

The Audit Risks in the Technology-Based Startups- A Perspective from a Sample of Auditors in Algeria

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Abstract

This study aims at analyzing the audit risks in the technology-based startups and their effect on the quality and independence of the auditors. It uses the analytical method and relies on questionnaires administered to auditors and field experts. Findings show the importance of focusing on the inherent, control, and detection risks through improving the methodologies of audit and control. Finally, the study provides recommendations for the startups auditors to guarantee the improvement of the audit quality and maintain their independence.

Keywords: startups; technology; auditor independence.

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1. Introduction:

The world economy witnessed a rapid development of technology-based startups, which can change the concept of businesses and improve the daily life thanks to the technological innovation. Nevertheless, a list of risks accompanies this development and threatens the investors and consumers. In this regard, these businesses need an audit to guarantee their commitment to the laws and standards. The audit of the technology-based startups brings about unique and new challenges because most of them rely on innovated business models and new fast changing technology. Therefore, it is difficult to determine the real value of the assets and the risks. Besides, there are security risks related to the secrecy of the technologies and data. Therefore, exact audit and examination are needed.

Despite these risks, the process is increasing because the audit is a tool that guarantees trust and transparency, attracts investors, and builds a good reputation for the business. This

exceeds the startups and covers even the whole economic system, as it helps maintain the sustainability of the business growth and contributes to the general economy. In addition, the audit provides the main infrastructure that helps achieve balance between the innovation and the control and, thus, contribute to the development of the ICTs.

1.1 Problematic of the study:

Based on what was said, we can raise the problematic of the study as follows, “what are the audit risks in the technology-based startups?”

1.2 Sub-questions:

Sub-questions arise as follows:

- What are the inherent risks when auditing the technology-based startups?
- What are the control risks when auditing the technology-based startups?
- What are the detection risks when auditing the technology-based startups?

1.3 Hypotheses of the study:

In order to answer the problematic, we hypothesize that:

- The inherent risks manifest in the potential of a misstatement that affects the account balance or a class of similar transactions.
- The control risks manifest in the inability of the auditor to diagnose the internal regulations that hinder the misstatements.
- The detection risks manifest in the inability of the auditor’s substantive measures to discover the misstatements.

1.4 Importance of the study:

The importance of the relation between the different types of the audit risks and the nature of the technology-based startups manifests in the ability of the auditor to cope with technology in the audit processes.

1.5 Aims of the study:

The study aims at:

- Knowing the risks that face the auditor in the technology-based startups.
- Showing the importance of training auditors on technology to strengthen the credibility of their reports.
- Shedding light on the financial and accounting specificity of the technology-based startups.

1.6 Methodology of the study:

In order to achieve the study aims, a sample of 70 auditors, accountants, and experts was chosen. Besides, we used the descriptive and analytical methods. In this context, the descriptive focuses on the concept of the audit risks and on the definition of the technology-based startups. As for the analytical method, it was used in the practical side to study and analyze the various views of the auditors regarding the audit risks in the technology-based startups.

1.7 Literature review:

1.7.1 The study of Paternoster Nicolo (2014):

This study aims to analyze and organize the literature related to software development in startup companies, identify technology transfer possibilities, and determine software development work practices mentioned by practitioners and researchers. 43 primary studies were identified and analyzed, extracting, classifying, and analyzing 213 software engineering practices from the reviewed primary studies. The results indicate that software development work practices are chosen opportunistically, adapted, and configured to provide value within the constraints imposed by the context of startup companies.

1.7.2 The study of Cockayne (2019):

This passage is a paper that explores the process of defining the parameters of economic geography research from both a methodological and epistemological perspective. The author acknowledges that it can be challenging to strictly define research parameters, as doing so may limit complexity and nuance. The study draws on research conducted with startup firms in San Francisco, California and Kitchener-Waterloo, Ontario, as well as insights from feminist economic geography and post-structural theory.

The term "startup" is discussed as both a discourse (a way of talking about startups) and an actual type of firm or working practice. It is highlighted that startups are favored by economic policies in the US and Canada for their potential to drive regional economic development through technology-based entrepreneurship. However, separating the discourse around startups from actual startup firms can be difficult when designing practical aspects of research.

The author argues for holding open definitions when researching objects like startups to allow multiple understandings to emerge without limiting interpretations beforehand. This argument is supported by two interrelated claims: first regarding how researchers should define their work around the term "startup" methodologically; secondly exploring how uncertain terms like "startup" can be understood as performative actions within economics.

2. The audit risks:

2.1 Definition of the audit risks:

The audit risks are variables that reduce the trust and hinder the auditor from giving a good view, mainly when there are misstatements (IAASB, 2018, p. 113).

2.2 Types of the audit risks:

They are divided into inherent risks, control risks, and detection risks.

2.2.1 The inherent risks:

This refers to the sensitivity of the information to a misstatement, supposing the existence of suitable control measures. In addition, it refers to the potential of an account or a class of transactions of being wrong, either separately or when aggregated together. These risks are related to the nature of the audited business or to its environment, before consideration of any controls (IAASB, 2019).

2.2.2 The control risks:

This refers to the potential of the occurrence of a misstatement that cannot prevented, detected, and corrected in due time (Hilmi Jomoa, 2015). This type predicts the existence of a misstatement in the internal controls, unlike the inherent risks (IAASB, 2018).

2.2.3 The detection risks:

This refers to the inability of the auditor of discovering a misstatement due to:

- The analytical risks that include the inability of the analytical audit procedures to detect the deviations.
- The samples risks that include the possibility of not achieving the same results when using the sample and the population, separately.
- Risks not related to the samples: This refers to not making a good view by the auditor, not because the sample does not represent the population; rather, it is because of the incompetency and inability of the auditor in making the tests and evaluating the results.

3. The startups:

3.1 Definition:

- The definition of a startup is not strictly related to the size or age of the company alone. Some authors treat "startup" as a stage of a company, while others refer to "startups" with different numbers of employees. However, startups are generally characterized by limited resources, multiple influences, and dynamic technologies and markets. They often work on innovative products and face uncertain conditions, time pressure, and fast growth (Nicolò Paternoster, 2014, pp. 3,13).

- According to Steve Blank [11], a startup is "a temporary organization in search of a scalable, repeatable, profitable business model," whereas Erik Ries [12] stated that it is "a human institution designed to create a new product or service under conditions of extreme uncertainty." (Nirnaya Tripathi, 2018, p. 3).

- A startup is a newly established company, usually small, that is in the initial stage of its operations. Startups are typically focused on developing a unique product or service that they believe will meet a market need. They are often associated with innovation and entrepreneurship, and are characterized by a high degree of uncertainty and risk. The Lean Startup methodology is a popular approach for startups to develop their products and businesses in a more efficient and effective way. (Valentina Lenarduzzi, 2016, p. 2).

- Startup is a term that proliferates across mainstream and popular, as well as academic, descriptions of knowledge, digital media, and technology-based regional economic geographies. It is a term that is actively used and identified with by interviewees in San Francisco (SF), California, and Kitchener-Waterloo (KW), Ontario. While there are different definitions of startup, the key attribute of a startup is its ability to grow. (Cockayne, 2019, pp. 80,90).

3.2 The advantages of the startups:

Startups can offer several advantages, including:

- Innovation: Startups are often focused on developing new and innovative products or services that can disrupt existing markets or create new ones.
- Agility: Startups are typically smaller and more agile than larger companies, which allows them to respond quickly to changes in the market or customer needs.
- Flexibility: Startups are not bound by the same rules and regulations as larger companies, which allows them to be more flexible in their operations and decision-making.
- Entrepreneurship: Startups are often founded by entrepreneurs who are passionate about their ideas and are willing to take risks to bring them to market.
- Potential for high growth: Startups have the potential to grow rapidly if they are successful, which can lead to significant financial rewards for the founders and investors.
- However, startups also face significant risks and challenges, including high failure rates, limited resources, and intense competition. (Valentina Lenarduzzi, 2016, p. 9).
- Startups are able to produce software products with a strong impact on the market, significantly contributing to the global economy. (Nicolò Paternoster, 2014, p. 18).
- Startup is a temporary organization in search of a scalable, repeatable, profitable business model, designed to create a new product or service under conditions of extreme uncertainty. (Nirnaya Tripathi, 2018, p. 3)

The field study:

First: Assessment of the measurement model:

In this section, we assess the quality of the statements used in the model using Smart LPS. In this regard, we examine their convergence and correspondence in order to check their ability to examine what is needed. Besides, we use the convergence validity test to examine their consistency and the discriminate validity test to measure their unrelation.

1. The convergent validity:

In order to test the convergent validity, we use the Factor Loading for Initial Instrument, Composite Reliability, and the Average Extracted Variance AVE.

1.1 Factor Loading for Initial Instrument:

This test aims at checking the validity of the measurement tools. In this line, the statements must get a value above 0.70; otherwise, they shall be deleted. Table 01 shows the test results:

Table 01: Results of the Factor Loading for Initial Instrument of the axes of the audit risks and the technology-based startups:

Code	Item	Inherent risks	Control risks	Detection risks	Technology-based startups
IR 1	The solution is auditing the internal systems and actions periodically to make sure of the absence of inherent risks	0.641			
IR 2	The inherent risks include the shift of the auditor into a counsellor or strategic partner, instead of showing neutrality	0.810			

IR 3	These risks manifest when the auditor works for a long time with the company and gets influenced by its culture	0.765			
IR 4	IR include providing invalid or inexact reports to the company	0.823			
IR 5	The auditor can get involved with the company interests and lose the necessary independence	0.824			
IR 5	IR require following strict measures to maintain the independence of the auditor and avoid intervention in the company issues	0.735			
IR 6	IR is about the shift of the auditor into a counsellor or strategic partner instead of showing neutrality	0.718			
CR 1	The control risks show the failure of the auditor in providing an honest and comprehensive evaluation of the actions and transactions		0.722		
CR 2	This risk takes place when the auditor ignores the evidences and misses the potential misstatements		0.813		
CR 3	The auditor must be careful and work efficiently to make sure there is no bias or lack of estimation		0.736		
CR 4	The auditor must rely on professional assistants and technology to face the control risks		0.693		
CR 5	CR require using strong audit methodologies and an exact examination of all the actions and documents		0.793		
CR 6	The auditor must avoid any external influence that may affect the equality of his reports		0.733		
CR 7	CR require a special focus on the audit methodologies		0.748		
CR 8	The auditor estimation must be independent and based on the available facts and evidences		0.783		
DR 1	The auditor must be careful and work to know all the unexpected elements			0.650	
DR 2	These risks emerge when the audit is not efficient or the company is well-funded			0.777	
DR 3	The auditor must provide an exact evaluation of the financial risks and the other ones that face the company			0.754	

DR 4	The DR require making deep audit processes and comprehensive tests to guarantee the detection of the misstatements			0.838	
DR 5	DR require a special focus to guarantee the detection of the misstatements a periodical check of the actions and measures			0.804	
DR 6	DR happen when there is a negligence in executing the exact audit standards			0.795	
TS 1	The difficulty of audit in the startups is due to the continuous update of the goods and services				0.834
TS 2	These companies show an exceptional flexibility that makes them avoid much reliance on the traditional audit models				0.853
TS 3	These companies work in an environment that leans to complication and continuous innovation				0.845
TS 4	The audit in the technology-based startups requires understanding the sophisticated techniques and tools				0.880
TS 5	The technology-based startups need continuous analysis of complex data; therefore, the exact conclusions are a big challenge				0.701
TS 6	The difficulty of auditing the technology-based startups comes from their ability to provide unique solutions based on technology; therefore, it is difficult to estimate the value and the performance				0.635

Source: made by the authors based on the outcome of Smart LPS

The table shows the outcomes of examining the Factor Loading for Initial Instrument of the axes of the audit risks and the technology-based startups. The statistical analysis includes the use of the factors taxonomy and the coefficients of correlation to estimate the relative effect of each factor on the indices of the two axes. The outcomes show that there are factors that increase some risks more than others. For instance, the correlation coefficient of IR 2 “The inherent risks includes the shift of the auditor into a counsellor or strategic partner, instead of showing neutrality” is 0.810. This shows that it is strongly related to the inherent risks factor. In addition, the correlation coefficient of CR 1 “The control risks show the failure of the auditor in providing an honest and comprehensive evaluation of the actions and transactions” is 0.722, which indicates the effect of the control risks factor on this index.

In addition, we can notice that there are high correlation coefficients that manifest in various indices that show a correlation between the factors and the indices. In this regard, the index TS 1 has the highest correlation coefficient 0.864. It shows the difficulty of audit in the startups due to the continuous update of the goods and services. Besides, the value 0.880 of TS 4 shows that the audit in the technology-based startups requires understanding the sophisticated techniques and tools. In addition, the value 0.856 of TS 2 shows that these companies show an exceptional flexibility that makes them avoid much reliance on the traditional audit models. These results can be used to understand the mutual effects between the audit risks and the factors related to the technology-based startups.

Table 02: The deleted items that did not meet the requirements

Code	Statement	Dimension	rate
IR 1	The solution is auditing the internal systems and actions periodically to make sure of the absence of inherent risks	Inherent risks	0.641
CR 4	The auditor must rely on professional assistants and technology to face the control risks	Control risks	0.693
DR 1	The auditor must be careful and work to know all the unexpected elements	Detection risks	0.650
TS 6	The difficulty of auditing the technology-based startups comes from their ability to provide unique solutions based on technology; therefore, it is difficult to estimate the value and the performance	Technology-based startups	0.635

Source: made by the authors based on the outcome of Smart LPS

1.2 The composite reliability test:

We check the consistency of the items using Cronbach's alpha and the composite reliability. In this regard, the minimum acceptable value for a consistent factor is 0.70. The results show that:

Table 03: The results of the model's consistency and composite reliability

Axes	Dimensions	Cronbach's alpha	Composite reliability
Audit risks	IR	0.881	0.906
	CR	0.891	0.913
	DR	0.877	0.907
Technology-based startups		0.881	0.914

Source: made by the authors based on the outcomes of Smart LPS

The table shows the results of the used model's consistency and composite reliability. The results can be interpreted as follows:

The values of the table show the degree of the reliability of the various factors used in the study. They are estimated with Cronbach's alpha and the composite reliability test. The values are generally between 0 and 1. The high values indicate a high reliability. In this study, each dimension lies within a specific axis. This shows the correlation between the various factors and

axes. Besides, the table values show a high reliability for the various dimensions. Thus, the dimensions of the study are statistically efficient.

1.3 The convergent reliability using AVE:

This test checks the convergent reliability that requires an AVE that is more than 0.50. The following table shows the test results:

Table 04: results of AVE

Axes	Dimensions	AVE
Audit risks	IR	0.581
	CR	0.568
	DR	0.619
Technology-based startups		0.681

Source: made by the authors based on the outcomes of Smart LPS

The table shows the results of AVE of the study dimensions. The test measures the variance between the data of the various dimensions. The results can be interpreted as follows: AVE values are generally between 0 and 1. The highest values show a low variance and vice-versa. In this context, we can say that the mentioned dimensions have a logical representation of the related variables. The values 0.581, 0.568, 0.619, and 0.681 show a moderate variance in the data related to the various dimensions. Thus, these data determine the validity of the factors and dimensions used in this study, and confirm that they sufficiently express the phenomena.

2. The discriminate validity:

When measuring the discriminate validity, we use Criterion Fornell Larcker and Cross Loadings.

2.1 Fornell-Larcker Criterion:

This criterion is used to know if the dimension represents itself more than any other dimension. It relies on comparing the square structure correlations and AVE to evaluate the structural equations models with the undetectable variables and the measurement error.

Table 05: Fornell-Larcker Criterion

Technology-based startups	DR	CR	IR	
			0.762	IR
		0.789	0.715	CR
	0.787	0.786	0.667	DR
0.825	0.734	0.780	0.544	Technology-based startups

Source: made by the authors based on the outcomes of Smart LPS

The values in the table show the correlation coefficients between the various dimensions. They can be interpreted as follows:

- IR: the Fornell-Larcker Criterion is 0.762. It is higher than all the other values in the column, which shows that the dimension of IR represents itself more than the other dimensions. Thus, we can say there is no interference between this dimensions and the others.
- CR: Fornell-Larcker Criterion of CR is .789. It is higher than the other interference values in the table. Consequently, we can consider that CR dimension represents itself without any interference with the other dimensions.
- DR: Fornell-Larcker Criterion of DR is 0.787. It is higher than all the other values in the column, which shows that the dimension of IR highly represents itself without any interference with the other dimensions.
- TS: Fornell-Larcker Criterion of TS is 0.825. It is the highest value in the table and shows that this dimension highly represents itself without any interference with the other dimensions.
- Based on this analysis, we can say that these dimensions meet the discriminate validity condition, as we can consider that each dimension represents itself well without much interference between the dimensions. Thus, the discriminate validity of the study tool is good and helps understand the phenomena separately.

2.2 Cross Loadings:

This test makes sure that the items that interpret one latent variable do not interpret another latent one. The value of the relation between the item and its latent variable is higher than the value of its relation with another latent variable.

Table 06: Cross Loadings test

Factor loading test				
Code	IR	CR	DR	TS
IR 1	0.641	0.450	0.296	0.258
IR 2	0.810	0.565	0.681	0.554
IR 3	0.765	0.504	0.468	0.409
IR 4	0.823	0.585	0.560	0.469
IR 5	0.824	0.610	0.541	0.477
IR 5	0.735	0.579	0.462	0.309
IR 6	0.718	0.526	0.407	0.279
CR 1	0.399	0.722	0.503	0.632
CR 2	0.526	0.813	0.621	0.621
CR 3	0.583	0.736	0.582	0.499
CR 4	0.503	0.693	0.570	0.518
CR 5	0.606	0.793	0.600	0.659
CR 6	0.495	0.733	0.588	0.520
CR 7	0.653	0.748	0.689	0.558
CR 8	0.563	0.783	0.610	0.654
DR 1	0.550	0.598	0.750	0.600
DR 2	0.466	0.623	0.777	0.567
DR 3	0.468	0.605	0.754	0.561
DR 4	0.555	0.574	0.838	0.576

DR 5	0.540	0.623	0.804	0.527
DR 6	0.560	0.689	0.795	0.623
TS 1	0.473	0.640	0.674	0.834
TS 2	0.385	0.694	0.611	0.853
TS 3	0.477	0.625	0.528	0.845
TS 4	0.493	0.699	0.673	0.880
TS 5	0.421	0.545	0.526	0.701

Source: made by the authors based on the outcome of Smart LPS

The cross loadings measure the strength of the correlation between each latent variable (dimensions) and its inherent variables. They help understand the dimensions' self-representation and the interference between them. We can analyze the table taking into consideration the following points:

- The coefficients that are close to the value 1 represent the strength of the correlation between the dimensions and their variables.
- If the values are close to 0, the dimensions are not strongly related to the variables.

Table 06 shows that the variables highly interact with the others in the models. For instance, the item IR 1 has a big effect on IR 2 and IR 3. In addition, CR 3 has a big effect on CR 5. This shows interactions between the variables in the model and is a positive index of the model quality. Thus, we can say that the results show that the variables represent well the dimensions they must measure.

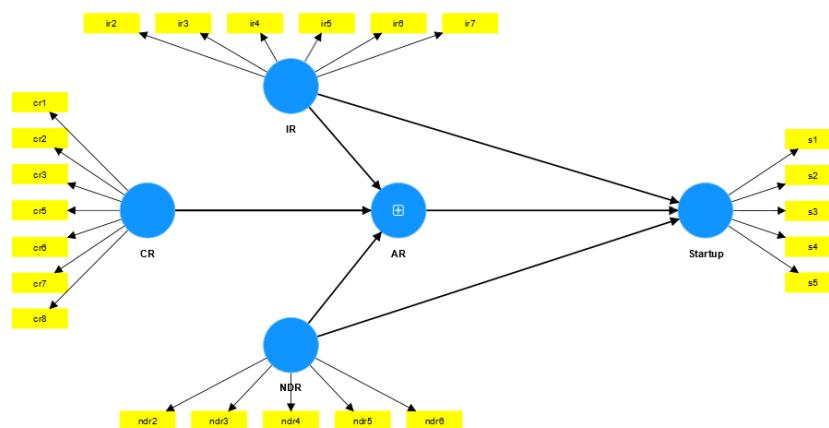


Figure 01: The general structural model of the study.

Source: made by the authors based on the outcomes of Smart LPS

Second: Testing the internal model (the structural model):

In this section, we shall evaluate the results of the structural internal model through examining the correlation degree, evaluating the predictive abilities of the model and the relations between the structures, and making the necessary test to evaluate the model.

1. Testing the validity of the internal model:

We use the determination coefficient, the effect size, and the model's goodness of fit GoF.

1.1 The determination coefficient R^2 :

We calculate the quadratic relation between the real values and the predictive ones of the internal structure. The test interprets the effect of the latent cumulative effects of the external variables on the internal latent variable. This means that the coefficient shows the size of the variance in the internal structure. The following table shows the determination coefficient of the study model:

Table 07: the determination coefficient R^2 .

Size of the interpretation	Adjusted R^2	R^2	dimension
Average	0.635	0.651	TS

Source: made by the authors based on the outcomes of Smart LPS

The table shows the ability of the model factors to interpret the variance in the target variable. Besides, R^2 equals 0.651, which means that the dimension of the audit risks can explain about 65.1% of the variance in the target variable. As for the adjusted R^2 , it equals 0.635, which is a bit less than R^2 . The adjusted R^2 leans to correcting R^2 of any changes in the number of the model's independent variables. The interpretation size is average and shows that the dimension contributes averagely to interpreting the variance in the target variable. In general, we can say that the dimension of the audit risks has a good relation with the target variable "the technology-based startups" and can explain a big part of the variance.

1.2 The effect size F^2 :

We can use the change in the value of R^2 when cancelling a specific external structure of the model to evaluate if the cancelled structures have an effect on the internal dimensions. This measure is referred to as F^2 ; where $F^2 \leq 0.35$ is a big effect size, $F^2 \geq 0.15 < 0.35$ is an average effect size, $F^2 \geq 0.02 < 0.15$ is a low effect size, and $F^2 < 0.02$ is no effect size.

Table 08: the effect size F^2

Result	F^2	latent variables
low effect	0.121	IR
average effect	0.305	CR
average effect	0.213	DR

Source: made by the authors based on the outcomes of Smart LPS

The table shows the partial effect size of each latent variable on the concerned dimension. If the value of F^2 is high, the variable has a big effect on the dimension. In this regard, the value shows the estimation of the real value of the partial effect size and classifies it as low, average, or high. The table shows that the inherent risks have a value of 0.121 with a low effect size. This shows that the inherent risks have a low effect on the dimension. On the other hand, the control risks have a value of 0.305 and an average effect size that shows the existence of a moderate effect for the control risks on the concerned dimension. As for the detection risks, the value is 0.213 and the effect size is average. Thus, the detection risks have a moderate effect for the control risks

on the concerned dimension. Based on this analysis, we can say that the control risks have the highest effect on the dimension of the technology-based startups compared to the inherent and detection risks; whose effects are relatively low.

1.4 GoF test:

It is a comprehensive measure for the model. Nevertheless, it cannot decisively distinguish the confirmatory model and the exploratory one. Thus, it is related to the formations of specific models. In addition, it examines the reliability of the model and shows its general performance.

Table 10: The results of the structural model- GoF

Model	Calculation	Reliability degree
Audit risks/technology-based startups	$GOF = \sqrt{AVE * R^2}$ $\sqrt{(0.681 * 0.651)}$ $=0.665GOF$	Big reliability

Source: made by the authors based on the outcomes of Smart LPS

Table 10 shows the model's GoF and determines the reliability of the structural model that reflects the general performance that links two latent variables (the audit risks and the technology-based startups). The method used to calculate the GoF is the root of AVE between the dimensions multiplied by R2. The value of GoF is 0.665 and shows that the structural model can be highly relied on in answering the study problem. Thus, the model fits very well the data and can be used in analyzing the relations between the audit risks and the technology-based startups.

2. Testing and discussing the study hypotheses:

To do so, we calculate the estimations of the structural model relations using Bootstrapping that shows the expected relations between the structures. The path is between -1 and +1. The values that are close to +1 show strong positive relations while those close to -1 show strong negative relations; they are generally statistically significant. As for the coefficients that are close to 0 from the two sides, they show a weak relation; the relation is statistically significant only when the P-value is less than 5%.

2.1 The sub-hypotheses:

There is a statistically significant relation between the axis of the audit risks and the axis of the technology-based startups.

Table 11: The significance of the relation between the dimensions of the audit risks axis with the technology-based startups axis (H₁, H₂, H₃)

Hypothesis	Relation	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Decision
H ₁	IR and the technology-based startups	-0.101	-0.080	0.122	0.830	0.406	rejected
H ₂	CR and the technology-based startups	0.582	0.582	0.156	3.734	0.000	accepted
H ₃	DR and the technology-based startups	0.343	0.333	0.160	2.151	0.031	accepted

Source: made by the authors based on the outcomes of Smart LPS

H₁: IR and the technology-based startups:

H₁ examines the relation between IR and the technology-based startups. Findings show that the value of the relation between these two elements is -0.101 and that P-value is 0.406. Therefore, there is no statistically significant relation between IR and the technology-based startups. In other words, IR do not significantly affect these companies.

H₂: CR and the technology-based startups:

H₂ examines the relation between CR and the technology-based startups. Findings show that there is a statistically positive relation between CR and these companies. In this context, the value of the relation is 0.582 and of P is 0.000. This shows that CR do not significantly affect these companies.

H₃: DR and the technology-based startups:

H₃ examines the relation between DR and the technology-based startups. Findings show that there is a statistically positive relation between DR and these companies. In this context, the value of the relation is 0.343 and of P is 0.031. This shows that DR significantly affect these companies.

Based on these results, we can say that there is a statistically significant relation between CR, DR, and the technology-based startups.

2.2 The main hypothesis:

There is a statistically significant relation between the axes of the audit risks and the technology-based startups.

Table 12: The result of the whole relation with the study hypothesis

Hypothesis	Relation	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Decision
H	Audit risks with the technology-based startups	0.773	0.785	0.045	17.300	0.000	accepted

Source: made by the authors based on the outcomes of Smart LPS

The main hypothesis examines the existence of a statistically significant relation between the axes of the audit risks and the technology-based startups. Findings show a clear statistically significant relation between the two axes. In this regard, the value of the relation is 0.773 and of P is 0.000. This means that the relation is statistically significant compared to the average value of trust (0.785). Thus, the real value is much higher. Based on these results, the audit risks highly and significantly affect the technology-based startups.

Conclusion:

This study revealed many aspects and provided various concepts that focus on the relation between the audit risks and the technology-based startups. Findings show that the

relation is statistically significant and confirm the effect of the audit risks on the technology-based startups. Based on these results, we can say that the inherent risk of the auditors' shift into a strategic partner of the company may imply submitting inexact or invalid reports. Thus, the auditor must follow strict measures to maintain his independence and not intervene in the business issues. In addition, the control risks include the failure of the auditor in providing an honest and comprehensive evaluation of the actions and transactions when the auditor ignores the evidences and the potential misstatements. Therefore, he must be careful and work efficiently to avoid any bias or misestimation. In addition, he must use strong audit methodologies and examine all the actions and documents. Besides, he must avoid any external influence that may affect the quality of his report. As for the detection risks, they include the deep audit processes to guarantee the detection of the misstatements. These risks may emerge when the auditor is not efficient or when the company is well-funded. The auditor must make an exact evaluation of the financial risks and the other ones that face the company. The detection risks require using strong audit methodologies, examining all the actions and documents, and avoiding any external influence.

Therefore, we recommend that:

- It is necessary to strengthen the professional training of the auditors to guarantee efficient and independent audit services.
- The companies and auditors must focus on the application of strong audit methodologies and the examination of all the actions.
- The auditors must learn the use of the technology to improve the quality of their reports and data analysis.
- The auditors must respect the independence rules and avoid any influence that may affect the quality of their reports.
- The cooperation and understanding between the auditors and companies can be strengthened to achieve better results.

As for the study horizons, we can make further studies by widening the range to discover more challenges and risks for the audit. In addition, we can study the effect of the change of technology and innovation in the startups on the audit risks and how to avoid them. In the end, the auditors and organizations must be aware of the control and the financial risks and take the necessary measures to maintain the quality of their reports and independence in the audit actions. In this regard, they must understand the risks and move towards an efficient audit to support the trust in their results and financial reports.

References:

1. Cockayne, D. (2019). What is a startup firm? A methodological and epistemological investigation into research. *Geoforum*, 77-88.
2. IAASB, B. (2018). RISK ASSESSMENT AND INTERNAL CONTROL. USA.

3. IAASB, B. (s.d.). ISA 315 (Revised 2019): Identifying and Assessing the Risks of Material Misstatement. USA.
4. Nicolò Paternoster, C. G. (2014). In press: Software Development in Startup Companies: A Systematic Mapping Study. 1-20.
5. Nirnaya Tripathi, P. S. (2018). Insights into Startup Ecosystems through Exploration of Multi-vocal Literature. *Information and Software Technology*, 1-24.
6. Valentina Lenarduzzi, D. T. (2016). MVP Explained: A Systematic Mapping Study on the Definitions of Minimal Viable Product. (pp. 1-9). researchgate.
7. Hilmi Jomoa (2015), introduction to the audit according to the international audit standards, Jordan, Safa house for publication and distribution..