INCOTERMS Selection Factors and Its Effect on Export Performance

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ABSTRACT

The International Commercial Terms (Incoterms), introduced and governed by International Chamber of Commerce (ICC) are standard trade terms used in international and domestic sales contract. The latest version, INCOTERMS 2010 states the obligations and responsibilities of importers and exporters regarding transport costs and risks as well as the responsibilities for insurance and customs formalities. This paper seeks to examine the factors that influences the choice of Incoterms among Malaysian manufacturers and its effect on export performance. Data was collected using survey methods and then analysed using two main types of analyses: univariate (descriptive) and inferential (bivariate and multivariate). A total of 335 questionnaires were distributed to manufacturers in Malaysia using a sampling framework from the Federation of Malaysian Manufacturers (FMM). Of the 335 questionnaires distributed, 60 were returned yielding a response rate of 17.9%. Findings indicate that there is a significant relationship between selection factors and export performance. The main contribution of this study is towards narrowing the gap in knowledge regarding Incoterms as past research indicated that it is still relatively unknown and should highlight Incoterms selection and its effect on export performance, among others.

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1 INTRODUCTION

In the era of globalization, global supply chains are increasingly becoming a natural phenomenon. A global supply chain would consists of a network of suppliers, manufacturers, distribution centres, retailers and customers where raw materials are acquired, transformed and delivered (OECD, 2002). In the global supply chain context, international trade rules and sharing of responsibilities among members of the supply chain are important factors and there is a need to understand how it works. This is where Incoterms plays a significant role (Hien et al, 2009). Incoterms, internationally recognised, are standard trade terms used worldwide in international and domestic contracts for the sale of goods (International Chamber of Commerce, 2017). For international transportation, Incoterms are used to establish the respective responsibilities of the exporters and importers. The selection of Incoterms is often viewed as a difficult decision because of
the general lack of knowledge on the subject and because the choice of appropriate Incoterms tends to be considered as a constraint rather than as an opportunity to improve the efficiency of an international deal. Incoterms are not very well known by the different actors along the supply chain including shippers and carriers (Hien et al., 2009) and it gets more complex especially when the delivery term is used in a contract for the international sale of goods and when the buyer and seller have their places of business in different countries (Johnson, 2014).

The main objective of this paper is to identify the main factors taken into consideration when deciding which Incoterms to use and to examine the impact of these choices on export performance. This study would enhance knowledge and understanding of Incoterms, a topic that has until now been the subject of very few scientific publications (Hien et al., 2009; Rosal, 2016). Despite their strategic importance, Incoterms have been largely ignored and were still relatively unknown (Gooley, 2000, Jacquet, 2000). This study, largely based on the work done by Hien et al., (2009), should strengthen the theoretical foundations essential to development of research in this area and highlight the connection between Incoterms selection and export performance.

2 LITERATURE REVIEW

2.1 Incoterms

“Incoterms” or International Commercial Terms refers to a group of rules introduced by the International Chamber of Commerce (ICC) to define the responsibilities and tasks of buyers and sellers precisely, in a codified language, in the context of international trade (Jimenez, 1998; Chevalier, 2000; Gooley, 2000; Jacquet, 2000 as cited in Hien et al., 2009). The documents used in international trade contain delivery terms such as: “EXW supplier’s factory, Cape Town”; “FOB port of shipment, Shanghai”; “CIF port of destination, Rotterdam”; “DDP buyer’s plant, Chicago”; and each is a trade term that consists of no more than a few words, often accompanied only by a reference to some location. “Yet in those few words there is contained a vast wealth of information regarding how the parties to the transaction intend to allocate significant risks and responsibilities between them in connection with shipment, transportation, and delivery of the goods” (Johnson, 2014). Furthermore, they define the point of transfer for cost and risk associated with a shipment (for review see Siro, 1993; Legrand & Martini, 1999; Chevalier, 2000; ICC, 2017).

Incoterms address three fundamental questions: 1) Which tasks will be performed by the importer and exporter? 2) which activities will be paid by the importer and exporter? and 3) when the transfer of responsibility for the goods will take place (David and Stewart, 2010; Jimenez, 1998). Incoterms, therefore, essentially allow several elements to be precisely defined: the seller’s delivery obligations, the risk transfer from the seller to the buyer, the distribution of costs between the two parties, and the responsibility for the transportation documents (Chevalier, 2000).

According to Holley & Haynes (2003), knowledge and understanding of Incoterms is vital in international trade. In the international context, delivery terms is particularly valuable, where the parties will encounter additional barriers to trade due to language differences, logistical challenges, varying business practices, and different legal systems (Johnson, 2014). Due to their widespread use, Incoterms have become more and more important (Freudmann (1999) to reduce the uncertainty due to the high degree of heterogeneity in international commercial practices by creating a common frame of reference for the signatories (Gooley, 2000). Appropriate use of delivery terms is desirable because it is efficient and facilitates exchange, which is ultimately a fundamental purpose of contract (Johnson, 2014) and provide a particularly useful structure during the negotiation phase, in that they save time and they tend to clarify the respective responsibilities of the two parties (Siro, 1993).

Presentation of the Eleven Incoterms

The list of Incoterms, last revised in 2010, currently includes 11 terms (see Table 1), expressed as acronyms, which are two distinct classes: 1) rules for any mode or modes of transport and 2) rules for sea and inland waterway transport (ICC, 2017). They are also sometimes called departure and arrival Incoterms (DeBattista, 1995; Jimenez, 1998; Legrand and Martini, 1999; Ramberg, 1999; Chevalier, 2000 as cited in Hien et al., 2009).

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Complete Name</th>
</tr>
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<tbody>
<tr>
<td>EXW</td>
<td>Ex Works</td>
</tr>
<tr>
<td>FCA</td>
<td>Free Carrier</td>
</tr>
<tr>
<td>CPT</td>
<td>Carriage Paid To</td>
</tr>
<tr>
<td>CIP</td>
<td>Carriage and Insurance Paid To</td>
</tr>
<tr>
<td>DAT</td>
<td>Delivered at Terminal</td>
</tr>
<tr>
<td>DAP</td>
<td>Delivered at Place</td>
</tr>
<tr>
<td>DDP</td>
<td>Delivered Duty Paid</td>
</tr>
</tbody>
</table>

Table 1: Presentation of the Eleven Incoterms
RULES FOR SEA AND INLAND WATERWAYS:

<table>
<thead>
<tr>
<th>Incoterm</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAS</td>
<td>Free Alongside Ship</td>
</tr>
<tr>
<td>FOB</td>
<td>Free On Board</td>
</tr>
<tr>
<td>CFR</td>
<td>Cost and Freight</td>
</tr>
<tr>
<td>CIF</td>
<td>Cost Insurance and Freight</td>
</tr>
</tbody>
</table>

Selection factors

With the aim to maximize their profits while minimizing uncertainty and risks related to an international transaction, firms will select Incoterms that will contribute to achieving these aims. In order to select the most appropriate Incoterm for a given export or import situation, a company must clearly understand the business environment factors that affect this decision (Hien et al., 2009). The business environment, is defined as the set of forces to which the company must respond (for review see Lawrence and Lorsch, 1967; Anderson and Paine, 1975) or as the set of factors that tend to influence an organization (Dill, 1958; Aharoni et al., 1978 as cited in Hien et al., 2009).

The study of business environment is conducted to identify the set of relevant environmental factors for a specific context. Several authors (e.g., Luffman, 1996; Lynch, 1997; and Walsh, 2005 as cited in Hien et al., 2009) have used the PESTEL method to analyze the Political, Economic, Social, Technological, Environmental/Ecological and Legal characteristics of the environment in which a company operates (Sanchez and Heen, 1997).

In the context related to the business environment factors impacting on Incoterm choices, there was a dearth of knowledge and Hien et al., (2009) have examined the literature in a related domain, the market entrance mode choice, which is similar to the Incoterm choice, in that such characteristics as international context or market knowledge are important in both domains.

Legrand and Martini (1999) proposed that Incoterm choice is influenced by a certain number of factors which are quite similar to those taken into consideration when deciding how to penetrate a foreign market where several factors are regularly mentioned. For example, as cited in Hien et al., (2009) a number of authors including Sanjeev and Sridhar (1992), Brouthers (1995), Tsé et al. (1997), Pan and Tsé (2000), Osland et al. (2001) and Rasheed (2005), have considered the risk inherent to the destination country as a fundamental factor in choosing the entrance mode.

Selection factors

Size, resources or negotiating power of the company, the degree of competitiveness and the regulatory measures of the target market, the product characteristics, or the company’s international experience and knowledge of the target market are also other factors that have been mentioned in literature, for example, the review work of Erramilli (1992) (as cited in Hien et al., 2009) and Mayrhofer (2002) has led to a classification of environmental factors relevant to the entrance mode choice. In an older literature, Duncan (1972) has identified several environmental factors using 19 semi-structured interviews with individuals from various hierarchical levels. Based on Duncan’s study and Hien et al.’s review of the literature, this study have utilised the list of their environmental factors that should be considered when choosing Incoterms.

2.2 Export Performance

Among earlier studies on export performance, Tookey (1964) attempted to identify the key elements for export success. In subsequent years, many studies focusing primarily on export performance indicators or their determinants were published. Often, contradictory findings were shown making this area of study more complex (e.g., Zou and Stan, 1998; Katsikeas et al., 2000; Ali, 2004), and given the complexity of this field of research, several authors have worked to synthesize and classify the publications in this domain: Madsen (1989); Aaby and Slater (1989); Chetty et Hamilton (1993); Zou and Stan (1998) and Katsikeas et al. (2000).

Katsikeas et al. (2000) as cited in Hien et al., (2009) who reviewed 103 articles, demonstrated the total heterogeneity of the existing measurement indicators, which they grouped into three categories: economic indicators, non-economic indicators and all-purpose indicators. In all, the authors listed 42 different indicators used to measure export performance: 23 economic, 14 non-economic and five all-purpose. However, only six of these seem to appear with any regularity: export sales figures, export sales growth, export profitability, the proportion of export sales, manager satisfaction with export activities, and manager perceptions of export performance (Hien et al., 2009).

Following the discussion by Hien et al., (2009), our discussion will focus on these, examining their use more closely. Export sales figures, remains the most widely used in the various studies, and appears to be the key indicator when only one is chosen to evaluate export performance (Calantone et al., 2006). This indicator provides information about a situation at a precise moment in time and is often coupled with export sales growth figures which allow the evolution of export sales to be integrated into export performance, thus providing a less static picture of the situation (Zou et al., 1998).

Another indicator is export profitability, which serves to evaluate the profits resulting from exports and expressed most often as a percentage of the total profit. The fourth indicator is the proportion of export sales, expressed as the ratio of export sales to total sales also called “export intensity”. The last two indicators are more subjective, relying on management judgment to evaluate export performance. The first of these subjective indicators targets the degree of manager satisfaction with export performance. According to White et al. (1998), the use of this indicator is coherent with “management by objective” and constitutes a pertinent measurement of export performance.
performance. The second, manager perceptions of export performance, has figured in many studies including those by Thirkell and Dau (1998); Zou et al. (1998) and Baldauf et al. (2000) as cited in Hien et al., 2009. Still, some authors (for review see Dominguez and Seiqueira, 1993; Katsikeas et al., 1996) have stressed the necessity of using a combination of objective and subjective measurements to evaluate export performance.

Finally, Zou et al. (1998) proposed the EXPERF tool for evaluating export performance which focused on three groups of performance measurements: financial performance, strategic performance and satisfaction with export performance. This theoretical perspective has been dominant in shaping variables and methodology in the study of export performance (Styles et al., 2008). Given the importance of this tool and its suitability for this study, EXPERF was adapted to evaluate the export performance of the companies considered in this study.

Drawing from Hien et al., (2009), this study is also utilizing the EXPERF tool to structure the research. Specifically, our questionnaire included the nine questions proposed by Zou et al., with answers along a Likert scale from 1 to 5, ranging from “disagree totally” to “agree totally”. The EXPERF tool for evaluating export performance FP- Financial Performance Export activities: FP 1: were profitable FP 2: generated a high volume of sales FP 3: grew rapidly SP- Strategic Performance Export activities: SP 1: increase our competitivity SP 2: reinforce our strategic position SP 3: increase our market shares ES- Satisfaction with Export ES- Satisfaction with Export Activities ES 1: export activities have proved satisfactory ES 2: export activities have been successful ES 3: export activities have satisfied our expectations.

3 METHODOLOGY

3.1 Research Design and Instrument

A quantitative methodology using a survey was conducted to collect data. This study’s survey was designed and sent out for the purpose of finding out what is going on with regards to factors that lead to the selection of Incoterms and its effect on export performance. The research population for this study was the manufacturing companies in Malaysia with exporting activities. The Federation of Malaysian Manufacturers (FMM) directory yielded a listing of 2517 manufacturers and a sample size of 335 manufacturers was chosen in accordance with the guideline provided by Sekaran (2003).

The main research instrument used in this study was a questionnaire. The questionnaire, designed to fulfill the research’s focus on incoterm selection factors and its effect on export performance consists of sections dealing with Incoterms chosen when exporting, selection factors and export performance. The questionnaire went through pilot testing and was subsequently modified which was then used to collect data.

As mentioned earlier, the present study is largely based on the work by Hien et al., (2009). In their research framework, the hypotheses that were used were grouped into two categories: 1) preliminary hypotheses (PH) and 2) working hypotheses (WH). Following the same foundation, this study’s hypotheses are presented in Table 2.

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>PH1</td>
<td>Companies that use Incoterms more frequently have a better export performance.</td>
</tr>
<tr>
<td>PH2</td>
<td>Companies with a greater knowledge of Incoterms have a better export performance.</td>
</tr>
<tr>
<td>PH3</td>
<td>Companies that accord more importance to Incoterms have a better export performance.</td>
</tr>
<tr>
<td>PH4</td>
<td>Companies that choose their own Incoterms have a better export performance than those that leave Incoterm choice to a third party.</td>
</tr>
<tr>
<td>WH1</td>
<td>Companies that take their international experience and that of their managers into consideration when selecting Incoterms have a better export performance than those that do not.</td>
</tr>
<tr>
<td>WH2</td>
<td>Companies that take shipment value into consideration when selecting Incoterms have a better export performance than those that do not.</td>
</tr>
<tr>
<td>WH3</td>
<td>Companies that base their choice of Incoterms on customary practice rather than environmental analysis have a worse export performance than those that take the pertinent environmental factors into account</td>
</tr>
<tr>
<td>WH4</td>
<td>Companies that take their financial resources (working capital) into consideration when selecting Incoterms have a better export performance than those that do not.</td>
</tr>
</tbody>
</table>
Companies that take client negotiating power into consideration when selecting Incoterms have a better export performance than those that do not.

Companies that take the chosen mode of transportation into consideration when selecting Incoterms have a better export performance than those that do not.

Companies that take their client’s characteristics into consideration when selecting Incoterms have a better export performance than those that do not.

Companies that take the risks inherent to the destination country into consideration when selecting Incoterms have a better export performance than those that do not.

Companies that take the competitive intensity in the destination country into consideration when selecting Incoterms have a better export performance than those that do not.

Companies that take the regulations of the destination country into consideration when selecting Incoterms have a better export performance than those that do not.

Companies that take pertinent environmental factors into consideration when selecting Incoterms have a better export performance than those that do not.

Reliability and Validity of Instruments

First, data analysis for this research was performed using the version 23 of the SPSS™ software. A Cronbach Alpha test was conducted to measure the reliability of our scales. The results are presented in Table 3. It is generally agreed that a Cronbach Alpha in the range of 0.600 to 0.700 is the minimum required to indicate a reliable construct and that the closer to 1.000 the result, the more it becomes reliable.

From Table 3, we find that for each category, the scales used show an excellent degree of internal consistency, greatly exceeding 0.600 and reaching 0.954 in the case of environmental factors and 0.950 for satisfaction with regard to export.

<table>
<thead>
<tr>
<th>Scales</th>
<th>Number of Elements</th>
<th>Cronbach Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Factors</td>
<td>19</td>
<td>0.954</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>3</td>
<td>0.828</td>
</tr>
<tr>
<td>Strategic Performance</td>
<td>3</td>
<td>0.843</td>
</tr>
<tr>
<td>Satisfaction with respect to Export</td>
<td>3</td>
<td>0.950</td>
</tr>
</tbody>
</table>

4 FINDINGS

In this study, 60 out of the 335 manufacturing companies to whom the questionnaires were sent completed the questionnaire, for a response rate of 17.9%. The number of respondents compares favourably with that reported in similar studies. It is interesting to note that we did not find any statistically significant difference related to company size in our results where majority of the companies have more than 100 employees (71.7%) but mostly belong to the private sector (88.3%). Most of the respondents (20.6%) come from the manufacturing sector, the others represent agriculture and forestry (19.5%), rubber and plastics (6.9%) and other sectors. Respondents are mostly young managers who have experience of 6 years and below (68.3%) in export activities and 31.7% possess between 6 and 20 years of experience. Respondents are relatively high in the hierarchy of their organizations. More than one quarter of the respondents is top managers, 21.7% are executives and 15.0% are assistant managers. Consistent with UNCTAD report that states that majority of the world trade is seaborne, majority of the respondents have chosen to deliver their cargo by ocean (43.6%), followed by land (29.3%), air (21.4%) and rail (5.5%). To find out whether the respondents have used the latest Incoterm version (Incoterms 2010), surprisingly, almost half of them was not sure whether they are using the latest Incoterm version. Only 31.7% confirms the use of the latest version while 20.0% are still using the older version of Incoterms. This findings also confirms the literature review that not all exporters and importers understand the nuances of Incoterms and this often leads to battles in the courts when dispute arise (Johnson, 2014).
Table 2 presents the hypotheses that were formulated for this study. Statistical analysis methods were used to test each of the successive hypotheses, beginning with the four preliminary hypotheses and ending with eleven working hypotheses.

Preliminary Hypotheses

There were four preliminary hypotheses used in this study. The following section presents all the preliminary hypotheses.

**Preliminary Hypothesis 1: Correlation between Incoterm use frequency and export performance**

The first preliminary hypothesis shown in Table 2 is as follows: “companies that use Incoterms more frequently have a better export performance.” Linking the average value of export performance to use frequency, it was found that there is no significant relationship (p=0.055, r=.249). In addition, the fact that use frequency does not seemed to be linked to financial performance and satisfaction with export activities. However, individual tests of the aspects of export performance indicates that strategic performance does seem to be connected where there seems to be a link between use frequency to increased competitiveness (p=0.03), reinforce strategic position (p=0.027) and increased market share (p=0.009). Thus, we can neither reject the hypothesis, nor conclude that companies who frequently use Incoterms have better export performance than those who do not.

**Preliminary Hypothesis 2: Correlation between Incoterm use Incoterm knowledge and export performance**

The second preliminary hypothesis is as follows: “companies with greater knowledge of Incoterms have a better export performance.” The average value of export performance are linked to the knowledge of Incoterms yielding a significant relationship (p=0.007, r=.348). Specifically, knowledge of Incoterms is linked to profitability (p=0.008), rapid financial growth (p=0.011) and increased competitiveness (p=0.05). Consequently, it seems that the second preliminary hypothesis can be validated, since it appears that companies that have a greater knowledge of Incoterms have a better export performance.

**Preliminary Hypothesis 3: Correlation between importance accorded to Incoterms and export performance**

The third preliminary hypothesis is stated as follows: “companies that accord more importance to Incoterms have a better export performance.” Overall export performance is significantly related to importance accorded to Incoterms (p=0.014). Numerous aspects of export performance are linked to importance accorded to incoterms. Specifically, seven of the nine aspects have a significant correlation, Profitability (p=0.041), rapid financial growth (p=0.035), increased competitiveness (p=0.001), reinforce strategic position (p=0.006), increase market share (p=0.009), satisfactory export activities (p=0.044) and export activities has satisfied expectation (p=0.043). Thus, it is possible to validate the third preliminary hypothesis, concluding that the companies that accord more importance to Incoterms have a better export performance.

**Preliminary Hypothesis 4: Correlation between who makes the Incoterm decision and export performance**

The fourth preliminary hypothesis states that “companies that choose their own incoterms have a better export performance than those that leave incoterm choice to a third party.” Like incoterm knowledge and importance accorded to incoterms, companies who chose incoterm for itself is significantly linked to overall export performance. Specifically, five of the nine aspects of export performance have a significant correlation. Profitability (p=0.011), increased competitiveness (p=0.025), satisfactory export activities (p=0.019), successful export activities (p=0.027) and export activities have satisfied expectations (p=0.05).

Consequently, the results of the statistical analysis allow the validation of the fourth preliminary hypothesis, highlighting the fact that companies that choose their own incoterms have a better export performance than those that leave Incoterm choice to a third party.

Working Hypotheses

There were eleven working hypotheses used in this study. The following section presents all the working hypotheses.

**Working Hypotheses 1 to 10: Correlation between environmental factors and export performance**

The first ten working hypotheses all concern the correlation between business environmental factors and export performance designed to determine whether companies that consider each environmental factors when selecting Incoterms have a better export performance than those who do not.

The statistical analysis shows that five of the ten environmental factors are linked to at least one aspect of export performance. Findings indicate that, in terms of overall performance, it is international experience (p=0.046), negotiating power of the client (p=0.006), chosen mode of transportation (p=0.028), competitive intensity (p=0.022) and regulations of the destination country (p=0.001) that are significantly correlated with export performance.

It would seem, then, that companies that consider international experience, negotiating power of the client, chosen mode of transportation, competitive intensity and regulations of the destination country when selecting incoterms have a better export performance than those that do not. The working hypotheses 1, 5, 6, 9 and 10 are thus validated while the working hypotheses 2, 3, 4, 7 and 8 are not.
Working Hypothesis 11: Correlation between average value of Environmental factors and export performance

This final working hypothesis, based on the average of the values for all of the environmental factors, is stated as follows: Companies that take pertinent environmental factors into consideration when selecting Incoterms have a better export performance than those that do not. An in-depth analysis shows there is a correlation between the consideration of environmental factors export performance (p=0.002) competitiveness (r=.397).

Consequently, this final hypothesis can also be validated and we can affirm that companies that take pertinent environmental factors into consideration when selecting Incoterms have a better export performance than those that do not.

5 DISCUSSION

Analysis of the preliminary hypotheses

As shown in the findings section, the last three preliminary hypotheses could be validated by statistical analysis. Clearly, Incoterm knowledge, the importance accorded to Incoterms and decision making site are all correlated to export performance, including both financial and strategic performance as well as manager satisfaction with export activities. The first preliminary hypothesis, however, could not be validated.

This result however, contradicts Hien et al., (2009) findings where they found that the first three preliminary hypotheses were validated whereas we could not confirm nor validate whether use frequency has significant link to export performance. There is no ready explanation for this. According to Johnson (2014), disagreement regarding who bears the risk of loss when an unanticipated calamity that leads to the total loss of an entire shipment of goods can result in a major dispute. Furthermore, there are times when businesspersons make decisions and enter into contracts under assumptions that prove to be false. And the individuals who negotiated the contract are replaced by new individuals who approach the relationship differently. “In any of these circumstances, and a host of others, the corporate parties can reach a point where their human representatives do not see eye to eye on allocation of risk. Each might strongly believe the other to be responsible by contract for some loss” (Johnson et al. 2014).

The second preliminary hypothesis posits that companies with a greater knowledge of Incoterms have a better export performance refers to the ability of export managers to choose Incoterms on their own. This validation is in line with Hien et al.’s (2009) where they suggest that companies with a greater knowledge of Incoterms tend to take environmental factors into account more when selecting Incoterms. Such consideration, as shown by the validation of WH11, constitutes a performance factor. Thus, a better understanding of the stakes and the factors to be considered tends to improve Incoterm choices and thus be positively correlated with companies’ export performance at all levels.

The third and fourth preliminary hypothesis, which validated the correlation between the importance accorded to Incoterms and decision making site, also seems to be connected to the overall export performance. Similar to Hien et al.’s (2009) findings, given that we have also shown that the importance accorded to Incoterms is positively correlated with export performance, we can also show that the better the knowledge of Incoterms, the more importance is accorded to them. However, in contradiction to Hien et al.’s (2009) finding concerning the fourth preliminary hypothesis, in this study we found out that that companies who make their own decision (decision making site) have better export performance than those who let third party make the Incoterm decision for them.

Analysis of the working hypotheses

As we have seen above, five of our eleven working hypotheses could be validated by statistical analysis. Thus, the relationship between export performance and international experience (WH1), client negotiating power (WH5), chosen mode of transportation (WH6), competitive intensity in the destination country (WH9) and regulations of the destination country (WH10) has been demonstrated. This is an addition where in Hien et al’s (2009) study, they have only managed to validate 4 working hypotheses while in this study, we have found out that the chosen mode of transportation is also significantly correlated with overall export performance. Clearly, which mode of transportation chosen plays a role in the consideration of environmental factors when selecting Incoterms and this also has a significant effect on overall export performance. This particularity can be partially explained by the preferences of export managers, who seem to favour the Incoterms FOB which is an Incoterm that belongs to the sea and inland waterway transport category. In addition, the validation of WH11 confirms the idea that companies that take the pertinent environmental factors into consideration when selecting Incoterms have a better export performance than those that do not.

According to Hien et al., (2009), taking international experience into account when selecting Incoterms affects export performance, not the experience in itself. In fact, in their study, they found no significant correlation appears to exist between a company’s export history and the consideration of environmental factors, indicating that what is important is not the number of years of export experience, but rather the act of taking this experience into account when selecting Incoterms. Thus, regardless of the number of years of export performance, taking this experience into account is a pertinent environmental factor that is positively correlated with export performance.

Interestingly, this is also in line with Johanson and Vahlne’s (1977) (as cited in Styles et al., 2008) early theory of internationalisation posit that “a firm began exporting process by forming relationships that will deliver ‘experiential knowledge’ about a market and then commit resources in accordance with the degree of experiential knowledge it progressively gains through these relationships.”
Finally, the validation of WH 11 allows us to respond adequately to the research question of this study by demonstrating that companies that take pertinent environmental factors into consideration when selecting Incoterms have a better export performance than those that do not. Similar to Hien et al.’s (2009) study, it does seem quite clear that considering environmental factors increases export performance financially, strategically and globally. This result is fundamental and underlines the complementarities of the various factors and the usefulness of analyzing the environment as a whole.

6 CONCLUSION

The objective of this study was to examine the impact of the environment on Incoterm choices and export performance. We have shown that considering pertinent environmental factors when selecting Incoterms is a factor that is positively correlated to export performance, which reflects management’s ability to understand the legal environment of the company. An important element of decision making in the field of international transportation, the choice of Incoterms appears to be also a key factor in the success of export activities.

In addition, we have shown the importance of approaching Incoterm selection systemically, considering the entire set of pertinent environmental factors jointly. Although international experience, client negotiating power and competitive intensity all correlate with export performance, the validation of WH 11, the keystone of this study, leads us to conclude that companies that consider environmental factors when selecting Incoterms have a better export performance, thus making Incoterms themselves, and by extension, Incoterm choice, a fundamental part of company strategy.

Furthermore, the tests of the preliminary hypotheses have shown that Incoterm use frequency, Incoterm knowledge, and the importance accorded to Incoterms are all positively correlated with export performance. Our research was limited by a certain number of elements which should be explained in order to judge the true value of our results and there were also several constraints related to our methodology. Although our use of the FMM database on a data that come only from Malaysia, whose registration process is strictly a voluntary one, does not seem to have lead to any major complications, the fact that export performance was evaluated by the managers themselves could have introduced a certain bias. It may have been better to adopt quantifiable operational measurements for each company, which would have allowed us to evaluate the export performance more objectively. However, time constraints and company reticence to provide quantifiable performance data were undeniable obstacles in this study.

Finally, it would be beneficial to compare other countries’ practices, analysing the differences in the use of this tool, while also verifying whether or not a correlation exists between Incoterm selection and export performance. Research into the different countries’ perceptions of the rules and their interpretation of the different Incoterms, examining the impact of culture on Incoterm selection, could also prove quite interesting. Studying the cultural aspects of the questions surrounding Incoterm use would also allow the texts of the International Chamber of Commerce to be improved by standardizing the understanding and application of these reference documents throughout the world.

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REFERENCES


