

Modeling the external business environments for the Vietnamese construction SMEs in a transition economy

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Abstract. Vietnam has been shifting from a centrally planned economy with subsidy schemes, to a socialist-oriented market economy with multiple economic components. The internal dynamics and external pressures have caused many changes in the environment for small and medium size construction enterprises. This research models the external environment in order to aid understanding of the strategic management of such contractors in the construction industry of Vietnam. Semi-structured interviews of senior managers were combined with a mailed questionnaire to collect data. Seven major concepts were found to emerge including the economic administration of the country, the legacy of the old system, changes in society, nature of the workforce and the variety of business styles found. The research results show that the behaviour of key stakeholders has a major impact on the strategic/competitive behaviour of the concerned firms and their profitability.

1. Introduction

Since the adoption of the "renovation" or "reform" policy in 1986, Vietnam has been shifting from a centrally planned economy with subsidy schemes, to a socialist-oriented market economy with multiple economic components. Concurrently, the country has also embarked on a process of globalisation and integration into local and global economies with the significant milestones of joining the Association of South-East Asian Nations (ASEAN) in 1995, obtaining the World Trade Organization (WTO) membership on 11th January 2007, and becoming a member of the ASEAN Economic Community (AEC) when it established in 2015. Both the internal dynamics and the external pressures have caused the country many changes, especially in the business environment for firms, including contractors in the construction industry in general, and Vietnamese Construction Small and Medium-Sizes Enterprises (SMEs) in particular [9, 10].

Accounting for over 90% of the number of construction firms in Vietnam in recent years, the SMEs play a very important role in the industry. While the industry is carrying out its own transition, the business environment for them has changed significantly. State-owned firms cannot wait for a governmental authority to distribute the jobs to them anymore, but instead have to compete for construction contracts, among each other and the emerging private contractors. In addition, new sectors such as private and foreign direct investment have been accepted to join the market. As a



result, the business environment for Vietnamese Construction SMEs becomes more and more competitive.

In an attempt to give a solution for the problems above, this research was designed to model the external environments which reflects the reality that the Vietnamese Construction SMEs have operated successfully in the new business environment created by the country's economic transition in order to aid understanding about the strategic management practice in this type of firm.

2. Materials and methods

Since no similar model has been found in the literature, both in Vietnam and worldwide at the time of the research, no existing model for the construction SMEs' environment can be used and tested using a hypothesis testing approach for this research. For the research convenience, there is a need of a knowledge base which can provide guidelines for the research questions, help with the data analysis and sensitise the emergent concepts. Therefore, a modified grounded theory approach was considered the best choice for this research.

Due to the unavailability of the necessary data on Vietnamese Construction SMEs - no sampling frame listing was available - snowball sampling was selected as the sampling method. In order to reduce the disadvantage of using a snowball sampling, a triangulation method was selected for data collection, using multiple data sources, which include two major sources: interviews, questionnaires and a secondary source of available internship-reports developed by final year students from National University of Civil Engineering, Hanoi, Vietnam (NUCE) (Figure 1).

Semi-structured interviews was selected for the interview survey; 77 top managers from Vietnamese Construction SMEs were contacted and 41 interviews were completed. For the survey with mail questionnaires, 500 questionnaires were sent and 99 completed, (a response rate of 20 percent). However, 50 questionnaires were ineligible and a further 23 of the collected questionnaires could not be used because the information was poor. Only 26 questionnaires could be used for data analysis. Respondents who answered the questionnaires were from Hanoi (20), Ho Chi Minh City (5) and Da Nang (1). Information from these mail questionnaires is not as rich as the interviews. That is why they were only used as a second source of information for the theory generation process. Secondary source information was also utilised from internship reports from final year students in NUCE. Additional 24 reports were selected as secondary data because they were from the firms that participated in either the interviewing survey (15) or the mail survey (9).

The interviews were transcribed to allow data analysis. Firms were coded for the ease of monitoring the data: interviewed firms were coded as Q_i , with $i=1-41$ while firms in the questionnaire survey were coded as I_j , with $j=1-26$. Then data from each source was broken into codes using a line-by-line analysis. The main questions and some additional topics such as firm's code, date of the interview or questionnaire and recommender's names and contacts, etc. were listed in the initial columns in order to categorise the emerging codes more easily.

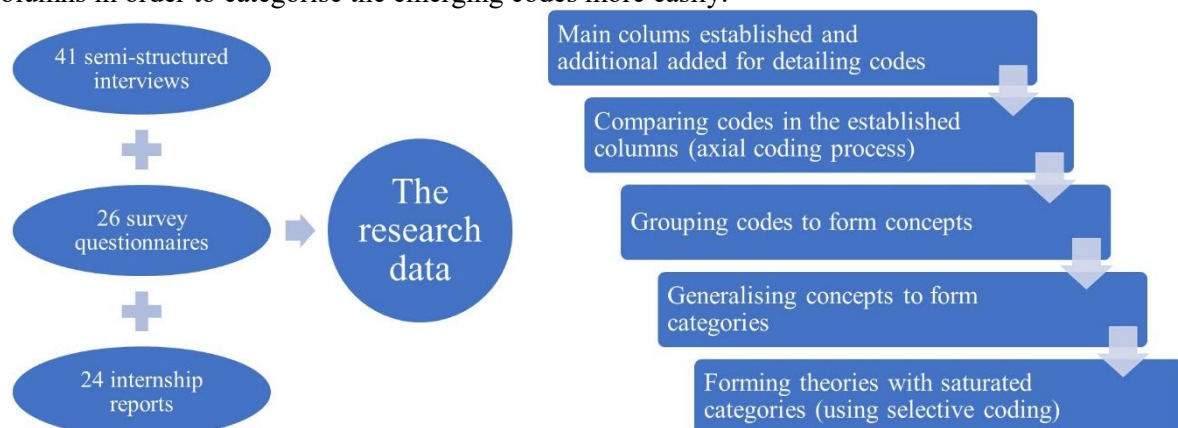


Figure 1. The research data and research approach.

While analysing the data, the emerging codes were put into the appropriate columns temporarily. Additional columns then were added when there was a need to break down an initial column into more detailed ones. For example, column “customers” was divided into “recognition of customer types”, “returning customers”, “role in contracts”, “reasons for choosing the roles”, “tendering methods”. Later, another column was added to this group: “customer’s criteria to choose a contractor”. Using axial coding, codes in one column were then compared with another and also with other codes from other columns. Based on their common features, the codes then were grouped to form concepts, e.g. codes “asynchronous and incomplete legal system”, “conflicts between regulations issued by different ministries”, “discrimination between firms in the state-owned and private sectors”, “discrimination between domestic investors and foreigners”, etc. were grouped together to form a concept “economic administration mechanism”. Concepts then were generalised to form categories. In the previous example, “economic administration mechanism” was generalised as “an influential factor from the general environment”. Selective coding then was carried out to select the saturated categories in order to build up theories (Figure 1). Then, since there were several types of firms participating in the survey, categories were put back into several tables using different grouping methods to check the trend of the data in different types of firms. The validation was considered as not being important in this research because in grounded theory, no separate verification or validation is needed [1].

3. Emerging concepts

As a result of the data analysis process, there are 7 major concepts emerging from the data that underpin this category, as follow (Figure 2):

- the economic administration mechanism of the country;
- the economic integration of Vietnam into regional and global economies;
- the legacies of the old economic system;
- the variety of business styles in different regions of the country;
- the changes in society;
- the workforce of the country; and
- the behaviours of the organisations that are concerned with the targeting market segments of a firm.

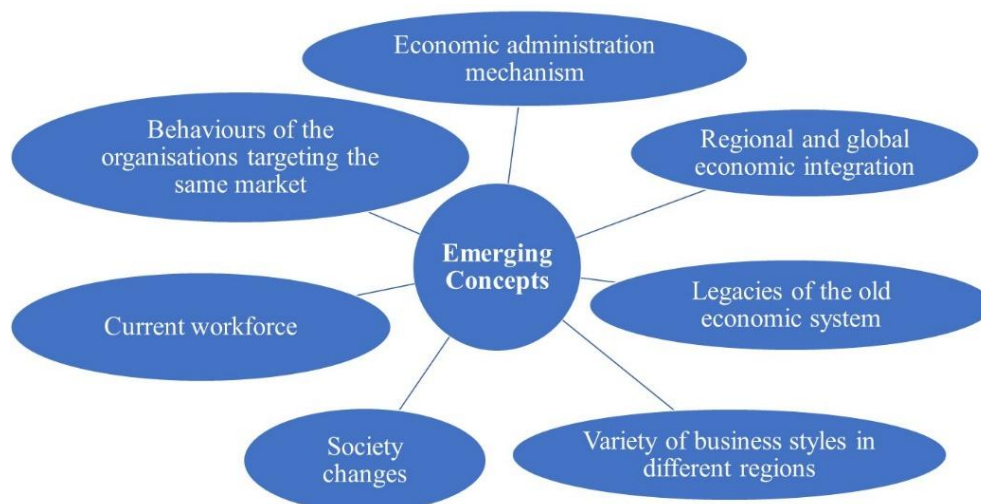


Figure 2. The emerging concepts from the data collected.

Besides the saturated phenomena that have formed the above conceptual codes, there are several individual factors that were mentioned by the respondents, but they either did not reoccur in the data or could not be grouped due to a lack of similar or relevant concepts. These factors, being regarded hereafter as “other/specialist factors”, and will be discussed where relevant later.

4. Modelling the general environment

4.1. The model development

Looking at the concepts that have emerged from the data, one can easily recognise that the factors underpinning these concepts can be listed under appropriate categories of PEST analysis (see [2]) or one of its variants. However, the use of a PEST analysis or one of its variations in the case of the Vietnamese Construction SMEs may not be convenient, due to the following: (i) many factors in a standard PEST model and its variants do not appear as emerged concepts from the survey results; (ii) the use of a PEST framework or one of its variants to analyse the general environment of the firms is time-consuming as the user needs to go through the long lists under each heading of the framework being used, then evaluate the influence of each factor in the lists; (iii) there are some factors emerging from the data that cannot be put under a single heading in the PEST framework, for instance, the “mechanism” factor needs to be analysed under both PEST’s economic and political headings.

The general environment of the Vietnamese Construction SMEs with the most important influential factors is illustrated in Figure 3, as a hexagon under the analogous form of a one-storey building. Six important influential factors are put at six vertices of the polygon, and the group of specialist factors occupies the roof. The firm (represented by letter C) is at the centre of the figure. The shape of the model implies that the general environment is like a solid, closed building which keeps the firm inside and constrains its business. But it has a keyhole, which leaves the firm with a chance to escape from the constraining environment (the building) to develop.

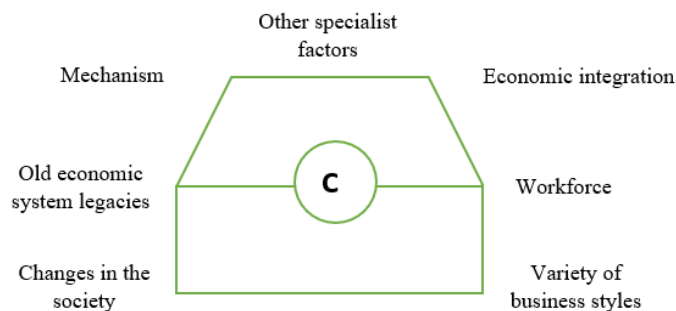


Figure 3. A Vietnamese Construction SME and the influential factors from the general environment – The House of the General Environment Model.

4.2. The significant influential factors from the general environment

4.2.1. The Economic Administration Mechanism

In research into SMEs in Vietnam, Hansen et al. [3] stated that the Government has a very important role in the development and survival of enterprises. A similar result has been discovered in this research. Talking about the external environment of their firms, informants kept mentioning the Government’s “mechanism” (as a short form of the “economic administration mechanism”) in the economy as a strong influential factor on their businesses. With 49 respondents showing interest in this factor, it can be regarded as the most important factor within the participating firms, regardless of type and sector. After the economic reform of the country began, a new economic mechanism was developed to replace the central-command and subsidized economic mechanism. Though the new mechanism has created a lot of favourable conditions for firms and has been improved a lot since the economic reform started, when the informants mentioned the word “mechanism”, they often referred to its negative impact, considered it as a straight jacket constraining their business and that firms wanted to take it off. The situation however has been improving. WTO membership has required that the country amends its legislative and legal system to suit their legitimate requirements. Firms are

expecting a clearer and more effective legal system and legislative system, which they believe could help to make a better administration mechanism in the near future.

4.2.2. Economic Integration into Regional and Global Economies

Respondents have also noted several factors which can be considered to be as a results of the economic integration of Vietnam into local, regional and global economies. They claim that the integration of the Vietnamese economy into the outside world (by joining AFTA, ASEAN and obtaining its WTO membership, etc.) has caused both positive and negative impacts on their business environment, and on their firms' businesses. Besides the advantage of an increase in foreign investment, the chance for learning and using modern technologies from the outside world, the construction markets have turned out to be more competitive because of the entrance of foreign contractors or foreign investment firms. There are overseas contractors that have signed partnership agreements with domestic firms and formed international joint-venture companies, which are often stronger competitors than the others. The country's economy is now connected closely with the global economy; therefore, it has become sensitive to the behaviour of the world's market.

4.2.3. The Legacies from the Old Economic System

In its transition, the economy in Vietnam is a mixed economy which is still on its way through a transition from a centrally-planned economy to a particular type of market economy, a socialist-oriented market economy. It is therefore understandable that there are still legacies from the old economic system and they have certain impacts on firms.

One significant legacy from the former economic system is the psychology of highly valued personal relationships over other issues. In the centrally-planned economy, the whole economy was run by orders from the top management bodies of the country, even the distribution of work to firms was done by the governmental authorities. Therefore, making relationships with key people in those bodies was very important to firms, even now, as forty three informants stated. This fact has created a custom of using personal relationships to deal with any problem in Vietnamese society. This custom is backed by the tradition of valuing the hierarchical social roles or the importance of hierarchy in society, which the Vietnamese adopted from Confucianism during the Chinese occupation in its history (around 1000 years in the first millennium) [4]. In the early stages of the market economy in Vietnam, those personal relationships tended to be corrupt. Those personal relationships are now considered more positive, and still very important.

4.2.4. The Variety of Business Styles in Different Regions of the Country

According to the survey, the respondents believed that the differences in regional markets within the country, especially between the Northern and the Southern markets due to cultural and historic issues have led to the differences in business styles.

4.2.5. Changes in Society

The next factor that the survey participants consider important in the external environment is the change in the Vietnamese people with regard to their awareness of the outside world and living styles. People now know more about their rights and are ready to fight for them, ask for better living conditions, and pay more attention to the environment. People now have higher requirements for living standards, including accommodation. These factors have contributed in raising the need for new types of construction products. The migration from rural areas to big cities is also a significant factor pushing up the development of many industries and services, which indirectly or directly creates more jobs for the construction industry. However, Vietnamese industries have been required to pay more attention to the environment and to avoid activities that may badly influence the natural environment and living conditions of society.

4.2.6. The Workforce

Respondents strongly expressed their concern about the existing workforce in the economy. Some of them claimed that the country was in an alarming situation of “having an excess of graduates but lack of skilled workers”. [5]. Other respondents argued that there was an asynchrony in education and training. It was reported that the ratio of training among bachelors, vocational degree holders and skilled workers in Vietnam was 1: 1.16: 0.95, while in other countries this ratio was 1: 4: 10. Many respondents showed their disappointment regarding the quality of the newly-graduated applicants, especially new engineers (N=21). They claimed that new engineers did not have the relevant practical skills to start work immediately; therefore, firms had to provide them with retraining. Firms should invest in the human resources of the country instead of just waiting to get a benefit from it.

The agriculture-based economy of the country has been mentioned as one issue impacting on the workforce. Thirteen respondents reported that the majority of construction works (in quantity) in their firms have been carried out by temporary workers. Most of these workers have left the rice fields to migrate to the cities wishing to have a better life or only wanting a temporary job while waiting for the harvest. Obviously, firms cannot expect high quality work from this workforce.

4.2.7. Other/Specialist Factors

Besides the saturated phenomena that have formed the above data groups, there are several influential factors impacting on the general environment that respondents have mentioned individually, but do not have the same importance for every participating firm. Figure 3 shows these factors. That is to say, there are many factors from the general environment that may have an impact on the Vietnamese Construction SMEs, yet respondents did not mention them. Those factors may not be considered very important to the survey participants, as they did not recall them during the interview or when they completed the mailed questionnaire.

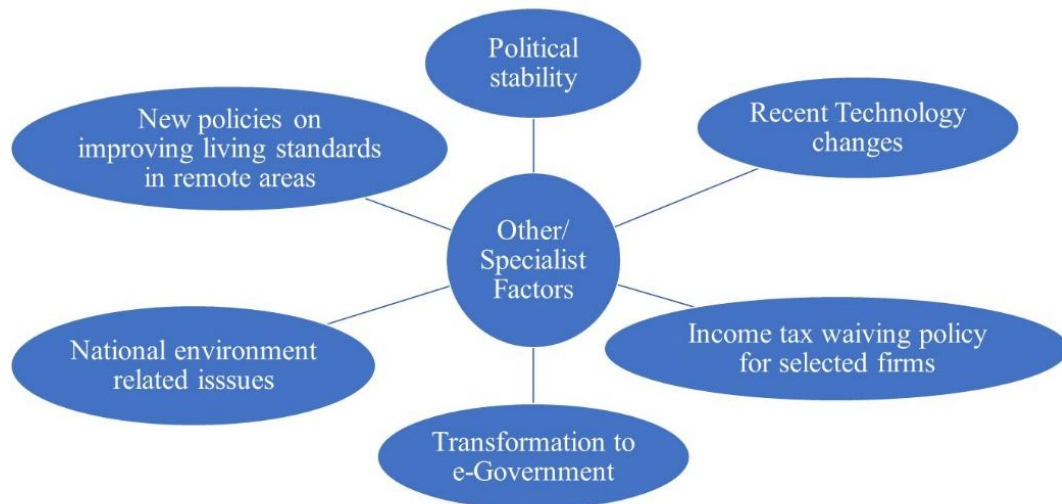


Figure 4. Phenomena forming the other/specialist factors.

5. Modelling the Competitive Environment

The data shows that the Vietnamese Construction SMEs share a set of seven types of stakeholders, which include direct customers, indirect customers, competitors, subcontractors, material suppliers, commercial banks and financial institutions, and specialist contractors. Besides, each group of firms also has a second set of important and common stakeholders, as in Table 1. There are also some more stakeholders that can influence some firms only that are omitted from Table 1.

Table 1. Major influential stakeholders in the competitive environment for different groups of Vietnamese Construction SMEs.

Stakeholder types	Firms operating in state-managed-capital market	Firms operating in foreign-invested-capital market	SOE s
1. The common stakeholders			
Direct customers	v	v	v
Indirect customers	v	v	v
Competitors	v	v	v
Subcontractors	v	v	v
Material suppliers	v	v	v
Commercial banks and financial institutions	v	v	v
Specialist contractors	v	v	v
2. The contingent stakeholders			
Governmental authorities	v		
Customers' consulting bodies	v		
Clients' societies		v	
Management body			v

In Table 1, the first seven types of stakeholder form the common set, which is the set that all of the Vietnamese Construction SMEs need to pay attention to. Each of the last four types is important to a certain group of Vietnamese Construction SMEs only – the ‘contingent stakeholders’. It is noted that the firm categories in Table 1 are not mutually exclusive. State-owned firms (SOEs) can target the state-managed market as well as foreign-invested market and private customers and need to consider the influence of the stakeholders in the types listed under relevant columns.

Therefore, it is worth considering power and behaviour of these stakeholders when looking at the competitive environment of an SME. These issues can be used to describe and explain the competitive environment of the firm in order to reflect the complexity of the Vietnamese competitive environment for the Vietnamese Construction SMEs. If we use an “S” to indicate a stakeholder, the competitive environment of an Vietnamese Construction SMEs can be illustrated by a cloud of “S”s surrounding the firm (which is represented by letter C), as in Figure 4. This cloud represents the markets that the concerned firm operates in.

In this model, there are seven bold “S”s floating around the firm which represent the important stakeholders to all the firms (the common set in Table 1). Any SME doing business in the Vietnamese construction industry needs to pay attention to these parties’ behaviours, though each stakeholder impacts in different degrees on different firms. The remaining normal “S”s represent other relevant stakeholders, belonging to the contingent set, whose behaviour may not affect all the firms in the market, but one or more individual groups of firms. Since each firm may be concerned about some particular stakeholders, the number of normal “S” in the model is only for reference. When looking at these stakeholders, an SME in construction should analyse the mutual influence with them as well as investigate the chance to cooperate with them.

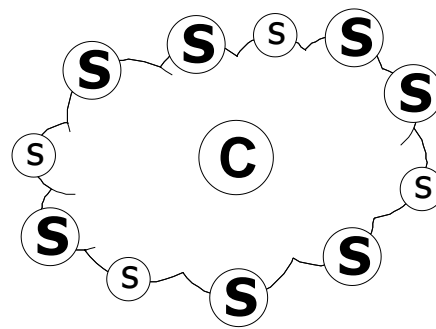


Figure 5. A Vietnamese construction SME and its stakeholders - the cloud of Ss model.

This model is similar when compared to the Five Forces Model (see [6]) in that it also tries to evaluate the impact of the forces in the Industry to the strategic behaviour, including the competition of Vietnamese Construction SMEs, and to their profitability. The major forces in the industry presented in the Five Forces model are included in the proposed model, except for the substitute providers. The “Cloud of Ss” model has proposed more groups of forces in order to emphasize their importance and different impacts on the Vietnamese Construction SMEs. Though they can be regarded as “customers”, actually the indirect customers and direct customers can have opposite impacts on Vietnamese Construction SMEs’ competition and behaviour.

One can classify subcontractors, material suppliers and commercial banks and financial institutions as “suppliers” in the Five Forces Model, but the proposed model separates them out into different groups to emphasize the difference in the impact they may have on the firms as well as to illustrate the complexity of the production chain in construction. Inheriting the idea from the resource-based framework, the proposed model is concerned more about competitors from both the current industry and competence-related industries. Like Freeman’s model [7] and the modified model of Five Forces with “complementors”, the proposed model looks for opportunities of cooperation of Vietnamese Construction SMEs with other forces in the market.

This model also emphasizes the importance of “specialist suppliers”, who can either be complementors, subcontractors or forces that influence the substitute-selection of customers in the construction market. It also differentiates between forces for different groups of Vietnamese Construction SMEs. By looking at the market instead of the industry, it demonstrates the project-orientation of construction firms in their strategic management. In comparison to the topics suggested by Warszawski [8], it is noticeable that the proposed model focuses more on the competitive environment while Warszawski’s model includes the general environments within the topics. Nevertheless, most of the topics that Warszawski mentioned which are related to the competitive environment of construction firms are included in the proposed model.

That is to say, the proposed model provides a fuller and more detailed view about the forces that make up the competitive environment of the Vietnamese Construction SMEs.

6. Summary

This paper has detailed the development of a model of the external business environment of small/medium construction enterprises in Vietnam. The results show that the behaviour of key stakeholders in the economy and industry in Vietnam has a major impact on the strategic/competitive behaviour of the concerned firms and their profitability. The influential factors identified are the economic administration mechanism of the country, the economic integration of Vietnam into regional and global economies, the legacies of the old economic system, the variety of business styles in different regions of the country, the changes in society, the workforce of the country, and the behaviours of the bodies/organisations that are concerned with the market segments that a firm targets.

Those bodies/organisations are classified into two groups: seven types of common stakeholders who have significant impacts on all of the concerned firms and the contingent stakeholders which include four groups of bodies.

The findings have confirmed and extended the western models of external business environments such as PEST and 5 forces and their variants, in the context of Vietnamese Construction SMEs. However, when applying to specific firms or firm types, more thorough empirical research may need to be carried out to reconfirm the significance of each of the external factors.

7. References

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