

Article

The Effect of Apparent and Intellectual Sustainability Independence on the Credibility Gap of the Accounting Information

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Abstract: This study aims to recognize the sustainability independence of the Jordanian Association of Certified Public Accountants (JACPA/JCPA) and its impact on the credibility gap of the accounting information of companies operating in Jordan. This study demonstrates the effects of the apparent and intellectual sustainability independence on the credibility gap of accounting information. A total of 93 online questionnaires were analyzed using multiple regressions. The results revealed an impact of the apparent independence of the JCPA on the quality of the information credibility gap related to service fees, and no statistically significant impact for both consulting and accounting service fees was found. This study also concludes research regarding the impact of intellectual independence of the JCPA on the information credibility gap regarding the code of professional ethics and the commitment of auditing offices to their customers.



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1. Introduction

After the 2008 global financial crisis exerted its influence on the world over a decade ago, and due to corporate governance mechanisms and institutional sustainability emergence, the stakeholders of financial information began to be considered informational sources for internal and external decision making [1]. An organization's decision-making development and the support of top administration levels are now more amendable to innovative information, thus allowing for the easy implementation of any required changes [2,3]. Through financial data, venture entrepreneurs need to observe data disclosed in the wake of the reduction in costs incurred to observe management and pursue its goals [4,5]. The financial crisis increased the amount of financial delinquencies [6,7], leading to an upsurge in risk audits and cautious measures engaged in during these predicaments [8] by considering the profession's inherent sustainability.

Corporate scandals have led to an increase in auditing efforts and their costs [9,10], in addition to opportunistic behavior by individuals wishing to broaden the revenue base of the auditing profession [11]. Audits can not only result in the revealing of fraud but also prevent it [12]. In this regard, audit regulators around the world are facing pressures to provide a higher level of disclosure in their legislative audit reports [13]. However, many questions therefore arise, and professional uncertainty is an essential requirement for auditors to ensure ethical and high-quality audits, and to enable the ability to provide suitable financial reports [14].

The profession of auditing is driven by the need to verify and validate the accounting data that contribute directly to decision making. It is well-known that the profession

of auditing should aim for the guarantee of quality information being released to the public [15]. Accordingly, professionals in this area must perform legal duties, including implementing international standards and revealing the fundamental errors that affect the quality of information submitted to economic decision makers [16]. It is thus essential to scrutinize the means by which external auditors increase their awareness to ensure the independence of auditors [17].

Sustainability has been defined in different ways; based on the point of view of researchers, sustainable reporting promotes accountability and transparency recognized by developed and developing economies [18]. Sustainability reporting has many advantages in terms of long-term competitiveness and improves employee motivation [19]. New sustainability accounting necessities can incorporate areas of high risk and uncertainty, which demand professional judgement [20]. However, audit efficiency is not easy to compute, as it often proves to be elusive to auditors, and sustainable dysfunctional behaviors in the audit profession can influence audit eminence [21]. Understanding the insentient prejudices ensuing “negotiation rules” is crucial for auditors to successfully translate audit quality into enhanced financial statements [22,23]. The independence sustainability of a certified public accountant (CPA) is one of the most important issues for an auditor and other users of financial data. Their report serves as neutral evidence of the operations inside a department, including—briefly and concisely—what they implemented to prepare financial reports that are free of fundamental errors. It is worth mentioning that an auditor’s requirements, serving to help an auditor to act upon professional ethics and to consider the public’s awareness, are based on various auditing concepts [24].

Although ongoing debate on an auditors’ independence is developing, key factors that encompass the debate vary from one study to the next as cultural differences prevail, affecting the role of external auditors and their behavior [25]. Dysfunctional auditors’ behavior has an impact on audit quality and restoring public trust in the audit profession due to a credibility gap based on various organizational values [26]. In [27], it is claimed that when audits are culturally close to their clients, higher audit quality is the result. Other authors [28] have recommended the researchers focus on the need to strengthen an auditor’s independence by neutralizing the controls of the disputing parties and reducing the personal relations between the auditor and the client, thereby enhancing the role of the JACPA and urging auditors to comply with international auditing standards, the code of professional conduct, and Jordanian legislation. Therefore, and based on the difference of Jordanian culture and norms specifically compared to those of many other countries, this study aims to recognize and focus on criteria that may help to develop a sustainable audit profession in Jordan. This study is interested in the attempt to narrow the information credibility gap, while at the same time focusing on providing more reliable financial reports to any external user based on International Financial Reporting Standards.

Certain previous literature sources and theories have led to conclusions supporting the idea of the effect and influence of behaviors on auditors’ independence [14,15,29], while others have focused on auditors’ independence and the credibility gap of information expected from the auditor [28,30]. Therefore, this study makes a connection between both theories, adding that behavior is also divided in its being apparent and intellectual, which may have an influence on the credibility gap of information expected from Jordanian certified public accountants (JCPAs). Based on the previous argument, this study addresses the following research questions that still require elucidation in relation to the effect of auditors’ sustainable independence and the credibility gap of information in Jordan:

1. Does the auditor’s apparent independence effect the credibility gap of information?
2. Does the auditor’s intellectual independence affect the credibility gap of information?

The importance of studying the independence sustainability of Jordanian certified public accountant (JCPA) arises. The value of this study comes from the investigated subject, concerning the influence of the independence sustainability of CPAs on the information credibility gap based on the needs of the Jordanian culture to the users of financial data as well as attaining a high degree of confidence and credibility. The JCPA is required to submit

a report characterized by justice according to international standards and the publicly accepted accounting principles. To the best of the authors' knowledge, this is the first study that examines and tests the effect of auditors' sustainable independence in Jordan based on apparent and intellectual behaviors through developing previous literature and theories based on different audit independence factors.

This study contributes to the literature in numerous manners, as it provides new evidence on the relationship between auditors' sustainable independence and credibility gap. The findings are expected to have potential effects on the client audit relationship in Jordan in terms of focusing on the strengths that support the sustainability of both parties. Since this is the first study in this domain to test the effect of both apparent and intellectual sustainable independence in relation to the credibility gap, it examines and determines such effects on the accounting information based on the needs of Jordanian society and the users of financial data to obtain a high degree of confidence and credibility and respond to the above calls as well as keep a respectable analogous sustainable relationship between the organizations and the audit companies.

2. Literature Review and Hypotheses Development

In the developments which accompanied the industrial revolution and the increasing concern in auditing, the sustainability of accounting and auditing the profession started to emerge in order to encounter market requirements [31]. This led to the rise of a new party, which is characterized by highly technical expertise that is delegated to judge financial reports to designate a professional behavior [32]. Thus, the operation of developing legislations started to accelerate. It was permitted for non-contributing individuals to start working in auditing, introducing the concept of auditing companies, based on certified profession sustainability.

However, this study does not follow the typical design. The first part of this study deliberates the credibility gap of the information based on its importance. The next part is related to the independent sustainability variables in relation to apparent and intellectual independence. The following part is related to the analysis of the respondents. The last section determines the arguing part in relation to other studies and how organizations, either professional or not, may benefit from the conclusions and try to focus on the weaknesses that may cause any illusion.

Ensuring a new scholar in the structural model, we present the literature theory gap and its relation in building a new expanded model. It is assumed that this study may convince professionals and their organizations by taking into consideration new variables that might have been taken for granted previously in more detail and not in their general meaning.

2.1. Credibility Gap of Information

Credibility is the ability to approve financial and accounting information by beneficiary parties with the minimum degree of doubt. Credibility can be achieved when some qualifications are provided, whereby these qualifications are based on the neutrality, verifiability, and genuinely presented information and data. In Ref. [33], it was mentioned that most of the public illegal and immoral suits in contradiction of auditors failed to comprehend fair financial reports, and therefore, failed to convey a proper audit report. Such issues will increase the guiltiness and negligence of such frauds, known as the credibility gap [30].

The information provided must be free from bias and significant errors based on "The International Accounting Standards issued by International Accounting Standards Committee" [34] (p. 48), where good information is defined to be the information that is most useful in the area of justifying decisions [15]. A few characteristics have a great benefit for those responsible for financial reports and assessing information quality, which is the result of implementing alternative accounting methods and ways [35]. As claimed in [36], the credibility of information gap is the difference in the range of obligations and

responsibilities of the auditors, and the variance in the ability to understand the content of the auditing reports between the auditor and the society.

Any information is significant if deleting, concealing, or submitting incorrectly leads to breaching two characteristics of appropriateness and honesty of the information included in the data disclosed. This negatively affects decisions taken based on it and leads to increasing the credibility gap. Verifying this characteristic requires orienting the interest towards users of financial data through identifying the information they need. High levels of errors and bias are highly related to the willingness to allow misstatements in the first place by management [37].

Ethical morals in any profession are crucial and a way to decrease the information credibility gap. Ethical standards in the accounting profession are unified into codes of ethics of numerous professional accounting institutions [38]. Auditors will be impartial and objective to be able to make ethically difficult decisions between the true or false through practicing the code of professional ethics and the sustainability behavior of the profession on different cases. It is also related to the ability of weighing issues without any bias in the viewpoints of all parties affected by decisions.

2.2. Auditors' Sustainable Independence

A sustainable profession of an independent auditor based on the authors' point of view should be based on two types of independence. First, apparent independence means having professional rules and conventions that guarantee that the auditor is not being controlled by the institution's management and is thus not having any association of any interest with the institution's management. Second, intellectual independence is considered an intellectual matter apart from the auditor's character and thinking [39]. Sustainable independence of the auditor will not be considered an intellectual matter judged by the auditor; rather, it is considered as a matter judged by specific rules and standards. Overall, "intellectual independence is related to the auditor's character, independence, and honesty" [40] (p. 15).

Both personal and organizational values influence business performance, business satisfaction, and moral conduct, as right personal values lead to fulfilling the accounting profession levels [38]. The auditor will be committed to the international standards of financial disclosure and the ethics of the profession [41]. Thus, the independence sustainability of the CPA must be an aspect and a principle for all workers in the field. Based on Ref. [42], it is stated that the ethical environment and penalties enforce ethical norms in a negative manner in association with reduced audit quality acts; however, the compliance to authorities is positively interrelated.

Furthermore, independence sustainability of the CPAs is important because they have the ability to decide to what extent the organization is successful. Thus, the relation between the auditors and owners of the audited organizations represents the base of the auditing profession [43,44], thereby increasing the significance of the CPA's independence sustainability. In Ref. [45], auditors' professional interpreting and findings are the greatest influence of confirming independence sustainability. When the auditor's independence is doubted, the trust in financial lists becomes fragile and the potential of relying on it to make decisions becomes weak [46]. The independence sustainability enables the CPA to conduct their work perfectly and express their opinion without being afraid. One of the most reliable methods is the external auditing procedures that include an accurate checking of the financial data as "Independence is considered the corner stone of trusting the CPA in order to support the economic situation" [43] (p. 36).

2.2.1. Apparent Independence Consulting Services

One of the most important practical problems related to independence sustainability is when the external auditors are undertaking consulting services at the same company they are auditing. Performing these consulting and managerial services makes others doubt the auditor's neutrality. Some believe that as long as the auditors limit their services to an

advisory capacity and do not contribute to decision making, then their independence will not be affected [47].

Accordingly, this study proposes the following hypothesis:

H1. *There is no impact of consulting services on the credibility gap of information.*

Accounting Services

Relationships between companies and audit firms through non-audit services may have an economic advantage, but at the same time, they cause a threat to auditors' sustainable independence. As it may affect the accrual's quality, a signal of an independent audit and sustainability dysfunctional behavior issue, such as providing tax services, may augment the audit efficiency, thus affecting the quality of the reported statements positively. However, joining between tax and audit partners possibly will diminish auditor data irregularity [48]. In Ref. [49], it was indicated that audit financial accounting proficiency is negatively related to cosmetic accounting when offering accounting services, particularly when a company acquires higher audit fees.

If audit firms record financial operations in the client's daily journals, move monthly totals to the general ledger, and carry out adjusting entries and revising entries, if necessary, a question will arise about whether the accounting department is unbiased regarding the whole accounting process in order to ensure a higher level of governance in relation to non-audit amenities [48]. The American Institute of Certified Public Accountants (AICPA) relies on a comparison between the impact of neutrality when revising and bookkeeping by the accounting department and the additional cost to perform the operation of revising and bookkeeping for the same client by another department [4].

In Ref. [50], a negative association was found between non-audit services and the level of covenants related to reporting concerns, which may cause a reduction in the auditors' sustainability independence. It is believed that audit committees are not strong enough in executing operational observing due to insufficient awareness and knowledge [51]. This suggests that an independent audit committee is a successful governance mechanism that can improve the firm's financial reporting quality in relation to corporate governance.

Audit efficiency and effectiveness may be eased when there is a moral working association between the internal audits and other parts of the organization through increasing the auditor's approachability to evidence and the businesses' morality infrastructures [52], in addition to appliance of the corporate governance, which are all expected to increase auditors' independence [53]. In this area, the professional ethics committee, an AICPA-related organization, suggests that offering these services does not theoretically affect the auditor's independence in relation to any sustainability dysfunctional behavior as long as they do not make managerial decisions and do not lose the objective judgments towards financial data and information [47]. The hypothesis based on previous theories and studies is stated as:

H2. *There is no impact of accounting services on the credibility gap of information.*

Services Fees

Fees of a CPA are those fees or wages which auditors earn for auditing the accounts of a department. Those fees are selected in accordance with the contract signed between the department (examining place) and the CPA according to the time taken in auditing, the required service, and the need for auditing of assistants. Studies conducted by [54] and [55] examined the role of the audit fees, proving that the amounts paid affect the audit quality and efficiency. The presence of high audit fees may lead to the fact that auditors are financially dependent on their clients and, therefore, many question auditors' independence [56] deficiency and sustainability. It is suggested that auditors accepting high-responsibility charges resolve audits of no higher quality, perhaps of even lower quality [57]. In another study, Ref. [58] concluded that audit fees and auditor-client connection are allied mainly with financial success commitments. However, relationships due to certain non-

audit fees should not affect their ability to deter company management pressures whenever the auditors' contract is longer.

Fees should be fair and compatible with the effort that will be put in. Including office reputation, professional experience, as well as the degree of pressure expected to be exposed [59] has important potential influences on audit quality [55]. Many questions can raise doubts about the independence sustainability of the CPA, such as: Are the fees which the CPA earn considered high or low? Who appoints them? Were these fees conditionally remunerated for obtaining data and information based on a sustainable dysfunctional behavior? Thus, these questions build an apparent threat that affect the independence of the accountant. Consequently, based on the previous studies, the following hypothesis is derived:

H3. *There is no impact of service fees on the credibility gap of information.*

2.2.2. The Intellectual Independence

Code of Professional Ethics

In every society, legislation is considered a fundamental component as it forms boundaries that prevent members of this society from violating them. Since the auditing profession is a societal profession, it is affected by society's willingness to practice such criteria unless these criteria are characterized by weakness in some situations. At the same time, having rules does not mean that it is related to justice, because these rules may be characterized by fragility, incomprehensiveness, and contradiction. This forms a fertile environment for violating them and deviating from its aim in the name of commitment to the legal texts and hanging on its legitimacy. Mainly, this is a matter the Jordanian environment suffers from Ref. [60].

The auditor–client relationship may be influenced by materialistic pressures, social commitments, and personal relations. These factors, whether individually or altogether, affect the sustainable independence of the external auditor. For the profession to maintain its role in the society, full independence of the external auditor is sustained by passing numerous phases [61].

The real existence of the profession of auditing depends on the satisfaction of the financial report users with the independence sustainability of auditors in all stages of auditing. It depends on their satisfaction that appears as independent sustainability which strengthens the confidence of the audience in the services being offered. Helping and influencing former colleagues who are sustaining the independence of an auditors' commitment based on professional ethics is very important [17]. Thus, auditors' work must be characterized by justice for all beneficiary different parties and groups [62]. The rule 290 stated that in the case of a certain assurance assignment which lies in the general interest [63] (p. 1144), it is required, in accordance with the rules of sustainable ethical behavior, for members of the assurance teams and companies to be in an independent group for its clients. Assurance is designed to strengthen the degree of the users' trust in the result of information and credibility gap assessment or measuring a certain subject according to certain criteria of independence requirements [62]. Consequently, this study tests the following hypothesis:

H4. *There is no impact of code of professional ethics on the credibility gap of information.*

Commitment toward Clients

Rejoining under certain conditions between the auditor and clients may lead to negatively biased evidence, as a proposed income-decreasing adjustment may cause conflict between clients and auditors [64]. In [65] (p. 83), it was suggested to hire the auditors at departments of a period not less than five years, for instance, in order not to be under the threat of not renewing the hiring annually by the management and not to cause a friendly relationship with the management of the department due to the length of time causing the change. Factors can be considered in terms of their influence on the auditor's independence sustainability from the following two perspectives:

First, the quality of auditing requires the auditor to be well-acquainted with the clients' environmental activity and the variables that affect it. In Ref. [66], customers' motivation to influence earning controls is considered, as auditors evaluate lower amounts of data when the client's financial statements are deliberately misstated. It is significant to identify that an essential role between the auditor and the client is honesty and confidence because of their importance to upsurge the quality of the audit profession. All of the client's secrets are open to the auditor, as well as the highest importance of concealing secrets of the department under auditing. Honesty and confidence predicts commitment by the auditor towards the sustainable ethics and professional behavior concluded by giving a neutral opinion and not revealing any information about the department to competitors in the same or other similar sectors. Ref. [59] explained the independence strength of the auditors if they receive such morals and behaviors. Ref. [67] investigated the association between identification-based trust and auditor–client negotiation outcomes, indicating that both auditors and management are less expected to stand up to them when there is a highly competent disagreement. In this regard, the collective moral motivation stage may affect the ethical decisions, values such as authoritative influence, personal eminence, biasness or splendid achievement, and may affect the decision-making process of the clients based on the quality of the disclosed financial data [68,69].

Second, the length of the period of the association with the client may lead to cementing the personal relation between the auditor and the management of department under auditing. This possibly makes the auditor neglect some issues. This often unequally degrades the impartiality of the auditor [61]. The length of the association period with the client puts the auditor in a better situation in terms of their acquaintance with the client's activity and what affects it. Thus, the result is reducing the time of auditing and proficiency of performance, and clients retort in a negatively biased way when the investigation is articulated in a less professional manner [64,69]. As a result, the following hypothesis was proposed:

H5. *There is no impact of commitment toward clients on the credibility gap of information.*

Commitment toward Employees

The first factor affecting the commitment is the number of CPAs employed in the auditing organization. The nature of relationships between small offices and their clients is characterized by the personal and temporary personal relations that play a role in small offices that are larger than the role played by the same factors in the larger ones [70]. It was noted that users of financial lists, particularly investors in the U.S., believe in an increase in the quality of auditing carried out by larger auditing offices compared with other smaller offices. This is because of having continuous training programs in these offices, thus making their employees on a high degree of proficiency [71]. Auditors may benefit from training by using influence strategies to accomplish more appropriate compromised conclusions [72]. In addition, the correlation between the size of the auditing organization and the auditing fees is direct. The fees that the big office earn from any client, with a relative weight in comparison with the totals of its earnings, are small in most of the times, whereby part of it will be distributed to its audit employees.

Added to the above-mentioned factors, the office has motivations to maintain auditors' independence. An ethical work climate is necessary in any business [68] as it affects the nature of decisions made when accepting a certain client [73]. The size of the auditing office which has a big number of auditors hinders the ability of management to control them and gains more freedom when making a certain decision. Qualitative research compromises on analogous prospects by testing the intentions of the employees connected with the audit practice [74]. Therefore, the following hypothesis is verified:

H6. *There is no impact of commitment toward employees on the credibility gap of information.*

In order to enrich the theoretical and literature library and by depending on previous study statements and gaps, the study divides the auditors' sustainable independence into

two variables as either apparent or intellectual behavior, and each main variable is divided into three sub-variables, as stated in Figure 1.

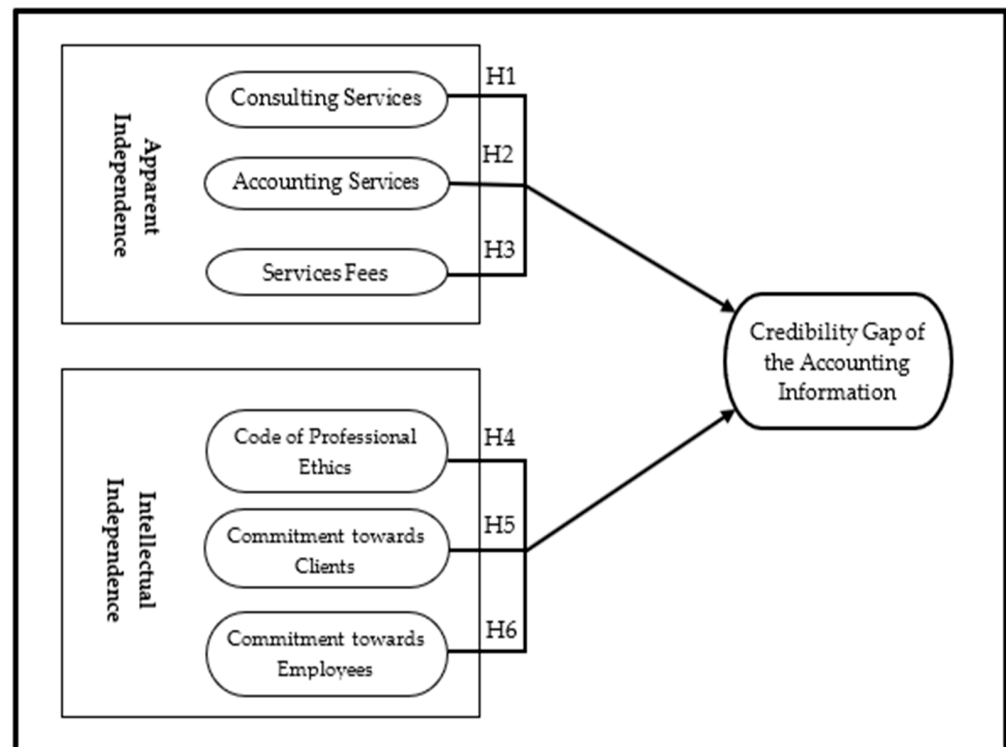


Figure 1. Research Model.

3. Research Methodology

The sample of this study consists of JCPAs in different Jordanian companies, which play a leading role at the administrative and governance level, as the standard of governance is based on limpidity and efficacy in the decision-making process [75]. Audit companies in Jordan were verified, where 121 e-surveys were distributed to JCPAs registered under the Jordanian association of certified public accountants with a total number of 454 auditors working locally, and 112 surveys were returned, considering that only 93 surveys were suitable and appropriate for the statistical analysis. To achieve the study goals and test its hypotheses, primary and secondary resources were used in order to extract recommendations that embody solutions to the problems of the study using both the descriptive and inferential methods through looking at previous literature variables and the extent of providing independence sustainability of JCPAs in Jordan. As Jordan is affected by the social and cultural influences that mold individuals' interests [76], in addition to satisfaction, perceived quality, trust and commitment as precursors of word of mouth based on the Jordanian culture and norms [77] by using an anonymous questionnaire, respondents may be given a higher relief and privacy in answering questions mainly related to their behaviors and attitudes toward their jobs.

3.1. Study Tool, Design and Sections

The survey was used as a tool of the field study. It is built from different perspectives to serve the study depending on theoretical investigation. Its structure includes 59 questions divided into four sections to deal with the hypotheses of the study. The questions are prepared based on the Five-Frequency Likert Scale. Sections of the survey are divided into three sections as follows: The first section (apparent independence) contains three sets of developed structured questions investigating the extent of the effect of apparent independence. These sets of indicators are divided into three sub-variables, which are consulting services (including nine questions), accounting services (including seven questions), and

service fees (including nine questions). The second section (intellectual independence) also contains three sets of developed structured questions investigating the effect of the intellectual independence of the JCPA on the credibility gap of information. These sets of indicators are code of professional ethics (including eight questions), commitment towards the clients (including nine questions), and commitment towards employees (including seven questions).

The third section (credibility gap of information) contains a set of questions related to the independence sustainability of JCPA to measure its impact on the credibility gap of information in accordance with the study of [29], which includes 12 questions. Appendix A comprises the constructed questionnaires, their related measurement items, and descriptive results.

3.2. Statistical Descriptive

Based on the descriptive demographic results indicated in Table 1, although men and women behave in a different way pursuing career advancements, it still seems that this profession is catered to men, as almost 96% of the respondents are men, and females are approximately 4%. In relation to their age, 7.5% were less than 30 years old, but the majority with 36.5% were older than 50 years. In terms of the respondents' educational levels, there were five main types; the majority of respondents had a bachelor's level (47.3%), followed by rates of 17.2%, 16.1%, 12.9% and 6.5% for high diploma, masters, doctorate and diploma, respectively. Based on their work experience, they were assigned into four groups: 47.3% forming the majority were in the work practical field, followed by those who had more than 15 years of experience with a rate of 27.9%, then those who had been working from 5 to 9 years at 19.4%. However, the smallest group was for those working less than 5 years in the profession, with only 5.4%.

Table 1. Descriptive statistics (Demographic Characteristics).

Independent Variable	Type of Independent Variable	Value	Percentage
Gender	Male	89	95.6%
	Female	4	4.4
Age	30 and younger	7	7.5
	31–40	22	23.7
	41–50	30	32.3
	Older than 50	34	36.5
Education	Diploma	6	6.5
	Bachelor's	44	47.3
	High Diploma	16	17.2
	Master's	15	16.1
	Doctorate	12	12.9
Experience	Less than 5 years	5	5.4
	5–9	18	19.4
	10–14	44	47.3
	More than 15	26	27.9

To ensure the stability and the reliability of the data collected in the designed survey through which accepting or rejecting the survey is based on, Cronbach's coefficient (alpha) was used. The value of the alpha coefficient ranged between 0 and 1 and the statistically accepted minimum of the stability coefficient was 60%; the nearest the value comes to 1, the greater the degree of stability and internal consistency of the answers will be. At this point, the credibility of the survey is good, and the results can be generalized. Table 2 shows the results of testing paragraphs of the study's variables separately and the variables as a whole. The results show that the value of Cronbach's alpha for the answers of the sample's individuals on the survey's paragraphs and for each hypothesis in particular was greater than the statistically accepted minimum rate, which is 60%. Furthermore, the value of coefficient for the addition of the survey's total paragraphs was 76.7%. This indicates a

high degree of credibility in the answers and an internal consistency between paragraphs of the survey, where the highest integrity levels are related to information credibility gap paragraphs of an 88.2% rate. This survey is a primary source of data of the field of study. Thus, the results can be generalized for the study's society, which consists of the JCPAs.

Table 2. Cronbach's Alpha.

No.	Constructs	No. of Items	Cronbach Alpha	Results
1	Consulting Services	8	70.1%	Acceptable
2	Accounting Services	7	66.3%	Acceptable
3	Services Fees	9	73.1%	Acceptable
4	Code of Professional Ethics	7	69.5%	Acceptable
5	Commitment towards Clients	9	67.8%	Acceptable
6	Commitment towards Employees	7	82.6%	Acceptable
7	Credibility Gap of the Accounting Information	12	88.2%	Acceptable
Total		59	76.7%	Acceptable

The study depends on the mean for processing data as a measure of the answers of the individuals in the sample. The standard deviation is used to measure and show the dispersion of the answers of the study's sample around the mean for the aim of analyzing the results of the answer, as illustrated in the following paragraphs. The means of each paragraph are compared to this mean in order to describe the level of respondents' acceptance. The level of means is distributed as follows: from (2.33–1) is low, from (3.67–2.34) is medium, and from (5–3.68) is high [78]. Based on the previous distribution levels, all variables have high total means as indicated in Appendix A. This implies that most of the respondents' answers were toward initially accepting the variables' arguments, whereas accounting services and code of professional ethics have medium acceptance levels.

Based on the descriptive results, the highest accepted paragraphs from the respondents' point of view are the ones indicating that the auditing office offers the client a tax return provided that the office obtains a percentage of tax savings directed the highest mean from the consulting services, in relation to the apparent independence. The paragraph shows that both dependence and incompetence of the external auditor leads to negatively affecting the opinion that he/she will express in his/her report. Moreover, the paragraph competition between auditing offices affects selecting services fees stating the highest mean for accounting services and service fees, whereby all are sub-variables of apparent independence.

On the other side, and due to intellectual independence, the deterrent procedures imposed on the auditors who violate the ethical standards of the profession affect their sustainable independence statement paragraph stating the highest means. In the meantime, for the statement identifying many pressures, the auditing office is able to take its decisions and the auditor deals honestly with the employees regarding the company's operations and financial situation. As for the code of professional ethics, commitment towards clients, and auditor's responsibilities toward employees, they were next in the level of recognition. However, the paragraph statement of the lack of submitting information, which is credible, neutral and free from bias, has the highest mean due to the information credibility gap.

4. Research Analysis

Estimated model quality can be tested using two standards: coefficients of determinants (R^2) in a multiple regression analysis test and a t test through the degree of significant statistic. The coefficient of determinants shows the interpreting capability of the estimated model. It indicates the percentage of change in the estimated model in the dependent variable, which can be interpreted through the estimated model. Meanwhile, the t test is used to examine the statistical significance of the estimated information [79].

The multiple regression analysis is used to examine hypotheses' validity through estimating a linear equation, as more than one independent variable has been included in the study model. The credibility gap of information was used as an endogenous (dependent) variable. Each of the apparent independence (consulting and managerial services, accounting services, and service fees) and intellectual independence (through commitment to the code of professional ethics, commitment of the auditing office toward the client, and responsibilities of the auditing office toward its employees) behaviors were used as exogenous (independent) variables. The multiple regression model connects the relation between the credibility gap of information as a dependent variable and the apparent and intellectual sustainable independence as independent variables. In the language of symbols, the model takes the following form:

$$CGapit = \beta_0 + \sum \beta_K AIit + \sum \beta_{KI} Iit + \varepsilon it.$$

CGapit: the dependent variable (credibility gap of information).

AIit: the independent variables (apparent independence).

Iit: the independent variables (intellectual independence).

β_0, β_K : the estimated coefficients.

εit : the random error.

The study used R^2 to evaluate regression equation and test the model. R^2 allocates the percentage of the exogenous variables' influence on the endogenous. Table 3 shows that the regression of this study is 0.26 and the value of the association of R^2 is 0.51, thereby indicating a significant correlation association relationship between the study variables, and representing an influence of the independent variables on the dependent variable of more than 50%.

Table 3. Model Summary.

Model	R	R Square	Adjusted R Square	Std Error of the Estimate
1	0.26	0.51	0.22	1.65

- a. Constant predictors: apparent independence and intellectual independence.
- b. Dependent variable: credibility gap of information.

This study examined the hypotheses which state that there are no distinctions with a statistical significance between the variables. This can be carried out through calculating t and comparing it with the tabular t value. The t value is identified according to the number of degrees of freedom: $n - 1$ and the level of required significance is 0.05 or below (indicating that the null hypothesis states that $\mu_1 \neq \mu_2$, without identifying which of the two means is bigger or smaller [79]). The beta coefficient was used to answer the questions of the study through testing the hypotheses. Beta's largest value of the independent variable indicates a greater strength of the impact on the dependent variable at a significance level of $\alpha \leq 0.05$.

Table 4 indicates that the most effective factor in the dependent variable is commitment towards the clients with a beta value of 0.542. In the second place is the service fee with a β value of 0.237. After that comes the commitment regarding the sustainable professional behavior with a β value of 0.21. On the other hand, consulting and accounting services and the auditor's responsibilities towards the employees at companies under auditing do not have any impact because they are not statistically significant.

Table 4. Multiple Regression Coefficient.

Hypotheses	B Values	Beta Coefficient	T Value	p Value	Decision
Consulting Services → Credibility Gap	0.012	0.013	0.141	0.088	Accepted
Accounting Services → Credibility Gap	0.090	0.021	0.171	0.188	Accepted
Services Fees → Credibility Gap	0.240	0.237	2.002	0.048	Rejected
Code of Professional Ethics → Credibility Gap	0.220	0.212	1.993	0.049	Rejected
Commitment towards Clients → Credibility Gap	0.469	0.542	5.051	0.000	Rejected
Commitment towards Employees → Credibility Gap	0.007	0.0081	0.0753	0.940	Accepted

Significance at $\alpha \leq 0.05$.

4.1. Apparent Independence

The main first hypothesis based on no impact of the apparent independence of the JCPA on the information credibility gap is partially accepted as the following sub-hypotheses results were generated from it. The first sub-hypothesis indicated no effect of the consulting and managerial services variables on the information credibility gap as illustrated in the statistic results mentioned in Table 4 through observing the t value of the first sub-hypothesis. The β value is 0.012 and the calculated t value is 0.141, which is lower than the standard value with no effective significance level ≤ 0.05 . Accordingly, the hypothesis which states that there is no impact of consulting services on the credibility gap of information is accepted.

Likewise, the second sub-hypothesis indicates no impact of the accounting services on the information credibility gap, as illustrated by the statistical results mentioned in Table 4, whereby the β value is 0.090 and the calculated t value is 0.171, which is lower than the standard value, with a significance level of 0.188. Accordingly, the hypothesis of the study which states that there is no impact of accounting services on the credibility gap of information is accepted. Moreover, the third sub-hypothesis demonstrating no impact of service fees on the information credibility gap demonstrated a β value of 0.240 and a t value of 2.002 that is greater than the standard value, with a significance level of 0.048. Consequently, the alternative hypothesis is accepted, implying that there is an impact of services fees on credibility gap of information.

4.2. Intellectual Independence

The main hypothesis related to intellectual independence of JCPAs on the information credibility gap is partially accepted, based on the sub-hypotheses. The first sub-hypothesis based on the impact of commitment to the code of professional ethics on the information credibility gap is illustrated by the statistic results mentioned in Table 4 through observing the t value of the first sub-hypothesis which indicates no impact of the code of professional ethics on the credibility gap of information, with a β value of 0.220 and a calculated t value of 1.993, which is greater than the standard value, with a significance level of 0.04. Accordingly, this hypothesis is not accepted, and the alternative hypothesis stating that there is an impact of code of professional ethics on the credibility gap of information is accepted. The second sub-hypothesis states no influence of the commitment of auditing offices towards clients on the information credibility gap. This is illustrated by the statistic results mentioned in Table 4 through observing the t value of the second sub-hypothesis, stating that there is no impact of commitment toward clients on the credibility gap of information that the β value is 0.469. Furthermore, the calculated t value is 5.051, which is greater than the standard value at a significance level of 0.000. Therefore, this hypothesis is not accepted, indicating the acceptance of the alternative hypothesis that there is an impact of commitment toward clients on the credibility gap of information.

As illustrated in the statistic results mentioned in Table 4 through observing the t value of the third sub-hypothesis, which states that there is no impact of commitment toward employees on the credibility gap of information, it is indicated that with a β value of 0.007, the calculated t value is 0.0753, which is less than the standard value, with a

significance level of 0.94. Hence, the null hypothesis indicating no influence between the responsibilities of the auditing office towards its employees and the information credibility gap of information is accepted. The research multiple regression results are illustrated in Figure 2.

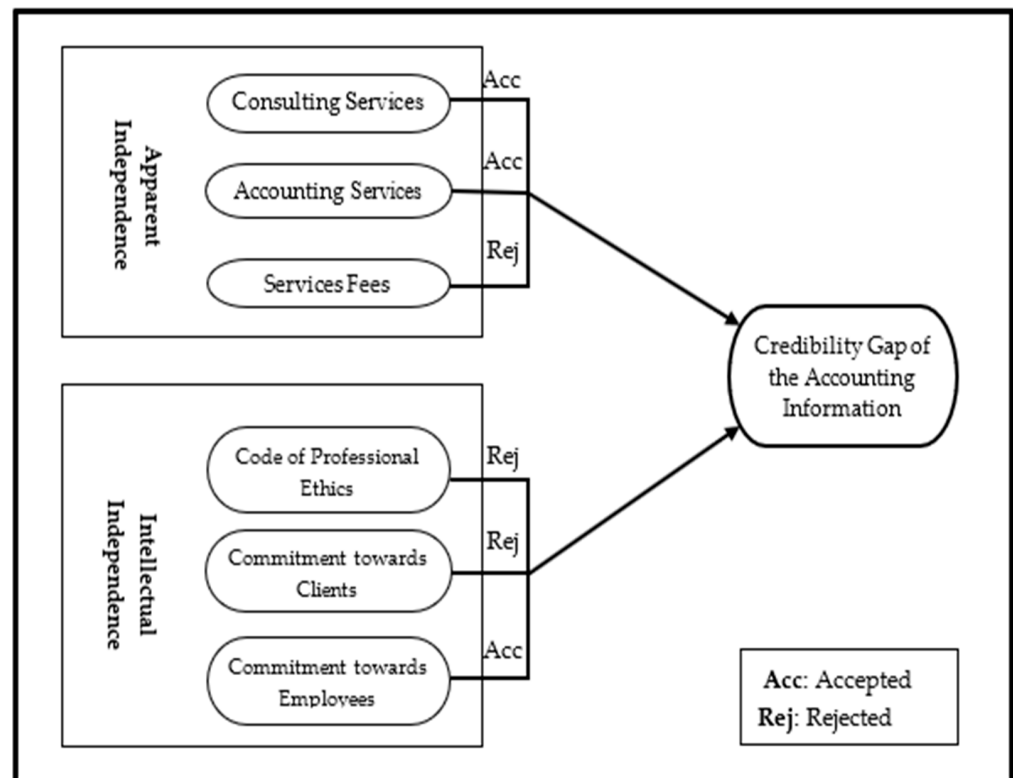


Figure 2. Results of the Research Model.

5. Research Discussion

A theoretical model is proposed in this study in determining the effect of auditors' sustainable independence on the credibility gap of information by using a structural linear model. Thus, the emphasis is not too much on narrowing the information credibility gap, as the relationship between the auditors' office and the external user in general is tested by a couple of variables only, without covering apparent and intellectual independence sub-variables as in this study. The results in Ref. [48] validate the idea that even after the presence of corporate governance variables, there is still an intimidation of losing auditor sustainable independence. According to the results mentioned previously, it is inferred that there is an impact of the consulting and accounting services on information perceived in order to disclose the financial data [80], which will eliminate the credibility gap. However, such results are not consistent with the findings of this study. The justification of not having a significant relation is based on the reason that auditing offices' work is based on accounting and auditing standards rather than on the services provided, as supported by [28,81] in Jordan, as apparent independence variables. Mainly, the concern of the audit officers is usually based on a managerial perspective more than accounting, thus indicating that evidence collection implies that auditors' view toward management ideology is an essential element that may have important implications on financial reporting disclosures [82].

Auditors sustain the efforts and quality of work throughout a recession regardless of a business yielding service fees. Due to the conflict between the executives and auditors, large samples of empirical evidence are important to be considered, in relation to receiving fewer fees or less professional work and disregarding misstatement risks at the same time [83,84]. Organizations are less likely to subdivide auditors with opponents in situations with higher

service fees due to leaking of data as well as entrenched auditor–client associations in which the auditor preserves abysmal client information [85]. All these previous studies support the results regarding the effect of service fees on the credibility gap of information. In [86], a direct association among non-audit services fees and data quality was found, thereby indicating awareness effects. By contrast, [87,88] revealed a negative association between non-audit service fees and data quality, which may affect the auditor’s sustainable independence. In another study [89], it was concluded that the smaller the audit fees, the less the effort that is required, thus leading to less qualitative accounting information. Furthermore, Ref. [90] indicated that higher audit fees can encourage firms to engage in green innovation activities and long-lived companies.

In line with the findings of [38], the results of the study show that highly prioritized personal values are equivalent through the profession’s sustainability ethics, as illustrated by the AICPA’s ethics code’s effect on the level of credibility gap. Less dysfunctional behavior may contain attractive intentional sustaining performance by providing more data that support the client’s situation [64]. Furthermore, Ref. [91] revealed that classifying and categorizing an auditor’s work is more likely to admit clients’ treatment that requires reduced audit quality acts, and auditor identification is a problem with clients related to Big Four auditors or not. More specifically, Big Four auditors are expected to be under pressure more than non-Big-Four auditors [92]. Creditors possibly will identify a business that is not independent from its auditor based on the level of audit fees, which may negatively influence reliability perceptions of the firm’s credibility gap in general [93]. It was suggested by [94] that auditor rotation policies may prevent auditor–client unambiguous awareness, thereby decreasing the level of credibility gap of information. They suggested forming an auditing committee; this consists of full-time members of the board of directors in the department. Some of their most important duties are selecting auditors, hiring them, and selecting fees.

Ref. [95] concluded that not every type of structural ethical environment expressively distresses the perceived office intimidation in audit businesses towards its clients. Moreover, the results [96] recommended a contemporary audit framework directed by the audit firms to pursue competence in services by decreasing the fees; fee restraints are apparent by high-ranking auditors in the profession, which may affect the audit–client relationship in support of the results of this study related to the effect of auditors’ commitment toward their clients and the credibility gap. In contrast, Ref. [54] confirmed a negative relation between auditor’s fees and client errors in the reports, thus increasing the client satisfaction, which may be a very dangerous indication of the start of losing independency and reliable information reports.

However, in relation to the audit firm’s commitment toward its employees and how such a commitment does not affect the credibility gap of information in Jordan, the results are in line with [97] based on Arabian norms. The study claimed inequality when dealing with different employees’ genders and stereotyping, as the segregation of female auditors in Saudi Arabia affects the offices’ responsibility for their employees in general, regardless of how the profession may be affected, including the level of credibility gap. However, there is a significant influence associated with the profession quality reduction based on the commitment toward the client, including family businesses and discrimination pressures, and the level of credibility gap of information [15]. Eventually, all studies agree on the idea that a good audit quality practice will provide a high degree of implication and assurance on the fairly presented financial statements and information reported [98] based on the auditor’s sustainable independence. Consequently, this study could address the literature gap associated with the relation between the auditor’s independence and the credibility gap of information in Jordan and how they may affect each other. It is hoped that the audit companies take their independence in more responsible means. However, a related sustainable relationship between the organizations and the audit companies in Jordan may have a great impact on the society in general, as they are considered prospective users in

the future of the financial data and are certainly willing to seek a high degree of confidence and less of a credibility gap.

6. Research Limitations

In terms of research limitations and directions for future studies, the variables and sample of the study are limited which may affect the model proposed. More specifically, the greatest weakness of this study is its reliance mainly on two main independent variables and six sub-dimensions, which may not be adequate. Hence, future studies should engage more variables to enrich the findings. The second limitation is the data collected focusing only on JCPAs in Jordan, thus creating limited theoretical findings. Hence, other locations may be covered in future studies, based on cultural differences. Moreover, future studies may focus more on gender stereotyping between male and female auditors or even JCPAs, their age, or professional experience. In addition, the current model is limited; therefore, it may be expanded in future studies which possibly will elucidate the outcomes.

7. Research Recommendations

Since increasing the quality of financial reporting and the audit profession leads to increased investor confidence in qualified accountants [99], and in response to the economic recession and auditors following the onset of changing the reporting strategy [100], as well as the credibility gap of information and a sustainable profession and according to the results of the study, the Association of JCPAs is recommended to work on strengthening the auditor's sustainable independence to avoid the influence of the auditor's performance in relation to auditing fees. JCPAs must abide by the code of professional ethics and stay away from illegal practices to increase the confidence of the community on reports submitted by them.

Moreover, the concern of the Association of JCPAs should be increased by selecting the minimum amount of auditors' fees at the level of categorizing auditing offices (large, medium and small offices), in place of the auditor to maintain the minimum amount of fees, support the auditors' sustainable independence, and give them the sufficient interest in the instructions of consulting services submitted to the clients by CPAs. Increasing the level of observations on CPA holders by the Association of JCPAs is a requirement. Such procedures may be carried out by abiding by the code of professional ethics and harsher penalties, which arise from no one following the professional standards of the auditing profession. At the same time, awareness among auditing offices should be increased toward the necessity of increasing commitment and cooperation with their clients, as well as the necessity of promoting awareness among companies about changing the external CPA every certain period of time because of its interests for both parties.

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Appendix A. Variables and Their Related Measurement Items

No.	Independent Variables (Apparent Independence)	Mean	SD	Level
Consulting Services				
1	Auditing office offers consulting and managerial services if there are common interests with the company's management.	3.76	1.94	High
2	Auditing office offers consulting and managerial services if there are personal relations with the client.	3.54	1.88	Medium
3	Auditing office offers consulting and managerial services for the same company whose its accounts it audits.	3.67	1.92	Medium
4	Auditing office offers the client a tax return provided that the office obtains a percentage of tax savings.	4.11	2.03	High
5	The auditor invests in the shares of the company whose accounts she/he audits.	4.01	2.00	High
6	Having a financial relation between auditing office members of his/her household and the client affects the auditor's sustainable independence.	4.04	2.01	High
7	Clients, who promote some auditing offices and services they offer, affect the auditor's sustainable independence.	3.54	1.88	Medium
8	Competition between auditing offices in offering consulting and managerial services affects the auditor's sustainable independence.	3.76	1.94	High
	Total	3.80	1.95	High
Accounting Services				
9	The acquaintance of the external auditor with international accounting and auditing standards and the code of professional ethics affects the auditor's sustainable independence and neutrality.	3.49	1.87	Medium
10	The ambition of the external auditor in conducting auditing assignments for the same companies annually affects his/her sustainable independence.	3.07	1.75	Medium
11	The external auditor's auditing of financial lists for several subsequent years leads to acquiring new abilities and skills that strengthen his/her sustainable independence and neutrality.	4.19	2.05	High
12	The external auditor's auditing of financial lists for several subsequent years leads to lowering auditing fees which strengthen his/her sustainable independence.	3.25	1.80	Medium
13	Devoting of the external auditor to the profession of auditing leads to promoting his/her success, sustainable independence and neutrality.	3.41	1.85	Medium
14	Sufficient and specialized knowledge of the external auditor in the fields of accounting and auditing leads to practicing it in all cases and circumstances.	2.8	1.67	Medium
15	Both dependence and incompetence of the external auditor affect negatively the opinion that he/she will express in his/her report.	4.38	2.09	High
	Total	3.51	1.87	Medium

Service Fees				
16	Competition between auditing offices affects selecting services fees.	4.31	2.08	High
17	There is an objectively fair base for selecting auditing fees in the companies.	4.30	2.08	High
18	Selecting auditing fees affects the auditor's behavior, proficiency and sustainable independence.	4.19	2.05	High
19	Reputation and size of the auditing office affects selecting auditing fees.	3.41	1.85	Medium
20	The difficulty of auditing and the degree of complexity affect the required fees.	3.1	1.76	Medium
21	Using technology in companies affects the required fees.	4.24	2.06	High
22	The integrity of the internal observation system in companies affects the required fees.	4.1	2.02	High
23	The time of auditing affects the required fees.	3.78	1.94	High
24	The quality of the report issued from the auditing office affects selecting the required fees.	3.69	1.92	High
	Total	3.90	1.97	High
No.	Independent Variables (Intellectual Independence)	Mean	SD	Level
25	The ethics of the profession affects the auditor's treatment of colleagues, clients and employees.	3.65	1.91	Medium
26	The CPA accepts presents and gifts before, during and after auditing to the company of auditing.	3.06	1.75	Medium
27	The deterrent procedures imposed on the auditors who violate the ethical standards of the profession affect their sustainable independence.	3.95	1.99	High
28	In the law of practicing the profession, there is nothing that prevents implementing the system of selecting conditioned fees.	2.66	1.63	Medium
29	In the law of practicing the profession, there is no clause which prevents implementing the system of revising the opposite, (an auditor who checks his colleague's commitments and auditing works).	3.17	1.78	Medium
30	The size of the auditing office affects its auditors' proficiency and their commitment to the work behavior.	3.14	1.77	Medium
31	The size of the auditing office affects its auditors' proficiency and their capability of resisting work pressures.	2.69	1.64	Medium
	Total	3.18	1.78	Medium
Commitment toward Clients				
32	When accepting auditing, there should not be any relatives of the auditor in the company under auditing.	3.69	1.92	High
33	When working on auditing, having impartiality at the auditing office leads to promoting the auditor's sustainable independence.	3.84	1.96	High
34	When working on auditing, having impartiality at the auditing office leads to promoting the auditor's sustainable independence.	4.33	2.08	High
35	When working on auditing, having credibility at the auditing office leads to promoting the auditor's sustainable independence.	4.6	2.14	High
36	When working on auditing, having objectivity in the decisions made at the auditing office leads to promoting the auditor's sustainable independence.	4.53	2.13	High

37	When working on auditing, the auditing office takes personal precautions to guarantee sustainable independence.	4.48	2.12	High
38	Although there are many pressures, the auditing office is able to make its decisions.	4.61	2.15	High
39	The auditor doubts the financial data under auditing till the opposite emerges.	4.4	2.09	High
40	It is not preferable for the auditor to build relationships with the clients.	4.45	2.11	High
	Total	4.32	2.08	High
Commitment toward employees				
41	The relationship between the auditor and employees is characterized by equality and fairness.	4.15	2.04	High
42	The auditor deals clearly in terms of providing employees with their salaries and rewards that suit their work.	3.77	1.94	High
43	The auditor deals honestly with employees regarding the company's operations and financial situation.	4.27	2.07	High
44	The auditor allows the employees to criticize the company's management without being afraid of Punishment.	4.1	2.02	High
45	The auditor ensures that companies offer health care services to its employees in accordance with the law.	4.18	2.04	High
46	The auditor ensures that companies offer services of insurance and retirement to its employees in accordance with the law.	3.79	1.95	High
47	The auditor ensures that companies offer services and courses related to technology to its employees.	3.68	1.92	High
	Total	3.99	1.99	High
No.	Dependent Variables (Credibility Gap)	Mean	SD	Level
48	Inadequacy of information in the financial lists to meet the needs of its users.	4.14	2.03	High
49	Lack of disclosing information to the decision makers in the suitable time.	3.18	1.78	Medium
50	Lack of submitting information, which is credible, neutral and free from bias.	4.21	2.05	High
51	Incapability of ascertaining the information that can be depended on.	4.07	2.02	High
52	Lack of true representation of the reported phenomena and information.	4.07	2.02	High
53	Unavailability of feedback which contributes to improving and developing the quality of information submitted to the decision makers.	3.94	1.98	High
54	Incredibility of the submitted information.	4.05	2.01	High
55	Incapability of predicting the future and recognizing deviations, its places and its reasons and treating them.	3.95	1.99	High
56	Not having the characteristic of the appropriate time in the submitted information.	3.98	1.99	High
57	Not having the features of competence, efficiency and comprehensiveness in the information submitted by the CPA.	3.93	1.98	High
58	Reducing opportunities to make mistakes and cheating in the data submitted by the CPA.	4.05	2.01	High
59	Inadequacy in allowing the horizons of observation on the operations and providing information to support decision making.	3.95	1.99	High
	Total	3.68	1.92	High

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