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ARTICLE

An Analysis of the Business Climate and the Investment Intentions Trend in Post-revolutionary Tunisia

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ABSTRACT

The paper examined the impact of business climate on the investment intentions of local enterprises, Mediterranean enterprises, and individual entrepreneurs in Tunisia. The paper has used both primary and secondary data. The secondary data is used for literature review and primary data has been collected by survey in Tunisia. Primary data were collected from 257 local and 204 Mediterranean businesses, including Large Corporations, Small businesses and SMEs, and 362 individual Tunisian investors, using a structured questionnaire via face-to-face interviews. Principal Component Analysis, t-test, ANOVA, post-hoc test, and the model of Multinomial Logistic Regression Analysis has been carried out to study the interrelationships among the variables in this paper. A descriptive analysis of the data has also been done. The paper found that the most important economic variables for local and Mediterranean enterprises are the "presence of support system" and "Investment Grants". Though for the Individual Investors the most important economic variables are "Saturation of Market", "Investment grants", and "Data Access". The social variables "safety in daily activities, safety while traveling" and "security level of governance" are the most important variables. Further, the most important political variables affecting investment decisions are "Good governance" and "Law enforcement" of local, Mediterranean enterprises, and individual investors. The paper also found that political dimensions have a significant impact on the investment intentions of local enterprises, while social dimensions have a significant impact on the investment intentions of Mediterranean enterprises. Moreover, economic dimensions have a significant impact on the investment decision of individual investors. The paper suggests that, by developing a favorable climate for businesses, the government should promote investment in Tunisia. Easy credit facilities should be provided to the entrepreneurs. There is a need to provide credit guarantee tools to small and medium-sized businesses for easy access to financial services.

1. Introduction

The Tunisian Revolution in 2011 was both a challenge and an opportunity for the country. The revolution has raised economic instability and unemployment; growth in the fiscal year 2011 dropped to -1.1%, while unemployment grew from 13% in 2010 to 18.9% in 2011 and then to 16.7% in 2012. Around the same time, the revolution

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presented Tunisia with the ability to reconsider its growth strategy for the private sector. The country is focusing on the lessons learned over decades of economic liberalization and is using analytical evidence to implement policies that can contribute to long-term prosperity [11].

Over the past few years, successive governments have pursued much-needed institutional changes to strengthen the market environment of Tunisia, including strengthened banking regulations, investment code, and the original "negative lists" and a law allowing public-private partnerships. The Government of Tunisia (GoT) has also promoted entrepreneurship through the implementation of the Start-Up Act. The GoT also passed the "organic budget laws" to ensure full fiscal accountability and to notify the public about government spending programs over three years. These measures would help Tunisia draw international and domestic investment [10]. The acceleration of Tunisia into the global economy, combined with domestic reforms aimed at rising firm competitiveness, has contributed to an increase in the country's investment.

Tunisia continues to make strides in its transition to democracy in the post-revolution. Since the 2011 revolution, Tunisia has made considerable efforts to improve the business environment of the country by developing a significant infrastructure, a legal framework that promotes investment and policies to build an entrepreneurial community, undertaken by both public authorities and the private sector for training, support, and coaching.

Tunisia has introduced a generous program of rewards for investment in general and the development of SMEs in particular, considering the significant role that entrepreneurship plays in job creation, poverty alleviation, and social and regional inequality.

The structure of the paper has been divided into five sections. The first section introduces the study. The second section is based on the literature review and hypotheses of the study. The third section is related to the data and methodology used in the study. The results of the study are given in fourth section and conclusion and implications are discussed in fifth section.

2. Literature Review and Hypotheses of the Study

Various authors have analysed the factors affecting the investment intention of an individual or a firm. They have found many variables affecting the willingness to invest in any country. In any country, low risk, subsidies and current taxation system are the important variables. (14)

A study examined the factors affecting the investment intentions in Sri Lanka found that risk factors, returns on investment, liquidity of investment, tax consequences of an investments, inflation and the terms of an investment. [15] The theory of planned behaviour is an important predictor of investment decisions. The influence of relatives and friends, and accessibility to funds are an imperative predictors of investment intentions of students [16].

A study found that investors in Tunisia do not always behave rationally while making decisions about investment. In reality, Tunisian investors seem to be unconfident, tentative and very receptive to the reactions and views of others. The other result related to the relationship between demographic variables and financial behavioural factors given, in particular, that variables such as gender, age, socio-professional group and experience both seem to have an impact on the actions of investors operating in the Tunisian market. This research indicates that individuals at a certain age are less subject to behavioural prejudice as they become more educated, whereas older investors who are comparatively less educated and have smaller incomes are vulnerable to behavioural bias [17].

Factors Affecting Investment Intentions of entrepreneurs in Tunisia

Increased turmoil in the wake of the transition, leading to civil unrest and terrorist attacks, undermined the investment climate and seriously affected economic sectors [13]. The investment climate in a country affects the investment intentions of the firms. Hence, the investment intentions of the firms are affected by various factors. And these factors can be social, economic, and political.

The economy of Tunisia is considered as a lower-middle-income country with a GDP per capita of USD 3,713 (13,417 in PPP terms) and a population of 11.7 million in 2019. Tunisia's economy was heavily regulated, which hampered competition and investment. The GoT adopted the Five-year Development Plan (2016-2020), followed by the Economic and Social Roadmap 2018-2020, to accelerate macro-and fiscal-stabilization reforms, modernize social safety nets (SSN), and improve private investment, competitiveness, and productivity [13].

Political stability in a country plays an important role to encourage investment. Political risk is recognized as the likelihood that political decision-making and political and social developments in a nation may affect the economic environment, contributing to a loss of income for the prospective investor. Thus, this risk stems from the confusion as to the future profits of investments that can benefit or impede the interests of the company [1].

The evaluation of a nation at risk relies on the stability of the government, the existence of an independent judiciary, and the reputation of the legal system. The same risk is also associated with investment decisions that can cause

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direct or indirect financial loss or damage to investment projects as a result of changes to the economic or political climate [6].

It has been shown that people favour strong self-efficacy, especially when coupled with the availability of national support programs and efficient networks, which can be seen as a thread that motivates entrepreneurs to engage in the field of venture creation [4,9].

Hypotheses of the Study

(1) There is a significant difference in the investment intensions of Mediterranean enterprises, local enterprises and individuals.

(2) Investment grants is an important economic variable for all the enterprises.

(3) Safety and security level in the country are the most important social variables.

(4) Good governance is a significant political variable impacting investment intentions.

(5) All the dimensions (political, social and economic) have significant impact on the investment intentions of all the enterprises.

2.1 Profile of Firms in Tunisia

The firms can be categorized as SMEs, Medium enterprises, large enterprises, and small businesses according to their size i.e. total investment and numbers of workers.

In Tunisia, there is no official definition of small and medium-sized enterprises. Enterprises with a gross investment of less than 3 million TND in industry and services are known as small and medium enterprises. SMEs are companies that are operated directly by their owners, who undertake financial, technological, and moral obligations in a personal and direct manner. Any enterprise which employs between 10 and 100 workers belongs to the SME group [8]. Furthermore, any enterprises which employ equal to or more than 100 workers belong to a large enterprise. (INS RNE, 2013). Tunisian statistical office indicates that the majority of businesses are single-person enterprises, i.e. self-employed entrepreneurs. They make up nearly 90% of all companies. In Tunisia, 98.2 percent of the total enterprises are MSME, which consists of Micro (76.7%), Small (19.2%), and Medium (2 %) Enterprises. While large enterprises are only 2.2 percent of the total enterprises in Tunisia [3].

2.2 Investment Incentives for SMEs in Tunisia

The Government of Tunisia has made substantial efforts to develop the business environment in Tunisia and to encourage investment in small and medium-sized enterprises. Tunisia was ranked 42nd out of 132 countries for entrepreneurial ecosystem health in 2017 [5].

The Government of Tunisia has enacted various investment incentives code to encourage investment. The investment policies and regulatory framework of Tunisia was based on the 1993 Investment Benefits Code (Law 93-120 of December 1993), which relies on the introduction of the offshore system in 1972 (Law 72-38 of April 1972) [12].

Various tax advantages, combined with a streamlined legal and regulatory structure, have allowed the private equity sector to grow slightly. In the aftermath of the 2011 revolution, the institutional and regulatory framework for private equity investments was strengthened and led to an increase in the creation of investment vehicles such as *SICARs* (Venture Capital Investment Company-investment companies), *FCPRs* (Common Fund of Investment at Risk Fund-mutual funds dedicated to private equity activities) and FAs (Funds Priming-Funds for Startups).

In April 2018, the Government of Tunisia adopted the *Start-Up Act*, to provide tax and other incentives to promote the development and growth of innovative start-ups and small and medium-sized enterprises and to transform Tunisia into a vibrant business center. Furthermore, a new "*horizontal law*", which intends to relax constraints on private investment and eliminate barriers to the investment climate, including those relating to private equity, has been accepted by the Government and sent to Parliament for approval [13].

Various measures have been taken by the government to incentivize the SMEs in Tunisia. *FOPRODI* was set up in 1974 with three following objectives: (1) the strengthening of entrepreneurship through new entrepreneurial ventures in small and medium-sized enterprises (defined as enterprises with a capital of up to one million Tunisian dinars). (2) the decentralization of manufacturing in a country with a strong concentration in the coastal area and of three major cities (Tunis, Sfax, and the City of *FOPRODI*), and (3) reducing the country's persistently high level of the official unemployment rate [7].

GOT has developed training and support measures to promote SMEs. Various support measures have been provided for small enterprise funding with the establishment of the National Fund for the Promotion of Handicrafts and Small Trades (*FONAPRA*) in 1981 and the *Bank for Small and Medium-sized Enterprise Funding* in 2005. The Committee states that the Tunisian Bank of Solidarity (BTS) promotes access to bank loans for entrepreneurs and that it funded 81,803 micro-enterprise ventures between 1998 and 2005, of which 25,437 were set-up by women [7]. Also, the Tunisian Bank of Solidarity (BTS) and Financing bank of SMEs (BFPME) have played an important role in providing credits to SMEs.

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2.3 The Objective of the Study

The objective of this paper is to examine the business climate and investment intentions of local enterprises, Mediterranean enterprises, and individual investors in Tunisia in the post-revolution. It has also examined the impact of the Socio-economic and political environment on the investment intentions of the entrepreneurs.

3. Data and Methodology

The paper has used both primary and secondary data. The secondary data has been used for the literature review. The primary has been collected from the 257 local enterprises and 204 Mediterranean enterprises including Large Enterprises, Small businesses, and SMEs and 362 individual investors from Tunisia by using structured questionnaire through face-to-face interview. Principal Component Analysis, ANOVA, and the model of Multinomial Logistic Regression Analysis have been carried out to study the interrelationships among the variables in this paper. A descriptive analysis of the data has also been done.

3.1 Principle Component Analysis

Principal-components analysis is a method to reduce the dimensionality of multivariate data to make its structure clearer. Using PCA, a score was estimated for three dimensions (social, economic and political), by taking into account the associated items, their positive or negative impact on the total score and the precise impact on the total variation of the estimated score for each dimension. The score for each of the three dimensions was based on the related regression equations:

$$Score_{Politcal\ Variables} = a_1 Pol_1 + a_2 Pol_2 + a_3 Pol_3 + \ldots\ldots\ldots\ldots + a_n Pol_n \quad (1)$$

$$Score_{Economic\ Variables} = b_1 Eco_1 + b_2 Eco_2 + b_3 Eco_3 + \ldots\ldots\ldots\ldots + b_n Eco_n \quad (2)$$

$$Score_{Social\ Variables} = c_1 Soc_1 + c_2 Soc_2 + c_3 Soc_3 + \ldots\ldots\ldots\ldots + c_n Soc_n \quad (3)$$

In the above 3 equations, ai=1,...,n, bi=1,...,n, ci=1,...,n represent the estimations of the parameters from the models related to the three dimensions. The details of political, Economic and Social variables are given in Annexure.

3.2 Multinomial Logistic Regression Model

The model of multinomial logistic regression analysis has been used to study the impact of social, economic and political dimensions on investment intentions of enterprises in this paper.

The relation between a set of predictors and a multicategory nominal (unordered) outcome is estimated by multinomial logistic regression models. In logistic regression analysis, the outcome is always labelled as 0 or1, where 1 means that the interest outcome is present, and 0 indicates that the interest outcome is missing. If p is defined as the probability that outcome is equal to 1, then the equation of multinomial logistic regression can be written as:

$$\hat{P} = \frac{\exp(b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_p X_p}{1 + \exp(b_0 + b_1 X_1 + b_2 X_2 + \ldots + b_p X_p)}$$

Here $\hat{P}$ is defined as expected probability of the presence of outcome. X_1, X_2……, Xp are the different independent variables. In the equation, b_0, b_1, b_2……., bp are the regression coefficients.

In the study ten multinomial regression equations were used. The regression model, with dependent variables (investment intentions of enterprises) against social economic and political dimensions as the explanatory variables were used to study investment intentions of local, Mediterranean and individual enterprises

Here $\hat{P}$ = Investment intentions.

X_1 = Social dimensions, X_2 = Political dimensions, X_3 = Economic dimensions, b_0, b_1, b_2, b_3 are the regression coefficients.

$$\hat{Investment\ Intentions} = \frac{\exp(b_0 + b_1 Social\ dimensions + b_2 Political\ dimensions + b_3 Economic\ dimensions)}{1 + \exp(b_0 + b_1 Social\ dimensions + b_2 Political\ dimension + b_3 Economic\ dimensions)}$$

4. Results and Discussion

4.1 Descriptive Statistics of Local, Mediterranean Enterprises and Individual Entrepreneurs in Tunisia

4.1.1 Descriptive of Local and Mediterranean Enterprises

The studied population consists of different Enterprises classes i.e. large enterprises, small businesses, and SMEs in Tunisia. In the case of both Local and Mediterranean enterprises, more than half are SMEs. The number of large enterprises is very less (Table 1).

The companies are further categorized into three age categories. Most of the companies are 2 to 5 years old. It indicates that investment activities have taken place recently.

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Table 1. Descriptive of Local and Mediterranean Enterprises

Variables	Categories	Local Enterprises		Mediterranean Enterprises	
		Number of Respondents	Percentage (%)	Number of Respondents	Percentage (%)
Age of Company	0-2	74	28.8	56	27.5
	2-5	157	61.1	128	62.7
	6-10	26	10.1	20	9.8
	Total	257	100	204	100.0
Enterprise-Class	Large Enterprise	19	7.4	13	6.4
	Small Business	107	41.6	80	39.2
	SMEs	131	51	111	54.4
	Total	257	100	204	100.0

4.1.2 Descriptive of Individual Enterprises

Table 2 shows the investment activities by individual investors in Tunisia. Individual investors include students, jobseekers, employees, external consultants, and resident investors. 32.3 percent of the total individual investors are students, this is followed by employees (21.8 percent). 18.8 percent of the total individual wanted to do investment in the future. More than half of the individual investors are females. Most of the investors are of the age group between 25 to 37 years old.

Table 2. Descriptive of Individual Entrepreneurs in Tunisia

Variable	Description	Frequency	Percent
Individual Investors	Student	117	32.3
	Jobseeker	63	17.4
	Future investor	68	18.8
	Employee	79	21.8
	External Consultant	25	6.9
	Resident Investor	10	2.8
SEX	Female	203	56.1
	Male	159	43.9
AGE	18-24	94	26.0
	25-37	226	62.4
	38-60	39	10.8
	+61	3	0.8
LEVEL of STUDIES	Bac	12	3.3
	Bac+2	32	8.8
	Bac+3	60	16.6
	Bac+4	31	8.6
	Bac+5	107	29.6
	Bac+6	61	16.9
	Doctor	23	6.4
	Ph.D. student	29	8.0
	Professional training	7	1.9
	Total	362	100.0

4.2 Results of ANOVA for Local and Mediterranean Enterprises

In Table 3, the value of P =0.215. There is no significant difference in the investment intentions between groups of enterprises. Hence, the difference is non-significant in the mean of investment intentions of SMEs, small businesses, and large enterprises.

Table 3. ANOVA results of the Test of Significance for Local Enterprises

ANOVA					
Are you planning to invest in Tunisia?					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4.856	2	2.428	1.548	0.215
Within Groups	398.490	254	1.569		
Total	403.346	256			

Table 4 shows that there is a significant difference in the investment intentions between groups (P= 0.000, F=67.354). It indicates that there is a statistically significant difference in the mean investment intentions of different enterprise classes i.e. SMEs, small businesses, and large enterprises.

Table 4. ANOVA results of the Test of Significance for Mediterranean Enterprises

ANOVA					
Are you planning to invest in Tunisia?					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	177.051	2	88.526	67.354	0.000
Within Groups	264.179	201	1.314		
Total	441.230	203			

In Table 5 the test of post-hoc was applied to check the difference in investment intentions of different enterprises classes-large enterprises, small businesses, and SMEs in Mediterranean enterprises.

The test of Games-Howell shows that there is a significant difference in the investment intention of SMEs and small business (P=0.000), and SMEs and large enterprises (P=0.005). Whereas the difference is non-significant in the investment intentions of large businesses and small businesses (P=0.359).

Table 5. Post-hoc test for Mediterranean Enterprises

Multiple Comparisons (Games-Howell)						
Dependent Variable: Are you planning to invest in Tunisia?						
(I) Enterprise-Class:	(J) Enterprises Class	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Large enterprise	Small Business	0.521	0.359	0.346	-0.43	1.47
	SMEs	-1.406*	0.381	0.005	-2.39	-0.42
Small Business	Large enterprise	-0.521	0.359	0.346	-1.47	0.43
	SMEs	-1.927*	0.146	0.000	-2.27	-1.58
SMEs	Large enterprise	1.406*	0.381	0.005	0.42	2.39
	Small Business	1.927*	0.146	0.000	1.58	2.27

Note: *. The mean difference is significant at the 0.05 level.

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Hence, investment decisions of all the enterprises (SMEs, small businesses, and large enterprises) under Mediterranean enterprises are significantly different, but under local enterprises, no significant difference was found.

Individual Entrepreneurs in Tunisia

(1) SEX-WISE investment intentions

An Independent t-test was applied to find the sex-wise investment intentions of the individual entrepreneurs. The study found that there is a non-significant difference in the investment intentions of males and females. t (360) = 0.129, P = 0.897.

(2) Profession-Wise investment intentions

The ANOVA table 6 shows that there is a significant difference between groups in the investment intention of individual investors from different professional classes. (P=0.000, F= 6.248). It indicates that there is a statistically significant difference in the mean investment intention of investors of various profession/

Table 6. Profession-wise results of ANOVA

ANOVA					
Are you planning to invest in Tunisia?					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	50.990	5	10.198	6.248	0.000
Within Groups	581.055	356	1.632		
Total	632.044	361			

The test of post-hoc (Games-Howell) was applied to find the profession-wise difference in the investment intention of individuals (see Annexure Table 7). The results show that there is a significant difference in the investment intentions of students and resident investors (P=0.033), Jobseeker and Resident investors (P=0.016), Future Investor, and Employee (P=0.001), Employee and Resident Investors (P=0.004). Further, there is no statistically significant difference in the investment intentions of External consultants from all other professions.

Thus, there is no significant difference in the sex-wise investment intentions of the individual investor, but there is a significant difference in the investment decisions of individuals from various professionals.

Hence, the hypothesis i.e. there is a significant difference in the investment intensions of Mediterranean enterprises, local enterprises and individuals cannot be conclusively accepted or rejected.

4.3 Estimating the Scores for the Three Dimensions by Using Principal Component Analysis (PCA)

4.3.1 Principal Component Analysis for Local Enterprises in Tunisia

The score was estimated for the three dimensions (Social, Political, and Economic) by using PCA. (Table 8) The score is based on the coefficient of the associated score functions. The calculated coefficient also indicates the significance of the item in describing the total variance of investment intentions based on the items considered.

For the Economic dimension, all the 20 items positively influence the estimated score. The score was highest for the variable ECO18 (Presence of support structure) followed by ECO12 (Investment Grants). It indicates that the presence of support structure and Investment grants are the most important economic variables affecting investment intentions.

For the Social dimensions, all the 10 variables positively influence the score. The highest positive score was shown by the variable SOC7 (Safe during daily activities) followed by SOC8 (Safe while traveling) and SOC10 (security level in your governorate). It indicates that safety and security in a country are very necessary for enterprises in impacting their investment intentions.

For the Political dimensions, all 8 variables show a positive impact. The variable POL2 (Good Governance) has the highest positive score followed by POL3 (Law enforcement) and POL5 (Municipal Governance). It shows that enterprises give top priority to the prevailing government system or authority. If the government system is conducive for the entrepreneur and laws are favorable for the investment, then it has a positive impact on the investment intentions.

Table 8. Component Score Coefficient Matrix for local enterprises

Component Score Coefficient Matrix					
Economic Variables		Social Variables		Political Variables	
ECO1	0.051	**SOC1**	0.117	**POL1**	0.198
ECO2	0.044	**SOC2**	0.101	**POL2**	0.212
ECO3	0.072	**SOC3**	0.097	**POL3**	0.209
ECO4	0.076	**SOC4**	0.136	**POL4**	0.156
ECO5	0.084	**SOC5**	0.187	**POL5**	0.199
ECO6	0.054	**SOC6**	0.187	**POL6**	0.193
ECO7	0.084	**SOC7**	0.214	**POL7**	0.063
ECO8	0.086	**SOC8**	0.198	**POL8**	0.059
ECO9	0.056	**SOC9**	0.135		
ECO10	0.076	**SOC10**	0.196		
ECO11	0.117				
ECO12	0.121				
ECO13	0.110				
ECO14	0.121				
ECO15	0.119				
ECO16	0.107				
ECO17	0.105				
ECO18	0.128				
ECO19	0.082				
ECO20	0.019				
KMO	0.862	**KMO**	0.815	**KMO**	0.889
Sig	0.000	**Sig**	0.000	**Sig**	0.000

Notes: KMO (Kaiser–Meyer–Olkin Measure of Sampling Adequacy). Extraction method: Principal Component; Analysis (PCA). Rotation method: Varimax with Kaiser normalization. Component scores.

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All the dimensions show a high level of statistical Kaiser-Meyer-Olkin (KMO) (over 0.8). It indicates a high level of association between the variables considered for each dimension. The high level of KMO also indicates that the variables included in the analysis explain a significant proportion (over 80%) of the variance calculated for each dimension. Also, there is an absence of collinearity among the variables when testing the influence of the dimensions on investment intentions of the enterprises.

4.3.2 Principal Component Analysis of Mediterranean Enterprises

The principal component analysis has been done in the case of Mediterranean Enterprises in Table 9. The score was estimated in three dimensions (Social, Political, and Economic) using the PCA, and it is based on the coefficient Matrix of the component score.

About the economic dimension, all 13 items have a positive impact on the estimated score. The score was highest for ECO13 (Presence of support structure) followed by ECO10 (Data Access) and ECO11 (Trade Union Rights). It indicates that the presence of a suitable environment in a country has a positive impact on the investment decisions of the enterprises. If there is unrestricted data access, entrepreneurs will be able to gather investment information. Trade Unions are an important part of SMEs and large enterprises, enterprises feel secure with the active participation of trade unions in a country.

All 9 variables of social score significantly affected the score. The score was highest for SOC6 (Safety during daily activities) followed by SOC7 (safe during traveling) and SOC9 (Security level in Tunisia). It reveals that entrepreneurs take investment decisions based on safety and security levels in the country and these are the most important variable affecting investment intentions.

Concerning political aspects, all 7 factors have a positive effect. The variable POL2 (Good Governance) showed the highest score followed by POL5 (political stability) and POL3 (Law enforcement). Hence, the investment decisions of the Mediterranean enterprises are impacted by most of the good government systems, political stability, and favorable law enforcement for investment.

Table 9. Component Score Coefficient Matrix for Mediterranean Enterprises

Component Score Coefficient Matrix					
Economic Variables		**Social Variables**		**Political Variables**	
ECO1	0.071	**SOC1**	0.140	**POL1**	0.248
ECO2	0.080	**SOC2**	0.128	**POL2**	0.281
ECO3	0.084	**SOC3**	0.136	**POL3**	0.270
ECO4	0.048	**SOC4**	0.163	**POL4**	0.165
ECO5	0.105	**SOC5**	0.205	**POL5**	0.255
ECO6	0.125	**SOC6**	0.234	**POL6**	0.094
ECO7	0.160	**SOC7**	0.219	**POL7**	0.072
ECO8	0.145	**SOC8**	0.137		
ECO9	0.152	**SOC9**	0.212		
ECO10	0.182				
ECO11	0.170				
ECO12	0.156				
ECO13	0.191				
KMO	0.836	**KMO**	0.776	**KMO**	0.826
Sig	0.000	**Sig**	0.000	**Sig**	0.000

Notes: KMO (Kaiser–Meyer–Olkin Measure of Sampling Adequacy). Extraction method: Principal Component; Analysis (PCA). Rotation method: Varimax with Kaiser Normalization. Component scores.

All dimensions display a high degree of Kaiser-Meyer-Olkin (KMO) statistics (more than 0.7). This implies that the variables used in the study describe a large proportion (over 75 percent) of the variance measured for each dimension. Additionally, there is a lack of collinearity between them when measuring the effect of the dimensions on the investment intentions of firms.

4.3.3 Principal Component Analysis of Individual Entrepreneurs

The principal component analysis has been carried out for individual entrepreneurs in table 12. The score was estimated in three dimensions (Social, Political, and Economic) using the PCA and is based on the component score matrix (Table 10).

As regards the economic dimension, all 20 items have a positive impact on the estimated score. The highest score of the variable ECO20 (Saturation of the market) indicates the most important variable impacting the investment intentions of individuals. It is followed by ECO12 (Investment Grants), and ECO15 (Data Access). It indicates that the availability of the investment grants has a positive impact on the investment decision of the entrepreneurs and they would like to invest more in the country. Moreover, easily available information helps them to make an investment plan.

Table 10. Component Score Coefficient Matrix

Component Score Coefficient Matrix					
Economic Variables		**Social Variables**		**Political Variables**	
ECO1	0.049	**SOC1**	0.126	**POL1**	0.201
ECO2	0.043	**SOC2**	0.106	**POL2**	0.211
ECO3	0.075	**SOC3**	0.100	**POL3**	0.207
ECO4	0.075	**SOC4**	0.142	**POL4**	0.152

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ECO5	0.089	**SOC5**	0.188	**POL5**	0.196
ECO6	0.055	**SOC6**	0.174	**POL6**	0.194
ECO7	0.085	**SOC7**	0.216	**POL7**	0.068
ECO8	0.084	**SOC8**	0.195	**POL8**	0.061
ECO9	0.060	**SOC9**	0.136		
ECO10	0.071	**SOC10**	0.191		
ECO11	0.120		0.817		
ECO12	0.127		0.000		
ECO13	0.116				
ECO14	0.120				
ECO15	0.123				
ECO16	0.103				
ECO17	0.108				
ECO18	0.128				
ECO19	0.073				
ECO20	0.011				
KMO	0.865	**KMO**	0.817	**KMO**	0.882
Sig	0.000	**Sig**	0.000	**Sig**	0.000

Notes: KMO (Kaiser–Meyer–Olkin Measure of Sampling Adequacy). Extraction method: Principal Component; Analysis (PCA). Rotation method: Varimax with Kaiser normalization. Component scores.

Out of the 10 variables of the social dimension, the variable SOC7 (Safety in daily activities) showed the highest score. It is followed by SOC8 (Safety in traveling) and SOC10 (security level of governance). Again, like the local and Mediterranean Enterprises, Individual entrepreneurs would like to invest if he feels secure and safe in the country.

Out of the 8 variables of political dimensions, the variable POL2 (Good Governance) is the most important variable followed by POL3 (Law enforcement) and POL1 (Absence of corruption). It shows that Individuals would prefer to invest in such a country that is corruption-free with good governance. And there should be suitable laws for the entrepreneur.

All dimensions show a high level of Kaiser-Meyer-Olkin (KMO) statistics (more than 0.8).

Robustness Check

(1) All the three models meet the assumptions of PCA. The data is based on more than 150 individuals or companies.

(2) There is absence of multicollinearity. The VIF value is between 1and 10.

(3) The data is normal with mean zero and standard deviation 1 as shown in the table 11.

(4) The value of Kaiser-Meyer-Olkin (KMO) statistics is more than 0.8 in almost all the cases. It indicates that sampling is adequate.

Table 11 below shows that the scores of all three dimensions are normally distributed with a mean (zero) and a standard deviation (one). For the social dimension, the positive values of the score indicate that social variables play an important role in the investment intention of the enterprises, negative values indicate a negative impact on the investment intention of the enterprises due to lack of appropriate social infrastructure. For the economic variables, the positive value of the score indicates that economic variables play an important role in the investment intentions of the enterprises, but the negative values of the variable indicate that lack of economic facilities hurts the investment decisions of the enterprises.

Table 11. Descriptive Statistics Regarding the Score Estimation of Three Dimensions

Dimensions	N	Minimum	Maximum	Mean	Std. Deviation
Social Variables	257	-2.34871	3.14596	0.0000000	1.00000000
Economic Variables	257	-2.29743	2.48486	0.0000000	1.00000000
Political Variables	257	-1.60609	2.39817	0.0000000	1.00000000
Valid N (listwise)	257				
Mediterranean Enterprises					
Social Variables	204	-2.178	3.211	0	1
Economic Variables	204	-2.283	2.680	0	1
Political Variables	204	-1.777	2.361	0	1
Valid N (listwise)	204				
Individual Entrepreneur					
Social Variables	362	-2.40	3.17	0	1
Economic Variables	362	-2.36	2.46	0	1
Political Variables	362	-1.65	2.32	0	1
Valid N (listwise)	362				

Furthermore, the positive values of the political variables indicate that it has a positive impact on the investment intentions of the enterprises, while the negative values of the score indicate that political instability harms the investment intentions of the enterprises.

The analysis of principal component analysis for local, Mediterranean enterprises and individual investors have found the important variables affecting the investment decisions. The most important economic variables for local and Mediterranean enterprises are the "presence of support system" and "Investment Grants". While for the Individual Investors the most important economic variables are "Saturation of Market", "Investment grants", and "Data Access". So, the hypothesis i.e. Investment grants is an important economic variable for all the enterprises cannot be conclusively accepted or rejected.

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The social variables "safety in daily activities, safety while traveling" and "security level of governance" are the most important variables. Thus, the hypothesis i.e. safety and security are significant social variables for all the enterprises cannot accepted.

And the most important political variables affecting investment decisions are "Good governance" and "Law enforcement" of local, Mediterranean enterprises and individual investors. Hence, the hypothesis i.e. "Good governance" is an important political variable for all the enterprises can be accepted

4.4 Estimating the Influence of the Three Dimensions (Economic, Social and Political) on the Investment Intentions

To estimate the impact of three dimensions (Economic, Political, and Social) on the investment intentions of all the enterprises (SMEs, Small business, and Large Enterprises), multinomial regression analysis has been used.

4.4.1 Results of Multinomial Logistic Regression Analysis

In the table 12 the results of multinomial logistic regression analysis of the covariates for the investment intentions of the local enterprises in Tunisia. Social dimensions have a negative but significant impact on the short-term investments, it indicates that the social environment is not favorable for short term investment in Tunisia. Also, political dimensions have a significant impact on all the short-term, medium-term, and long-term investments, it indicates that the political environment has a significant impact on the investment decision for all types of investment. The final model is a non-significant with [chi-square (12)=20.407, p>.001].

The table 13 shows the covariates of investment intentions of all the enterprise classes (SMEs, Small Business, and Large Enterprises) in the Mediterranean enterprises. Social dimensions have a positive and significant impact on short-term investment decisions compare to long-term investment. It indicates that the social environment has a significant impact on Mediterranean enterprises while investing in short term plans. All other dimensions (political and Economic) were found to be non-significant in affecting the investment intentions of Mediterranean enterprises.

The final model was found to be non-significant with

Table 12. Multinomial logistic regression analysis of covariates for Investment Intentions of All the Enterprises Classes in Local Enterprises

Parameter Estimates									
Investment Intentions of All Enterprises	**Independent Variables**	**B**	**Std. Error**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Hesitant to Invest	**Economic Variables**	-0.027	0.043	0.399	1	0.528	0.973	0.895	1.058
	Social Variable	-0.036	0.059	0.386	1	0.534	0.964	0.86	1.082
	Political Variable	0.145	0.078	3.41	1	0.065	1.156	0.991	1.348
Yes, in the short term	**Economic Variables**	0.007	0.042	0.03	1	0.862	1.007	0.928	1.093
	Social Variable	-0.116	0.057	4.106	1	0.043	0.89	0.795	0.996
	Political Variable	0.163	0.076	4.613	1	0.032	1.177	1.014	1.366
Yes, medium-Term	**Economic Variables**	-0.061	0.039	2.486	1	0.115	0.941	0.872	1.015
	Social Variable	-0.044	0.053	0.684	1	0.408	0.957	0.862	1.062
	Political Variable	0.199	0.074	7.33	1	0.007	1.22	1.057	1.41
Yes, long term	**Economic Variables**	-0.037	0.039	0.913	1	0.339	0.964	0.893	1.04
	Social Variable	-0.049	0.053	0.859	1	0.354	0.952	0.857	1.057
	Political Variable	0.202	0.073	7.644	1	0.006	1.224	1.061	1.412
a. The reference category is: No.									
Model Fitting Information									
Model	**Model Fitting Criteria**		**Likelihood Ratio Tests**					**Pseudo R-Square**	
	-2 Log Likelihood		**Chi-Square**		**Df**		**Sig.**	**(Cox and Snell)**	
Intercept Only	762.2								
Final	741.8		20.41		12		0.06	0.076	

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Table 13. Multinomial logistic regression analysis of covariates for Investment Intentions of All the Enterprises Classes in Mediterranean Enterprises

Parameter Estimates									
Investment Intentions of All Enterprises	**Independent Variables**	**B**	**Std. Error**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, medium-term	Social Variable	0.008	0.070	0.012	1	0.912	1.008	0.878	1.157
	Economic Variables	0.028	0.052	0.294	1	0.587	1.029	0.929	1.140
	Political Variables	-0.054	0.069	0.611	1	0.435	0.947	0.827	1.085
Yes, in the short term	Social Variable	0.207	0.087	5.602	1	0.018	1.230	1.036	1.459
	Economic Variables	-0.052	0.061	0.709	1	0.400	0.950	0.842	1.071
	Political Variables	-0.029	0.084	0.119	1	0.731	0.972	0.824	1.145
Hesitant	Social Variable	0.002	0.071	0.001	1	0.976	1.002	0.873	1.151
	Economic Variables	0.023	0.051	0.195	1	0.659	1.023	0.925	1.131
	Political Variables	-0.101	0.070	2.112	1	0.146	0.904	0.789	1.036
No	Social Variable	0.093	0.063	2.195	1	0.138	1.098	0.970	1.241
	Economic Variables	0.016	0.046	0.120	1	0.729	1.016	0.928	1.112
	Political Variables	-0.093	0.062	2.252	1	0.133	0.911	0.807	1.029
a. The reference category is: Yes, long term.									
Model Fitting Information									
Model	**Model Fitting Criteria**		**Likelihood Ratio Tests**				**Pseudo R-Square**		
	-2 Log Likelihood		**Chi-Square**		**Df**	**Sig.**	**(Cox and Snell)**		
Intercept Only	595.3								
Final	579.6		15.678		12	0.206	0.074		

[chi-square (12) = 15.678, p>0.206].

Hence, it was found that political dimensions have a significant impact on all types of investment plans (short-term, medium-term, and long-term) of local enterprises. While social dimensions have a significant impact on investment decisions for short-term plans in the case of Mediterranean enterprises.

4.4.2 Impact of the Three Dimension on the Investment Intentions of Large Enterprises

Table 14 shows the results of multinomial logistic regression, it shows the impact of three dimensions (Economic, Social, and Political) on the investment intentions of large enterprises in a local business.

The political dimension was found to be significant in impacting the investment intentions of large enterprises in short-term and medium-term investments. It means that the political environment has a great impact on the investment decision of large enterprises of local enterprises. Political dimensions such as political stability, absence of corruption, a conducive government system, and favorable laws for investment have a significant impact on short-term and medium-term plans. The final model is a significant improvement in fit over the null model [chi-square (9) = 25.027, p<0.05].

Table 15 demonstrates the covariates of investment intentions of large enterprises in Mediterranean enterprises. Large enterprises are investing only in medium-term investments, it means they are not interested in short-term and long-term plans. All three dimensions (political, social, and economic) have a non-significant impact on the investment intentions of large enterprises in Mediterranean enterprises. The final model was found to be non-significant [chi-square (6) = 6.96, p>0.324].

Thus, political dimensions have a significant impact on the investment decisions of large enterprises in the case of local enterprises. But in the case of Mediterranean enterprises, large enterprises are only investing in medium term investment plans.

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Table 14. Multinomial logistic regression analysis of covariates for Investment Intentions of Large Enterprises of Local Enterprises

Parameter Estimates									
Investment Intentions of Large Enterprises	**Independent Variables**	**B**	**Std. Error**	**Wald**	**df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, in the short term	Economic Variables	4.599	122.153	0.001	1	0.970	99.411	1.048E-102	9.43E+105
	Social Variable	-23.169	146.782	0.025	1	0.875	8.664E-11	9.915E-136	7.57E+114
	Political Variable	11.506	0.152	5745.127	1	0.000	99268.281	73722.827	1.34E+05
Yes, medium-Term	Economic Variables	4.366	122.153	0.001	1	0.971	78.765	8.305E-103	7.47E+105
	Social Variable	-23.290	146.782	0.025	1	0.874	7.679E-11	8.791E-136	6.71E+114
	Political Variable	11.519	0.113	10392.266	1	0.000	100632.117	80640.480	1.26E+05
Yes, long term	Economic Variables	4.401	122.153	0.001	1	0.971	81.553	8.598E-103	7.74E+105
	Social Variable	-23.563	146.782	0.026	1	0.872	5.843E-11	6.687E-136	5.11E+114
	Political Variable	11.549	0.000		1		103687.262	103687.262	103687.262
a. The reference category is: No.									

Model Fitting Information					
Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			**Pseudo R-Square**
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	48.06494				
Final	23.0377	25.027	9	0.003	0.732

Table 15. Multinomial logistic regression analysis of covariates for Investment Intentions of Large Enterprises in Mediterranean Enterprises

Parameter Estimates									
Investment Intentions of Large Enterprises	**Independent Variables**	**B**	**Std. Error**	**Wald**	**df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, medium-term	**Social Variable**	-0.048	0.383	0.016	1	0.901	0.953	0.450	2.019
	Economic Variables	-0.061	0.325	0.035	1	0.852	0.941	0.498	1.779
	Political Variables	-0.110	0.238	0.212	1	0.645	0.896	0.562	1.428
Hesitant	**Social variable**	-0.173	0.409	0.179	1	0.672	0.841	0.377	1.875
	Economic Variables	0.204	0.314	0.423	1	0.516	1.227	0.663	2.270
	Political Variables	0.236	0.385	0.374	1	0.541	1.266	0.595	2.693
a. The reference category is: No.									

Model Fitting Information					
Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			**Pseudo R-Square**
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	24.1				
Final	17.1	6.96	6	0.324	0.415

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4.4.3 Impact of the Three Dimension (Political, Social and Economic) on the Investment Intentions of Small Business

Table 16 displays the multinomial logistic regression analysis of the covariates for investment intentions of small businesses in the case of local enterprises. All three dimensions (economic, social, and political) were found to be non-significant in impacting the investment intentions of the small business or none of the dimensions significantly impacting the investment intentions of small businesses. It indicates that the investment decisions of small businesses are not impacted by the socio-economic and political environment of the country. In the table, the final model is a non-significant [chi-square (12) =14.855, p>.001].

Small businesses under Mediterranean enterprises are either hesitant or not interested to do investment.

4.4.4 Impact of the Three Dimension on the Investment Intentions of SMEs

Table 17 displays the multinomial logistic regression analysis of covariates for investment intentions of SMEs of local enterprises.

It shows the impact of three dimensions (Economic, Social, and Political) on the investment intentions of SMEs. In the case of local enterprises, political dimensions are significantly and positively impacting the investment intentions of SMEs in long-term and medium-term investment plans. It indicates that the political environment in post-revolution has a significant impact on the investment decisions of SMEs for long-term and medium-term plans. As the government has enacted various laws and policies

Table 16. Multinomial logistic regression analysis of covariates for Investment Intentions of Small Business in Local Enterprises

Parameter Estimates									
Investment Intentions of Small Business	**Independent Variables**	**B**	**Std. Error**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
hesitant	**Economic Variables**	0.018	0.092	0.037	1	0.848	1.018	0.850	1.219
	Social Variable	-0.074	0.137	0.296	1	0.586	0.928	0.710	1.213
	Political Variable	0.072	0.164	0.193	1	0.660	1.075	0.780	1.481
Yes, in the short term	**Economic Variables**	0.101	0.091	1.231	1	0.267	1.106	0.926	1.321
	Social Variable	-0.198	0.135	2.164	1	0.141	0.820	0.630	1.068
	Political Variable	0.070	0.160	0.191	1	0.662	1.073	0.783	1.469
Yes, medium-Term	**Economic Variables**	0.044	0.090	0.241	1	0.624	1.045	0.876	1.247
	Social Variable	-0.021	0.134	0.025	1	0.875	0.979	0.752	1.274
	Political Variable	0.032	0.161	0.040	1	0.842	1.033	0.754	1.415
Yes, long term	**Economic Variables**	0.047	0.090	0.267	1	0.605	1.048	0.878	1.250
	Social Variable	-0.082	0.134	0.373	1	0.541	0.921	0.709	1.198
	Political Variable	0.071	0.160	0.195	1	0.659	1.073	0.784	1.469
a. The reference category is: No.									

Model Fitting Information					
Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			**Pseudo R-Square**
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	**316.2114**				
Final	**301.3565**	14.855	12	0.249	0.130

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Table 17. Multinomial logistic regression analysis of covariates for Investment Intentions of SMEs in Local Enterprises

Parameter Estimates									
Investment Intentions of SMEs	**Independent Variables**	**B**	**Std. Error**	**Wald**	**df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
hesitant	Economic Variables	0.005	0.062	0.006	1	0.939	1.005	0.890	1.134
	Social Variable	0.028	0.082	0.118	1	0.731	1.029	0.876	1.209
	Political Variable	0.114	0.105	1.170	1	0.279	1.121	0.912	1.378
Yes, in the short term	Economic Variables	-0.065	0.064	1.031	1	0.310	0.937	0.826	1.063
	Social Variable	0.041	0.083	0.240	1	0.624	1.041	0.885	1.225
	Political Variable	0.168	0.112	2.249	1	0.134	1.182	0.950	1.472
Yes, medium-Term	Economic Variables	-0.106	0.055	3.730	1	0.053	0.900	0.808	1.002
	Social Variable	-0.010	0.072	0.019	1	0.890	0.990	0.860	1.140
	Political Variable	0.247	0.098	6.382	1	0.012	1.280	1.057	1.551
Yes, long term	Economic Variables	-0.062	0.053	1.356	1	0.244	0.940	0.847	1.043
	Social Variable	0.031	0.070	0.193	1	0.660	1.031	0.899	1.183
	Political Variable	0.221	0.095	5.410	1	0.020	1.248	1.035	1.503
a. The reference category is: No.									

Model Fitting Information					
Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			Pseudo R-Square
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	374.3711				
Final	356.1308	18.240	12	0.109	0.130

Table 18. Multinomial logistic regression analysis of covariates for Investment Intentions of SMEs in Mediterranean Enterprises

Parameter Estimates									
Investment Intentions of SMEs	**Independent Variables**	**B**	**Std. Error**	**Wald**	**df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, in the short term	Social Variable	0.223	0.093	5.807	1	0.016	1.250	1.043	1.499
	Economic Variables	-0.053	0.064	0.693	1	0.405	0.948	0.836	1.075
	Political Variables	-0.045	0.093	0.241	1	0.624	0.956	0.797	1.146
Yes, medium-term	Social Variable	0.004	0.075	0.003	1	0.954	1.004	0.867	1.163
	Economic Variables	0.021	0.054	0.153	1	0.695	1.021	0.919	1.136
	Political Variables	-0.037	0.077	0.237	1	0.626	0.963	0.829	1.119
hesitant	Social Variable	0.149	0.110	1.850	1	0.174	1.161	0.936	1.440
	Economic Variables	0.061	0.076	0.651	1	0.420	1.063	0.916	1.233
	Political Variables	-0.291	0.119	5.934	1	0.015	0.747	0.591	0.945
No	Social Variable	0.135	0.086	2.470	1	0.116	1.144	0.967	1.354
	Economic Variables	0.045	0.062	0.535	1	0.465	1.046	0.927	1.181
	Political Variables	-0.166	0.091	3.334	1	0.068	0.847	0.708	1.012
a. The reference category is: Yes, long term.									

Model Fitting Information					
Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			**Pseudo R-Square**
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	345.1				
Final	324.3	20.78	12	0.054	0.171

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to encourage SMEs in post-revolution. The final model is non-significant [chi-square (12) =18.240, p>.001].

Table 18 shows the covariates of the investment intentions of SMEs in Mediterranean enterprises. The social dimensions significantly affecting the investment intentions of SMEs for short-term investment compare to long-term investments. It indicates that Mediterranean enterprises found the social environment of Tunisia favorable for short-term plans. All other dimensions (political and economic) were non-significant in impacting the investment intentions of SMEs. The final model is non-significant [chi-square (12)=20.78, p>.001].

From the above analysis, it reveals that political dimensions have a significant impact on the investment intentions of local enterprises, while the social dimensions have a significant impact on the investment decisions of Mediterranean enterprises.

4.4.5 Estimating the Influence of the Three Dimensions on the Investment Intentions of Individuals

Table 19 illustrates the results of multinomial regression analysis for all the individual Investors. The covariates of the investment intentions show that economic dimensions have a significant impact on short-term investment intentions.

The political and social dimensions are non-significantly affecting the investment decisions of individuals in Tunisia. The final model is a significant improvement in fit over the null model [chi-square (15) = 32.432, p<0.05].

For those who are already entrepreneurs, all the three dimensions non-significantly impacting their investment decisions because they do not need to invest more.

Thus, only economic dimensions have a significant impact on the investment decisions of the individuals, while political and social dimensions have a non-significant impact on investment intentions.

(1) Sex-Wise Investment Intentions

Sex-wise multinomial regression has been carried out to know the impact of three dimensions (Political, social, economic) on the investment intentions of individuals.

Table 20 shows the covariates of investment intentions of female investors in Tunisia.

Table 19. Multinomial logistic regression analysis of covariates for Investment Intentions of All Individual Investors

Parameter Estimates									
Investment Intentions of All Individual Investors	**Independent Variables**	**B**	**Std. Error**	**Wald**	**df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, in the short term	Social Variables	-0.065	0.037	3.085	1	0.079	0.937	0.871	1.008
	Economic Variables	0.064	0.029	4.874	1	0.027	1.067	1.007	1.129
	Political Variables	-0.033	0.042	0.629	1	0.428	0.967	0.891	1.050
Yes, long term	Social Variables	0.005	0.028	0.033	1	0.855	1.005	0.951	1.062
	Economic Variables	0.025	0.022	1.297	1	0.255	1.026	0.982	1.071
	Political Variables	0.024	0.032	0.596	1	0.440	1.025	0.963	1.090
Already entrepreneur	Social Variables	0.034	0.051	0.453	1	0.501	1.035	0.937	1.143
	Economic Variables	0.026	0.040	0.424	1	0.515	1.026	0.949	1.110
	Political Variables	-0.056	0.060	0.868	1	0.352	0.945	0.840	1.064
Hesitant	Social Variables	0.008	0.033	0.054	1	0.817	1.008	0.944	1.076
	Economic Variables	0.028	0.026	1.109	1	0.292	1.028	0.976	1.082
	Political Variables	-0.039	0.039	1.001	1	0.317	0.962	0.891	1.038
No	Social Variables	0.060	0.050	1.411	1	0.235	1.062	0.962	1.172
	Economic Variables	0.047	0.038	1.528	1	0.216	1.048	0.973	1.130
	Political Variables	-0.194	0.071	7.426	1	0.006	0.823	0.716	0.947
a. The reference category is: Yes, Medium Term.									

Model Fitting Information					
Model	**Model Fitting Criteria**	Likelihood Ratio Tests			Pseudo R-Square
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	1146.684				
Final	1114.252	32.432	15	0.006	0.086

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Table 20. Multinomial logistic regression analysis of covariates for Investment Intentions of Female Investors

Parameter Estimates									
Investment Intentions of Female Investors	**Independent Variables**	**B**	**Std. Error**	**Wald**	**df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, Medium Term	Social Variables	0.096	0.061	2.456	1	0.117	1.101	0.976	1.242
	Economic Variables	-0.105	0.045	5.481	1	0.019	0.900	0.824	0.983
	Political Variables	0.067	0.059	1.265	1	0.261	1.069	0.952	1.201
Yes, long term	Social Variables	0.174	0.061	8.229	1	0.004	1.190	1.057	1.341
	Economic Variables	-0.123	0.045	7.627	1	0.006	0.884	0.810	0.965
	Political Variables	0.100	0.058	2.963	1	0.085	1.106	0.986	1.239
Already entrepreneur	Social Variables	0.073	0.121	0.362	1	0.547	1.076	0.848	1.364
	Economic Variables	-0.017	0.088	0.037	1	0.848	0.983	0.827	1.168
	Political Variables	-0.018	0.117	0.024	1	0.878	0.982	0.781	1.236
Hesitant	Social Variables	0.098	0.067	2.132	1	0.144	1.103	0.967	1.259
	Economic Variables	-0.028	0.049	0.328	1	0.567	0.973	0.884	1.070
	Political Variables	-0.037	0.065	0.331	1	0.565	0.963	0.848	1.094
No	Social Variables	0.102	0.098	1.086	1	0.297	1.108	0.914	1.342
	Economic Variables	-0.117	0.069	2.907	1	0.088	0.889	0.777	1.018
	Political Variables	-0.028	0.110	0.063	1	0.801	0.973	0.784	1.206

a. The reference category is: Yes, in the short term.

Model Fitting Information

Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			**Pseudo R-Square**
	-2 Log Likelihood	**Chi-Square**	**Df**	**Sig.**	**(Cox and Snell)**
Intercept Only	613.0				
Final	583.7	29.379	15	0.014	0.135

Table 21. Multinomial logistic regression analysis of covariates for Investment Intentions of Male Investors

Parameter Estimates									
Investment Intentions of Male Investors	**Independent Variables**	**B**	**Std. Error**	**Wald**	**Df**	**Sig.**	**Exp(B)**	**95% Confidence Interval for Exp(B)**	
								Lower Bound	**Upper Bound**
Yes, in the short term	Social Variables	-0.057	0.049	1.316	1	0.251	0.945	0.858	1.041
	Economic Variables	0.035	0.042	0.700	1	0.403	1.036	0.954	1.125
	Political Variables	-0.012	0.062	0.040	1	0.841	0.988	0.875	1.115
Yes, long term	Social Variables	-0.064	0.042	2.390	1	0.122	0.938	0.864	1.017
	Economic Variables	0.091	0.037	6.167	1	0.013	1.096	1.019	1.178
	Political Variables	0.022	0.050	0.198	1	0.657	1.022	0.928	1.127
Already entrepreneur	Social Variables	0.013	0.058	0.051	1	0.821	1.013	0.904	1.135
	Economic Variables	0.013	0.049	0.066	1	0.797	1.013	0.920	1.114
	Political Variables	-0.048	0.075	0.407	1	0.523	0.953	0.822	1.105
Hesitant	Social Variables	0.005	0.047	0.011	1	0.915	1.005	0.917	1.102
	Economic Variables	-0.026	0.039	0.457	1	0.499	0.974	0.902	1.051
	Political Variables	0.029	0.056	0.276	1	0.599	1.030	0.923	1.150
No	Social Variables	0.087	0.071	1.518	1	0.218	1.091	0.950	1.252
	Economic Variables	0.099	0.054	3.324	1	0.068	1.104	0.993	1.228
	Political Variables	-0.266	0.106	6.323	1	0.012	0.767	0.623	0.943

a. The reference category is: Yes, medium Term.

Model Fitting Information

Model	**Model Fitting Criteria**	**Likelihood Ratio Tests**			**Pseudo R-Square**
	-2 Log Likelihood	Chi-Square	Df	**Sig.**	**(Cox and Snell)**
Intercept Only	527.9				
Final	494.0	33.925	15	0.003	0.192

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The economic dimensions significantly but negatively impacted the investment decisions of females both for medium-term and long-term investment. It indicates they do not find the economic environment of Tunisia favorable for medium-term and long-term investment. Further, social dimensions positively and significantly impacted the medium-term investment decisions. It means the social environment is conducive for the medium-term investment plans. Regarding model fitting information, the final model is a significant improvement in fit over the null model [chi-square (15) = 29.379, $p<0.05$].

(2) Investment Intentions of Males

Table 21 demonstrates the impact of three dimensions (social, economic, and political) on investment intentions of males in Tunisia.

The economic dimensions have a significant impact on the investment intentions of the male for long term investment compare to medium-term investment. All other dimensions have a non-significant impact on the investment decisions of male.

Model fitting information shows that the final model is a significant improvement in fit over the null model [chi-square (15) = 33.925, $p<0.05$].

Thus, sex-wise analysis shows that social dimensions have a significant impact on the investment intentions of female investors, while economic dimensions have a significant impact on the investment decisions of male investors.

Therefore, the hypothesis i.e. all the dimensions (political, social and economic) have significant impact on the investment intentions of all the enterprises cannot be conclusively accepted or rejected.

The model multinomial logistic regression analysis is based on the normally distributed data with mean zero and standard deviation one. No multicollinearity has been found in the regression analysis. Hence, the model is suitable for the analysis.

5. Conclusion and implications

The paper found the impact of socio-economic and political dimensions on the investment intentions of local, Mediterranean enterprises, and individual enterprises in Tunisia in the post-revolution. After the revolution in 2011, Tunisia has been facing the problem of unemployment. The government of Tunisia has been encouraging investment in the country promoting SMEs. GOT implemented various acts to encourage investment such as the "Start-Up Act", "Organic budget law", and "horizontal law". In addition to the above, GOT has developed training and support measures to promote SMEs.

The paper found a significant difference in the investment intention of all the enterprises (SMEs, small businesses, and large enterprises) under Mediterranean enterprises, but no significant difference was found under local enterprises. The most important economic variables for local and Mediterranean enterprises are the "presence of support system" and "Investment Grants". While for the Individual Investors the most important economic variables are "Saturation of Market", "Investment grants", and "Data Access". The social variables "safety in daily activities, safety while traveling" and "security level of governance" are the most important variables. And the most important political variables affecting investment decisions are "Good governance" and "Law enforcement" of local, Mediterranean enterprises and individual investors.

The paper also found that political dimensions have a significant impact on the investment intentions of local enterprises, while social dimensions have a significant impact on the investment intentions of Mediterranean enterprises. Furthermore, economic dimensions have a significant impact on the investment decision of individual investors.

The paper suggests that the Government should encourage investment in Tunisia by making a favorable environment for enterprises that can meet the expectations of the local, Mediterranean and individual enterprises. Easy credit facilities should be made for entrepreneurs and low interest rate should be provided on loans to encourage them to invest. There is a need to provide credit guarantee instruments to SMEs for easy access to financial resources.

Appendixes

Table 7. Post-Hoc Test (Games-Howell) for individual Entrepreneurs (Profession-wise)

Are you planning to invest in Tunisia?						
(I) Profession	(J) Profession	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Student	Jobseeker	0.177	0.213	0.961	-0.44	0.79
	Future investor	-0.291	0.172	0.539	-0.79	0.20
	Employee	0.508	0.187	0.078	-0.03	1.05
	Extern Consultant	-0.388	0.328	0.842	-1.38	0.61
	Resident Investor	-1.388*	0.379	0.033	-2.68	-0.10

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Jobseeker	Student	-0.177	0.213	0.961	-0.79	0.44
	Future investor	-0.468	0.214	0.253	-1.09	0.15
	Employee	0.331	0.227	0.690	-0.33	0.99
	Extern Consultant	-0.565	0.352	0.601	-1.62	0.49
	Resident Investor	-1.565*	0.400	0.016	-2.88	-0.25
Future investor	Student	0.291	0.172	0.539	-0.20	0.79
	Jobseeker	0.468	0.214	0.253	-0.15	1.09
	Employee	.799*	0.189	0.001	0.25	1.34
	External Consultant	-0.097	0.329	1.000	-1.09	0.90
	Resident Investor	-1.097	0.379	0.112	-2.39	0.19
Employee	Student	-0.508	0.187	0.078	-1.05	0.03
	Jobseeker	-0.331	0.227	0.690	-0.99	0.33
	Future investor	-.799*	0.189	0.001	-1.34	-0.25
	Extern Consultant	-0.896	0.337	0.110	-1.91	0.12
	Resident Investor	-1.896*	0.387	0.004	-3.19	-0.60
External Consultant	Student	0.388	0.328	0.842	-0.61	1.38
	Jobseeker	0.565	0.352	0.601	-0.49	1.62
	Future investor	0.097	0.329	1.000	-0.90	1.09
	Employee	0.896	0.337	0.110	-0.12	1.91
	Resident Investor	-1.000	0.471	0.312	-2.47	0.47
Resident Investor	Student	1.388*	0.379	0.033	0.10	2.68
	Jobseeker	1.565*	0.400	0.016	0.25	2.88
	Future investor	1.097	0.379	0.112	-0.19	2.39
	Employee	1.896*	0.387	0.004	0.60	3.19
	Extern Consultant	1.000	0.471	0.312	-0.47	2.47

Note: *. The mean difference is significant at the 0.05 level.

Variables Details of Mediterranean Enterprises

Economic Variables		Social Variables		Political Variables	
Telecommunications networks	ECO1	Education	SOC1	Absence of corruption	POL1
Road, maritime & air infrastructure	ECO2	Education	SOC1	Good governance	POL2
Accessibility Bank financing	ECO3	Health establishments	SOC2	Law enforcement	POL3
Accessibility to Foreign credit lines	ECO4	Local transport networks	SOC3	Freedom of investment for foreigners	POL4
Availability of information related to the investment	ECO5	Convenience needed	SOC4	Political stability	POL5
Availability of human resources	ECO6	Safe in accommodation	SOC5	Freedom to invest in Tunisia	POL6
Investment grants	ECO7	Safe during daily activities	SOC6	Investment incentive laws	POL7
Infrastructure	ECO8	Safe while traveling	SOC7		
Accompaniment	ECO9	Safety	SOC8		
Data access	ECO10	Security Lavel	SOC9		
Trade union rights	ECO11				
Tax policy	ECO12				
Presence of support structures	ECO13				

Details of Variables under local enterprises

Economic Variables		Social Variables		Political Variables	
Telecommunications networks	ECO1	Education	SOC1	Absence of corruption	POL1
Road, maritime & air infrastructure	ECO2	Health establishments	SOC2	Good governance	POL2
Investment incentives from public & private institutions	ECO3	Local transport networks	SOC3	Law enforcement	POL3
Accessibility Bank financing	ECO4	Convenience needed	SOC4	Freedom of investment for foreigners	POL4
Public investment funds	ECO5	Safe at work	SOC5	Municipal governance	POL5
Accessibility Crowdfunding	ECO6	Safe in accommodation	SOC6	Political stability	POL6
Accessibility to Micro-credits	ECO7	Safe during daily activities	SOC7	Freedom to invest in Tunisia	POL7
Accessibility to Private investment funds	ECO8	Safe while traveling	SOC8	Investment incentive laws	POL8
Accessibility to Foreign credit lines	ECO9	Safety	SOC9		
Availability of information related to the investment	ECO10	Security level in your governorate	SOC10		
Availability of human resources	ECO11				
Investment grants	ECO12				
Iinfrastructure	ECO13				
Accompaniment	ECO14				
Data access	ECO15				
Trade union rights	ECO16				
Tax policy	ECO17				
Presence of support structures	ECO18				
Investment support structures in Tunisia (APII, CCI, APIA, Espace Entreprendre, Cepex	ECO19				
Saturation of the Market	ECO20				

Variables Details of Individual enterprises

Economic Variables		Social Variables		Political Variables	
Telecommunications networks	ECO1	Education	SOC1	Absence of corruption	POL1
Road, maritime & air infrastructure	ECO2	Health establishments	SOC2	Good governance	POL2
Investment incentives from public & private institutions	ECO3	Local transport networks	SOC3	Law enforcement	POL3
Accessibility Bank financing	ECO4	Convenience needed	SOC4	Freedom of investment for foreigners	POL4
Public investment funds	ECO5	Safe at work	SOC5	Municipal governance	POL5
Accessibility Crowdfunding	ECO6	Safe in accommodation	SOC6	Political stability	POL6
Accessibility to Micro-credits	ECO7	Safe during daily activities	SOC7	Freedom to invest in Tunisia	POL7
Accessibility to Private investment funds	ECO8	Safe while traveling	SOC8	Investment incentive laws	POL8
Accessibility to Foreign credit lines	ECO9	Safety	SOC9		
Availability of information related to the investment	ECO10	Security level in your governorate	SOC10		
Availability of human resources	ECO11				
Investment grants	ECO12				
Iinfrastructure	ECO13				
Support	ECO14				
Data access	ECO15				
Trade union rights	ECO16				
Tax policy	ECO17				
Presence of support structures	ECO18				
Investment support structures in Tunisia	ECO19				
Saturation of the Market	ECO20				

Methodology: Principal Component Analysis, t-test, ANOVA, the test of post-hoc, and the model of Multinomial Logistic Regression Analysis has been carried out to study the interrelationships among the variables in this paper.

ANOVA: The test of ANOVA has been used to find a significant difference in the investment intentions of enterprise classes (SMEs, Small businesses, and large enterprises) in the case of Mediterranean and local enterprises.

If the value of $P<0.05$, there is a significant difference

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in the investment intentions of enterprises. While if the value of P >0.05, There is no significant difference in the investment intentions of enterprise groups.

If the value of P<0.05, we can use further the test of post-hoc to know about which enterprise class is significantly different from the other classes.

t-test: t-test is used to find out the sex-wise significant difference. If the value of P<0.05, there is a significant difference in the investment intentions of male-female.

Principal Component analysis: In the PCA, Component Score Coefficient Matrix has been used to find the score of all the variables of social, economic, and political dimensions.

The significance of the variables has been measured according to the score. The variable with the highest score will be known as the most important variable.

The higher the value of KMO, the more efficient is the test of PCA.

All the variables under social, economic, and political combined to make a single variable. Based on the regression score of each dimension, descriptive statistics have been calculated. The score of all the three dimensions will be normally distributed if there are mean=0 and standard deviation =1

Multinomial Logistics Regression Analysis: This test is used when the dependent variable has data with multiple responses. All the combined three dimensions are used as independent variables. And "Are you planning to invest" is used as a dependent variable.

Under this test impact of all the dimensions (social, economic, and political) on investment intentions of all the enterprise classes (SMEs, Small businesses, and large enterprises) has been measured in the case of local as well as Mediterranean enterprises. In the case of individuals, sex-wise analysis has been done.

The test will find how the social, economic, or political dimensions are affecting investment decisions while investing in short-term, long-term, and medium-term investments. The sig level i.e. P-value is less than 0.05 indicates the significant impact of the particular dimension on the investment decisions.

References

[1] Alon, I., Herbert, T. T. A stranger in a strange land: Micro political risk and the multinational firm. Business Horizons, 2009, 52(2): 127-137.

[2] Bechri, Mohamed & Najah, Tijani, Nugent, Jeffrey B. Tunisia's Lending Program to SMEs: Anatomy of an Institutional Failure? Small Business Economics, Springer, 2001,17(4): 293-308.

[3] EIB. Tunisia: Neighborhood SME financing. European Investment Bank, 2015.

[4] Franco, M., Haase, H., Lautenschläger, A. Students' Entrepreneurial Intentions: An Inter-Regional Comparison. Education+Training, 2010, 52(4): 260-275.

[5] GEDI. Global Entrepreneurship and Development Institute-GEDI, 2017.

[6] Hamada J., Haugerudbraaten H., Hickman A., et Khaykin I. Country and Political Risk. Practical Insights for Global Finance, Sam Wilkin, Risk Books, 2004.

[7] ILO. Employment Policy Convention, 1964 (No. 122) - Tunisia (Ratification: 1966), 2016: https://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:13101:0::NO::P13101_COMMENT_ID:3242582

[8] Mansouri,Faysal. Challenges in Accessing Finance for Growth-Oriented Small and Micro Entrepreneurs in Tunisia, 2011. Available at: http://www.oecd.org/mena/competitiveness/47252691.pdf

[9] Sequeira, J.M. Muller, S., McGee, J.E. The Influence of Social Ties and Self-efficacy in Forming Entrepreneurial intentions and Motivating Nascent Behavior. Journal of Developmental Entrepreneurship, 2007, 12(3): 275-293.

[10] U.S. Department of State. 2019 Investment Climate Statement Tunisia, 2019. Available at https://www.state.gov/reports/2019-investment-climate-statements/tunisia/

[11] World Bank. Investment Climate Assessment: Enterprises' Perception in Post Revolution Tunisia. Washington, DC. © World Bank, 2014. https://openknowledge.worldbank.org/handle/10986/19323; License: CC BY 3.0 IGO.

[12] World Bank. The Regulatory Environment for Private Sector Investment, 2017. Available at: http://pubdocs.worldbank.org/en/413431500382259730/the-unfinished-revolution-eng-chap4.pdf

[13] World Bank. Tunisia Innovative Startups and SMEs Project (P167380), 2019.

[14] Karasmanaki Evangelia et. Al. An Investigation of Factors Affecting the Willingness to Invest in Renewables among Environmental Students: A logistics Regression Approch, Sustainability, 2019.

[15] Cooray, A. Factors Affecting Investments and Business confidence with Special Regard to political Stability in Sri Lanka, 2003.

[16] Alleyene, Broome. An exploratory study of factors influencing investment decisions of potential investors, Central Bank of Barbados Working Paper, 2010.

[17] Yosra Mefteh Rekik, Younes Boujelbene. Determinants of Individual Investors'Behaviors: Evidence from Tunisian Stock Market. IOSR Journal of Business and Management (IOSR-JBM), 2013, 8(2): 109-119. E-ISSN: 2278-487X

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