors predicted that auditors would unduly weight (ignore) problems in one critical business process when the strategic positioning of an unrelated process trailed (matched) industry norms. Consistent with these predictions, the strategic positioning of a grocery retailer's brand-and-image-delivery process negatively affected auditors' evaluations of evidence regarding the logistics-and-distribution process.

Risk Assessment

The next SSA phase is risk assessment, which is actually more of a continuous process than a static one, in contrast to risk assessment in a TBA where inherent risk, control risk, and detection risk are assessed in the planning phase and then left unchanged for the remainder of the audit (unless information arises that causes the auditor to revise them). SSA risk assessment is an iterative process of

considering and reconsidering strategic risks, business risks, and process risks and relating these risks to overall audit risk. The SSA auditor uses the knowledge gained from the strategic analysis and the business process analysis, combined with an appraisal of the reasonableness of management's perception of and assumptions underlying its assessments of the potential impacts of the risks, to judge whether management has considered all significant business risks and how it has dealt with them. This latter analysis includes gaining an understanding of the management controls in place to reduce these risks and also testing the effectiveness of the controls. The auditor then groups any residual strategic and process risks (i.e., risks that management controls has not reduced to a sufficiently low level) based on the financial-statement assertions to which they relate and generates expectations of how the risks might be manifested in the financial statements. This integrated knowledge of residual risks and financial-statement expectations provides a basis for assessing the validity of the client's financial-statement assertions. Just as in a TBA, the results of this assessment determine the need for additional audit evidence to support an opinion on the validity of the assertions.

Kotchetova (2002) supplies evidence concerning the potential effectiveness of strategic analysis in assisting with risk assessment and audit planning. She proposes that compared to the traditional understanding of the client's business strategic analysis will improve an auditor's ability to identify various types of client risks, thus ultimately leading to better audit planning decisions. She provided participants with varying levels of strategic information (from none to a combination of strategy content and strategy processes) regarding a client and then asked them to make risk judgments and substantive planning decisions. In some cases strategic analysis led to better risk judgments, but in others a basic understanding of the client's business led to judgments that were just as accurate as those made using extensive strategic information. Moreover, participants with just the basic client understanding made better substantive planning decisions than those with extensive strategic information.

In a related series of studies, O'Donnell and some colleagues (O'Donnell 2003; O'Donnell and Schultz 2003; Kopp and O'Donnell 2005) investigated how differences between the SSA and TBA approaches affected risk assessments in various contexts. O'Donnell (2003) provided undergraduate accounting students with computer-system control information organized with either a process focus, as in an SSA audit, or with a control-objective focus, as would be typical in a TBA audit. The participants in the process-focus condition found the task less complex than those in the objective-focus condition, and also displayed higher primacy bias and poorer recall performance. O'Donnell attributed these results to the fact that the process-focus condition provided the participants with the control information in a way that increased the clarity of the information

compared to the way it was presented in the objective-focus condition, thus resulting in decreased task complexity. The enhanced clarity in the process-focus condition also required less effortful encoding of the information, thus explaining the higher primacy bias and lower recall performance among the process-focus participants. O'Donnell concluded that differences between these SSA and TBA approaches to organizing information have differing effects on auditors' cognition during the acquisition of client knowledge, and suggested that future research should examine these differences among experienced auditors.

Kopp and O'Donnell (2005) examined whether organizing internal control information using a business-process focus instead of a control-objective focus resulted in better category knowledge and improved internal-control evaluation. Eighty two undergraduate accounting students with no previous internal-control knowledge were trained to evaluate internal controls using either a process focus or a control-objective focus. They were then given a case and were asked to identify as many control strengths and weaknesses as they could. Finally, they were asked to sort 20 controls into four unlabeled categories. Results showed that category knowledge was significantly greater for participants in the process-focus condition and that these participants identified significantly more control issues than those in the objective-focus condition. Additional analysis showed that the process-focused task structure improved issue identification beyond the benefits provided by stronger category knowledge.

Another study used a laboratory experiment to examine whether nationality influences auditor judgment about how the likelihood of misstatement should be attributed to individual financial statement accounts. The study examined patterns of misstatement risk assessments developed by auditors from the United Kingdom (UK), France (FR), and the United Stated (US) because research suggests that differences in cultural and environmental factors may cause people in these countries to make accounting-related decisions differently. Auditors who worked for the same firm but were domiciled in different countries performed analytical procedures to assess misstatement risk for two consecutive years for the same client. Case materials described conditions that increased risk for the second year. While assessments of overall misstatement risk did not differ across the three countries, attributions of risk to individual accounts differed depending on auditor nationality (O'Donnell & Prather-Kinsey, 2010).

Business Measurement

The fourth SSA phase is business measurement, which integrates the preceding strategic, process, and residual risk analyses to develop expectations about the contents of the financial statements. The overriding goal of this phase is to carefully consider whether these expectations are consistent with the operations and financial position portrayed in the client's financial statements. To achieve this goal, the auditor performs

several procedures, including (1) a review and evaluation of significant accounting policies, particularly revenue recognition policies, (2) a comparison of the client's performance with its industry peers, primarily using ratio analysis, (3) an analysis of the client's earnings quality, (4) an integrated analysis of linkages among financial and nonfinancial performance measures, and (5) an assessment of the fairness of the financial statement presentation and disclosure. The very rich client knowledge base gained from the SSA approach increases the effectiveness of these procedures; in particular the auditor should be in a very strong position to evaluate non-routine accounting transactions, accounting estimates, measurement uncertainty disclosures, and going concern issues (Salterio and Weirich, 2002). At the conclusion of the audit, the SSA auditor will have constructed a fully integrated client business model, containing all of the information collected and assimilated through the application of the four principles described above and through his mental or more formal business simulation processes (Bell et al. 1997). This completed model is the basis for the final review of the adjusted financial statements and the final assessment of the client's ability to continue as a going concern.

Table 1- Comparison of Transaction-based and Strategic-Systems Audit Approaches

Transaction-based Approach	Strategic-Systems Approach
Transaction Orientation Based on the notion that the whole can be discerned by examining the parts	Holistic Orientation Based on the belief that the broader context infuses meaning into the parts
Focus on the Information Process Through an understanding of the interrelationships among reported information, one is able to develop a sound expectation model about performance	Focus on the Business Processes Presumes the objectives of the business strategy are delivered through key processes; therefore a sound expectation model must be based on a review of strategy and process indicators
Expert Knowledge of Accounting and Auditing Relies on in-depth understanding of auditing procedures and accounting rules predominantly to enable the attester to verify consistencies and detect anomalies	Expert Knowledge of Business Considers a broader understanding of the entity and its environment to contribute significantly to the attester's ability to verify consistencies and detect anomalies
Discrete Systems Comprehends systems as disconnected from one another, generating unrelated transactions that can be reviewed by individuals working independently	Networked Understands the organization as a dynamic network whose systems cannot be examined in isolation
Audit Risk Based on belief that opinions about financial statements can be issued independently from a commentary on the client business risk	Business Risk Considers the financial-statement opinion to be inextricably connected to a broader assessment of client business risk

Adapted from Bell et al. (1997, p. 72).

Contrasts between the TBA and SSA Approaches

There are at least two significant differences between an SSA and the traditional TBA (see Table 1 for a summary of major differences between the two approaches).

First, the SSA auditor gathers knowledge of the client's business and logically arranges it into a client business model that highlights the interlinked activities carried out within the client, the external forces that bear upon the entity, and the business relationships with external organizations (Bell et al. 1997). Moreover, this enhanced knowledge base constitutes part of a chain of substantive audit evidence that can be relied upon in forming an audit opinion, unlike the client knowledge gathered in a TBA, which serves mainly to inform the planning, testing, and completion procedures of the audit.

Second, and most important, the SSA approach has a top-down, holistic, business risk orientation. It guides the focus, breadth, and depth of the auditor's knowledge acquisition and the integration of business knowledge into expectations about financial statement assertions. It focuses the auditor's assessment of risk through a broad strategic systems lens, which directs the auditor's attention to the client's systems dynamics (Bell et al. 1997). In contrast, the TBA is a bottom-up, disaggregated, audit risk-based approach that focuses the auditor's assessment of risk through a finer accounting lens, which directs her attention, and her related assessment and testing activities, to the nature of account balances, classes of transactions, and properties of the client's accounting system for the purpose of assessing the risk that financial-statement assertions are materially misstated (Bell et al. 1997). The SSA auditor, however, does not initially focus on transactions and balances, which he views as the end product of the client's business strategy and the processes used to affect this strategy. Instead, only after gathering and organizing knowledge of the client's strategy and core processes does he focuses on accounting transactions and related balances (Salterio and Weirich 2002). Throughout their monograph, Bell et al. argue that the use of a top-down, aggregative, strategic systems lens increases the likelihood that the auditor will have obtained a sufficient understanding of the client's business and industry, thereby reducing the risk that audit procedures applied to specific high-risk transactions will be prematurely truncated. They conclude their monograph with this claim (Bell et al. 1997), the [transaction-based] approach assumes that accounting and auditing knowledge lays the primary role in forming audit judgments, and implicitly deemphasizes the role of knowledge about the business. The risk-based strategic systems approach reflects the systems-thinking view that to audit assertions effectively, the auditor must comprehend the client’s whole business environment and interpret the role of significant transactions from this business knowledge frame the broader context infuses meaning into the parts.

Audit standards direct auditors to consider business risk and other risk factors when they evaluate the overall risk of material misstatement during the planning phase of an audit. Large audit firms generally use either a strategic-systems approach or a transaction-focused approach to evaluate misstatement risk. Another study had used data from a laboratory experiment to examine whether (1) being trained to use either or transaction-focused approach and (2) analyzing information organized in a strategic-systems approach or transaction-focused approach format influence the extent to which auditors integrate knowledge of business risk into their judgment about the likelihood of financial misstatement. Only auditors trained to use strategic-systems approach who analyzed information provided in a strategic-systems approach format effectively integrated business risk assessments with their assessment of the risk of material misstatement (Schultz, Bierstaker, & O'Donnell, 2010).

Environment

The auditing environment can be characterized as a complex sequence of judgments leading to the formation of an audit opinion, which are made by individuals working in hierarchical audit teams whose decision choices are guided or constrained by professional standards, firm policies and procedures (i.e., audit methodology), and decision support systems (Libby and Luft 1993). In the context of the present study, the pertinent environmental factor is audit methodology (i.e., SSA or TBA), which is posited to affect the type and quantity of evidence gathered, the procedures and tools used to analyze the evidence, and the information outputs used to form an audit opinion. Overall elements of the audit environment affect auditor judgment by interacting with experience, knowledge, or ability or by altering the motivation of the auditor(s) performing the judgment task (Libby and Luft 1993).

Knowledge

Libby (1995) defines knowledge as information stored in memory, with knowledge including both general domain knowledge (e.g., how to apply the audit risk model) and subspecialty knowledge (e.g., software revenue recognition principles). In an audit context, knowledge of the client's business is essential, and here, too, we may expect differences between methodologies. As noted above, the SSA relies on an in-depth understanding of the client's business in forming expectations about the client's financial statements. This understanding comprises knowledge of the client's business strategies, the processes that implement and monitor the strategies, the risks associated with these strategies and processes, and management's controls over these risks. In principle, the TBA auditor could (and may) also collect and analyze these types of client knowledge. In practice TBA auditors often do not collect the quantity or array of knowledge gathered by SSA auditors. The auditor's view of the client context in which this knowledge is

considered also varies between approaches.

The SSA auditor views the client organization as being the core of a broad, complex economic web which comprises many interrelationships and interactions among such entities as suppliers, customers, capital markets, and many others (Bell et al. 1997). The SSA auditor develops knowledge about, and evidence in support of, the nature and strengths of these interrelationships, the rapidity and magnitude of changes in connectivity, and the viability of the client's strategy (Bell et al. 1997). In contrast, the TBA auditor generally attends to only a subset of these interrelationships, and usually applies a more-piecemeal approach to their analysis. For instance, she may address the client-customer relationship by confirming accounts receivable, or examine interactions with related parties by reviewing and testing the transactions with these entities. In the end, methodology differences potentially result in an SSA auditor having a richly detailed, tightly interconnected body of knowledge about the client, whereas the TBA auditor may have a more impoverished model of client knowledge.

3- Hypotheses

Research hypotheses that represent the relationship between audit methodology and knowledge, including the following assumptions:

H1: auditors that used the SSA approach, having better knowledge from the client's business than the TBA approach.

4- Research Methodology

The research method is survey-investigation. For gathering data used the questionnaire, questionnaire is one of the most important tools to gather the data.

The questionnaire was anonymous and distributed between auditors (with different positions) those were working in the Auditing Organization in Iran, the questionnaire included four major sections as follows:

1) Knowledge of new client's business: This section of the questionnaire, the auditor should study 60 cases of information about new client's business (the information was taken from VCC[1] book (Wright & Gordon, 2001)).
2) Questions in the field of accounting knowledge: In this part of questionnaire, auditor should be answered general questions about accounting knowledge.
3) Recall from memory the pieces of information presented in first section: In this section, according to the information received in first section, auditor should recall from memory as many of the items as possible after performing a short distracter task to clear their short-term memory.
4) Audit methods were used by auditors and audit position: In this part, the questionnaire must be determined whether the auditor uses strategic analysis, key processes analysis and analyze performance indicators or not? If the answer to this question is

[1] Virtual Control Corporation

positive, audit method is the SS Approach, otherwise audit method is the TBA approach. Besides, in this section asked about position of auditors (i.e., senior manager, manager, supervisor, senior auditor or auditor).

The study sample selection (auditors) had been done randomly and questionnaire was distributed between auditors (with different positions).

The data were entered into the Excel software and statistical tests with SPSS software were performed. The data analyzed with F and t-student test to test the research hypothes. Normal data test were used with Kolmogorov-Smirnov test.

In examining this research is used of content validity. The content validity is the questionnaire assess of attribute. After designing the questionnaire, and to ensurefurtherre-structured questionnaire and analyzed in terms of content validity and the necessary reforms, the population was distributed as an example.

Cornbrash's alpha for reliability of the questionnaire is used. This index is calculated using equation (1) is possible. If the index is closer to one this means there are a higher internal or relation and questions will be more homogeneous. Obviously, the low alpha values hould be reviewed to eliminate which question that it will increase the amount:

$$\alpha = \frac{k}{k-1}\left[1 - \frac{\sum_{i=1}^{k} s_i^2}{\delta^2}\right] \quad (1)$$

K: Number of questions
S_i: Standard deviation score of i-th questions
$\sum$: Standard deviation score of all questions

Whatever alpha value is closer to one, indicating a high reliability rate. According to

The output of SPSS software, alpha levels derived for the questionnaire, 0.91 has been obtained, since alpha levels is more than 0/7 or 70% , so the validity of the questionnaire was high.

Sample

The research examines the effect of auditing methods to improve auditors' knowledge of client's business; therefore, statistical population will be limited to Auditing Organization in Iran. According to the information received from the Auditing Organization in Iran, classified the auditstaff in Auditing Organization as follows:

16 senior managers, 65 managers, 365 supervisors, 328 senior auditors and 726 auditors, in total 1500 people are. To determine the sample size, used Cochran formula as follows (2): In this regard, the following values were substituted in the above relationship=1500, Z α/2=1/96, P=0/5, δ =0/1

$$n = \frac{N \times (Z_{\alpha/2})^2 \times p\,(1-p)}{(N-1) \times (\delta)^2 + (Z_{\alpha/2})^2 \times p\,(1-p)} - \frac{1500 \times (1/96)^2 \times 0/5\,(1-0/5)}{(1500-1) \times (0/1)^2 + (1/96)^2 \times 0/5(1-0/5)} \quad (2)$$

Therefore, the amount of samples obtained equal to 90/317, which can be fully estimated 90 at SE 0/1 considered, the samples description are as follows:

10 managers, 12 supervisors, 18 senior auditors and 50 auditors, in total 90 people are. According to the results of questionnaires distributed, audit method of 36 cases is accordance with the SSA approach and the others (54 cases) is consistent with the TBA approach (Table 2).

Table 2-SamplesDescription

Position	Audit Method	N	Percent
Auditor	TBA	37	56%
	SSA	13	
senior	TBA	8	20%
Auditor	SSA	10	
supervisor	TBA	5	13%
	SSA	7	
manager	TBA	4	11%
	SSA	6	
Total		**90**	**100%**

Source: Researcher Findings

Independent Variable

One feature that has chosen from social or physical environment, involved or manipulated by the researcher, and impacted on all other variables, are independent variables. Therefore in this research, auditing method is considered as independent variable.

Dependent Variable

One feature that is appeared and changed by entering the unique characteristics, the elimination or change of independent variable, is the dependent variable. Therefore, in this research auditing knowledge of the client's business is considered as dependent variable.

5- Results

First Hypothesis

This hypothesis represents the fundamental question whether auditors that used the SSA approach, having better knowledge from the client's business than the TBA approach? For testing this hypothesis, normality test of data should be performed.

Normality of data is important for variables in the statistical methods to classify, so under the normality of data are used parametric tests; otherwise nonparametric tests are used for analysis. Moreover, Kolmogorov-Smirnov test for normality of variables is investigated.

H_0: Data for the dependent variable follows the normal distribution.

H_1: Data for the dependent variable does not follow the normal distribution.

Table 3- Kolmogorov-Smirnov Test for Development of Knowledge

Variable	N	Mean	Std. Dev.	Positive Differences	Negative Differences	Kolmogorov-Smirnov Z	Sig.
Development of Knowledge	90	18/50	9/337	0/125	-0/087	1/187	0/120

Source: Research Findings

Significant level of value for the dependent variable, i.e. higher thanaveragetotal0/05 is (according to Table 3, the amount is 0/12) assume zero, in 95 percent confidence level is not rejected, then the data distribution is normal for this variable.

However according to the normal data, at this stage, for comparing two independent groups (such as comparing development of knowledge for SSA and TBA approach) should be used by t-test. In this test, the mean value for the two groups should be compared, of course, before comparing the two groups is needed consistency of variance to be considered. The output of SPSS software, first consistency test variance with Levine's test was done. Then, under the consistency of variance and variance under the dissonance value t-test is calculated.

H_0: $\mu_1 = \mu_2$: Mean development of knowledge for two approaches do not have significant differences

H_1: $\mu_1 \neq \mu_2$: Mean development of knowledge for two approaches have significant differences.

As was expressed, before comparing the two groups, consistency test of variance should be done.

H_0: $\sigma_1^2 = \sigma_2^2$: Variance for SSA and TBA approaches are the same.

H_1: $\sigma_1^2 \neq \sigma_2^2$: Variance for SSA and TBA approaches are not the same.

Significant level for consistency of variance test equal to 0/021 (Table 4), then the amount is less than 0/05, so hypothesis zero (i.e., variance in the consistency of the two audit approach) was rejected, then variance under the dissonance value of t-test is considered.

Test statistic value for mean development of knowledge equal to -7/57, which is placed in rejection area of hypothesis zero, so there is a significant difference between two groups.

The average amount of development of knowledge for TBA approach is equal to 13/65 and for SSA approach is equal to 25/78, so the value of knowledge development of for TBA approach is less than SSA approach, so the first hypothesis is confirmed (Table 4).

Table 4- t-Test for Independent Samples to Compare Two Types of Auditing Methods for Development of Knowledge

Variable	Audit Method	N	Mean	Std. Dev.	Equal Variances Assumed	F	Sig.	t	df	Sig.
Development of Knowledge	TBA	54	13/65	6/74	Equal	5/45	0/021	-7/81	88	0/000
	SSA	36	25/78	7/89	not equal			-7/57	67	0/000

Source: Research Findings

6- Conclusions and Discussions

According to the research results, auditors that used strategies systems audit (SSA) approach, having better knowledge of the client's business than the traditional based audit (TBA) approach. The results were suggested various institutions and Auditing Organization in Iran, used the strategic analysis of client's business, analysis of key business processes and analyze key performance indicators could have led to better knowledge of the client's business than traditional based audit (TBA) approach.

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