

Incentives for Startups under Investment Law No. 18–22 and Public Procurement Law No. 12–23: A Field Study of a Sample of Startups in Algeria

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Abstract. *This study aims to analyze the impact of legal incentives on the performance of startups in Algeria, focusing on the incentives provided for under Investment Law No. 18-22 and Public Procurement Law No. 12-23. The study adopted a descriptive-analytical approach, using a questionnaire as a data collection tool administered to a sample of 65 respondents. The data were analyzed using SPSS 27, relying on the one-sample Student's t-test and multiple linear regression analysis. The results showed that the level of evaluation of the incentives provided under the Investment Law was high, with a mean of 3.91. The results also indicated that the incentives provided under the Public Procurement Law received a high level of agreement, with a mean of 3.73. The results of the Student's t-test confirmed that the arithmetic means were statistically significantly higher than the hypothetical mean of 3. Furthermore, the regression results revealed a positive and statistically significant effect of legal incentives on the performance of startups. The correlation coefficient was $R = 0.955$, while the adjusted coefficient of determination reached $\text{Adjusted } R^2 = 0.893$. The study concludes that legal incentives contribute to supporting the growth of startups and improving their performance, while emphasizing the need to enhance the clarity and simplify the procedures to ensure greater benefit from these incentives.*

Keywords: *startups, legal incentives; Investment Law No. 18-22, Public Procurement Law No. 12-23, firm performance, Algeria*

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18–22 nömrəli İnvestisiya qanunu və 12–23 nömrəli Dövlət satınalmaları qanunu çərçivəsində startaplar üçün stimullar: Əlcəzairdəki startap nümunələri üzrə sahə tədqiqatı

Adel Benaissa 

Xülasə. *Bu tədqiqat Əlcəzairdə startapların fəaliyyətinə hüquqi stimulların təsirini, xüsusilə 22-18 nömrəli İnvestisiya qanunu və 23-12 nömrəli Dövlət satınalmaları qanunu çərçivəsində nəzərdə tutulan stimullara diqqət yetirməklə araşdırmağı qarşıya məqsəd qoyur. Tədqiqatda təsviri-analitik yanaşmadan istifadə edilmiş və ilkin məlumatlar 65 respondentdən ibarət seçmə qrupuna tətbiq edilmiş sorğu vasitəsilə toplanmışdır. Məlumatların təhlili SPSS 27 proqramı vasitəsilə aparılmış, bir nümunəli Student t-testindən və çoxsaylı xətti regressiya analizindən istifadə edilmişdir.*

Nəticələr göstərmişdir ki, 22-18 nömrəli İnvestisiya qanunu çərçivəsində təqdim olunan stimullar respondentlər tərəfindən yüksək səviyyədə qiymətləndirilmiş və orta hesabla 3,91 bal təşkil etmişdir. Eyni şəkildə, 23-12 nömrəli Dövlət satınalmaları qanunu çərçivəsində nəzərdə tutulan stimullar da yüksək razılıq səviyyəsi ilə qiymətləndirilmiş və orta hesabla 3,73 bal əldə etmişdir. Bir nümunəli t-testinin nəticələri göstərmişdir ki, müşahidə olunan orta qiymətlər hipotetik 3 orta qiymətindən statistik cəhətdən əhəmiyyətli dərəcədə yüksəkdir. Bundan əlavə, reqressiya təhlili hüquqi stimulların startapların fəaliyyətinə müsbət və statistik cəhətdən əhəmiyyətli təsir göstərdiyini ortaya qoymuşdur. Korrelyasiya əmsali $R = 0,955$, düzəldilmiş determinasiya əmsali isə $Adjusted R^2 = 0,893$ olmuşdur. Tədqiqatın nəticələrinə əsasən, hüquqi stimullar startapların inkişafının dəstəklənməsində və onların fəaliyyətinin yaxşılaşdırılmasında mühüm rol oynayır. Bununla yanaşı, bu stimullardan daha səmərəli istifadəni təmin etmək məqsədilə hüquqi çərçivənin aydınlığının artırılması və inzibati prosedurların sadələşdirilməsi zəruridir.

Açar sözlər: startaplar, hüquqi stimullar, 22-18 nömrəli İnvestisiya qanunu, 23-12 nömrəli Dövlət satınalmaları qanunu, müəssisələrin fəaliyyəti, Əlcəzair

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Introduction

Given their significant contribution to economic and social development, start-ups and small and medium-sized enterprises (smes) are among the most important actors in promoting innovation, generating employment, supporting entrepreneurship, and enhancing economic growth, creating employment opportunities, diversifying economic activity, promoting innovation, generating added value, enhancing competitiveness, and supporting the transition towards a knowledge-based economy. However, these enterprises, particularly during their establishment and early growth stages, face a number of challenges related to limited financial resources, difficulties in accessing sources of financing, high operating costs, complex administrative procedures, and limited access to markets and public procurement (Hoekman et al., 2020, pp. 383–402). This makes the provision of a supportive legal and institutional environment essential for ensuring their sustainability and improving their performance (Hoekman, 2020, pp. 383–402).

In this context, the algerian legislator has worked to make the legal system stronger.

Governing investment and supporting start-ups and smes through the adoption of a set of legal instruments aimed at improving the business climate and promoting investment and innovation. Among the most important of these instruments is investment law no. 22-18, which introduced a range of incentives and benefits for investment projects with the aim of encouraging the establishment and expansion of enterprises, reducing the burdens faced by investors, and enhancing the attractiveness of the investment environment. Public procurement law no. 23-12 is also of particular importance, as it provides a legal framework for regulating public demand and opens opportunities for start-ups and smes to participate in the implementation of public projects and benefit from the opportunities offered by this market.

The incentives provided under the investment law and the public procurement law are becoming increasingly important as mechanisms that may contribute to improving the performance of start-ups and smes, whether by reducing burdens and costs, facilitating access to financing and markets, promoting innovation, or strengthening competitiveness, sustainability, and growth. accordingly, the

effectiveness of these incentives does not depend merely on their existence in legal texts, but rather on the extent to which enterprises benefit from them and on their actual impact on economic, financial, and competitive performance (Khelifi, 2023, pp. 264–278).

Based on this perspective, this study seeks to analyze the nature of the incentives introduced by the algerian legislator for the benefit of start-ups and smes under investment law no. 22-18 and public procurement law no. 23-12. It also aims to examine the extent to which the enterprises under study are aware of and benefit from these incentives, as well as to measure their impact on enterprise performance. To achieve this objective, the study first tests the existence of statistically significant incentives using the one-sample student's t-test, and then analyzes the impact of these incentives on enterprise performance through a linear regression model.

Accordingly, the research problem is centered on the following main question:
To what extent do the incentives provided under investment law no. 22-18 and public procurement law no. 23-12 contribute to improving the performance of start-ups and smes in Algeria?

This main question gives rise to the following sub-questions:

1. To what extent are statistically significant incentives available to start-ups and smes under investment law no. 22-18?
2. To what extent are statistically significant incentives available to start-ups and smes public procurement law no. 23-12?
3. Do the incentives provided under the investment law and the public procurement law have a statistically significant impact on the performance of start-ups and smes?

Research hypotheses

First hypothesis (h1): The incentives provided under investment law no. 22-18 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean of 3.

Second hypothesis (h2): The incentives provided under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean of 3.

Third hypothesis (h3): There is a statistically significant effect of the legal incentives provided under investment law no. 22-18 and public procurement law no. 23-12 on the performance of start-ups and smes.

Significance of the study

The significance of this study stems from the growing role played by start-ups and smes in supporting economic development, creating employment opportunities, promoting innovation, and diversifying the national economy. In this regard, examining the impact of the incentives provided under investment law no. 22-18 and public procurement law no. 23-12 on the performance of start-ups and smes is of both scientific and practical importance, as follows:

- Scientific significance: The study contributes to enriching the academic literature on investment incentives and public procurement and their role in improving the performance of start-ups and smes.
- Legal and economic significance: The importance of the study lies in analyzing the role played by the provisions and incentives introduced under investment law no. 22-18 and public procurement law no. 23-12 in supporting start-ups and smes and strengthening their capacity for growth and continuity.

- Practical significance: The findings of the study help assess the effectiveness of legal incentives from the perspective of the enterprises benefiting from them by comparing the arithmetic means of the respondents' answers with the hypothesized mean of 3.
- Significance for supporting start-ups: The study highlights the extent to which legal incentives can improve the performance of start-ups, enhance their competitiveness, and facilitate their access to investment opportunities and public procurement contracts.
- Significance for policymaking: The findings of the study may assist government authorities and policymakers in evaluating the effectiveness of existing incentives and identifying shortcomings that may hinder start-ups and smes from benefiting from them.
- Practical importance: The study provides findings and recommendations that may be used to develop support and incentive mechanisms and improve the legal and institutional environment in which start-ups and smes operate.

Objectives of the study

- To identify the incentives and benefits provided by public procurement law no. 23-12 for small and medium-sized businesses (smes) and start-ups.
- To measure the extent to which the incentives provided under investment law no. 22-18 contribute to improving the performance of start-ups and smes.
- To measure the extent to which the incentives provided under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes.
- To test whether the mean of the respondents' answers exceeds the hypothesized mean of 3, thereby determining the level at which start-ups and smes evaluate the effectiveness of legal incentives.
- To provide a set of recommendations that may contribute to enhancing the effectiveness of investment incentives and public procurement incentives and improving the performance of start-ups and smes.

Study methodology

The study employed a descriptive-analytical approach to examine the incentives and benefits granted to start-ups and small and medium-sized enterprises (SMEs) under Investment Law No. 22-18 (2022) and Public Procurement Law No. 23-12 (2023), assessing the extent to which these legal incentives contribute to enhancing enterprise performance. Primary field data were collected through a questionnaire based on a five-point Likert scale (Likert, 1932) administered to a sample of start-ups and SMEs. Data were statistically processed using IBM SPSS Statistics (Version 26): descriptive statistics (arithmetic means and standard deviations) were computed, a one-sample t-test was conducted to compare sample means against the hypothesized test value of 3, and multiple linear regression analysis was applied to test the study hypotheses and evaluate the impact of legal incentives on enterprise performance.

Scope and limitations of the study

The scope of this study focuses on examining the impact of the legal incentives provided under Investment Law No. 22-18 (2022) and Public Procurement Law No. 23-12 (2023) on the performance of start-ups and small and medium-sized enterprises.

The human scope includes owners and managers of start-ups in Algeria. the geographical scope covers start-ups operating at the national level in Algeria. the time scope extends from february to may, which represents the period during which the field study was conducted, the questionnaire was distributed, and the data were collected and analyzed.

Theoretical framework of investment law no. 22-18 and public procurement law no. 23-12

Theoretical framework of investment law no. 22-18

Investment law no. 22-18, dated July 24, 2022, constitutes the legal framework governing investment in Algeria. It was enacted with the aim of enhancing the attractiveness of the investment environment and improving the business climate by establishing a set of principles, guarantees, and incentives designed to encourage investors to establish and expand their projects, including start-ups and SMEs. The law is based on the principles of investment freedom and equality among investors, the simplification of administrative procedures, and the enhancement of transparency. It also provides a set of tax and customs incentives and benefits that contribute to reducing investment costs and improving the competitiveness of enterprises.

Investment law no. 22-18 also attaches particular importance to supporting investment projects through the adoption of incentive schemes aimed at promoting investment in priority sectors and in areas requiring development, in addition to providing legal guarantees for investors and protecting their investments. These incentives are particularly important for start-ups, which are characterized by a high level of innovation and risk, as well as a strong need for financing and support during their establishment and growth stages.

Accordingly, examining the theoretical framework of investment law no. 22-18 makes it possible to understand the nature of the incentives from which start-ups may benefit and to analyze the extent to which these incentives contribute to improving their performance by strengthening their investment and growth capacity, developing innovative products and services, and enhancing their competitiveness in the market.

Theoretical framework of public procurement law no. 23-12 public procurement law no. 23-12 constitutes one of the most important legal frameworks governing public procurement in Algeria. It aims to regulate the various stages of the preparation, award, and execution of public contracts in a manner that ensures transparency, fair competition, and equality among economic operators, while promoting the efficient and rational use of public funds. The law also seeks to improve the efficiency of public expenditure and enhance the effectiveness of public procurement procedures, while procurement opportunities (Belhamri, 2026, pp. 142–157). The provisions of the public procurement law are particularly important for start-ups, as access to public demand represents a significant opportunity to expand their activities, improve their turnover, and strengthen their competitiveness. Through the simplification of certain procedures, the facilitation of start-ups' participation in competition, and the promotion of innovation and new solutions, public procurement can constitute an important mechanism for supporting the growth of these enterprises and improving their performance.

Therefore, examining the theoretical framework of public procurement law no. 23-12 makes it possible to analyze the various principles, procedures, and incentives from which start-ups may benefit and to assess their contribution to improving enterprise performance, sustainability, and competitiveness in the market (Khattab, 2024, pp. 945–954).

Field study

To address the research problem and test the study hypotheses, a sampling approach was adopted by designing and distributing a questionnaire to a sample of start-up owners in Algeria. The sample included start-ups operating in various sectors, particularly services, industry, and technology, and comprised 65 respondents.

After collecting and tabulating the data, they were subjected to statistical analysis using descriptive and analytical methods, employing a set of statistical techniques appropriate to the nature of the study.

These included frequencies, percentages, arithmetic means, standard deviations, correlation coefficients, and regression analysis, with the aim of measuring the nature of the relationships and effects among the study variables. A five-point likert scale was also used to measure respondents' attitudes and opinions regarding the various dimensions of the questionnaire. Based on the results obtained, the study hypotheses were discussed and tested, and their acceptance or rejection was determined, thereby contributing to addressing the research problem and achieving the objectives of the study.

Field study methodology

The sampling method was adopted to collect primary data through a questionnaire. The questionnaire responses were analyzed using the statistical package for the social sciences (spss), version 27.

Methods

The study adopted the descriptive-analytical approach, as it is one of the most appropriate methods for the nature of the subject. This approach makes it possible to describe and analyze the reality of the incentives granted to start-ups in Algeria under the provisions of investment law no. 22-18 and public procurement law no. 23-12, as well as to assess the extent to which the owners of these enterprises perceive the effectiveness of such incentives and their impact on enterprise performance. The approach also makes it possible to move beyond merely presenting the attitudes and opinions of the respondents towards analyzing the nature of the statistical relationships between the study variables and testing the impact of legal incentives on improving the performance of start-ups.

A purposive sample was selected from the study population, consisting of owners and managers of start-ups in Algeria, as they are the individuals most closely connected to the subject of the study and best positioned to assess the extent to which they effectively benefit from the incentives and advantages established under investment law no. 22-18, as well as from the opportunities provided by public demand and public procurement mechanisms established under law no. 23-12.

The questionnaire was distributed electronically during the period extending from February to May. The data collection process resulted in 65 valid responses for statistical analysis. These responses constituted the basis of the field analysis, as they reflect the perceptions of the respondents regarding the effectiveness of legal incentives in supporting the activities of start-ups and improving their performance.

The research instrument consisted of a questionnaire designed based on the research problem, the study objectives, and its hypotheses. It was organized into three main dimensions. The first dimension addressed the incentives provided under investment law no. 22-18 as the first dimension of the independent variable, focusing on the extent to which start-ups benefit from investment advantages and facilities. The second dimension addressed the incentives provided under public procurement law no. 23-12 as the second dimension of the independent variable, by measuring the extent to which opportunities to participate in public demand and related facilities contribute to supporting the activities of start-ups. The third dimension was devoted to measuring the performance of start-ups as the dependent variable, through indicators related to growth, improved competitiveness, business development, and enhanced sustainability. The respondents' answers were measured using a five-point likert scale, allowing attitudes and opinions to be transformed into quantitative data suitable for statistical processing and analysis.

To ensure the quality of the collected data, the research instrument was submitted for evaluation by a group of specialized professors and experts in order to verify the clarity of the items and their relevance to the objectives of the study. This constituted the stage of verifying face validity. Pearson's

correlation coefficient was also used to assess the internal validity of the questionnaire items, while cronbach's alpha coefficient was used to measure the reliability and internal consistency of the instrument.

In addition, frequencies and percentages were used to analyze the general characteristics of the respondents, while arithmetic means and standard deviations were used to determine respondents' attitudes and their degree of agreement with the items and dimensions of the study. The arithmetic means were also compared with the hypothesized mean of 3, which represents the neutral value on the five-point likert scale to test the study hypotheses and analyze the nature of the relationships among the study variables, pearson's correlation coefficient was used to determine the direction and strength of the relationship between the incentives provided under investment law no. 22-18 and those provided under public procurement law no. 23-12, on the one hand, and the performance of start-ups, on the other hand.

Multiple linear regression analysis was also employed to test the joint effect of the two independent variables on the dependent variable. this was achieved by analyzing the regression coefficients, the coefficient of determination (r^2), the statistical significance of the model as a whole, and the statistical significance of each regression coefficient. Multiple linear regression can also be used to test the impact of each type of incentive separately. Based on the statistical results obtained, the acceptance or rejection of the study hypotheses was determined, thereby enabling an assessment of the extent to which the incentives provided under investment law no. 22-18 and public procurement law no. 23-12 contribute to improving the performance of start-ups in Algeria.

Study model

A set of statistical tests was initially employed to determine the nature of the data distribution and assess the validity and reliability of the questionnaire. The one-sample student's t-test was used to test the validity of the first and second hypotheses. As for the third hypothesis, the multiple linear regression model was used to measure the impact of the first and second dimensions, representing the independent variables, on the third dimension, representing the dependent variable. The following figure illustrates.

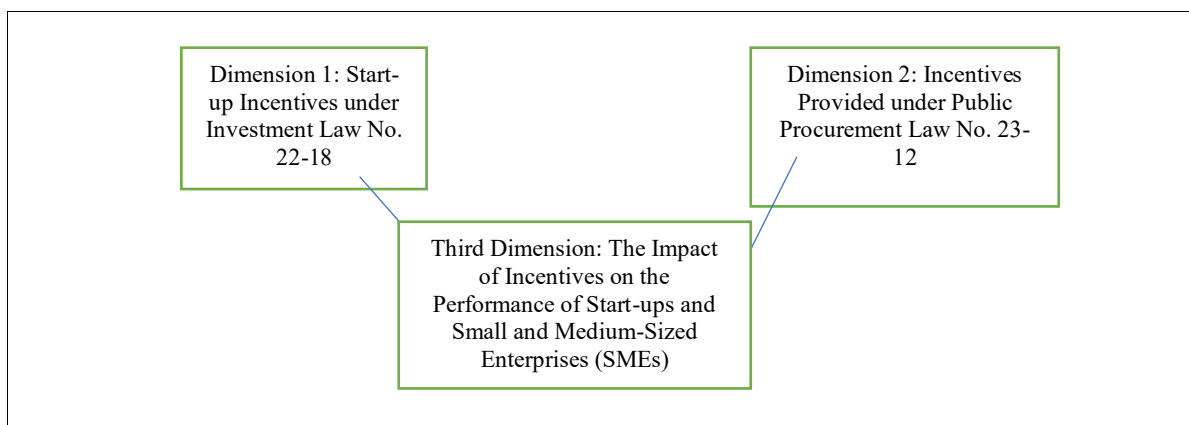


Figure 1
Study model

Source. Prepared by the researcher.

Questionnaire preparation and design

The questionnaire was prepared and designed in accordance with the scientific methods commonly adopted in this field and recognized in the area of economic measurement. This was achieved through the formulation and validation of its items. The first section included the respondents' demographic

and organizational characteristics, namely gender, age, the age of the enterprise, the legal nature of the enterprise, educational level, and level of activity. The second section consisted of questions related to the independent variables, namely the first dimension: incentives for start-ups under investment law no. 22-18, and the second dimension: incentives under public procurement law no. 23-12, as well as the dependent variable, namely the impact of incentives on the performance of start-ups and smes. A five-point likert scale was used to measure the respondents' answers to the questionnaire items.

Normality test

Before proceeding with the testing of the study hypotheses, the extent to which the study data followed a normal distribution was examined, given that the fulfillment of this condition constitutes one of the basic assumptions for applying several parametric statistical tests, such as pearson's correlation coefficient and linear regression analysis. for this purpose, the kolmogorov–smirnov test was used, in addition to the shapiro–wilk test, where necessary.

The following presents the results of the test used to determine the distribution of the respondents' data in relation to the study variables:

Table 1

Results of the normality distribution test

Questionnaire dimension	Kolmogorov–Smirnov			Shapiro–Wilk			Distribution Type
	Statistical Value	Test	Df	Sig.	Statistical Test Value	Df	Sig.
First Dimension	0.112		61	0.211	0.210	61	0.121
Second Dimension	0.119		61	0.210	0.230	61	0.090
Third dimension	0.111		61	0.212	0.227	61	0.110

Rule: If the sig. value is greater than 0.05 (sig. > 0.05), the respondents' data regarding the content of the questionnaire dimension follow a normal distribution.

Source. Prepared by the researcher based on the outputs of spss version 27.

The results of the normality tests presented in the table indicate that the statistical significance values (sig.) of the kolmogorov–smirnov test were 0.211, 0.210, and 0.212 for the first, second, and third dimensions, respectively. All of these values are greater than the significance level of 0.05. similarly, the results of the shapiro–wilk test showed statistical significance values of 0.121, 0.090, and 0.110, respectively, which are also greater than 0.05. accordingly, the null hypothesis of normal distribution cannot be rejected, indicating that the data relating to the questionnaire dimensions follow a normal distribution. This allows the use of appropriate parametric statistical tests for data analysis and hypothesis testing.

Validity and reliability of the research instrument

The reliability of the research instrument was assessed after data collection by calculating cronbach's alpha coefficient, which is one of the most widely used measures for determining the degree of internal consistency among the items of a research instrument. Given its high level of accuracy and reliability, it was used to assess the reliability of the questionnaire. The results were as follows:

Table 2
Results of cronbach's alpha reliability test

sample size	cronbach's alpha
65	0.884

Source. Prepared by the researcher based on the outputs of the statistical program spss 27.

The results show that the cronbach's alpha coefficient of the questionnaire is 0.884, corresponding to 88.4%, which exceeds the acceptable threshold of 60%. accordingly, the questionnaire is considered reliable and suitable for the purposes of the present study.

Analysis of the results

The study data were analyzed using a set of appropriate statistical methods, in addition to frequency tables and suitable graphical representations to clarify the results obtained.

Analysis of respondents' answers to the questionnaire dimensions

The answers of the research sample regarding the study variables were presented and analyzed in order to determine the respondents' degree of agreement. To achieve this objective, the arithmetic mean and standard deviation were calculated for the questionnaire dimensions, as presented in the following table:

Table 3
Analysis of the research sample's answers by dimension

no.	Items	mean	standard deviation	degree of agreement
First dimension: incentives for start-ups under investment law no. 22-18				
1	Investment Law No. 22-18 Has Provided A Suitable Environment For Establishing Start-Ups.	4.28	0.650	very high
2	Tax Incentives Contribute To Reducing The Financial Burdens Of Start-Ups.	4.00	0.637	high
3	Administrative Procedures Have Become Simpler As A Result Of The Investment Law.	4.18	0.882	very high
4	The Investment Law Contributes To Promoting Innovation And Entrepreneurship.	4.28	0.801	very high
5	The One-Stop-Shop System Facilitates The Investment Process.	4.32	0.651	very high
6	The Incentives Provided Are Sufficient To Support The Growth Of Start-Ups.	3.34	1.326	high
7	There Is Clarity In The Practical Implementation Of The Provisions Of The Investment Law.	3.09	1.234	high
8	The Investment Law Contributes To Attracting New Investors.	3.80	1.148	high
Second Dimension: Incentives Under Public Procurement Law No. 23-12				
9	The Public Procurement Law Provides Real Opportunities For Start-Ups To Participate In Public Procurement Contracts.	4.18	0.610	high
10	Start-Ups Benefit From Certain Facilities Compared With Large Enterprises.	4.05	0.837	high

11	The Qualification Requirements For Public Procurement Contracts Are Appropriate For Start-Ups.	3.98	0.450	high
12	The Public Procurement Law Guarantees The Principle Of Equal Opportunities Among Economic Operators.	3.65	1.071	high
13	The Administrative Procedures For Participating in Public Procurement Contracts Are Clear.	2.70	1.239	low
14	Public Procurement Contracts Contribute To Developing The Experience Of Start-Ups.	3.48	1.047	very high
15	start-ups do not face difficulties in accessing public procurement contracts.	4.11	0.687	high
16	the public procurement law contributes to supporting the financial growth of enterprises.	3.91	0.701	high
17	the public procurement law provides start-ups with real opportunities to access public demand.	3.91	0.701	high
18	public procurement procedures take into account the specific characteristics of start-ups compared with large enterprises.	3.32	1.324	high
third dimension: the impact of incentives on the performance of start-ups				
19	legal incentives have contributed to improving the financial performance of the enterprise.	4.10	0.569	high
20	legal incentives have helped expand the enterprise's activities.	4.41	0.496	high
21	legal incentives have contributed to increasing the enterprise's competitiveness.	4.00	0.658	high
22	legal incentives have helped create new employment opportunities.	3.90	0.746	high
23	legal incentives have strengthened the enterprise's continuity in the market.	4.10	0.569	high
24	there is consistency between the investment law and the public procurement law.	3.79	0.777	high
25	the current legal incentives provided under the investment law and the public procurement law are sufficient to achieve enterprise sustainability.	3.56	1.177	high
Overall mean and standard deviation		3.85	0.839	high

Source. Prepared by the researcher based on the results of spss version 27.

The results presented in the table show that the overall arithmetic mean was 3.85, with a standard deviation of 0.839, reflecting a high degree of agreement among the respondents with the questionnaire items as a whole. This result indicates a generally positive attitude among start-up owners towards the incentives provided under investment law no. 22-18 and public procurement law no. 23-12, as well as their perception of the role played by these incentives in supporting and improving the performance of their enterprises.

First: Analysis of the first dimension: incentives for start-ups under investment law no. 22-18

The results of the first dimension revealed that the respondents held a positive attitude towards most of the incentives provided under investment law no. 22-18. item (5), “the one-stop-shop system facilitates the investment process”, ranked first, with an arithmetic mean of 4.32 and a standard deviation of 0.651, reflecting a very high degree of agreement. This indicates that the one-stop-shop system is perceived as an effective mechanism for simplifying procedures and reducing the complexities associated with the investment process.

Items (1) and (4) recorded an arithmetic mean of 4.28. the respondents indicated that the investment law has provided a suitable environment for establishing start-ups and has contributed to promoting innovation and entrepreneurship. this result highlights the importance of the legal investment framework in creating appropriate conditions for enterprise establishment and encouraging innovative initiatives.

Item (3), relating to the simplification of administrative procedures, recorded a mean of 4.18, while the mean for tax incentives reached 4.00, reflecting the respondents’ agreement that such incentives contribute to reducing the financial burdens faced by start-ups. The item relating to the contribution of the investment law to attracting new investors recorded an arithmetic mean of 3.80, indicating a positive assessment of the role of the law in enhancing investment attractiveness. in contrast, item (7), relating to the clarity of the practical implementation of the law’s provisions, recorded the lowest arithmetic mean in this dimension, at 3.09, followed by item (6), relating to the sufficiency of incentives to support enterprise growth, with a mean of 3.34. These findings reveal certain reservations among the respondents regarding the practical implementation of the law and the adequacy of the available incentives, despite the overall positive trend.

Second: Analysis of the second dimension: incentives under public procurement law no. 23-12

The results of the second dimension indicate a generally positive attitude towards the incentives and opportunities provided by the public procurement law for start-ups. item (9), relating to the provision of real opportunities for start-ups to participate in public procurement contracts, recorded an arithmetic mean of 4.18, reflecting the respondents’ recognition of the importance of public procurement as a means of supporting start-up activities and expanding their market opportunities. Item (15), “start-ups do not face difficulties in accessing public procurement contracts,” recorded a mean of 4.11, indicating a positive attitude among the respondents towards access to public demand. the item relating to the existence of facilities for start-ups compared with large enterprises recorded a mean of 4.05, while the mean relating to the appropriateness of qualification requirements reached 3.98.

Items (16) and (17) each recorded an arithmetic mean of 3.91, reflecting the contribution of the public procurement law to supporting enterprise financial growth and providing real opportunities to access public demand. the item relating to equal opportunities recorded a mean of 3.65, indicating a relatively positive assessment of the principle of competition among economic operators.

In contrast, item (13), relating to the clarity of administrative procedures for participating in public procurement contracts, recorded the lowest arithmetic mean in this dimension, at 2.70, reflecting a low degree of agreement and indicating that administrative procedures remain one of the major obstacles facing start-ups. item (18), relating to the consideration of the specific characteristics of start-ups, recorded a mean of 3.32, indicating that this aspect requires further improvement and development.

As for item (14), relating to the contribution of public procurement contracts to developing the experience of start-ups, it recorded an arithmetic mean of 3.48. it should be noted that classifying this

value as a "very high degree" is inconsistent with the reported arithmetic mean; therefore, the scale used to interpret the means in the study should be reviewed.

Third: Analysis of the third dimension: the impact of legal incentives on the performance of start-ups

The results of the third dimension revealed a clear positive attitude towards the impact of legal incentives on the performance of start-ups. item (20), "legal incentives have helped expand the enterprise's activities", ranked first across the entire questionnaire, with an arithmetic mean of 4.41 and a standard deviation of 0.496, reflecting a very high degree of agreement that legal incentives contribute to expanding the activities of start-ups.

Items (19) and (23) recorded a mean of 4.10, indicating that legal incentives contribute to improving financial performance and strengthening enterprise continuity in the market. The arithmetic mean of the item relating to increased competitiveness reached 4.00, while the mean of the item relating to the creation of new employment opportunities reached 3.90.

Item (24), relating to the existence of consistency between the investment law and the public procurement law, recorded a mean of 3.79, indicating a high degree of agreement regarding the existence of a relative degree of integration between the two legal frameworks. meanwhile, item (25), relating to the sufficiency of legal incentives for achieving sustainability, recorded the lowest mean in this dimension, at 3.56. This suggests that the respondents believe that legal incentives contribute to improving enterprise performance, but may not, on their own, be sufficient to achieve long-term sustainability.

Testing the research hypotheses

Before testing the research hypotheses, the assumptions required for the application of the relevant statistical tests were examined. the first and second hypotheses were tested using the student's t-test. in addition, the extent to which the study data met the assumptions required for applying linear regression analysis was assessed, beginning with the normality test. the independence of the residuals was also examined using the durbin–watson test.

Testing the first hypothesis

First hypothesis (h1): the incentives provided under investment law no. 22-18 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean of 3.

Accordingly, the null and alternative hypotheses can be formulated as follows:

h_0 : the incentives provided under investment law no. 22-18 do not contribute to improving the performance of start-ups and smes, and the arithmetic mean of the respondents' answers does not significantly exceed the hypothesized mean of 3.

h_1 : the incentives provided under investment law no. 22-18 contribute to improving the performance of start-ups and smes, and the arithmetic mean of the respondents' answers significantly exceeds the hypothesized mean of 3.

To test the first hypothesis, which states that the incentives provided under investment law no. 22-18 contribute to improving the performance of start-ups and smes, the one-sample student's t-test was employed. this test aims to determine whether the arithmetic mean of the respondents' answers to the items of the first dimension differs significantly from the neutral value of the five-point likert scale, namely 3. The purpose of using this test is to determine whether the respondents' degree of agreement regarding the contribution of the incentives provided under investment law no. 22–18 to improving the performance of start-ups and smes is statistically significant.

The statistical decision is based on the sig. (2-tailed) value. if the significance value is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted. if the significance value is greater than 0.05, the null hypothesis is not rejected.

Table 6
Results of testing the first hypothesis

Dimension	arithmetic mean	t-value	degrees of freedom (df)	Sig.(2-tailed)	decision
Incentives under investment law no. 22–18 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean (3).	3.91	12.70	64	0.000	rejection of the null hypothesis

Source. Prepared by the researcher based on the outputs of spss 27.

To test the first hypothesis, which states that "the incentives provided under investment law no. 22-18 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean of 3", the one-sample student's t-test was employed to determine whether there was a statistically significant difference between the arithmetic mean of the respondents' answers regarding the incentives provided under investment law no. 22-18 and the hypothesized mean of the five-point likert scale, which is equal to 3. The arithmetic mean of the dimension relating to investment law incentives reached 3.91, which is higher than the hypothesized mean. The t-test value was 12.70 with 64 degrees of freedom, while the sig. (2-tailed) value was 0.000, which is lower than the adopted significance level of 0.05. accordingly, the null hypothesis stating that the arithmetic mean does not exceed the hypothesized mean is rejected and the alternative hypothesis is accepted. This indicates the existence of a statistically significant difference between the arithmetic mean and the hypothesized mean in favor of the higher arithmetic mean. therefore, the results confirm that the incentives provided under investment law no. 22-18 contribute, in a statistically significant manner, to improving the performance of start-ups and smes. Accordingly, the first hypothesis of the study is accepted.

Testing the second hypothesis

Second hypothesis (h2): The incentives provided under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean of 3.

Accordingly, the null and alternative hypotheses are formulated as follows:

h_0 : The incentives provided under public procurement law no. 23-12 do not contribute to improving the performance of start-ups and smes, and the arithmetic mean of the respondents' answers does not significantly exceed the hypothesized mean of 3.

h_1 : The incentives provided under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes, and the arithmetic mean of the respondents' answers significantly exceeds the hypothesized mean of 3.

To test the second hypothesis, which states that the incentives provided under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes, the one-sample

student's t-test was employed. This test aims to determine whether the arithmetic mean of the respondents' answers to the items of the second dimension differs significantly from the neutral value of the five-point likert scale, namely 3. The statistical decision is based on the sig. (2-tailed) value. If the significance value is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is accepted. If the significance value is greater than 0.05, the null hypothesis is not rejected.

Table 7

Results of testing the second hypothesis

Dimension	arithmetic mean	t-value	degrees of freedom (df)	sig. (2-tailed)	decision
Incentives under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean (3).	3.73	13.58	64	0.000	rejection of the null hypothesis

Source. Prepared by the researcher based on the outputs of spss 27.

To test the second hypothesis, which states that "the incentives provided under public procurement law no. 23-12 contribute to improving the performance of start-ups and smes, as the arithmetic mean of the respondents' answers exceeds the hypothesized mean of 3", the one-sample student's t-test was employed to determine whether there was a statistically significant difference between the arithmetic mean of the respondents' answers regarding the incentives provided under public procurement law no. 23-12 and the hypothesized mean of the five-point likert scale, which is equal to 3. The arithmetic mean of the dimension relating to public procurement law incentives reached 3.73, which is higher than the hypothesized mean. The t-test value was 13.58 with 64 degrees of freedom, while the sig. (2-tailed) value was 0.000, which is lower than the adopted significance level of 0.05. Accordingly, the null hypothesis stating that the arithmetic mean does not exceed the hypothesized mean is rejected and the alternative hypothesis is accepted. This indicates the existence of a statistically significant difference between the arithmetic mean and the hypothesized mean in favor of the higher arithmetic mean. Therefore, the results confirm that the incentives provided under public procurement law no. 23-12 contribute, in a statistically significant manner, to improving the performance of start-ups and smes. Accordingly, the second hypothesis of the study is accepted.

Results of testing the third hypothesis

Third hypothesis (h3): There is a statistically significant effect of legal incentives provided under investment law no. 22-18 and public procurement law no. 23-12 on the performance of start-ups.

Accordingly, the null and alternative hypotheses are formulated as follows:

h_0 : There is no statistically significant effect of the legal incentives provided under investment law no. 22-18 and public procurement law no. 23-12 on the performance of start-ups.

h_1 : There is a statistically significant effect of the legal incentives provided under investment law no. 22-18 and public procurement law no. 23-12 on the performance of start-ups.

Multiple linear regression analysis was employed to determine the extent to which the legal incentives provided under investment law no. 22-18 and public procurement law no. 23-12 affect the performance of start-ups.

Table 8

Results of the multiple linear regression analysis for the third hypothesis model summary

r	adjusted r ²	standard error of the estimate		f-value	degrees of freedom	p-value	
0.955	0.893	0.15		258.29	64	0.000	
Model coefficients							
Independent Variable		constant	b	standard error	standardized beta (β)	t-value	sig.
incentives under investment law no. 22-18		0.125	0.180	0.040	0.226	4.515	0.001
incentives under public procurement law no. 23-12			0.845	0.050	0.800	15.990	0.010

Source. Prepared by the researcher based on the outputs of spss 27.

To test the third hypothesis, which states that "there is a statistically significant effect of legal incentives, represented by the incentives provided under investment law no. 22-18 and public procurement law no. 23–12, on the performance of start-ups", multiple linear regression analysis was employed to measure the contribution of both investment law incentives and public procurement law incentives to explaining variations in start-up performance. The results revealed a very strong correlation between the independent variables and the dependent variable, with a correlation coefficient of $r = 0.955$. The adjusted coefficient of determination reached adjusted $r^2 = 0.893$, indicating that the legal incentives explain 89.3% of the variations in start-up performance. The results of the overall significance test of the model showed that the f-value was 258.29, with a significance level of $p = 0.000$, which is lower than the adopted significance level of 0.05. This confirms the statistical significance of the regression model as a whole. Regarding the individual effects of the independent variables, the incentives provided under investment law no. 22-18 were found to have a positive and statistically significant effect on start-up performance, with a standardized beta coefficient of $\beta = 0.226$ and a significance value of $\text{sig.} = 0.001$. Similarly, the incentives provided under public procurement law no. 23-12 were found to have a positive and statistically significant effect, with a standardized beta coefficient of $\beta = 0.800$ and a significance value of $\text{sig.} = 0.010$. Based on these results, the null hypothesis is rejected and the alternative hypothesis is accepted, confirming the existence of a statistically significant effect of legal incentives on start-up performance. The results also indicate that incentives under public procurement law no. 23-12 make a relatively greater contribution to explaining start-up performance compared with incentives under investment law no. 22-18.

Conclusion

This study concludes that the legal incentives established by the algerian legislator through investment law no. 22-18 and public procurement law no. 23-12 constitute an important mechanism for supporting start-ups and smes and enhancing their ability to grow and remain in the market. The empirical results showed that the respondents evaluated the incentives provided under the investment law at a high level, while the incentives provided under the public procurement law also received a high level of agreement, reflecting a positive perception of the importance of these incentives in creating a supportive environment for start-ups. The results of the student's t-test further confirmed that the arithmetic means of the two study dimensions were significantly higher than the hypothesized mean of 3, confirming the contribution of both investment law incentives and public procurement law incentives to improving start-up performance. The multiple linear regression analysis demonstrated a positive and statistically significant effect of legal incentives on start-up performance, with the

independent variables explaining a high proportion of the variations in performance. The results also showed that the incentives provided under the public procurement law had a relatively greater effect than those provided under the investment law, highlighting the importance of enabling start-ups to access public demand and benefit from the opportunities available in the field of public procurement. Nevertheless, the findings revealed certain challenges related to the clarity of procedures and the practical implementation of incentives, which calls for continued legal and administrative reform efforts, the simplification of procedures, and enhanced coordination among the various relevant authorities. Accordingly, the effectiveness of legal incentives depends not only on the existence of legal provisions but also on their clarity, ease of implementation, and the ability of start-ups to benefit from them effectively, thereby contributing to the promotion of innovation, strengthening competitiveness, and achieving growth and sustainability.

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