

Study of Factors Affecting the Leadership Capacity of CEO in Industrial SMEs in Vietnam

Than Thanh Son Do Hai Hung* Bui Thi Thu Loan
School of Business Management, Hanoi University of Industry, Viet Nam

Abstract

The leadership capabilities of management team greatly influence the performance of management activities in an enterprise. Capturing and evaluating the impact of elements influencing leadership ability might help enterprises to formulate policies to optimize the capacity of the management team. The scope of the study in this paper is the survey of SMEs in Vietnam. The research team conducted 141 surveys by executives and managers working as heads of departments within current industrial SMEs in Vietnam. Research has indicated the three influential factors including self-efficacy, environment and personal characteristics, with personal traits making the least impact.

Keywords: Leadership capabilities, CEO, small and medium industry enterprises.

1. Introduction

At present there are many different views on the factors influencing the formation and development of leadership capacity in general and the CEOs of small and medium enterprises in particular. Some view that the factors that shape the leadership capacity are innate traits of the business manager him or herself. Others argue that leadership skills can be formed and developed in particular circumstances and environments such as family, education and the society where managers have the opportunities to be professionally trained, to exchange experiences and to practice.

The study of Fred Fiedler (1967) recognizes the importance of the elementary features of the leader, the subordinate element, and the situational factor in the leader's capacity framework. He developed a random model of leadership capacity out of the three elements [1]. Or take the study of Hona Amer (2017), which once again emphasized that leadership styles greatly influence the success of a business. Hollander (1978) argues that leadership is the process by which leaders and subordinates interact strongly in a particular situation or environment. Therefore, Hollander has built a mutually supportive approach about leadership capacity. According to it, the leadership capacity of a leader depends on three factors: one that belong to the leader (personality, motivation, interest, personal background, etc.); subordinate groups (values, rules, cohesion, etc.); and situations (environment, tasks, stress) [3]. This is also highlighted in the study by Richard L. Hughes et al. (2009) [4]. In addition, Ksenia Zheltoukhova & Louise Suckley (2014) [5] pointed out that the leadership capacities of SME managers are influenced by three groups of factors: the leaders such as qualities, experience and personality; the resources available in the organization; the external factors such as socio-economic factors. The study by Le T.P. Thao (2016) [6], inheriting the scales of Tran Kieu Trang (2012) [7] and Ksenia Zheltoukhova & Louise Suckley (2014), proposed adding the two elements: experience and the characteristics of the team and its resources in the organization, classified into three groups of factors: the CEO of the SME; characteristics of the organization and the macroeconomic environment to analyze the factors influencing the leadership capacity of SMEs in Vietnam. The study concludes that all three groups of factors influence the capacity of leadership, in which the most influential is the elementary features of the leader. The macroeconomic environment is the least influencing one.

In general, the studies have all indicated somewhat similar perspectives on the factors affecting the leadership capacities of SMEs in particular and enterprises in general. However, at present, there are no research results to analyze and evaluate the factors and their influence on the leadership capacity of the CEO of the industry sector in Vietnam. . Based on that situation, we have inherited previous studies to select and conduct this one.

2. Leadership capacity of industrial SMEs in Vietnam

The word CEO in English stands for Chief Executive Officer. According to Kesner and Sebor (1994), executives are personally responsible for their leadership and running the organization, focusing on issues such as strategies, designing, operations, and factors related to the organizational environment [7].

The concept of enterprises is legally defined as organizations that have their own names, assets, transaction offices and are registered under the law for business purposes [8].

Small and Medium Enterprises (SMEs) are understood to be classified according to the criteria such as the number of employees, total revenue of the year, total capital, etc. According to each criterion, micro-, small- and medium-sized enterprises may change from time to time according to each country's regulations.

Table 1. Classifying medium and small enterprises according to the manufacturing and service sectors in some Asian countries.

Countries	Classification of SMEs	Number of laborers (person)	Capital/Asset	Revenue
1. Thai Lan	- <i>Supersmall</i> - <i>Small</i> - <i>Medium</i>	≤ 04 ≤ 50 51 – 200	< 500.000 < 20 million Baht 20 - 100 Million Baht	No requirements
2. Malaysia	- <i>Supersmall</i> - <i>Small</i> - <i>Medium</i>	< 5 5 - 50 51 – 500	No requirements	≤ 250.000 RM RM <10 million RM RM 10 - 25 million RM
3. Singapore	<i>Small and Medium</i>	199	<15 million SGD	No requirements
4. Japan	<i>Small and Medium</i>	1-300	0-300 million JPY	No requirements
5. China	- <i>Small</i> - <i>Medium</i>	50-100 101-500	No requirements	No requirements
6. Viet Nam	- <i>Supersmall</i> - <i>Small</i> - <i>Medium</i>	≤ 10 ≤ 100 ≤ 200	≤ 03 billion VND ≤ 20 billion VND ≤ 100 billion VND	≤ 03 billion VND ≤ 100 billion VND ≤ 200 billion VND

Note: According to decree 39/2018/NĐ-CP of government and the statistical yearbook of Vietnam.

According to Bass (1990), capacity is the synthesis of knowledge, skills and qualities [10]. Study of Hollander (1978) shows that leadership is the process of influencing the audience.

According to Yukl (2002): Leadership is the process of getting others to understand and agree on what they have to do and how to do it effectively. It is the process of encouraging and supporting groups as well as individuals to strive to achieve the goals set out by the organization. In short, leadership is understood to be the process of influencing individuals and organizational units in activities aimed at achieving mutual goals.

Within the scope of the article, leadership capacity is the combination of leadership knowledge, skills and qualities needed to run the organization. The leadership capacity of the CEO is the set of capabilities associated with the power of the CEO to complete the tasks set out for the organization.

Table 2. The outlined capacity framework of CEOs in Industrial SMEs in Viet Nam

Capacities	Capacity framework
Organizational leadership capacities <i>Charles & Gareth (1998); Judge (2002)</i>	1. Clear vision and strategy planning 2. Open and creative perspectives on technology 3. Deep knowledge of the field 4. Risk management 5. Well aware of the laws 6. Build and maintain social connections
Personal leadership capacities <i>Ashwini (2013); Judge (2002); Le Quan and Nguyen Quoc Khanh (2012)</i>	7. Risk-taker and decisive 8. Business ethics 9. Goal setting and taking control of the work 10. Determined 11. Inquisitive
Teamwork leadership capacities <i>Ashwini (2013); Ngo Quy Nham (2014)</i>	12. Persuasive and good negotiating skills 13. Empowering and encouraging team members 14. Building trust and influence 15. Resolving conflicts 16. Leading the team 17. Problem solving and decision making abilities 18. When necessary, delegating effectively

Note: Synthesis by the authors.

3. Research model and Methodology

3.1. Samples and data

We used a quantitative research method with samples consist of 141 observations which is required for quantitative analysis.

Subjects of the survey: Using the multi-dimensional evaluation method to achieve more reliable results, the subjects to be surveyed include:

(i) Subject 1: The director of the enterprise

(ii) Subject 2: Those directly related to the director such as board members and heads of departments in the enterprise.

Collecting and processing data: The survey was conducted by providing direct and indirect questionnaires to the respondents and promptly requesting the finished questionnaires returned or emailed along with contact information for confirmation.

After obtaining the results of the survey, we used the SPSS 20.0 testing software to examine the factors and scales, multiple linear regression analysis to assess the factors making impact and by how much on the leadership capacity of the CEO teams in Vietnam.

3.2. Research Model

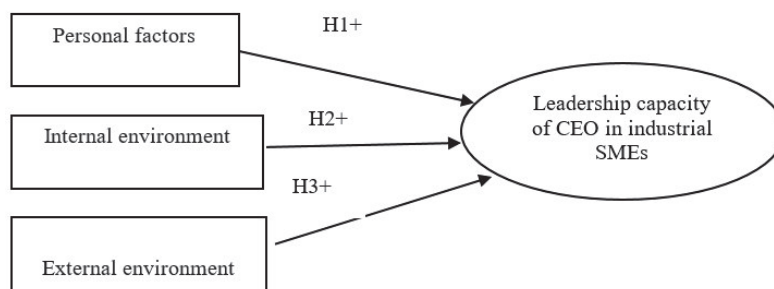


Figure 1. The research model of factors affecting the leadership capacity of the CEOs

Research hypotheses:

H1: The director him/herself directly affects the his/her leadership capacity.

H2: The factors of internal environment have the same impact on the leadership capacity of the CEO.

H3: The factors of external environment have the same impact on the leadership capacity of the CEO.

Based on the research overview, the authors sum up three groups of factors that influence the leadership capacity of managers in SMEs in Vietnam (Figure 2.5). Specifically, these groups of factors include:

The group of personal factors: professional qualification, experience; leadership skills; quality; family, age, and health

The group of factors inside the organization: production scale; manufacturing sector; capacity of subordinates.

The group of factors outside the organization: Society-culture-economy; specific management policies; the level of competitiveness in the market; the level of advance in science and technology.

4. Research results and discussion

4.1. Research results

- Descriptive statistics of the samples

As a result of the survey on leadership capacity of the CEO working in SMEs in Vietnam, the total number of valid votes collected was 141 votes from 141 enterprises. Survey results by geographical area, scale and business lines of enterprises are presented in Table 3 and Table 4

Table 3. The number of SMEs classified by geographic locations in Vietnam

Geographic locations	Size of firms			Proportion (%)
	Supersmall	Small	Medium	
Northern Vietnam	32	56	8	68,1
Central Vietnam	4	5	3	8,5
Southern Vietnam	8	19	6	23,4
Total	44	80	17	100

Note: Research samples brought together by the authors

The number of small and medium enterprises classified by geographical areas after collecting survey data shows that the surveyed enterprises are present in all 3 regions in the North, the Central and the South. The proportion of answers submitted in the North occupies the largest (68.5%), followed by the South (23.4%) and the Central (8.5%).

Table 4. The number of businesses based on size and industry

Industry \ Scales	Supersmall	Small	Medium	Total	Proportion (%)
- Mining industry	0	2	5	7	4,9
- Manufacturing processing industry	25	51	7	83	58,9
- The production and distribution of gas	2	8	0	10	7,1
- Water supply, water treatment and waste disposal	5	11	3	19	13,5
- Others	12	8	2	22	15,6
Total number of businesses	44	80	17	141	100
Proportion (%)	31.2	56.7	12.1	100	100

Note: Research samples brought together by the authors

- Examining the reliability of the survey

The scale used in the study was comprised of three main components: "Personal factor" is measured by five observation items; "Internal Environment Factor" is measured by 3 observation items; The "external environment factor" is measured by four observation items.

Table 5. The results of Cronbach's Alpha if Item deleted

Items	Observation variables	Corrected Item- Total correlation	Cronbach's Alpha if Item deleted
Personal factor - Cronbach's Alpha = 0,721			
BT1	Experience and qualifications	0,588	0,616
BT2	Skills	0,536	0,644
BT3	Qualities	0,427	0,706
BT4	Family characteristics	0,527	0,661
Internal environment factor - Cronbach's Alpha = 0,721			
MT1	Scale of manufacture of the business	0,539	0,636
MT2	The industry in which the business specializes in	0,592	0,569
MT3	The capacity of subordinates	0,498	0,683
External environment factor - Cronbach's Alpha = 0,736			
MN1	Factors related to the economy, culture and society	0,493	0,696
MN2	Government policies	0,508	0,689
MN3	The level of competitiveness on the market	0,590	0,644
MN4	Technology and science	0,526	0,677
Leadership capacity- Cronbach's Alpha = 0,75			
PT1	The results of management	0,6	
PT2	The quality of management	0,612	

Note: Calculated by authors using SPSS 23.0

The results of the Cronbach's Alpha coefficient analysis show that the BT5 (age, health) observation Items was excluded from the model because of a negative correlation coefficient less than 0.3 (equal to 0.264). Both Cronbach's Alpha coefficients of the observed variables are greater than 0.6. All coefficients of total variation are greater than 0.3 and any type of observation variable will reduce the reliability of the scale. Thus, observation variables ensure sufficient credibility to carry out subsequent analyses.

- Exploratory factor analysis (EFA)

The results of the EFA exploratory factor analysis for the independent factorial group result in Table 6.

Table 6. The results of KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,817
Bartlett's Test of Sphericity	Approx. Chi-Square	446,163
	Df	55
	Sig.	0,000

Note: Calculations performed by the authors

Bartlett's test p-value rejected the hypothesis Ho (Factor analysis does not match the data). The KMO = 0.817 is in the range of 0.5 - 1, indicating that the factor analysis is appropriate.

Table 7. The results of EFA for independent variables

Variables	Factors		
	1	2	3
Science and technology	0,759		
The industry	0,707		
The scale of manufacture of the business	0,678		
The level of competitiveness on the market	0,676		
The capacity of subordinates	0,567		
Factors related to the economy, culture and society	0,519		
Family characteristics		0,850	
Qualities		0,606	
Skills			0,844
Experience and qualifications			0,831

Note: Calculations performed by the authors

The results from the analysis of tables 5 and 7 show that there are three groups of factors extracted from the 11 indicators (because there are 3 factors with Eigenvalue > 1 and the total variance of 3 The major factor being 59.063% (> 50%), showing that the extracted factors explain 59,063% of the variance of the survey data, thus confirming the data to be appropriate for analysis.

In the analysing process, the variables having average variance extracted >50% are appropriate and they were kept in the model. Besides, observation variables have to meet the convergen validity and discriminant validity among groups of factor. Therefore, in our study process, the indicator “Government policies- MN2” is being excluded from the research model due to this variable not meeting the requirements about the discriminant validity among factors. After excluding the MN2 variable, the final result of EFA is illustrated in the Table 7.

Based on the result of rotated component matrix, 10 observation variables are classified into three groups of factor including: Factor 1 (X1)- Personal capability; Factor 2 (X2)- Personal traits; Factor 3 (X3)- Internal and external business environment.

Exploratory factor analysis of the dependent variable “Leadership capacity of the CEO” is shown in the Table 8.

Table 8. KMO and Bartlett’s test for dependent variable

KMO and Bartlett’s Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,556
Bartlett’s Test of Sphericity	Approx. Chi-Square	61,869
	Df	1
	Sig.	0,000

Note: Calculations performed by the authors

- The results of regression analysis factors affecting leadership capacity of CEO in industrial SMEs

The value R squared and Adjusted R square are 0.573 and 0.559, respectively (Table 11). This result shows that the independent variable in the model could interpret 55.9% năng lực lãnh đạo của GĐĐH DNCNNVV. This also means that 1-R2 adjust =0.441 is interpreted by factors not given in the model. This is a limitation of this study. However, this result is quite consistent with related studies.

When examining the results of the regressive assumption, it could be seen that the research model did not violate the assumption of autocorrelation, because the Durbin- Watson test statistic equals 1.765. Besides, the results of the F test (Table 10) also shows that the regression model is consistent with the research population (sig = 0.000; F=31.362).

Table 9. Examining the appropriate of the regression model

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21,653	9	2,566	31,362	0,000
	Residual	16,842	168	0,096		
	Total	38,495	177			
a. Dependent Variable: Y						
b. Predictors: (Constant), X1,X2,X3						

Note: Calculations performed by the authors.

In addition, we also carried out some necessary tests for regressive assumption to ensure the results are blue including the tests of multicollinear and autocorrelation. Using the method of Enter, the estimated model have the coefficient VIF (Variance inflation factor) < 5 and the value of tolerance > 0.1, therefore the model does not face the problem of multicollinear.

Table 10. The model of factors affecting the leadership capacity of CEO in industrial SMEs

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	0,363	0,106		3,569	0,000
X1	0,035	0,030	0,119	1,863	0,006
X2	0,090	0,027	0,056	1,286	0,001
X3	0,103	0,038	0,258	2,687	0,008
R square	0.673				
R squared _ Adjust	0.559				
Dubirn- Watson	1.765				

Note: Calculations performed by the authors

Based on the results in Table 11, all variables were statistically significant (p-value < 0.05). As a result, the analysis shows that there are three factors influencing the leadership capacity of CEOs in Vietnam's industry enterprises: (1) self-capacity, (2) personal perspectives, (3) the internal and external environment. In particular, the factor of personal abilities (professional qualification, experience, skills) makes the strongest influence on the standardized beta coefficient of 0.258, followed by the internal and external environment (production, operation, society, economy, culture).

4.2. Discussion and Conclusion

From the research results, some academic issues are discussed. Specifically:

First of all, this result confirms the point of view stating that "leadership is not only innate: it is also influenced by other external factors.". In addition to the personal capacity of the CEO, there are also other elements, such as those of organizational characteristics, for example, scale and area of production and subordinate capacity affecting the leadership ability of the CEO. This result is quite consistent with that of Le Thi Phuong Thao (2012) and Ksenia Zheltoukhova & Louise Suckley (2014).

Secondly, in contrast to previous studies, the study indicates that in the SME sector in Vietnam, individual characteristics (especially family) have an influence on the leadership capacity of CEOs, along with personal capacity and environment in which they manage.

Thirdly, personal and environmental factors have the strongest impact on the leadership capacity of CEOs of SMEs in Vietnam. However, today, the policies and mechanisms related to production and business activities are constantly changing, making significant impact on these businesses.

Therefore, what organizations and the CEOs themselves need to work on in order to improve the efficiency of corporate management is their self-capacity through professional qualifications, skills and work experience. As environmental factors can hardly be changed, self-efficacy is the focus. Therefore, short-term and long-term solutions for CEOs and companies are to pay special attention to improvement on the capacity of the management team, specifically on the training program framework to prepare capable and competent leaders for small and medium-sized businesses, and in addition, the application of KPIs and BSCs or similar methods in performance evaluation, as well as the completion of training policies, fostering and developing leadership capacities in enterprises.

Beside the results, this research still contains certain limitations that the authors need to clarify in subsequent studies, particularly:

Firstly, the sample size is rather limited and the surveyed subjects were quite unevenly distributed among the three North, Central and South regions.

Secondly, the study did not assess the impact of each factor within the three groups of factors affecting the management teams of companies in Vietnam, such as professional qualifications, scale and area of production, economic and social policies, etc.

Reference

1. Fiedler, F.A. (1967). Theory of Leadership Effectiveness, New York: McGraw-Hill.
2. Hona Amer. (2017). Impact of Leadership Styles on Entrepreneurs Business Success, Old Dominion University.
3. Hollander, E.P. (1978). Leadership Dynamics: A Practical Guide to Effective Relationships, New York: Free Press.
4. Richard L. Hughes. (2009). Leadership: Enhancing the Lessons of Experience, New York: 978-007-126359-7.
5. Ksenia Zheltoukhova & Louise Suckley. (2014). Hands-on or hands-off: Effective Leadership and Management in SMEs. The CIPD & Sheffield Hallam University.
6. Le Thi Phuong Thao. (2016). Study on the leadership capacity of directors of small and medium enterprises in Northern Central Vietnam. Hue University of Economic

7. Kesner và Seborá. (1994). Executive Succession: Past, Present & Future. *Journal of Management*, 20(2):327-372.
8. The National Assembly of Vietnam. (2014). Enterprise Law No. 68/2014 / QH13 dated 6 December 2014 of the National Assembly of the Socialist Republic of Vietnam
9. The Government of Vietnam. (2018). Decree 39/2018 / ND-CP detailing some articles of the Law on Support to Small and Medium Enterprises.
10. Bass, BM .(1990). *Handbook of Leadership: Theory, research and managerial application*. New York – Free Press.
11. Tran Thi Phuong Hien.(2013). Leadership capacity of the Vietnamese CEO team. *National Economics University*, pp. 33-35.
12. General Statistics Office of Vietnam. (2018): //www.gso.gov.vn