INFLUENCE OF MANAGERIAL SKILLS ON THE BUSINESS MODEL OF SMALL FIRMS

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Abstract

Objective: To evaluate the influence of managerial skills on the business model of small companies.

Methodology: Quantitative approach, non-experimental design of explanatory scope; the sample was 181 leaders and managers of small companies; the instrument used was the questionnaire.

Results: the three managerial skills together explain (1) 65.5% of the business model of small companies; (2) 60.5% of the knowledge of the company's external factors and (3) 49.3% of the knowledge of the company's internal factors. Therefore, the study showed that managerial skills are positive and significant for the functioning of the business model of small enterprises.

Conclusion: technical ability is the most relevant because it explains: (1) 47.1% of the business model; (2) 47.2% of the knowledge of external factors; and (3) 38.7% of the knowledge of internal factors. Conceptual ability explains (1) 34% of the business model; (2) 34.8% of the knowledge of external factors and (3) 27.3% of the knowledge of internal factors. Human ability explains (1) 24% of the business model; (2) 18.2% of the knowledge of external factors and (3) 25.6% of the knowledge of internal factors.

Keywords: managerial skills; technical skill; conceptual skill; human skill; business model

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Introduction

Introduction

Society is composed of organizations and all activities such as production, marketing and service provision are planned, organized, directed and controlled by organizations. So, organizations are made up of people and resources (Chiavenato, 2019, p. 1). Likewise, Koontz *et al*. (2012, p. 4) indicated that an organization is a group of people working to create value. Therefore, organizations, in addition to

their management knowledge, analyze their people's attitudes, skills, and competencies. In other words, people's skills and competencies allow better decisions to be made so that organizations can be more competitive and efficient in the market (Chiavenato, 2019, p. 1).

One of the people who head organizations are managers and to successfully achieve the goals they need three basic skills: (1) technical skills, which involves understanding and specific knowledge specific to the activity in technical processes and procedures; (2) human skill, which involves the manager to work effectively as a group member and build cooperative effort within the team he manages and (3) conceptual skill, which involves the ability to see the enterprise integrally (Katz, 1955, as cited in Chiavenato, 2019, p. 2; Rolón, 2011).

The entrepreneurial personality is a mixture of (1) education, (2) personal initiative and (3) an open personality. However, the family environment is the most influential for entrepreneurial attitudes (Rosado-Cubero *et al*., 2022). On the other hand, well-honed managerial skills in CEOs have innovativeness, managerial ability and managerial ability that positively impact corporate innovation (Lin *et al*., 2021). Likewise, managerial skills are technical skills that a manager must possess to fulfill his or her responsibilities. However, the manager also needs to ensure his personal growth and that of the people under his command (Serrano, 2017).

The dynamism in the markets due to globalization requires business managers to have managerial skills to cope with these changes and to survive in the market (García *et al*., 2017). In this sense, as a business is constantly changing, it is also necessary to change the mental structure of the people who manage organizations; that is, every leader or manager of any type of organization must qualify with three groups of managerial skills: technical, human and conceptual (García *et al*., 2017). On the other hand, organizations that excel and succeed are those that have highly competent managers, who are trained in managerial skills which are divided into three: (1) technical skills; (2) conceptual skills; and (3) social or human skills (Pazmiño *et al*., 2019).

Effective managerial practices are related to high levels of microenterprise orientation and performance (Rodrigues *et al*., 2022). Also, managerial capability has a significant impact on firm value (Cheng and Zhang, 2022). However, among the characteristics of micro and small enterprises are that (1) they are family businesses and (2) they are usually run by a family member (Casas *et al*., 2017). Therefore, as the company grows, they lack a formal structure and scarce knowledge that does not allow them to be competitive in an increasingly globalized environment (Casas *et al*., 2017). In this sense, the Canvas model is a simple application tool designed to add value and contribute to business success (Casas *et al*., 2017). Likewise, to define, design, understand and innovate new business models; in addition, to improving the understanding of existing business models; the Canvas tool is a new analysis framework (Sánchez *et al*., 2016). In this sense, the business model according to Canvas has nine interrelated areas and provides a comprehensive view of the company (Sánchez *et al*., 2016).

Silva *et al*. (2018) indicated that the core proposition of the Business Model Canvas (BMC) is to show the business model in its parts and to understand the business holistically. Likewise, Osterwalder and Pigneur (2011) indicated that the business model canvas is "a common language for describing, visualizing, evaluating, and modifying business models." In addition, Osterwalder and Pigneur (2011) indicated that "a business model describes the basis on which a company creates, delivers and captures value." In addition, the Business Model Canvas (BMC) developed by Osterwalder and Pigneur (2010), is a tool that has nine blocks and can comprehensively describe and show a business model (Montenegro *et al*., 2021; Raharja *et al*., 2020).

In this context, the present research evaluated the influence of managerial skills on the business model of micro and small companies linked to international business students. Likewise, the importance of the research lies in the evaluation of managerial skills in small companies because according to the literature review, most of the research is applied to large companies and very little to small companies. Therefore, the only way to prevent micro and small companies from going bankrupt in their business model is for their leaders and managers to have skills and competencies that allow them to adapt to changes in the environment and for the business model to persist in the market.

1.   Previous studies

Timothy (2022) evaluated the effects of general and manager-specific human capital on the innovation and productivity of Tanzanian SMEs. He used partial least squares structural equation modeling.

Sample: 309 small and medium-sized enterprises. The results showed that (1) managers with higher education give greater importance to non-technological innovation and achieve higher productivity and (2) managers with more years of experience in the sector give greater importance to technological innovation, but it is insignificant to productivity.

Torres and Diaz (2021) evaluated the managerial skills that allow the development of strategic thinking in joint ventures in the oil sector of the Maracaibo municipality in the state of Zulia. They used a methodology through the quantitative approach, non-experimental and transectional type or design of descriptive and field character. The sample was finite, and a questionnaire of 18 questions with a Likert-type scale was applied. Reliability was achieved through Cronbach's Alpha statistic and validity was determined by the judgment of five experts. They concluded that some items of conceptual and human skills are inadequate, such as decision making, public relations and personal effectiveness.

Marín (2020) evaluated the importance of managerial skills as a manager's tool for strengthening the organizational culture in the educational environment, considering the three skills; technical, human and conceptual, and placing greater importance on human skills, particularly in good assertive communication, good interpersonal relations and managerial leadership. The research was of the documentary type and highlighted the importance of fostering a motivating and integrating environment among the work team, putting into practice human skills with a humanistic and flexible style.

Cassab Martínez and Mayorca Beltrán (2018) evaluated the managerial skills in the female head of household traders that they acquired through their own experiences and through training, and how these skills impact the family economy. The authors applied the descriptive method. The results indicated that the three skills, technical, human and conceptual, developed by women heads of household within their work environment, are characterized by leadership, good interpersonal relations, self-motivation and frequent training.

Leyva-Cárdenas *et al*. (2017) investigated the influence of managerial skills as an internal factor in business competitiveness in SMEs in Hermosillo, Sonora, Mexico. For this study they used a mixed methodology, that is, the first phase was of quantitative approach, with an exploratory design and as a technique they used the interview with a panel of experts using the Delphi method; the second phase was of qualitative approach in which they surveyed 108 SMEs. They concluded that management skills have a considerable influence on the competitiveness of small and medium-sized enterprises.

Naranjo (2015) studied the managerial skills of leaders who head medium-sized companies in Colombia and how these skills contribute to and impact their business management. The type of research used was exploratory and descriptive, with a questionnaire of 18 questions applied to 786 leaders of medium-sized companies. It concluded that the leaders know the concept, have relationship skills, oral communication skills in a higher proportion and with defensive behavior, with a high level of stress, and are very busy.

Ferrer and Clemenza (2006) investigated managerial skills as a foundation for competitive strategy in the metal-mechanical activity sectors in Zulia, Venezuela. The type of research used was descriptive and field research. The sampling was stratified by cluster and the sample consisted of 101 companies. It is concluded that 72% of leaders and managers excel in technical skills, however, they show deficiencies in human skills. In this sense, the authors recommend that managers follow courses of action and continuous training to improve the skills of human talent and generate competitive advantage for the strengthening of small and medium-sized enterprises.

Garrido Salsas *et al*. (2022) analyzed how current trends could have implications for the future Port Business Ecosystem (PBE). They used the Business Model Canvas (BMC) as a framework tool, for the specific case of the Port of Barcelona. The results recommend the following: (1) develop sustainable green energy hub models; (2) develop intermodal logistics hubs; and (3) promote emerging industries to become a customization hub that adds logistical value to the cargo transiting the port.

2.   Related theories

Chiavenato (2019, pp. 2-3) indicated that technical skills are related to doing, that is, with the operational processes that are normally in charge of supervisors and middle managers; he also indicated that human skills are related to people, that is, with interpersonal relationships, which involves the middle manager or top management to have leadership, be communicative and motivating. Finally, he mentioned that conceptual skills are related to the vision of the organization, that is, with the internal

and external environment, so that top management must have the ability to solve problems and adapt to changes. Likewise, Koontz *et al.* (2012) indicated that: (1) conceptual and human skills are very valuable in top management; (2) human skills are fundamental for middle managers and (3) technical skills are very important for supervisors; considering that in large companies top management can use the technical skills of their subordinates; however, technical skills are the most important in smaller companies.

Therefore, for the managerial skills variable, the three basic skills of Katz (1955) were used as dimensions: (1) technical ability, (2) human ability and (3) conceptual ability (Chiavenato, 2019:2). Likewise, the five skills that enable a leader to be effective in his/her role by Amaya (2018) were used as indicators. That is, (1) technical ability includes management skills; (2) human ability includes communication skills and relationship skills; and (3) conceptual ability includes result achievement skills and collaborator development skills.

Osterwalder and Pigneur (2011) mentioned that "the speed with which innovative business models are transforming the business landscape is unprecedented and it is time for entrepreneurs, executives, consultants and academics to understand the impact of this extraordinary evolution". The authors also indicated that "innovation in business models consists of creating value for companies, customers and society, that is, replacing obsolete models. In this regard, for the business model variable, the nine modules of the Business Model Canvas by Alex Osterwalder and Yves Pigneur were used. These nine modules have been divided into two dimensions: (1) external factors of the company, which include: (a) market segments, (b) value propositions, (c) channels, (d) customer relationships and (e) sources of income. On the other hand, there are the (2) internal factors of the company, which include: (a) key resources, (b) key activities, (c) key partnerships, and (d) cost structure.

3.   Methodology

The study of managerial skills has been conducted mostly on managers of large companies. However, very few studies have been identified on managers of micro and small companies. In addition, no research has been found on managerial skills and their influence on the business model of companies. In this sense, the objective of the research was to evaluate the influence of managerial skills on the business model of micro and small enterprises linked to International Business students.

The quantitative approach focuses on the measurement of variables and their relationships, which must be verified to test the hypothesis and validate theories (Tamayo, 2018, p:47). For their part, Hernández *et al.* (2014:128) indicated that the design of the research is a strategy to obtain the information needed in research and to respond to the problem statement. On the other hand, Tafur and Izaguirre (2015:190-191) indicated that non-experimental researches are those that do not control variables. That is, non-experimental research is descriptive because it mentions the characteristics of the object of study. Likewise, Hernández *et al.* (2014:95) indicated that explanatory studies go beyond the description of phenomena. That is, they answer the causes of these and explain why these phenomena occur or why two or more variables are related. In this sense, this research is defined under the quantitative approach, type or non-experimental design of explanatory nature.

The population consisted of all micro and small enterprises linked to International Business students at a private university in Peru. The research was carried out on 181 leaders and managers of the micro and small enterprises identified following the following inclusion criteria: (1) formal micro and small enterprises and (2) older than one year in operation. These identified companies belong to the following sectors: (1) Commerce 33%; (2) Manufacturing (33%); (3) Services 13%; (4) Agriculture and Livestock 11%; (5) Construction 6%, (6) Transportation 2%; (7) Telecommunications 1%, (8) Tourism 1% and (9) Fishing 1%. Likewise, of the 181 leaders and managers, 58% were male and 42% were female. Finally, the average age was 38 for women and 39 for men.

Likewise, the technique used was the survey and the data collection instrument was questionnaires of the variables management skills and business model, with a Likert scale from 1 to 5; where: 1 was never; 2 almost never; 3 sometimes; 4 almost always and 5 always.

The managerial skills questionnaire was elaborated taking into account the three skills theory of Katz (1955, cited in Chiavenato, 2019:2) and also considering the five skills of Amaya (2018). In such sense: (1) within the conceptual skill, (a) results in achievement skills and (b) collaborator development skills have been considered; (2) within the human skill, (c) communication skills and (d) relationship skills

have been considered; and (3) within the technical skill, (e) management skills have been considered.

The questionnaire for the business model variable was elaborated considering the nine modules of the Business Model Canvas theory of Osterwalder and Pigneur (2011); these modules have been divided into two dimensions: (1) external factors of the company, which include: (a) market segments, (b) value propositions, (c) channels, (d) customer relationships, and (e) revenue sources; and (2) internal company factors, which includes (a) key resources, (b) key activities, (c) key partnerships, and (d) cost structure.

The questionnaires were applied in a pilot test to 31 small companies with similar or similar characteristics. In addition, they were evaluated through factor analysis. That is, exploratory factor analysis is used to explore a group of latent variables that explain the answers to the questions of an instrument (Lloret-Segura, 2014). Likewise, one of the objectives of exploratory factor analysis is to eliminate variables with less relevance or with the existence of collinearity with other variables (Méndez, 2012).

Based on the results of the KMO and Bartlett's test, the final management skills instrument consisted of 21 questions. The Kaiser-Meyer-Olkin indicator according to sampling was 0.723. Bartlett's test of sphericity was significant (Approx. Chi-square:441.196; gl:210 and Sig.<0.01). In addition, Cronbach's Alpha of the managerial skills instrument was 0.916, as shown in Table 1.

On the other hand, the final instrument for the business model variable consisted of 20 questions. The Kaiser-Meyer-Olkin indicator according to sampling was 0.722. Bartlett's test of sphericity was significant (Approx. Chi-square:346.687; gl:190 and Sig.<0.01). In addition, Cronbach's Alpha of the business model instrument was 0.921 and of the whole instrument was 0.958, as shown in Table 1.

Finally, the method of data analysis was using descriptive and inferential statistics with the SPSS V.25 statistical program.

Table 1
Reliability statistics

Variables	Cronbach's alpha	N° of elements
Management skills	0.916	21
Business Model	0.921	20
Total instrument	0.958	41

Note: data obtained with SPSS version 25.

4. Results

Table 2 shows the correlation between the variables management skills and business model. There is a high and significant positive relationship (0.806) between managerial skills and business models. Likewise, there is a moderate and significant positive relationship between technical ability (0.668), conceptual ability (0.604) and human ability (0.564) and the business model variable respectively. In the same way, there is a moderate and significant positive relationship between the managerial skills dimensions and the business model dimensions, at a level of 0.668, 0.604 and 0.564, respectively. $p < 0.01$. It is worth noting that technical ability is the most related to the business model (0.668), external factors of the company (0.652) and internal factors of the company (0.568) respectively.

Table 2
Pearson's correlation between variables and dimensions

N°	Variables and dimensions	N	Management skills	Conceptual ability	Human ability	Technical ability	Sig.
1	Management skills		1				0.00
1.1	Conceptual ability			1			0.00
1.2	Human ability			0.456	1		0.00
1.3	Technical ability			0.328	0.359	1	0.00
	Business Model		0.806	0.604	0.564	0.668	0.00

2.1	External factors of the company	0.586	0.510	0.652	0.00
2.2	Internal company factors	0.516	0.519	0.568	0.00

Note: data obtained with SPSS version 25.

Table 3 shows the first linear regression model, in which the business model variable is dependent and the management skills variable is independent. A $R^2 = 0.650$ means that the business model variable is 65% explained by the management skills variable, in addition to a R^2 adjusted $= 0.648$ very close to R^2 and a Durbin-Watson of 2.014 which indicates the inexistence of autocorrelation. These results are very significant because the model has an $F = 332.954$ and $p < 0.01$. Likewise, although it is true that the variables not considered are important because they show a t-test=2.273 and a significance level=0.024; the management skills variable influences the business model significantly because it has a t-test=18.247 and a significance level=0.024. $p < 0.01$. Finally, the variance inflation factor (VIF) is shown to be equal to 1.00, which demonstrates the non-existence of collinearity.

Table 3
Influence of managerial skills on the business model

Summary of the model
Dependent variable: Business model
Independent variable: Management skills
R = 0.806; $R^2 = 0.650$; R^2 ajustado $= 0.648$
Standard error of the estimation=6.905; degrees of freedom=1 and 179; significance F=0.000; Durbin-Watson=2.014
ANOVA
Sum of squares=15872.819(regression) and 8533.369(residual)
Root Mean Square=15872.819(regression) and 47.672(residual)
F=332.954 and significance=0.000
Coefficients
Constant=9.400; deviation=4.135; t-test=2.273; significance=0.024
Managerial skills=0.873; deviation=0.48; t-test=18.247; significance=0.000; VIF=1.00

Note: data obtained with SPSS version 25.

Table 4 shows the multiple linear regression model, in which the independent variables are: (1) technical ability; (1) conceptual ability and (3) human ability; on the other hand, the business model variable is considered dependent. It is observed a $R^2 = 0.655$. The business model variable is explained in 65.5% by the variables: technical ability, conceptual ability and human ability. R^2 ajustado $= 0.650$very close to R^2 and a Durbin-Watson of 2.031 which indicates that there is no autocorrelation. These results are very significant because the model has an $F = 112.187$ and $p < 0.01$.

Likewise, although the model indeed shows variables not considered because it has a t-test value=2.148 and a significance level=0.033, it also shows the relevance of the independent variables in the dependent variable: (1) the technical ability variable has a standardized Beta coefficient of 0.471, which demonstrates the relevance to explain the business model variable, because it has a t-test value=9.759, $p < 0.01$ and VIF=1.195; (2) the conceptual ability variable has a standardized Beta coefficient of 0.34, which demonstrates its importance in explaining the business model variable because it has a t-test value of 6.726, $p < 0.01$ and VIF=1.314; (3) the human ability variable has a standardized Beta coefficient of 0.24, which demonstrates its importance to a lesser extent in explaining the business model variable because it has a t-test value of 4.689, $p < 0.01$ and VIF=1.346.

Table 4

Influence of conceptual, human and technical skills on the business model.

Summary of the model

Dependent variable: Business model

Independent variables: Conceptual skills, human skills and technical skills.

$R = 0.810$; $R^2 = 0.655$; R^2 ajustado $= 0.650$

Standard error of the estimation=6.894; degrees of freedom=1 and 177; significance F=0.000; Durbin-Watson=2.031

ANOVA

Sum of squares=15994.538(regression) and 8411.649(residual)

Root mean squared=5331.513(regression) and 47.523(residual)

F=112.187 and significance=0.000

Coefficients

Constant=10.506; deviation=4.891; t-test=2.148; significance=0.033

Technical ability=0.834; deviation=0.085; t-test=9.759; significance=0.000; VIF=1.195; standardized coefficient Beta=0.471

Conceptual ability=1.129; deviation=0.168; t-test=6.726; significance=0.000; VIF=1.314; standardized coefficient Beta=0.340.

Human ability=0.729; deviation=0.156; t-test=4.689; significance=0.000; VIF=1.346; standardized coefficient Beta=0.240

Note: data obtained with SPSS version 25.

Table 5 shows the influence of the independent variables: (1) technical ability; (1) conceptual ability and (3) human ability on the dependent variable external factors of the company. It is observed a $R^2 = 0.605$. The model shows that the variable external factors of the company are explained in 60.5% by the variables: technical ability, conceptual ability and human ability. R^2 adjusted $= 0.598$ very close to R^2 and a Durbin-Watson of 1.961 which indicates that there is no autocorrelation. These results are very significant since the model has an $F = 90.214$ and $p < 0.01$.

Likewise, although the model indeed shows variables not considered because it has a t-test value=1.373 and a significance level=0.171, it also shows the relevance of the independent variables in the dependent variable: (1) the technical ability variable has a standardized Beta coefficient of 0.472, which shows the relevance to explain the variable external factors of the company, because it has a t-test value=9.136, $p < 0.01$ and VIF=1.195; (2) the conceptual ability variable has a standardized Beta coefficient of 0.348, which demonstrates its importance in explaining the company's external factors variable because it has a test value t=6.430, $p < 0.01$ and VIF=1.314; (3) the human ability variable has a standardized Beta coefficient of 0.182, which demonstrates its importance to a lesser extent in explaining the company's external factors variable because it has a t-test value of 3.323, $p < 0.05$ and VIF=1.346.

Table 5

Influence of conceptual, human and technical skills on the external factors of the company.

Summary of the model

Dependent variable: external factors of the company.

Independent variables: Conceptual skills, human skills and technical skills.

$R = 0.778$; $R^2 = 0.605$; R^2 ajustado $= 0.598$

Standard error of the estimation=4.035; degrees of freedom=1 and 177; significance F=0.001; Durbin-Watson=1.961

ANOVA

Sum of squares=4406.498 (regression) and 2881.845(residual)

Root mean square=1468.833(regression) and 16.282(residual)

F=90.214 and significance=0.000

Coefficients

Constant=3.932; deviation=2.863; t-test=1.373; significance=0.171

Technical ability=0.457; deviation=0.050; t-test=9.136; significance=0.000; VIF=1.195; standardized coefficient Beta=0.472.

Conceptual ability=0.632; deviation=0.098; t-test=6.340; significance=0.000; VIF=1.314; standardized coefficient Beta=0.348.

Human ability=0.302; deviation=0.091; t-test=3.323; significance=0.001; VIF=1.346; standardized coefficient Beta=0.182

Note: data obtained with SPSS version 25.

Table 6 shows the influence of the independent variables: (1) technical ability; (1) conceptual ability and (3) human ability on the dependent variable internal company factors. It is observed a $R^2 = 0.493$. The model shows that the variable knowledge of the company's internal factors is explained in 49.3% by the variables: technical ability, conceptual ability and human ability. R^2 adjusted $= 0.485$ very close to R^2 and a Durbin-Watson of 2.032 which indicates that there is no autocorrelation. These results are very significant because the model has an $F = 57.453$ and $p < 0.01$.

Likewise, although the model indeed shows variables not considered because it has a t-test value=2.017 and a significance level=0.045, it also shows the relevance of technical ability, conceptual ability and human ability in the internal factors of the company. It also shows the relevance of technical ability, conceptual ability and human ability in the internal factors of the company: (1) the technical ability variable has a standardized Beta coefficient of 0.387, which shows its relevance in explaining the internal factors of the company, with a t-test value of 6.621, $p < 0.01$ and VIF=1.195; (2), the conceptual ability variable has a standardized Beta coefficient of 0.273, which demonstrates its importance in explaining the internal factors variable of the company because it has a t-test value of 4.4446, $p < 0.01$ and VIF=1.314; and (3) the human ability variable has a standardized Beta coefficient of 0.256, which demonstrates its importance to a lesser extent in explaining the internal factors variable of the company because it has a t-test value of 4.119, $p < 0.01$ and VIF=1.346.

Table 6
Influence of conceptual, human and technical skills on internal company factors.

Summary of the model

Dependent variable: internal factors of the company.

Independent variables: Conceptual skills, human skills and technical skills.

$R = 0.702; R^2 = 0.493; R^2$ ajustado $= 0.485$

Standard error of the estimation=4.593; degrees of freedom=1 and 177; significance F=0.000; Durbin-Watson=2.032

ANOVA

Sum of squares=3636.146 (regression) and 3734.064 (residual)

Root Mean Square=1212.049 (regression) and 21.096 (residual)

F=57.453 and significance=0.000

Coefficients

Constant=6.574; deviation=3.259; t-test=2.017; significance=0.045

Technical ability=0.377; deviation=0.057; t-test=6.621; significance=0.000; VIF=1.195; standardized coefficient Beta=0.387

Conceptual ability=0.497; deviation=0.112; t-test=4.446; significance=0.000; VIF=1.314; standardized coefficient Beta=0.273.

Human ability=0.427; deviation=0.104; t-test=4.119; significance=0.000; VIF=1.346; standardized coefficient Beta=0.256

Note: data obtained with SPSS version 25.

5. Conclusions

The study provides theoretical and practical knowledge for the business and academic community, due to the importance of managerial skills in carrying out business projects. In this sense, based on the results of this research, a high and significant positive relationship (0.806) between managerial skills and the business model of micro and small enterprises is demonstrated. Likewise, of the three managerial skills,

the technical skill has the highest relationship with the business model (0.668). In other words, technical skills are more important in micro and small enterprises, because it has a greater relationship with the external factors and internal factors of micro and small enterprises. Likewise, it is shown that management skills explain 65% of the business model of micro and small enterprises; in other words, management skills have a positive and significant influence on the business model of these enterprises. This is consistent with the findings of Leyva-Cárdenas *et al*. (2017), who indicated that managerial skills have a considerable influence on the competitiveness of small and medium-sized enterprises.

Similarly, the study showed that the three managerial skills together: (1) technical ability, (2) conceptual ability, and (3) human ability, explain 65.5% of the business model of micro and small enterprises. However, the importance of each of the managerial skills in the business model has also been demonstrated through the standardized Beta coefficient. In this sense, the technical skill was the most relevant in explaining 47.1% of the business model of micro and small enterprises, in second place, the conceptual skill in 34% and finally the human skill in 24%. This result shows that technical ability is the most influential in the business model of micro and small enterprises. This is in agreement with Ferrer and Clemenza (2006) who indicated that 72% of leaders and managers excel in technical skills, but show deficiencies in human skills, which is why they recommended continuous training to improve the skills of human talent and generate a competitive advantage to strengthen small and medium-sized enterprises.

The success of the business model occurs when the leaders or managers know the external factors of the company; therefore, the influence of the three managerial skills on the external factors of micro and small companies has also been evaluated. The study showed that the three skills together explain 60.5% of the knowledge of external factors. However, the importance of each of the managerial skills on market knowledge has also been demonstrated through the standardized Beta coefficient. The technical skill was again the most relevant for explaining 47.2% of the knowledge of external factors; in second place, the conceptual skill was found at 34.8% and finally the human skill at 18.2%. This result again demonstrates the influence of technical ability on the knowledge of external factors; however, conceptual ability and human ability have little influence on the business model. This result agrees with Torres and Diaz (2021) who indicated that some points of the conceptual and human skills of the managers of the oil sector in the municipality of Maracaibo are inadequate.

Finally, the influence of the three management skills on the knowledge of the internal factors of micro and small enterprises has been evaluated. The study showed that the three skills together explain 49.3% of the knowledge of internal factors. However, the importance of each of the managerial skills in the knowledge of internal factors has also been demonstrated through the standardized Beta coefficient. The technical skill was the most relevant in explaining 38.7% of the knowledge of internal factors, but in a lower percentage compared to the contribution to the knowledge of external factors. In the second place, the conceptual ability was found in 27.3% and finally human ability in 25.6%. This result again demonstrates the importance of technical ability for the knowledge of internal factors; likewise, the human ability is the one that contributes the least.

The study made it possible to evaluate the importance of technical, conceptual and human skills in the business model of micro and small companies linked to International Business students; therefore, it provides primary information for their leaders and managers; however, it has not been evaluated in companies with similar or similar characteristics, which limits providing information by sector on the influence of managerial skills in the business model of the companies.

The managerial skills evaluated are (1) technical ability; (2) conceptual ability and (3) human ability and in the business model: (1) knowledge of the external factors of the company and (2) knowledge of the internal factors. Therefore, it is concluded that the three managerial skills together explain: (1) 65.5% of the business model of micro and small enterprises; (2) 60.5% of the knowledge of the external factors of the enterprises and (3) 49.3% the knowledge of the internal factors.

On the other hand, while it is true that the three managerial skills are positive and significant for the functioning of the business model, the study demonstrated the influence of each of these skills on the business model of micro and small enterprises.

Therefore, it is concluded that technical skill is the most relevant because it explains: (1) 47.1% of the business model of micro and small enterprises; (2) 47.2% of the knowledge of external factors and (3) 38.7% of the knowledge of internal factors. In other words, the leaders and managers of micro and

small enterprises are more skilled in management skills. In the second place, the conceptual skill explains (1) 34% of the business model; (2) 34.8% of the knowledge of external factors and (3) 27.3% of the knowledge of internal factors. In other words, leaders and managers of micro and small businesses need to be trained in results achievement skills and employee development skills. In third and last place, human ability explains (1) 24% of the business model; (2) 18.2% of the knowledge of external factors and (3) 25.6% of the knowledge of internal factors. In other words, leaders and managers of micro and small enterprises need more training in communication skills and relationship skills.

The results of this research provide valuable information for leaders, managers and business science professionals. Therefore, this study lays the foundation for future research to continue evaluating the importance of managerial skills in the business model of micro, small, medium and large companies, taking as a sample company by economic sectors.

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