

CEO EMOTIONAL INTELLIGENCE LEVEL, CREATIVITY, INNOVATION AND ECONOMIC GROWTH

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ABSTRACT

The objective of this article is to demonstrate the importance of emotional intelligence in shaping corporate investment decisions. It aims to explain the indirect relationship between economic growth and emotional intelligence. This relationship shows the effect of emotional skills on encouraging creativity in companies and, subsequently, on the growth of the national economy. Exploratory in nature, the empirical part attempted to fill a gap in economic science research by presenting a survey of managers of large private companies in Tunisia. Analysis of the data collected revealed the importance of the behavioural dimension in explaining variations in sectorial GDP (a proxy for the contribution of companies to economic growth). The empirical analysis shows the indirect effect of behavioural dimension in explaining economic growth. However, the emotional intelligence of the leader is negatively correlated with sectorial GDP variation. This result contradicts our theoretical study. It attests to the negative effect of emotional management on wealth creation. However, relationship analysis announces the positive effect of emotional intelligence on the level of productivity of employees. This soft skill is positively correlated with employee productivity. This implies that emotional intelligence contributes to improving employee productivity, but it is insufficient to guarantee value creation. We also observed a positive correlation between the performance indicators of national firms (competitiveness, productivity, profitability, innovation effort, size) and sectorial GDP variation. This result implies that Tunisian companies are characterized by high benefit, high productivity, and competitiveness. This success depends on the key skills of employees, including emotional intelligence. The analysis of economic growth by integrating the behavioural dimension is consistent with that of endogenous growth theory, which shows the importance of new technologies in capital accumulation and economic growth. From this point of view, the contribution of this article is to encourage Tunisian companies to invest in human capital, including emotional learning.

Keywords: Emotional intelligence, Sectorial GDP, creativity, job creation, Innovation, Value added, productivity, economic growth

1. INTRODUCTION

Since the 1950s, the analysis of differences in economic growth levels between countries has been justified by the availability of production factors such as natural resources, capital, and labor (Solow, 1956, 1957). However, with the evolution of studies related to economic growth, other factors have begun to be considered as fundamental elements in explaining economic performance, such as human capital, social capital, and investments in innovation.

From this perspective, the central argument contained in endogenous growth models is investment in human capital. In this context, we can observe a new trend in research that combines psychology, behavioral economics, and management sciences. Consequently, the emotional intelligence of the leader can guide their emotions in a way that enables them to decide to invest in new activities and create growth opportunities. This growth opportunity increases consumer utility in the case of consumer goods. It implies satisfying customer needs and improving the social performance of the company (Ezzi and al, 2016, Alvarez-Hevia, 2023; Toh, T. L., Bhaumik, A., Chakkaravarthy, M., & Htet, A. (2025); Riaz, 2024; Alwali & Alwali, 2022; Woime & Shato, 2025). This innovation effort also aims to maximize productivity and competitiveness of the national economy through the growth of its companies (Barré et al., 1997; Ivcevic et al. 2020). Indeed, several studies have attempted to demonstrate the effect of individual factors (skills, abilities, knowledge, emotions, emotional intelligence etc.) and organizational factors (financial capacity, size, and performance) on the economic growth of countries (Damasio, 1994, 2003; Cherniss, C., & Goleman, 1995, 1997, 2001; Mayer and Salovey, 1997; George, 2000; Bar On, 2001; etc.). Elster (1998) asserts that emotions can correct the indeterminacies of calculative reasoning. In other words, emotions or emotional intelligence in particular guides individuals towards rationality. Data suggest that the ability to understand one's emotions could imply that individuals with high levels of emotional intelligence are more aware of the factors influencing their positive and negative emotions. The emotionally intelligent manager is therefore able to have a wide and open field of vision, a synthetic vision, to understand a situation globally, and to take a step back from the day-to-day and the detailed. They know how to step back from the various parts to identify the interrelationships between them and understand the "big picture". This enhances their functions, mainly in terms of choosing innovative investment projects, and increases the country's economic growth.

Awareness of these emotion-triggering factors and understanding emotions would enable leaders to choose appropriate actions. Thus, Haag and Laroche (2009) postulate that emotionally intelligent leaders communicate their vision better to their teams and generate ideas that are more convincing more easily. The authors add that a high level of emotional intelligence enables the leader to generate and maintain enthusiasm. This skill helps ensure serenity and optimism within the organization, as well as cooperation and mutual trust. The trust established between leaders and various partners would act favorably on value creation through the implementation of a more profitable investment policy. It encourages them to undertake innovative investments that enhance the competitiveness of their firms and ensure growth and economic development.

Huy (2002) adds that radical changes within an organization require strong emotional intelligence for them to be accepted by the firm's partners, which facilitates their implementation, reduces cognitive conflicts, facilitates the task of leaders, and ensures the effectiveness of their decisions. In this sense, the implementation of innovative strategies is justified by the level of emotional intelligence of the decision-maker. This leader, aware of the evolution of their environment, must conceive new techniques allowing them to win the competitiveness war, especially on an international scale. The innovation effort of this leader originates from their emotional competence. This innovation effort allows an economy to be shielded against unfavourable

favorable developments and assures its growth continuity.

Based on this observation, the objective of this study is to integrate the behavioral dimension into the analysis of the determinants of economic growth. Taking into account the behavior of economic agents opens up new perspectives in economic science, notably through a renewal of the issues relating to consumption and/or economic growth. Our goal is to show the effect of emotional intelligence on the orientation of investment choices (innovations and job creation) by companies and the improvement of the competitiveness of the national economy.

2. LITERATURE REVIEW

2. 1. EMOTIONAL INTELLIGENCE CONCEPT (IE)

The study of the positive role of emotions in the decision-making process leads us to the concept of emotional intelligence (IE). Indeed, emotional intelligence is at the heart of the skills portfolio of an effective leader. Some authors even consider it a key driver of organizational performance (Côté et al, 2010; Cherniss, C., & Goleman, 2001; Kilduff et al, 2011; Song et al 2010). In this section, we review the literature on emotional intelligence.

Salovey and Mayer (1990), who originally used the term “emotional intelligence”, initially defined it as a form of intelligence that involves the ability to monitor one’s own and others’ feelings and emotions, to discriminate among them and to use this information to guide one’s thinking and actions (Salovey and Mayer, 1990).

Later, the authors revised their definition of emotional intelligence, and the current characterization is now the most widely accepted. Emotional intelligence is thus defined as the ability to perceive emotion, integrate emotion to facilitate thought, understand emotions, and regulate emotions to promote personal growth (Mayer and Salovey, 1997).

On the most general level, emotional intelligence is the ability to recognize and manage emotions in one and others (Cherniss, C., & Goleman, 2001).

2. 2. EMOTIONAL INTELLIGENCE, CREATIVITY AND JOB CREATION

Creativity is an important aspect and is generally designated as an innovative concept and a driver of technological progress. This importance of creativity as a potential wealth and job creator invites economic agents to be aware of its explanatory factors. It is about seeking explanatory variables for the divergences in the level of creativity between companies or regions, including emotional competencies.

In this line of thought, Côté et al. (2010) show that emotionally intelligent leaders are capable of having a broad and open field of vision, a synthetic vision, of grasping a situation globally, of distancing themselves from the daily grind, from the details. They know how to step back from the various parts to identify the interrelationships that exist between them and understand the overall situation. This emotionally aware leader is capable of imagining and materializing new ideas. Therefore, they opt for investment choices that create wealth and new jobs.

Akinboye (2006) emphasized that to succeed in life and in the workplace, humans need emotional skills manifested by attributes such as honesty, energy, trust, integrity, intuition, imagination, resilience, commitment, motivation, sensitivity, and awareness. These skills drive the entrepreneur to be more creative. It allows them to motivate and sensitize their partners about the utility of implementing new investment projects. These innovative investment projects ensure competitiveness, growth, and the creation of new jobs.

Hess (2003) shows that an effective leader must seek the skills necessary to harness the emotions of their collaborators for the benefit of their company. Emotional intelligence enables them to

motivate and satisfy all stakeholders of the company (employees, clients, suppliers, shareholders, and creditors). In other words, an emotionally intelligent leader uses their decision-making lever to manage their emotions (both their own and those of others). Creating new ideas and working methods ensures a favorable work environment. Improving working conditions is an incentive mechanism that allows the improvement of the performance of national companies. This performance facilitates the realization of possible growth opportunities for the leader.

Song et al. (2010) add that employees' emotional intelligence is more important than their intellectual abilities in determining their long-term performance. This means that there is a direct relationship between emotional intelligence and creativity. Furthermore, Ball (1938), Bond and Saunders (1999), Deary et al. (2005), Jaffee (2002), McCall (1977), Nettle (2003), Strenze (2007), Waller (1971) find a positive relationship between the highest social position of leaders (good relationships with others in the company) and their highest level of emotional intelligence. According to studies by Jordan and Troth (2002), Rapisarda (2002), work teams with a high level of emotional intelligence can resolve conflicts among themselves more easily than teams with a low level of emotional intelligence. They therefore conclude that there is a positive relationship between emotional intelligence and business performance (Ezzi et al, 2016). This performance and creativity invite national companies to realize their growth prospects through new investment projects. These prospects involve creating new jobs and participating in social well-being.

Ivcevic et al. (2020) attest that emotional intelligence is useful for improving the level of creativity of decision-makers. Thus, this skill, which involves the generation and management of emotions, positively affects the level of creativity of the leader. This emotionally intelligent leader has a broader range of perspectives on which they can embark on new investments (including socially responsible investments). These innovative projects promote the creation of new jobs. They signal the participation of national companies in social well-being and economic growth. It is therefore observed from these studies that there is a positive influence of the emotional intelligence of the leader on creativity and employability. Hence, it is appropriate to propose the following hypothesis:

H₁: The emotional intelligence of the leader enhances their level of creativity and impels them to create new jobs.

2. 3. EMOTIONAL INTELLIGENCE, VALUE ADDED AND JOB CREATION

It has been demonstrated that a small number of companies creates most new jobs. These companies are characterized by high benefit or productivity (Daunfeldt et al, 2014). This productivity is explained by the emotional intelligence of these firms. Thus, Cherniss, C., & Goleman et al (2002) argue that creating an effective organizational climate involves understanding one's own emotions and those of others. Hansenne, M., & Legrand, J. (2012) has also supported the importance of this skill in the workplace by stating that the companies that will endure are those that acknowledge that feelings and emotions play a huge role in driving employees. In other words, the growth and development of organizations depend on their ability to manage emotions. The emotional intelligence of leaders facilitates their coordination and employee motivation tasks to achieve high levels of performance (benefit). This value creation enables national companies to realize their growth opportunities. It is also positively correlated with the creation of new jobs and the economic growth of their nations. This finding justifies the indirect relationship between emotional intelligence and economic growth.

Kossek et al (2012) found that organizations are more productive and profitable when there is alignment and convergence of interests between employees and their leaders. This convergence is most often ensured when leaders are emotionally intelligent. Indeed, a high level of emotion-

al intelligence helps the leader in managing relationships and conflicts of interest. Minimizing conflicts of interest involves creating value for the company and its partners. This benefit is favorable for the growth of national firms. It enables them to contribute to social well-being through the creation of new projects.

Kassim et al. (2016) found a significant relationship between emotional regulation and job satisfaction. The high level of emotional intelligence of the leader enables them to be aware and attentive to the needs of their subordinates. Meeting the needs of employees is a determining factor in creating value for any organization. For example, higher job security leads to higher job satisfaction, higher organizational engagement, more constructive emotional regulation, and better job performance (**Kaur & Sharma, 2019**). These conditions promote external growth decisions of companies. These decisions allow national companies to contribute to economic growth through the creation of new jobs.

Raza et al (2018) stated that the emotional intelligence of the leader not only reduces workplace stress but also helps subordinates progress in their positions. In other words, emotional intelligence influences individual perception. It is a positive signal for cooperation and fairness within organizations (**Ireland, R. D., Reutzel, C. R., & Webb, J. W. (2005)**). It stimulates the productive capacities of the company and improves its wealth. Creating value encourages the company to initiate external growth processes. External growth operations of national companies promote the creation of new jobs. Therefore, emotional intelligence is a source of wealth creation and new jobs. It enhances the participation of national companies in the economic growth of their countries. In light of this theoretical framework, we propose the following hypothesis:

H₂: The emotional intelligence of the leader improves the level of profitability of companies and encourages them to create new jobs.

2. 4. EMOTIONAL INTELLIGENCE, COMPETITIVE ADVANTAGE AND JOB CREATION

Organizations must be sufficiently competitive to sell their products and services in the market. They must have key success factors to outperform their national or international competitors. These factors may include price, product or service quality, level of flexibility, and quality of the workforce. To be significantly competitive, an organization needs managers and workers who have the appropriate skills and abilities to perform their jobs well. In this vein, emotional intelligence is defined as the index of skills that help organizations achieve efficiency and competitiveness (**Ugoani, 2016**). This competitiveness, conditioned by a high level of emotional intelligence, facilitates the penetration and positioning of national companies in external markets. It subsequently allows them to contribute to the economic growth of their countries through the creation of new jobs (via the establishment of new subsidiaries).

Coetzee and Harry (2014) have shown that a high level of emotional intelligence in leaders implies a willingness to master challenges and tasks related to their careers. They become more capable of realizing new opportunities. These new opportunities enable companies to contribute to economic growth and social well-being in their countries through the creation of new jobs. The detection of opportunities, conditioned by a high level of emotional intelligence, is positively correlated with the competitiveness and growth of nations.

Darvishmotevali et al. (2018) emphasized the importance of emotional intelligence as a driver of creativity and productivity for national companies. **Koc and Boz (2019)** affirmed this finding. They found that emotional intelligence is one of the key success factors enabling companies to improve their brand image nationally and internationally. This visibility, signaled through employee motivation and accountability, ensures the competitiveness of companies and even

the national economy. Emotional intelligence is defined as an engine of economic growth given its role in managing stress and conflict within national companies. It reduces sources of inefficiency (including behavioral biases) and ensures the performance and competitiveness of companies. These companies become more capable of supporting their economies' efforts in economic growth through the creation of new jobs. Indeed, winning the competitiveness battle facilitates external growth and implies the creation of new job positions. This confirms the indirect relationship between emotional intelligence and economic growth.

Fotiadis et al. (2019) added that leaders must always be good managers in terms of emotional awareness. The authors show that emotional skills help leaders reassure their employees regarding working conditions and meeting their needs. This is particularly important as it improves service quality and commercial success. This success heavily depends on personnel and effective interaction between managers and their direct subordinates (Nickson, 2013). This commercial advantage allows national companies to participate in the economic growth effort through the creation of new jobs.

Bozhkova et al. (2020) attest that emotional intelligence plays a crucial role in improving the functions of the leader. It helps them achieve greater employee satisfaction; improve engagement, productivity, and business performance. It can thus create an indispensable competitive advantage for organizations. This competitive advantage is favorable for external growth decisions such as penetrating new markets. Opening up to new markets involves creating new jobs (establishing new subsidiaries). This finding confirms the contribution of emotional intelligence to economic growth.

H₃: The emotional intelligence of the leader positively affects the competitiveness of companies and encourages the creation of new jobs.

2. 5. EMOTIONAL INTELLIGENCE, PRODUCT INNOVATION AND ECONOMIC GROWTH

Businesses heavily rely on the innovation efforts of their employees to cope with rapidly changing markets and gain a competitive edge (Udin et al, 2019). With increasing pressure to develop new products and services more quickly, organizations are constantly striving to encourage innovative work behavior among employees to maintain and enhance long-term performance (Van Burg and Romme, 2014). King and Anderson (2002) have argued that innovative work behavior differs from creativity, which focuses on the discovery and generation of ideas. Creativity is the starting point for innovation and involves the production of new and useful ideas, whereas innovative work behavior involves a series of activities aimed at the introduction, development, adoption, modification, and implementation of ideas. This distinction between innovation and creativity highlights the important role of human capital in shaping new ideas. This active role prompts companies to seek incentivizing factors for the development of new products.

In this regard, several studies have shown the importance of emotional intelligence among organizational members (leaders and/or employees) in the development of new products. Thus, emotional intelligence has been identified as a key contributor to improving innovative work behaviors (Abubakr et al-Sheikh 2007, Jafri et al, 2016).

Wong and Law (2002) posited that employees with higher emotional intelligence tend to have better relationships with their colleagues. This, in turn, leads to information exchange and coherence between different departments within the organization. In other words, companies characterized by a high level of emotional intelligence are capable of generating ideas and developing original solutions to workplace problems. This includes, for example, the creation of new products that enhance their competitive positioning. This competitive positioning achieved

through the creation of new products ensures the performance and growth of national companies. The growth of national companies is seen as crucial for the economic growth of countries. This observation implies the positive effect of emotional intelligence as an explanatory variable for economic growth.

Ealias and George (2012) found that the emotional intelligence of leaders enables them to develop and design innovative strategies, signaling the performance of their organization. The authors added that emotional intelligence positively affects employee satisfaction regarding the value created by their firms. Emotional awareness (and/or emotional intelligence) is an incentivizing mechanism towards achieving organizational goals (including growth). It promotes the creation and realization of innovative investment projects (products and services). These innovative products ensure the sustainability and growth of companies and their national economies.

Al-Omari (2017) added that employees with higher emotional intelligence are more likely to have peace of mind, a stable life, and tend to remain more focused on their company's goals (including competitiveness). This assertion supports the contribution of emotional intelligence to the creation of new products. Indeed, emotional intelligence enhances the evaluation and transformation capabilities of investment opportunities into competitive products and services in the market. A high level of emotional intelligence helps in designing innovative products capable of meeting consumer needs. Consumer satisfaction helps improve the social and financial performance levels of national firms and ensures their contribution to wealth creation..

Andrabi and Rainayee (2020) noted that leaders with higher levels of emotional intelligence tend to opt for innovative investments. These leaders are more aware of the usefulness and importance of innovative products for the growth of their firms. They always seek to motivate their subordinates towards creating competitive products that promote value creation and the survival of their businesses. The sustainability of national companies, through improved competitive positioning, is one of the guarantees of economic growth. This observation reflects the indirect relationship between the emotional intelligence of national companies and the economic growth of the country. Based on this theoretical development, it is evident that there is a positive relationship between the emotional intelligence of companies and the economic growth of their countries. Hence, it is proposed to formulate the following hypothesis:

H₄: The emotional intelligence of leaders positively influences product innovation, which contributes to company growth and, indirectly, to national economic growth.

2. 6. EMOTIONAL INTELLIGENCE, PROCESS INNOVATION AND ECONOMIC GROWTH

Innovation is considered a competitive advantage that every company must strive to achieve. It involves having superior and unique ownership of critical intangible resources, namely intellectual capital (**Edvinsson, 2002**). This intellectual capital refers to knowledge, know-how, and emotional intelligence. In this vein, companies are encouraged to seek the skills (including emotional intelligence) necessary to devise new working methods. Thus, **Bolton (2005)** noted that emotions are valuable resources available for the development and growth of companies. They represent key success factors for organizations. It has been emphasized that an organization's ability to control emotions (emotional intelligence) of employees ensures its competitiveness. In other words, emotional intelligence helps companies establish innovative work processes and methods to achieve the desired objective. It facilitates the design of specific value-adding activities unique to the organization. These new methods can contribute to competitiveness and growth of national companies.

Nelson and Low (2011) asserted that emotional intelligence refers to the recognition, control

of one's emotions, and directing one's thoughts. Furthermore, Gorji et al. (2014) indicated that emotional intelligence reduces cognitive conflicts. It helps organizations solve their problems and guides them towards the design of new production methods. The authors attest to the positive effect of emotion management on process innovation and firm performance. Improving the competitiveness of national firms is a driver of economic growth in their countries. Companies are more encouraged to assess their levels of emotional intelligence.

Rezvani et al. (2018) found that company performance is affected by the emotional skills of its members. The authors showed that members with high levels of emotional intelligence promote social and emotional environments. This environment is conducive to the creation of new work methods. It positively affects the competitiveness, performance, and growth of national companies. This observation demonstrates the positive effect of emotional intelligence on economic growth through the enhancement of the creative capacities of national firms (new methods and management tools).

Song et al (2019) found that subordinates' engagement in implementing new programs largely comes from the emotional support and psychological encouragement of their leaders. An emotionally intelligent leader is aware of the utility of finding new methods and procedures. They encourage their subordinates to work on tools and programs that improve organizational efficiency. The goal of this leader is to increase productivity by harnessing the innovation capabilities of these employees. It involves renewing production methods and tools to achieve economies of scale ensuring the growth of their company. Emotional intelligence drives the leader to establish a work environment conducive to creativity in decision-making processes. This process innovation improves the performance of national companies and enables them to contribute to the economic growth of their countries. This observation implies the indirect relationship between economic growth and emotional intelligence.

Tang et al (2020) noted that managers with high levels of emotional intelligence are capable of implementing innovative processes. They showed that these leaders have a greater ability to build harmonious relationships with their colleagues. They have the necessary skills to maintain good coordination and creative value coherence for their organizations. This theoretical development invites us to test the following hypothesis:

H₅: The emotional intelligence of leaders positively influences process innovation, which contributes to firm performance and, indirectly, to national economic growth.

2. 7. EMOTIONAL INTELLIGENCE, MARKETING INNOVATION AND ECONOMIC GROWTH.

Emotional intelligence is the ability to use one's own emotions and those of others to produce positive outcomes. The marketing literature has largely overlooked this dimension in analyzing the role of sales professionals in identifying customer needs and satisfaction levels. Recent research has suggested that greater recognition of salespeople's emotions during negotiations with buyers can increase benefits for both sellers and buyers (Elfenbein et al. 2007). A high level of emotional intelligence among sales professionals is positively correlated with greater customer satisfaction. Customer satisfaction implies improved market share and growth of national businesses (Martin et al. 2008; Mueller and Curhan 2006).

Moreover, the emotional intelligence of businesses affects current business performance and enhances long-term relationships with customers (Hennig-Thurau et al. 2006). It contributes to the economic growth of countries through the openness and ease of positioning national businesses in external markets.

Hashem (2010) argues that the performance of companies in the banking sector relies on emo-

tional intelligence. In this regard, it is said that the level of emotional intelligence of leaders influences marketing creativity. Thus, emotional intelligence endows managers with sufficient marketing creativity, which is one of the fundamental factors in customers' perceptions of service quality (Ghalandari et al, 2013). In this vein, the economic growth of countries is based on the commercial performance of national businesses. This commercial performance is affected by the level of emotional intelligence of leaders.

Borg and Johnston (2012) have shown that the emotional intelligence of leaders helps them establish an appropriate sales process with the objective of customer satisfaction. It allows the company to maintain a good relationship with these customers. This good relationship contributes to the improvement of the commercial performance of national businesses. The performance and competitiveness of national firms are explanatory variables for the levels of economic growth of countries. Emotional intelligence appears to be an important success factor for national business commerce and economic growth of countries. To gain a competitive advantage and achieve better organizational results, leaders should consider hiring and training an emotionally intelligent sales force.

Danquah (2014) added that the emotional intelligence of leaders is a fundamental variable in explaining the performance of companies in the banking sector. It enables companies to identify customer needs. In other words, emotional intelligence activates marketing vigilance. It enhances the creative capacities of sales managers to design new methods (distribution, packaging, promotion, etc.) appropriate to the evolving needs and behaviors of consumers. Meeting customer needs improves the positioning of national businesses in external markets. Emotional intelligence promotes the growth of national businesses and even the general economic growth of the country.

Ugoani (2016) argued that the competitiveness of organizations is relative to the skills and motivations of their managers and employees. This is imperative because managers and employees can provide a distinctive competitive advantage through their skills and the ideas they create. Intelligence is one of the key skills that help organizations achieve competitiveness objectives. It has positive implications for improving the creative spirit of subordinates. This creativity allows the national enterprise to adapt to changes in consumer behavior. It facilitates the discovery of new products and markets. It contributes to the economic growth of countries by improving the commercial performance levels of their firms.

Chang and Teng (2017) asserted that the development of new products and services depends on the specific capabilities and skills of organizations. These skills are the basis for the birth of creative ideas that enable national businesses to meet the changing needs and desires of their customers. In this context, emotional intelligence is conceived as an intellectual skill that contributes to creating competitive power for national businesses. Awareness of consumer emotions helps companies create satisfying products. Customer satisfaction enhances the performance of these companies and ensures the economic growth of the country.

H₆: Emotional intelligence encourages national businesses to participate in growth through the design of promotion strategies.

3. METHODOLOGY

3. 1. RESEARCH INSTRUMENT

Our empirical study relies on quantitative research methodology, employing a questionnaire as the primary tool for data collection. The questionnaire comprises two main sections, aligned with the theoretical axes under examination:

- The first section aims to characterize the company (such as size, industry sector, ownership structure, types of investments, jobs created, and competitiveness).
- The second section focuses on assessing the emotional intelligence levels of leaders.

The questionnaire targets leaders of large Tunisian private companies. The selected sample consists of 100 managers from Tunisian industrial, commercial, and service companies, including those listed on the Tunis stock exchange in 2021 (53 companies) and others not listed (47 companies).

Our inclusion of listed companies is justified by their presumed superior performance and adherence to various conditions essential for the reliability of our study. These companies typically operate as public limited companies with dispersed shareholding structures, thereby highlighting the significance of board of directors' roles and ownership structures, enhancing the relevance of our assumptions. Additionally, listed companies are required to disclose their financial statements and other pertinent information, which typically reflect their operational realities, making them suitable for model estimation purposes.

We have chosen to exclude financial institutions such as banks, insurance companies, investment firms, development and portfolio management companies, etc. These entities possess distinct characteristics from non-financial companies, and their inclusion might introduce sector-specific correlation effects. Their specific regulatory environment and capital structures would distort the results compared to non-financial ones.

To ensure representation across the Tunisian economy, we have included unlisted companies in our sample.

Table 1. The Initial Sample and the Constitution of the Final Sample

Population of companies listed on the BVMT on 31/12/2021	80
Exclusion of listed financial companies	(27)
Listed companies selected	53
Visited population of unlisted companies	100
Exclusion for refusal to reply	(40)
Exclusions for missing data	(13)
Unlisted companies included in the sample	47
Total companies included in the final sample	100
Final sectorial distribution of the 100 companies (industrial, commercial, services)	
Industrial companies	40
Commercial companies	30
Services companies	30

Source: prepared by the author

3. 2. VARIABLE MEASURES

In this context, endogenous and exogenous variables should be separated.

3. 2. 1. ENDOGENOUS VARIABLES: ECONOMIC GROWTH

The objective of this chapter is to demonstrate the effect of leaders' emotional intelligence on companies' investment choices (innovations and job creation) and the enhancement of the competitiveness of the national economy (economic growth). The Gross Domestic Product (GDP) measures economic growth. Gross Domestic Product (GDP) is defined as the total market value of all final goods and services produced within an economy during a given period. There are three methods to measure GDP: the expenditure approach, the income approach, and the value-added production approach. The most common method for measuring GDP is the expenditure approach, in which GDP is calculated by adding consumer purchases of goods and services, gross investment, government purchases of goods and services, and net exports, namely:

$$GDP_t = C_t + I_t + G_t + (X_t - M_t)$$

Where:

- GDP_t = Value of Gross Domestic Product at time t;
- C_t = Value of private household consumption at time t;
- I_t = Value of private investment at time t;
- G_t = Value of government expenditure at time t;
- X_t = Value of exports at time t; and
- M_t = Value of imports at time t.

Our measure of GDP is expressed in constant local currency units and is drawn from World Bank data. We used the GDP structure growth rate calculated by the Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ in July 2022: data showing the variation in the contribution of Tunisian national companies to sectoral GDP). Economic growth takes the following two modalities:

- 1 If the company belongs to a sector realizing a positive variation of its contribution in the GDP
- 0 If not

3. 2. 2. EXOGENOUS VARIABLES:

3. 2. 2. 1. EMOTIONAL INTELLIGENCE

In this study, we generated a group of 18 items (obtained from Schutte et al, 1998, the SSREI test) based on the theoretical model of emotional intelligence developed by Salovey and Mayer (1990). Each item selected for the initial pool of 18 points reflects an adaptive trend toward emotional intelligence as part of the model. Respondents used a 5-point scale, from “strongly disagree” to “strongly agree”. Several items represented all parts of the model. We deleted some and/or added some items, revised several items based on the consistency of the factor solution and on other studies in the Tunisian context, including the work of Azouzi and Jarbouï (2013, 2017), and then tested the items by asking several people to complete the scale and note any unclear items.. This process resulted in an 18-item pilot test pool.

The internal consistency between the 18 items is very high, with results showing a Cronbach's Alpha of $\alpha = 0.852$. This implies that each item constitutes an equivalent measure of emotional intelligence, and that they are consistent. Now that the construct's validity has been demonstrated, it is important to ensure that the scale generated for its measurement (the 18 items) is reliable and incorporates the theoretical facets. Principal Component Analysis suggests a three-factor structure representing 51.851% of the total variance. Thus, the Kaieser-Mayer-Olkin (KMO)

index, which reflects the adequacy of the factor solution, is around 0.90. The factor solution obtained converges towards the same results found by [Azouzi and jarboui \(2013 ;2017\)](#).

Table 2. Principal Component Analysis Results for the 18 Items

Items	Components		
	Component 1: Assessing emotions in others: 39.976% of total variance	Component2: the evaluation of one's emotions Personal: 6.265% of the total variance.	Component3: emotional management or the use of emotions in problem solving: 5.610% of variance total
I am able to interpret the non-verbal messages of the people who send them.	,702		
I can tell how a person feels by the tone of their voice.	,682		
I know how people feel just by looking at them.	,672		
Most of the milestones in my life have led me to reconsider what was important and what wasn't.	,646		
I know when to talk to others about my personal problems.	,622		
When I encounter an obstacle, I remember the obstacles I have already encountered and overcome.	,584	,512	
I am aware of my emotions at the moment I live them		,721	
When I feel that I change emotions, I have the reflex to have new ideas.		,700	
When I'm in a good mood, solving problems becomes easy for me.		,647	
I use my good mood to face an obstacle.		,627	
I easily recognize my emotions the moment I experience them.		,516	
I expect positive things to happen to me in life.			,656
I am looking for activities that make me happy.			,599
I think most of the things I do, I do well.			,573
Feeling emotions is something that makes life worthwhile to be.			,573
When I change my mood, I see new openings.			,528
When I experience a positive emotion, I want to know how to make it last over time.			0,499
I organize events that others enjoy.			0,447

Source: prepared by the author

3. 2. 2. 2. JOB CREATION

Job creation at the company level is typically measured using the method developed by [Davis and Haltiwanger \(1992\)](#) and [Davis et al. \(1996\)](#). Following their approach, the gross job cre-

ation Cit in company i between year t - 5 and t is defined as:

$$Cit = \text{Max}(X_{it} - X_{it-5}, 0)$$

Where: X_{it} is the employment level of company i during year t. The variable Cit is thus equal to the increase in the number of employees in case of an increase. If the number of employees has decreased, the variable is equal to zero.

Although the approach does not distinguish between temporary and permanent employment, it allows us to detect the variation in the number of jobs created from one year to the next, which is what motivated us to use it. In our study, we will compare the number of employees in company i between year t and t-1 (instead of t-5). To demonstrate the contribution of companies to economic growth, we can use the variation in job creation. A positive variation indicates job creation.

$$\text{Variation in jobs during year } t = (X_{it} - X_{it-1}) / X_{it-1}$$

3. 2. 2. 3. INVESTMENT IN INNOVATION: INTANGIBLE INVESTMENT

In our study, we will use the degree of intangibility of assets as a proxy for innovation investments. The degree of intangibility of productive assets can be appreciated on several levels. The Banque de France and the Ministry of Industry, in studies devoted to the development of intangible investments in France, have often used the ratio of intangible assets to tangible assets. In Tunisia, as in France, the recorded intangible asset comes from the capitalization of this type of expenditure. However, the unavailability of information legitimizes resorting to the amount of intangible assets presented in the balance sheet, although this amount is generally surrounded by doubt since it results from discretionary choices made by managers. Similar to the French context, measuring intangible capital in the Tunisian context presents the same problems, which leads us to adopt accounting measures.

Based on this discussion and considering the availability of data from Tunisian companies, we propose the following indicator of the degree of activation of intangible expenses:

$$\begin{aligned} \text{The intangible assets ratio year } t = \\ \text{Net intangible assets} / \text{Total assets} \end{aligned}$$

This measure is used by [Cazavan-Jeny \(2004\)](#), [Moussu and Thibierge \(1997\)](#), [Thibierge \(2001\)](#).

3. 2. 2. 4. COMPETITIVENESS OF THE COMPANY

According to [Doyle \(1992\)](#), a company's competitiveness depends on its ability to leverage the market. It must use its key resources and competencies to increase its market share ([Porter, 1998](#); [Breene and Nunes, 2005](#)). Market share growth is one of the indicators signaling business performance and competitiveness.

In our research, we have used market share growth as an indicator of the level of competitiveness of Tunisian companies. We used rate calculated by the Tunisian Institute of Competitiveness and Quantitative Studies (ITCEQ in July 2022), namely:

$$\begin{aligned} \text{Overall market share} = \\ \text{Company's revenue} / \text{Total sector revenue} \end{aligned}$$

3. 2. 2. 5. EMPLOYEE PRODUCTIVITY

The survival of organizations depends on their performance, particularly financial performance, while performance relies on productivity, which is measured in terms of output. Production is most often measured in terms of value. Production in terms of value can be measured either in real revenue value or in real value added. However, revenue does not provide an accurate measure of productivity as it incorporates a significant amount of double counting due to value

added by purchased inputs (Mahmood, 2003). Therefore, productivity is measured using value added. Value added can be defined as sales minus the cost of raw materials, materials, and services purchased from outside the company (Muellbauer, 1991). Value added can be calculated by subtracting the costs of purchased materials, services, and utilities from the total revenue of the company. We will adopt the ratio of value added to the number of employees as a measure of productivity (Schreyer and Pilat, 2001; Mahmood, 2003):

$$\text{Productivity} = \text{Value added} / \text{Number of employees}$$

3. 2. 2. 6. VALUE ADDED

Value added is the wealth created by the company through its industrial or commercial activity. It is determined by the difference between the company's output and its intermediate consumption of goods and services (Lantz, 2005; L  thinen and Toppinen, 2008). This wealth is distributed among various stakeholders: employees through wages, creditors through interest, and the state through taxes. It indicates value creation and measures each company's contribution to the GDP. Value added is calculated using the income statement as follows:

Gross value added = Gross margin + Production of the period - Consumption from third parties (purchases and external charges)

$$\text{Net value added} = \text{Gross value added} - \text{Depreciation and provisions}$$

Where:

- Gross margin = Sales (excluding taxes) - Cost of goods sold
- Production of the period = Sales + Change in inventory (variation of stock)
- Change in inventory (variation of stock) = Final inventory - Initial inventory.

3. 2. 3. CONTROL VARIABLES

3. 2. 3. 1. PROFITABILITY

Several studies have demonstrated the role of profitability in explaining a company's investment choices, its performance, and its contribution to economic growth. The choice of ROA as a control variable that measures the return on assets is justified by the contribution of the optimal allocation of resources or assets in the creation of the value of companies and the increase of their contributions to the sectoral GDP. This relationship is approved in the economic and financial literature in our context of studies by several works (Azouzi and jarboui, 2017; Biais et al, 1995; Molay, 2006; Fama and French, 2002; Call  n and Fern  ndez, 2019). We will adopt the Return on Assets (ROA) ratio to measure this variable:

$$\text{ROA} = \text{Net income} / \text{Total assets}$$

3. 2. 3. 2. FIRM SIZE

The size of the firm affects its financial policies (Rajin and Zingales, 1995; Hovakimian et al., 2004; Dufour and Molay, 2010). Thus, large firms are considered to have good performance (Booth et al., 2001), are more diversified (Rajan and Zingales, 1995), and have a lower risk of bankruptcy than small firms. They use external sources of financing to fund their investment projects without incurring additional costs compared to small firms. They are protected against the inefficiency of their investment decisions (innovative and risky). They are capable of contributing to the economic growth of their countries. This variable can be measured in various ways. The most commonly used measures include: the natural logarithm of total assets, number of employees, and revenue. Indeed, most studies use total assets or revenue as a measure of firm

size (Bujadi and Richardson, 1997). We will adopt the following simple formula:

$$SIZE = \ln(\text{total assets}).$$

For simplicity purposes, we summarize the measurement of each of the variables in the model, its name and its expected influence on economic growth in the following table 3:

Table 3. Description Of Study Variables

Category:	Phenomenon:	Measure:	Variable :	Prediction:
Variable to explain:				
Economic growth	Positive change in the production of goods and services in an economy over a given period	Economic growth is measured by gross domestic product (GDP). $GDP = C_t + I_t + G_t + (X_t - M_t)$	GDP	
Explanatory variables:				
				GDP
Emotional Intelligence	Perception and Management of Emotions	Calculated score on the basis of the 18 items of Schutte and al1998	IE	+
Job creation	Competitiveness of the enterprise on the labour market	In our study we will compare the number of employees of company i between year t and t-1. Change in employment in year t $t = X - X_{it-1} / X_{it-1}$ Positive change indicates job creation	JC	+
Intangible investments	The company's innovation effort	We propose the following indicator of the degree of activation of intangible expenditure: The rate of intangible assets = Net intangible assets / assets Accountant	INE	+
Competitiveness of the company	Competitiveness of the enterprise in the market for goods and services	We used the growth of market share as an indicator of the level of competitiveness of Tunisian companies, namely: Overall market share = Company turnover/turnover of the entire sector A positive change in market share signals the competitiveness of the company	C	+
Employee productivity	The productive capacity of employees	We will use the ratio between value added and the number of employees as a measure of productivity: Productivity = Value added/ Number of employees	EP	+
Value added	The creation of wealth by the company	Value added is calculated using the income statement as follows: Gross value added= Trade margin+ Production for the year- Consumption from third parties (purchases and external charges)	VA	+
Control variables:				
Profitability	Reports the economic performance of the company	ROA= net income / total assets	RENT	+
Size	Reports on the company's reputation and growth	Ln (total assets)	FSIZE	+

Source: prepared by the author

3. 3. DATA ANALYSIS METHODS

The methodology consists of presenting the different correlations between economic growth and the above variables using a probabilistic graphical model called Bayesian network. Bayesian networks are an explanatory artificial intelligence method. This method is used in this chapter to quantitatively describe the effect of the emotionally intelligent leader on innovation effort, job creation and economic growth. In the following, we describe in detail the different tests that are carried out.

4. ANALYSIS AND INTERPRETATION OF RESULTS

4. 1. MODEL CONSTRUCTION AND PARAMETERIZATION

The objective of this chapter is to show the effect of the emotional intelligence of Tunisian companies on their contributions to economic growth. So, theoretically, we aim to show that the contribution of Tunisian companies to economic growth depends on:

Level of emotional intelligence of the leader

Level of competitiveness of enterprises

Level of investment in innovation

Job creation

Employee productivity

Creating added value

The profitability of the company

The size of the company

After listing the variables, it is necessary to identify their modalities.

4. 1. 1. IDENTIFICATION OF VARIABLES AND THEIR MODALITIES

The first step in building an expert Bayesian network is to list the variables recursively, starting from the target variable to the causes. It is in this order that we present the variables in the following table (4):

Table 4. Description Of The Modalities Of The Variables Of The Study

Variable	Type of variable
Variation in GDP by Structure (VGDPs)	Discrete: YES/NO
Emotional Intelligence (IE)	Discrete: YES/NO
Job creation (JC)	Discrete: YES/NO
Innovation Effort (EIN)	Discrete: YES/NO
Employee productivity (EP)	Discrete: YES/NO
Competitiveness (C)	Discrete: YES/NO
Value added (VA)	Discrete: YES/NO
Profitability (ROA)	Discrete: YES/NO
Size (FSIZE)	Discrete [1:SMALL-MEDIUM ;2: BIG]

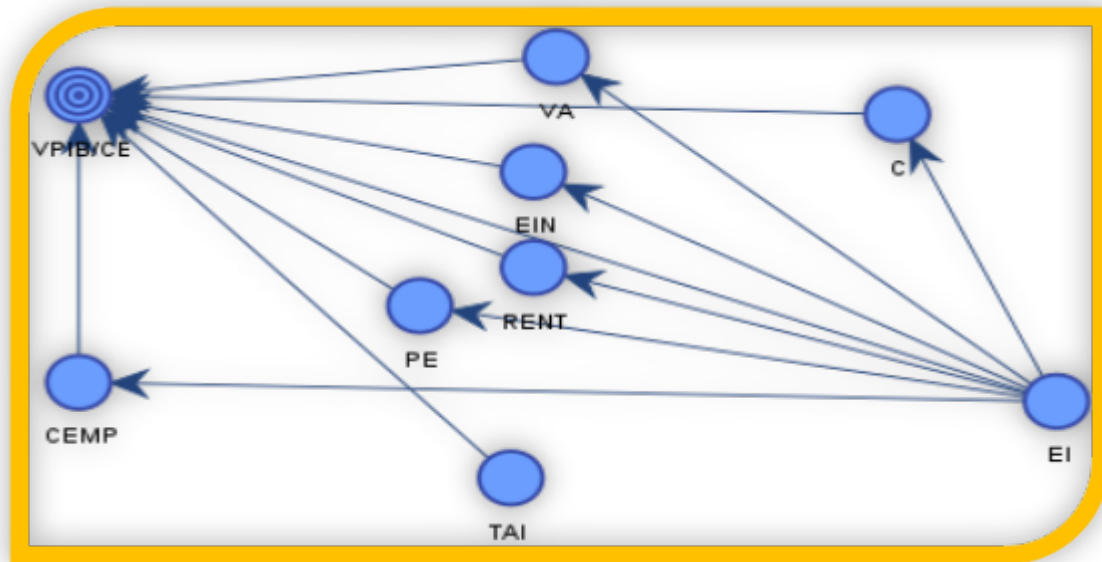
Source: prepared by the author

4. 1. 2. GRAPHIC MODEL

The second step in building a Bayesian network is to express the relationships between variables. The Bayesia Lab software makes it possible to train the Bayesian network by taking the discretized database as the input to the process without sampling data. The constructed Bayesian network is the result obtained for the total database.

From the data collected, we were able to establish the following graph of relationships (Figure 1):

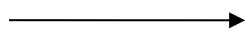
Figure 1. Bayesian Network the Effect Of Emotional Intelligence On Economic Growth.



: The target node: this is the node representing the variable to be explained (variation of GDP by structure).



: The root node: the set of explanatory variables of the variation of GDP by structure) (emotional intelligence, competitiveness, job creation, innovation effort, employee productivity, value added, profitability and size).



: Arcs represent correlations between variables

Source: prepared by the author

The graph model above (Figure 1) explains the variation in GDP by structure. This variation is affected by the contribution of domestic enterprises (innovation effort, job creation, productivity, competitiveness, value added and profitability) to economic growth. This contribution stems from the level of emotional intelligence of Tunisian leaders.

In what follows, we describe in detail the different correlations between these variables and their effect on the target variable (change in GDP by structure).

4. 1. 3. MODEL ANALYSIS AND INTERPRETATION

Different methods of analyzing the results from the network obtained are possible in the BayesiaLab software.

4. 1. 3. 1. ANALYSIS OF DISCOVERED RELATIONSHIPS

The relationships between variables in the database are oriented from the parent node to the child node. Each relationship consists of three different measures: Kullback-Leibler distance, relative weight, and Pearson correlation. The Kullback–Leibler distance and relative weight are two measures of the strength of relationships. The relative weight scale is 0 to 1. Thus, the following table (Table 5) presents the report for analyzing the relationships between the network variables.

Table 5. Relationship Analysis

Parent node	Child node	Kullback-Leibler divergence	Relative Weight	Pearson correlation
C	VGDP	0,2258	1,0000	0,2589
ROA	VGDP	0,1455	0,6441	0,0884*
EIN	VGDP	0,1455	0,6441	0,0884*
C	VGDP	0,1455	0,6441	0,0884*
VA	VGDP	0,0446	0,1977	0,0252**
EI	EP	0,0322	0,1426	0,2117
EI	VPIBS	0,0297	0,1315	-0,0019***
FSIZE	VGDP	0,0230	0,1018	-0,0158***
EP	VGDP	0,0199	0,0883	-0,0045***
EI	EIN	0,0000	0,0000	-0,0000
EI	ROA	0,0000	0,0000	-0,0000
EI	JC	0,0000	0,0000	-0,0000
EI	C	0,0000	0,0000	-0,0000
EI	VA	0,0000	0,0000	-0,0000

Kullback-Leibler close to 1: strong correlation between variables

Relative weight: converges to 1: strong correlation between variables

Pearson correlation coefficient: the direction of correlation between the variables: *, **, *** meaning at 10%, 5% and 1% respectively.

Source: prepared by the author

Table 5 analyses the relationship (strength and type of correlation) between network variables. The results show the presence of a strong relationship (Kullback-Leibler = 0. 2258/ relative weight = 1) and positive ($\beta = 0.2558$) between the competitiveness of enterprises and the variation in sectoral GDP. These results affirm the positive effect of the competitiveness of domestic firms on their contributions to economic growth. They confirm our theoretical study (H_1, H_3, H_4, H_5, H_6).

The analysis of the relationships highlights the presence of a moderately strong (Kullback-Leibler = 0.1455/ relative weight = 0.6441) and positive ($\beta = 0.0884$) relationship between the profitability of the firm and the variation in sectoral GDP. This empirical finding confirms our second hypothesis (H_2) and validates the graphical model (Figure 6).

The innovation output is positive ($\beta = 0.0884$) and moderately (Kullback-Leibler = 0. 1455/ relative weight= 0. 4641) correlated with the contribution of domestic firms to economic growth. This result affirms the presence of a correlation between economic growth and innovation effort (H_4, H_5, H_6).

The relationship analysis test shows that job creation by the firm affects the change in sectoral GDP. Thus, job creation positively affects the level of sectoral GDP ($\beta=0.0884$). This result is consistent with our theoretical study (H_1, H_2, H_3).

The value added of enterprises is positively ($\beta = 0.02252$) and weakly (Kullback-Leibler = 0.0446/ relative weight = 0.1977) correlated with their contributions to economic growth.

The emotional intelligence of leaders shows a weak and slightly negative association with company contributions to economic growth ($\beta = -0.0019$; Kullback-Leibler = 0.0297/ relative weight = 0.1315). This result contradicts our theoretical study. It attests to the negative effect of emotional management on wealth creation. However, relationship analysis announces the positive effect of emotional intelligence on the level of productivity of employees. This soft skill is positively ($\beta = 0.2117$) and weakened(Kullback-Leibler = 0. 0322/ relative weight= 0. 1426) correlated with employee productivity. This productivity is negatively correlated ($\beta = -0. 0045$) and weakness(Kullback-Leibler = 0. 0199/ relative weight= 0.0883) with the change in sectoral

GDP. This implies that emotional intelligence contributes to improving employee productivity, but it is insufficient to guarantee value creation. The empirical analysis presented to emphasize the moderating role of emotional intelligence. This competence contributes to the improvement of companies' capabilities and explains their contributions to economic growth. Indeed, several studies have tried to show the effect of individual factors (skills, abilities, knowledge, emotions...) and organizational factors (financial capacities, size, performance) on the economic growth of countries. These variables can help explain firms' competitiveness, job creation, innovation efforts, and contribution to their countries' economic growth (Shane, 2003).

Finally, the results also show the presence of a positive correlation between firm size and sectoral GDP variation ($\beta=0.1018$).

4. 1. 3. 2. ANALYSIS OF ECONOMIC GROWTH OR CHANGE IN GDP BY STRUCTURE (TARGET VARIABLE)

To analyze economic growth, one must choose the variable variation of GDP by structure (VPIBS) as the target variable in the Bayesian network. Then, we can use the function (Analysis of relationships with the target) that generates the analysis report of the target. In this report, the relationships of the variable change in GDP by structure with the other variables are measured by binary mutual information, binary relative importance.

In probability theory and information theory, mutual information is information provided by several sources of information simultaneously. Its existence is linked to the following question: given an event, how does it change the amount of information provided by another event? The mutual information of two random variables is a quantity measuring the statistical dependence of these variables. It is measured in bit.

Table 6 presents the importance of the variables in our study in terms of providing information on the value of GDP change by structure.

Table 6. Importance Of Nodes In Terms Of Providing Information On Knowledge Of Variation In GDP By Structure (VGDPs)

VGDPs = YES (58.56%)				
NODE	Binary mutual information	Binary relative importance	Modal value	
C	0,0479	1,0000	YES	84,42%
ROA	0,0056	0,1169	YES	72,43%
EIN	0,0056	0,1169	YES	72,43%
JC	0,0056	0,1169	YES	72,43%
VA	0,0005	0,0095	YES	77,89%
FSIZE	0,0002	0,0037	BIG	47,66%
EP	0,0000	0,0003	NO	46,18%
IE	0.0000	0.0001	NO	23.06%
VGDPs = NOT (41.44%)				
NODE	Binary mutual information	Binary relative importance	Modal value	
C	0,0479	1,0000	NO	38,32%
ROA	0,0056	0,1169	NO	35,86%
EIN	0,0056	0,1169	NO	35,86%
JC	0,0056	0,1169	NO	35,86%
VA	0,0005	0,0095	NO	24,26%
FSIZE	0,0002	0,0037	SMALL-MEDIUM	53,93%
EP	0,0000	0,0003	YES	54,26%
IE	0.0000	0.0001	YES	77,09%

-Mutual information: this is the contribution of information given by a variable concerning the value of the target.

-Materiality: this is the importance of the variable in relation to the value of the IPC

-Modal value: the average value of the explanatory variable for each value of the target.

Source: prepared by the author

The analysis of the variation in sectoral GDP shows that 58.56% of Tunisian enterprises contribute to a positive variation in sectorial GDP and 41.44% no.

Table 6 points out that in the case where the enterprise contributes to a positive change in sectoral GDP, the most important node is its level of competitiveness (relative importance =1). Other explanatory variables are profitability (relative importance =0.1169), innovation effort (relative importance =0.1169), job creation (relative importance =0.1169), value added (relative importance =0.0095), size (relative importance =0.0037), productivity (relative importance =0.0003) and emotional intelligence (relative importance =0.0001).

Thus, the results show that 84.42% competitiveness, 72.43% economic profitability, an innovation effort with a probability of 72.43%, job creation with a probability of 72.43%, 77.89% value added, a large size with a probability of 47.66%, low productivity with a probability of 46.18% and a low level of emotional intelligence with a probability of 23.06% imply a contribution of the company to the positive variation of GDP sector with a probability of 58.56%.

If the enterprise does not contribute to a positive change in sectoral GDP, the most important node is its level of competitiveness (relative importance =1). Other explanatory variables are profitability (relative importance =0.1169), innovation effort (relative importance =0.1169), job creation (relative importance =0.1169), value added (relative importance =0.0095), size (relative importance =0.0037), productivity (relative importance =0.0003) and emotional intelligence (relative importance =0.0001).

Thus, the results show that 38.32% competitiveness, 35.86% economic profitability, an innovation effort with a probability of 35.86%, job creation with a probability of 35.86%, 24.26% value added, a small and medium size with a probability of 53.93%, low productivity with a probability of 54.26% and a high level of emotional intelligence with a probability of 77.09% imply a zero contribution of the company to the variation positive of sectorial GDP with a probability of 41.44%.

4. 1. 3. 3. TARGET AVERAGE MAXIMIZATION (VGDPs)

After presenting all the explanatory variables for each modality of the target variable, it is necessary to present the variables maximizing each modality of the target variable. Thus, the *Dynamic Profile* of the Target feature allows you to query the software about a *retrospective* maximization of the average of the target variable *variation of GDP by structure*. This test presents scenarios for maximizing the target variable value. In other words, it looks for the modality(s) of the variables that must be modified (increase or decrease) to maximize the modality(s) of the target variable. Table 7 returns the dynamic pattern of *change in GDP by structure (VGDPs)*.

Table 7. Dynamic Profile of The Target Variation Of Gdp By Structure

VGDPS = YES			
NODE	Optimal modality	Probability	Joint probability
A priori		100%	58,56%
C	YES	75%	65,92%
EIN	YES	51,75%	71,44%
JC	YES	35,70%	81,07%
ROA	YES	24,63%	95,03%
VA	YES	18,97%	100%
VGDPS = NO			
NODE	Optimal modality	Probability	Joint probability
A priori		100%	41,44%
C	NO	25%	63,52%
EIN	YES	17,25%	68,39%
JC	YES	11,9%	76,65%
ROA	YES	8,21%	88,63%
VA	YES	6,32%	94,35%
EI	YES	4,86%	100%

Optimal modality: This modality maximizes the value of the target.

Probability: this is the a priori probability of each variable.

Joint probability: this is the probability that the target variable takes the value n knowing that the explanatory variable takes the value p.

Source: prepared by the author

The dynamic profile analysis (Table 7) of GDP change by structure (VPIBS) presents the following findings :

The increase in the competitiveness of the enterprise in the order of 75%, a positive variation in the innovation effort with a probability of 51.75%, the positive growth in the number of employees in the order of 35.7%, the increase in the profitability of assets of 24.63% and a creation of added value with a probability of 18.97% ensure a positive variation in sectoral GDP in the the order of 58.56%.

The decrease in the level of competitiveness of enterprises in the order of 25%, the increase in the innovation effort of 17.25%, the positive variation in the number of employees with a probability of 11.9%, a positive variation in economic profitability in the order of 8.21%, a creation of added value in the order of 6.32% and emotional intelligence in the order of 4.86% explain a negative change in sectoral GDP in the order of 41.44%.

5. CONCLUSION

The aim of this article is to show, theoretically and empirically, the importance of the emotional intelligence of managers and the characteristics of firms (competitiveness, job creation, innovation effort, profitability, value added and size) in explaining their contributions to economic growth.

The theoretical analysis presented to emphasize the moderating role of emotional intelligence. This competence contributes to the improvement of companies' capabilities and explains their contributions to economic growth. Indeed, several studies have tried to show the effect of individual factors (skills, abilities, knowledge, emotions...) and organizational factors (financial capacities, size, performance) on the economic growth of countries. These variables can help explain firms' competitiveness, job creation, innovation efforts, and contribution to their countries' economic growth (Shane, 2003). Beyond general and technical skills referring to knowledge and know-how, emotional skills referring to the domains of soft skills are very important in these new educational, relational and organizational contexts (Gendron, 2007). They are key skills in social interactions and stress management. These soft skills have been mainly theorized

through the concept of emotional intelligence (Damasio, 1994, 2003; Cherniss, C., & Goleman, 1995, 1997, 2001; Mayer and Salovey, 1997; George, 2000; Bar-On, 2001 ;...). Thus theoretical developments such as emotional intelligence and affect heuristics suggest that emotions play a significant role in human performance, in terms of decision-making and problem solving. In this sense of idea Coté et al (2010), show that the emotionally intelligent leader is able to have a wide and open field of vision, a synthetic vision, to apprehend a situation globally, to distance himself from everyday life, to detail. He knows how to take a step back from the different parties to identify the interrelationships that exist between them and understand the overall situation. This emotionally conscious leader is able to imagine and concretize new ideas. It therefore opts for investment choices that create wealth and new jobs.

Exploratory in nature, the empirical part attempted to fill a gap in research in economics, by presenting a survey of executives of large private companies in Tunisia. Analyses of the data collected revealed the importance of the behavioural dimension in explaining the variation in sectoral GDP (proxy indicating the contribution of firms to economic growth). Indeed, empirical analysis of the relationship between emotional intelligence and sectoral GDP variation shows the indirect effect of the behavioural dimension in explaining economic growth. However, the emotional intelligence of the leader is negatively correlated with the change in sectoral GDP. This result contradicts our theoretical study. It attests to the negative effect of emotional management on wealth creation. However, relationship analysis announces the positive effect of emotional intelligence on the level of productivity of employees. This soft skill is positively correlated with employee productivity. This implies that emotional intelligence contributes to improving employee productivity, but it is insufficient to guarantee value creation.

There was also a positive correlation between the performance indicators of national firms (competitiveness, productivity, profitability, innovation effort, size) and the variation in sectoral GDP. This result implies that companies qualified by a high added value, a high level of productivity are competitive (Daunfeldt et al, 2014). This competitiveness helps them to contribute to a positive change in sectoral GDP. This contribution to economic growth is materialized by the creation of jobs conditioned by the success of innovative projects. This success is a function of employees' core competencies, including emotional intelligence.

Finally, our initial objective is to show the impact of the emotional intelligence of the leader on economic growth. Thus, the analysis of economic growth by integrating the behavioural dimension is consistent with that of endogenous growth theory, which shows the importance of new technologies in capital accumulation and economic growth. From this point of view, the contribution of this chapter is to encourage Tunisian companies to invest in human capital, including emotional learning.

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Data availability

The author do not have permission to share data.

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