



Received: 05-07-2023
Accepted: 15-08-2023

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Internal Social Capital: The Case of Plastic and Packaging Firms

¹Nguyen Thanh Huyen, ²Le Thi Thuy, ³Nguyen Xuan Huong, ⁴Nguyen Thi Hong Phuong

^{1,2} Faculty of Social work, University of Labour and Social Affairs, Vietnam

³ University of Labour and Social Affairs, Vietnam

⁴ Trung Vuong University, Vietnam

Corresponding Author: **Nguyen Thi Hong Phuong**

Abstract

Internal social capital fosters strong links within the organization (Tsai, 2000) ^[12], which facilitates interaction and coordination among different employees and departments within the firm (Adler & Kwon, 2002) ^[11]. This study was conducted with the aim of identifying, analyzing, and measuring the internal social capital of plastic and packaging enterprises in Hanoi and neighboring provinces by using qualitative and quantitative research methods. Quantitative research methods were carried out with SPSS

software, including descriptive statistics, Cronbach's alpha, and EFA analysis. On the basis of an overview of previous studies and after interviewing experts, the study identified and analyzed six scales (component attributes) of internal social capital in plastic and packaging firms. Based on the research results, we propose some recommendations to improve the internal social capital of plastic and packaging firms, thereby contributing to improving business performance for plastic and packaging firms.

Keywords: Internal Social Capital, Plastic and Packaging Firms, Structure Network, Economics

JEL Classifications: A14, M10, O15, G21

1. Introduction

Internal social capital fosters strong links within the organization (Tsai, 2000) ^[12], which facilitates interaction and coordination among different employees and departments within the firm (Adler & Kwon, 2002) ^[11].

Like other common goods, firms are also valuable commodities that can be traded and exchanged on the market (Bui & Vu, 2013) ^[3]. According to Ho Duc Lam, Chairman of the Vietnam Plastics Association, Vietnam's plastics industry currently has nearly 4,000 firms across the country, most of which are small and medium-sized enterprises, accounting for 90%. In addition, the industry's production capacity for plastic materials is improving markedly and is expected to be able to meet about 50% of domestic demand in the near future with the participation of a number of large supply factories, such as Hyosung, Thailand's SCG Group, Nghi Son Refinery, and Petrochemical Plant.

According to Mr. Nguyen Ngoc Sang, Chairman of the Vietnam Packaging Association, the packaging industry plays an increasingly important and appreciated role. However, in 2023, like other industries, the packaging industry will also face great challenges from digital transformation and the circular economy. This is not only an objective requirement but also required by law.

Plastic is a popular material that is used to produce many items in life and has many advantages. The plastics industry has grown strongly over the years, with an average growth rate of 10–12% per year. Industry revenue in 2022 has also reached more than 25 billion USD, up 5.7% over the same period in 2021 (according to Mr. Ho Duc Lam, Chairman of the Vietnam Plastics Association). However, the growth rate of Vietnam's plastics industry is showing signs of slowing down from the beginning of 2023 until now, in the face of the worldwide economic recession in general and the persistent impact of the COVID-19 pandemic in particular (Ngoc Hai, 2023) ^[9]. Moreover, Vietnam's plastics industry is likened to a processing industry because it largely depends on imported raw materials (70–80%) for many years; machinery and equipment are also imported almost 100% from major markets such as China, Taiwan, Korea, Japan, Germany, Italy, etc. (Ngoc Hai, 2023) ^[9]. Therefore, assessing, analyzing, and measuring internal social capital in plastic and packaging firms is necessary and meaningful, contributing to helping plastic and packaging firms make timely decisions to improve business performance.

2. Literature Review

According to Yli-Renko *et al.* (2002) ^[14], internal social capital is considered the level and quality of the network of relationships between employees and internal units or departments in an enterprise. Accordingly, each employee and unit is always trying to find different methods to ensure a successful communication link in the enterprise, with the ultimate aim of building an effective corporate culture (Tasavori *et al.* 2018) ^[11].

The network of horizontal relationships is between members and peers; the network of vertical relationships is between leaders and employees, between superior and subordinate functions (Nguyen & Huynh, 2012) ^[10].

The internal network structure is the network of relationships between employees, departments, or internal departments in the enterprise (Dai *et al.*, 2015) ^[4].

According to Dai *et al.* (2015) ^[4], internal social capital represents the quality of relationships between individuals and departments in an enterprise, which is reflected in employees or departments in the enterprise who share the same ambition and vision, common vision and goals, keeping promises to each other, maintaining relationships, avoiding harm to each other, and exchanging knowledge and information.

In a firm with strong social capital, the vision of the firm is shared among all employees (Mikovic *et al.*, 2019) ^[8] to enable the creation of effective teams and help family members increase business performance (Akintimehin *et al.*, 2019) ^[2].

3. Research Methods

3.1 Research Context

In the face of increasing competitive pressure, the influence of Industrial Revolution 4.0, plastic and packaging firms undergoing digital transformation, and the increasing risk of

being acquired by foreign investors, businesses in the plastic and packaging industries must further improve their performance.

With the general trend of the world on circular economy development as well as in Vietnam, in the coming time, the government will have a policy to promote collection, recycling, and reuse in order to minimize resources. natural resources, reducing plastic waste into the environment as stipulated in the Law on Environmental Protection promulgated in 2020. That will contribute to increasing investment in new machinery and technology to serve market demand, creating opportunities for suppliers of new machinery and materials in the future (Ngoc Hai, 2023) ^[9].

Vietnam has become a production base for plastic products, serving large import markets. It aims to bring together leading industries from the fields of plastics, printing, and packaging to promote technological innovation and support business development (Ngoc Hai, 2023) ^[9].

In Vietnam, packaging is an industry with a good and stable growth rate. In the period 2015–2020, the average growth rate is 13.4% per year, with plastic packaging having the fastest growth rate of about 25%; about one million tons of plastic are used each year (Tu Uyen, 2023) ^[13].

3.2 Scale and Design of Questionnaires

The scale used in this study is a 5-point Likert scale ranging from 1 to 5. 1 totally disagree with 5. strongly agree. The statements in each scale are inherited from previous studies and expert opinions to correct the wording and then adjusted to suit the context of plastic and packaging firms in Hanoi and neighboring provinces, Vietnam, at the present time, based on the results of expert interviews and group discussions. The internal social capital of plastic and packaging firms in Hanoi and neighboring provinces is measured by six observed variables (see Table 1).

Table 1: Observed variables of the internal social capital of plastic and packaging firms in Hanoi and neighboring provinces

Code	Scale
Internal social capital of plastic and packaging firms (ISC)	
ISC1	Employees in the plastic and packaging firm have a common goal and vision.
ISC2	Employees in the plastic and packaging firm have ambitions to achieve common goals.
ISC3	Employees at different departments and divisions of the plastic and packaging firm maintain close relationships.
ISC4	Employees at different departments and divisions of the plastic and packaging firm regularly discuss information in a variety of formats.
ISC5	The departments and divisions of the plastics and packaging firm often keep their promises to each other.
ISC6	The interests of each division and department of the plastic and packaging firm are not affected by other departments and divisions.

3.3 Samples and Data Collection

The study sample was selected according to the convenience method. After designing the questionnaire, we conducted the survey through online design on Google Docs and in person. Of the collected questionnaires, after cleaning, 180 remained for analysis. The sample characteristics are as follows: Among 180 respondents, females are 73 (40.6%) and males are 107 (59.4%). Also, among them, 39 respondents have less than 5 years of career seniority (21.7%), 87 respondents have career seniority from 5 years to 10 years (48.3%), and the rest are respondents with career seniority 10 years or higher (30%).

3.4 Data Processing

Descriptive statistics, scale reliability analysis using Cronbach's alpha coefficient, and EFA analysis are all

quantitative research techniques supported by SPSS software.

4. Results

4.1 Descriptive Statistics

Table 2 indicates that the respondents agree with the variable of internal social capital of plastic and packaging firms, where six attributes were quite high. All five attributes were rated at an average of 3.97 or higher.

The analysis results also show that the skewness and kurtosis coefficients are in the range of -1 to 1, so the survey data ensures a relatively standard distribution. Therefore, the evaluation levels of the employees participating in the survey are relatively uniform and concentrated, with little dispersion, so the analysis results have high statistical significance.

Table 2: Descriptive analysis of attributes

Code	N	Mini	Max	Mean	Std. Deviation	Skewness		Kurtosis	
						Statistic	Std. Error	Statistic	Std. Error
Internal social capital of plastic and packaging firms (ISC)									
ISC1	180	2	5	4.02	0.776	-0.473	0.181	-0.139	0.360
ISC2	180	2	5	3.95	0.757	-0.229	0.181	-0.482	0.360
ISC3	180	1	5	4.00	0.777	-0.579	0.181	0.567	0.360
ISC4	180	2	5	3.97	0.832	-0.291	0.181	-0.741	0.360
ISC5	180	1	5	4.03	0.801	-0.710	0.181	0.676	0.360
ISC6	180	2	5	4.11	0.780	-0.686	0.181	0.253	0.360
Valid N (listwise)	180			4.01					

4.2 Cronbach’s Alpha

The internal social capital of plastic and packaging firms has been measured by Cronbach’s alpha. The results of testing Cronbach’s alpha for attributes are presented in Table 3 below. The results also show that attributes of the variables

have Cronbach’s alpha coefficients that are greater than 0.6, and the correlation coefficients of all attributes are greater than 0.3. So, all the attributes of the variables are statistically significant (Hoang & Chu, 2008; Hair *et al.*, 2009, Hair *et al.*, 2014) ^[7, 5, 6].

Table 3: Results of Cronbach’s alpha testing of attributes and item-total statistics

Cronbach’s Alpha	N of Items			
.916	6			
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach’s Alpha if Item Deleted
ISC1	20.05	11.120	0.770	0.899
ISC2	20.12	11.482	0.712	0.907
ISC3	20.07	11.207	0.750	0.902
ISC4	20.11	10.911	0.748	0.903
ISC5	20.04	10.948	0.777	0.898
ISC6	19.97	10.893	0.817	0.893

Table 4: KMO and Bartlett’s Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.915
Bartlett’s Test of Sphericity	Approx. Chi-Square	680.456
	Df	15
	Sig.	.000

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.227	70.453	70.453	4.227	70.453	70.453
2	0.457	7.610	78.063			
3	0.432	7.198	85.261			
4	0.333	5.549	90.811			
5	0.293	4.878	95.688			
6	0.259	4.312	100.000			

Extraction Method: Principal Component Analysis

Table 6: Component Matrix^a

ISC	Component
	1
ISC6	0.880
ISC5	0.851
ISC1	0.845
ISC3	0.830
ISC4	0.828
ISC2	0.800

4.3 Exploratory Factor Analysis (EFA)

Tables 4, 5, and 6 show that exploratory factor analysis (EFA) was conducted through component analysis and variance.

The results of factor analysis in Table 4 show that KMO is 0.915, which is greater than 0.5 but less than 1. Bartlett’s testimony shows sig. = 0.000 < 0.05, which means variables in the whole are interrelated (Hoang & Chu, 2008; Hair *et*

al., 2009, Hair *et al.*, 2014) ^[7, 5, 6].

After implementing the rotation matrix, six components of the internal social capital of plastic and packaging firms with a factor load factor greater than 0.5 and eigenvalues greater than 1 were identified, and the variance explained was 70.453% (see Tables 5 and 6). These statistics demonstrate that research data analysis for factor discovery is appropriate. Through the quality assurance of the scale

and the test of the EFA model, we have identified six components of the internal social capital of plastic and packaging firms (Hoang & Chu, 2008; Hair *et al.*, 2009, Hair *et al.*, 2014) [7, 5, 6].

5. Discussion and Implications

Mr. Hoang Quang Phong, Vice President of the Vietnam Chamber of Commerce and Industry (VCCI), said that along with the development of the domestic manufacturing industry, the plastic, packaging, and printing industries also recorded an increase and are rapidly growing. They are considered a supporting industry with great potential, which increasingly requires products with high technology, modern production processes, and management to increase competitiveness in the market.

Plastic and packaging firms are leaders in the field of providing solutions and services for plastic and packaging. Along with investment, innovation, and a spirit of challenge, we constantly bring customers better plastic and packaging solutions. The vision of the plastic and packaging business is to become the leading plastic and plastic packaging company in the market. And before that goal, we constantly strive to ensure products with the most competitive cost, optimal quality and technology, and customer satisfaction first.

Plastic and packaging businesses with the mission of creating the best plastic products and packaging and meeting all customer requirements. With a team of skilled human resources and a system of modern and professional machinery, we are confident in our ability to bring our customers quality publications, ensuring the most satisfaction for fastidious customers.

In addition, plastic and packaging businesses also have a team of staff to support free consultation, product design, and packaging for customers. They are ready to give advice on implementing strategies and promoting brands through products and printed packaging. As a result, businesses can affirm their brand with customers.

Vietnam's plastics industry is still developing unevenly and is facing certain challenges. In this industry, the main input materials are petroleum products imported from abroad. Therefore, the cost of plastic products in Vietnam is still much higher than in many countries in the region.

Plastic and packaging firms need to actively implement solutions to improve business performance, such as finding ways to increase revenue, save costs, and lower product costs. The production cost of the plastics industry fluctuates according to the price of imported raw materials. The plastic industry needs to actively focus on investing in the fields of input material production, focusing on the production of materials that domestic enterprises have great demand for, such as plastic beads, to be self-sufficient in raw materials.

Currently, packaging enterprises have difficulty collecting, sorting, and recycling plastic waste. Therefore, the Vietnam Packaging Association should regularly update the policy provided to members, helping members understand it correctly and do it right. In addition, accompanying firms in the process of understanding and identifying steps in the digital transformation process and improving the endogenous capacity of packaging enterprises means connecting packaging enterprises with the market.

6. References

1. Adler PS, Kwon S. Social Capital: Prospects for a New Concept. *The Academy of Management Review*. 2002; 27(1):17-40.
2. Akintimehin OO, Albi OJ, Eluyela DF, Okere W, Ozordi E. Social capital and its effect on business performance in the Nigeria informal sector, 2019. *Journal homepage: www.heliyon.com [e-journal]* 5 (2019) Available at sciencedirect [Access 17 May 2020].
3. Bui VV, Vu VN. *Textbook of Corporate Finance*, Financial Publishing House, Hanoi, 2013.
4. Dai W, Mao Z, Zhao X, Mattila A. How does social capital influence the hospitality firm's financial performance? The moderating role of entrepreneurial activities. *International Journal of Hospitality Management*. 2015; 51:42-55.
5. Hair JF, Black WC, Babin BJ, Anderson RE. *Multivariate Data Analysis (7th ed.)*. Upper Saddle River, NJ: Prentice Hall International, 2009.
6. Hair JF, Henseler J, Dijkstra T, Sarstedt M, Ringle C, Diamantopoulos A, *et al.* Common beliefs and reality about partial least squares: Comments on Rönkkö and Evermann. *Organizational Research Methods*. 2014; 17(2):182-209.
7. Hoang T, Chu NMN. *Analyzing researched data with SPSS (2nd ed.)*. Ho Chi Minh City, Vietnam: Hong Duc Publishing House, 2008.
8. Mikovic R, Petrovic D, Mihic M, Obradovic V, Todorovic M. Examining the relationship between social capital and knowledge usage in the nonprofit industry. *Journal knowledge management research & practice*, [online], 2019. Available at: Doi: <https://doi.org/10.1080/14778238.2019.1638740> [Accessed 10 June 2020].
9. Ngoc Hai. The plastics industry has an average growth rate of 10-12% per year, 2023. Accessed June 8, 2023, from: <https://thoibaonganhngang.vn/nganh-nhua-co-toc-do-tang-truong-binh-quan-tu-10-12-moi-nam-140373>.
10. Nguyen HT, Huynh DT. The contribution of social capital into the activities of real estate companies in Viet Nam. *Journal of International Business Research*. 2012; 3:53-69.
11. Tasavori M, Zaefarian R, Eng T. Internal social capital and international firm performance in emerging market family firms: The mediating role of participative governance. *International Small Business Journal: Researching Entrepreneurship*, 2018, 1-24.
12. Tsai WP. Social capital, strategic relatedness and the formation of intraorganizational linkages. *Strateg. Manag. J.* 2000; 21:925-939.
13. Tu Uyen. In 2022, the revenue of the packaging industry in Vietnam will reach nearly 15 billion USD, 2023. Accessed May 26, 2023, from: <https://plo.vn/nam-2022-doanh-so-nganh-bao-bi-viet-nam-dat-gan-15-ti-usd-post735150>.
14. Yli-tenkari H, Autio E, Tontti V. Social capital, knowledge, and the international growth of technology-based new firms. *International Business Review*. 2002; 11:279-304.