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**Explaining International New Venture Internationalisation:
An Innovation Adoption Model**

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Explaining International New Ventures: An Innovation Adoption Model.

The increasing prevalence of International New Ventures (INVs) during the past twenty years has been highlighted by numerous studies (Knight and Cavusgil, 1996, Moen, 2002). International New Ventures are firms, typically small to medium enterprises, that internationalise within six years of inception (Oviatt and McDougall, 1997). To date there has been no general consensus within the literature on a theoretical framework of internationalisation to explain the internationalisation process of INVs (Madsen and Servais, 1997). However, some researchers have suggested that the innovation diffusion model may provide a suitable theoretical framework (Chetty & Hamilton, 1996, Fan & Phan, 2007). The proposed model was based on the existing and well-established innovation diffusion theories drawn from consumer behaviour and internationalisation literature to explain the internationalisation process of INVs (Lim, Sharkey, and Kim, 1991, Reid, 1981, Robertson, 1971, Rogers, 1962, Wickramasekera and Oczkowski, 2006).

The results of this analysis indicated that the synthesised model of export adoption was effective in explaining the internationalisation process of INVs within the Queensland Food and Beverage Industry. Significantly the results of the analysis also indicated that features of the original I-models developed in the consumer behaviour literature, that had limited examination within the internationalisation literature were confirmed. This includes the ability of firms, or specifically decision-makers, to skip stages based on previous experience.

1. Introduction

An emerging theme in the internationalisation literature of late has been the extensive commentary on the presence of INVs, or Born Globals (Rialp, Rialp, Urbano, & Vaillant, 2005). The INV is characterised as being a Small to Medium sized Enterprise (SME) that internationalises its operations within a six year period after inception (Oviatt & McDougall, 1994, Oviatt & McDougall, 1997). Numerous studies have indicated that the rise of INVs is associated with high technology industries (Bell, 1995, Jones, 1999, Knight & Cavusgil, 1996, Oviatt & McDougall, 1994). In these industries the constant need for innovation and the rapid development of technology has been linked to the need for firms to internationalise in such a rapid fashion (Jones, 1999). However, evidence has emerged in the literature indicating that the rise of the INV may not be limited to the high-technology area and that they may even be found in more traditional industries (Chetty & Campbell-Hunt, 2004).

An even more significant issue relating to the existence of INVs is what theoretical framework is the most appropriate for explaining their existence (Madsen & Servais, 1997). There has been wide ranging debate over the internationalisation process of these firms and the relevance of existing established models of internationalisation in explaining the internationalisation process of INVs. Some authors have criticised the existing staged models due to the incremental sequential nature of these models (Knight & Cavusgil, 1996, Oviatt & McDougall, 1997). These criticisms have in turn been criticised due to the fact that they have not clearly differentiated between the key differences of the two main staged based approaches; the Uppsala Model and the Innovation Adoption Models. This limitation, which is inherent in many of the criticisms, has meant that by implication the more flexible Innovation Adoption Models have been pushed aside as a possible option for explaining INV internationalisation. There is however, evidence that these staged based models may provide a promising avenue for explaining INV internationalisation and are worth consideration (Chetty & Hamilton, 1996, Fan & Phan, 2007). Ultimately, many of these arguments remain inconclusive and today a clear theoretical framework for explaining INV internationalisation is still to be proposed.

2. Literature Review

The process of firm internationalisation and export development for many years has been widely accepted to be represented by two schools of thought: the Uppsala model (U-model) and the Innovation Adoption models (I-model) (Andersson and Wictor, 2003). The basic premise of both models is that they are highlighted by a varying degree of stages (Andersson and Wictor, 2003). These models are important in a number of respects. Within the internationalisation literature they are some of the most widely reported models, though a single unifying model is yet to emerge. For many firms, exporting is the most common mode of international market entry (Clark, Pugh, & Mallory, 1997) and these models have attempted to explain the process involved. In addition, exporting is the form of internationalisation favoured by governments in terms of the well established economic benefits that accrue to the country, regions and the firm (Department of Foreign Affairs and Trade, 2008). However, in recent years these models have been criticised for their inability to explain the internationalisation of born globals and INVs. In order to understand these emerging issues, and given the limitations imposed by the length of the paper only a review of the key I-Models will be presented below, followed by the emerging literature on INVs.

2.1 Innovation-Adoption Models

The Innovation-Adoption Models examined the process firms went through in adopting the innovative practice of exporting into the firm. Derived initially from the consumer behaviour school these models examined the sequences of stages firms went through in deciding to export. The following discussion will review the key Innovation Adoption models from the schools of consumer behaviour and internationalisation.

Although the initial work by Rogers was from consumer behaviour and did not directly consider the internationalisation process, it provided the conceptual framework for numerous other studies on the internationalisation literature. Rogers (1962) theory of Innovation Adoption is widely considered one of the first

major works to clearly define and explain the adoption process. Rogers argued that the adoption process was in essence a mental process of learning. Initially the individual, or adopting unit, hears about the innovation and then continues to receive various pieces of information regarding the innovation. From this point the individual makes numerous interrelated decisions regarding the new innovation and whether it should be adopted or not (Rogers, 1962). To effectively apply this conceptually, Rogers divided the adoption process into a five stage of awareness, interest, evaluation, trial and adoption. In developing this model however, Rogers clearly indicated that the adoption-process need not be a five stage process. It could be more or less, the number of stages in the sequence is based more on the usefulness that they provide explaining the process (Rogers, 1962).

In examining the adoption process, Rogers argued that adoption was not a type of impulse behaviour, but a behaviour that usually took time to complete. In reflecting on the model Rogers raised two additional salient points. Firstly, he highlighted that at any stage in the adoption model there is the possibility for rejection of the innovation, or simply not adopt. In the event that this was after final adoption it was indicated that this was a discontinuance. The second point Rogers highlighted was the ability to skip stages. This behaviour was typically seen by late adopters within the trial stage of the adoption process (Rogers, 1962).

The Robertson (1971) model also examined the adoption-process from the perspective of the marketing/consumer behaviour school. A key feature of overall model in comparison to many other Innovation Adoption models is the number of stages. Robertson's model consisted of eight stages that the consumer passed through to adopt an innovation. Robertson (1971) however highlighted that there is no specified number of stages a model should have. Importantly he suggested that the upper limit on the number of stages rely on the ability of the researcher to draw clear distinctions between the stages that reflect the real world. Although showing differences in the number and type of stages to the Rogers model (1962), two key similarities exist. Firstly, the ability for the consumer to skip

stages, the second similar feature is that the model allows for rejection to occur at any stage throughout the adoption process.

Reid developed a model of Innovation Adoption to highlight the export expansion process as a five-stage process of export awareness, intention, trial, evaluation and acceptance. In developing this model Reid indicated that it had to overcome two key limitations. Firstly, he indicated that the model must clearly distinguish its application between small and medium sized firms (SME's), and large firms. The basis of this is decision makers in SME's are less bound to structural arrangements that can be found in larger firms. Secondly, he highlighted that any study examining export-decisions had to play close attention to the role of the decision maker in the export expansion process. Elaborating on the model functionality Reid indicated that it was plausible that the stages could occur systematically. This point is in some ways similar to the argument put forward by Rogers (1962) that stages could be compressed together, the fact is they still occur. Ultimately in a conceptual sense either argument highlights the fact that the stages of I-models are not clearly defined in a sense where the movement from one stage to the next can be clearly indicated.

Lim, Sharkey, and Kim (1991) sought to establish the validity of the innovation adoption model by empirically testing a four stage model of export adoption (awareness, interest, intention and adoption). The model was developed through the integration of works from the schools of consumer behaviour Robertson (1971) and Harvey (1979), and international marketing Reid (1981). The synthesis of the models was important to allow for the key construct of interest that was omitted from the Reid (1981) model to be reintroduced. This accordingly provided a model that recognised the stage in which the managerial team became favourably disposed to the innovation of exporting. The four stages of the model are indicated in. One difference from Lim, Sharkey and Kim's model to the models of Reid (1981) and Robertson (1971) was the absence of the Trial stage. In this model the existence of a trial stage was acknowledged, however due to the difficulties in demonstrating a trial of exporting it was excluded from the study.

An important attribute of this model is the ability of firms to skip stages which is indicated by the possible movements from awareness to intention and adoption, and the additional movement from interest to adoption. This concept brought the model back into line with the original works of Rogers (1962) and Robertson (1971) by highlighting the possibility of circumventing stages (Leonidou & Katsikeas, 1996).

The study by Wickramasekera and Oczkowski (2006) added to the internationalisation literature by developing a scale to measure the internationalisation process of Australian wineries. A four stage synthesised model was developed for the purposes of the study utilising key I-models from the literature such as Robertson (1971), Bilkey and Tesar (1977), Cavusgil (1980), Reid (1981) and Schiffman and Kanuk (1991). The model excluded the stages representing de-internationalisation as proposed in the models by Czinkota (1982) and Crick (1995) due to the overall strength of Australian wineries in the international marketplace, and subsequently the low likelihood for firms to de-internationalise. Another major point about the model is the inclusion of the stage 'Trial' which was omitted from the model used by the study conducted by Lim, Sharkey, and Kim (1993). In line with calls from Sullivan (1994) the stages were measured through the use of multi-item scales. However, Sullivan's measures for internationalisation were not used as these measures would have provided a score of zero for non-exporting firms. Instead based on suggestions by Ramaswamy, Kroeck, and Renforth (1996) the use of psychometric measures were used. This also falls in line with the study conducted by Lim, Sharkey, and Kim (1991) in which the four stages of the export adoption model were measured using psychometric measures. The development of a scale to measure the degree of export development provided a clear and scientifically valid means of delineating between the stages of the theoretical I-model proposed in the study (Andersen, 1993) Further empirical testing of this scale also highlighted the validity of this scale in an operational sense (Andersen, 1993, Leonidou & Katsikeas, 1996). Despite this a key limitation of the study conducted by Wickramasekera and Oczkowski (2006) was the merging of the evaluation and trial stages into a singular stage. This meant that firms that were only conducting a mental

analysis of exporting were considered to have the same characteristics as firms that had commenced exporting and were learning from the process. This study overcomes this limitation by splitting the 'Trial' into two stages.

2.2 The International New Venture

To date the internationalisation process of the INV still lacks a widely accepted theoretical explanation (Moen, 2002, Rialp, Rialp, Urbano, & Vaillant, 2005). Despite the high level of empirical research into the area, no model has been identified as being capable of explaining the INV phenomenon (Rialp, Rialp, Urbano, & Vaillant, 2005). Major concerns have been highlighted in the literature regarding how the rapid internationalisation process of INVs is to be explained (Oviatt & McDougall, 1997). Numerous authors have criticised the existing established staged based approaches of internationalisation as failing to explain the internationalisation process of the INVs (Knight & Cavusgil, 1996, Oviatt & McDougall, 1994, Oviatt & McDougall, 1997). Knight and Cavusgil (1996) argued that the staged based approaches were too deterministic and did not consider the possibility of firms not following the stages. Oviatt and McDougall (1997) suggested that the incremental, risk averse, nature of the stage based approaches were unnecessary and did not accord with the rapid actions displayed by INVs.

The authors of both articles have effectively bundled the existing staged based approaches of internationalisation together without clearly differentiating between the unique differences between the models as was highlighted by Andersen (1993). More importantly the inability to clearly distinguish the differences between the U-model and the I-models of internationalisation has meant that features of the I-model in particular have been neglected (Wickramasekera & Oczkowski, 2006). The critiques put forward suggested that the staged based approach of the 'stage models' was deterministic, lacking flexibility due to the incremental sequential process. However, as was highlighted in the discussion on the original I-models developed by Rogers and Robertson the Innovation Adoption model is flexible. There is the ability to skip stages, particularly in the presence of prior knowledge by the decision maker. There is also the ability to compress the stages to different shorter time-frames (1993, Robertson, 1971,

Rogers, 1962). The studies by Lim, Sharkey, and Kim (1991) and Gankema, Snuif, and Zwart (2000) reiterated this point in the internationalisation literature.

The pattern of INV internationalisation has been shown to be inconsistent with the staged based approaches (Rialp, Rialp, Urbano, & Vaillant, 2005). These critiques have been limited in their ability to clearly distinguish and highlight the differences between the U-model and the I-model. This limitation has meant that critiques and criticisms centred at the U-model have by implication impacted upon the validity of the I-model. Accordingly, numerous salient features of the I-model have been disregarded. There have been suggestions however that firms may follow an evolutionary, staged based, process to internationalisation (Chetty & Hamilton, 1996, Fan & Phan, 2007, Rialp, Rialp, Urbano, & Vaillant, 2005). Furthermore there have been calls to examine how staged based internationalisation models can explain the internationalisation process, opposed to simply stating that they are outdated (Fan & Phan, 2007).

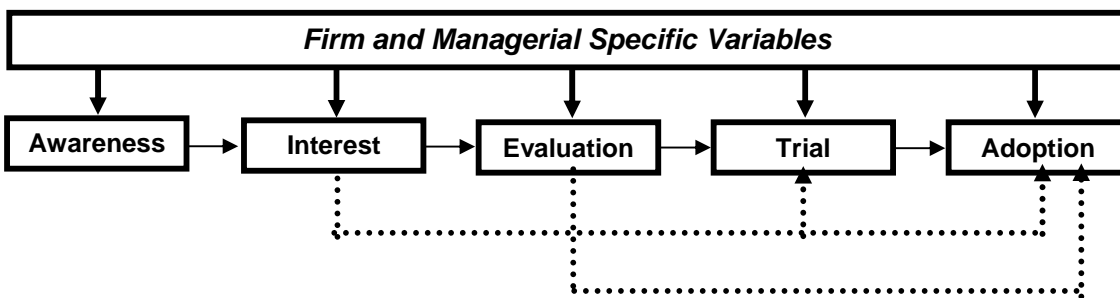
2.3 Proposed Model of Export Adoption

A five stage synthesised model of export adoption was developed through a synthesis of the key innovation adoption models (I-models) from the consumer behaviour and internationalisation schools. Although the models from internationalisation school have advanced our understanding of the internationalisation process, they have been limited by their lack of inclusion of some key concepts of the I-model consistently in all models. Through combining the ideas of both schools of thought the richness of the model itself can be improved, in particular to ensuring the salient features of the initial I-model are not neglected in a re-evaluation. The form of the model itself is a full reflection of the model proposed by Rogers (1962) in terms of the stages used. The model also is similar to the one proposed by Wickramasekera and Oczkowski (2006) however it includes the key stage 'evaluation' which was excluded from the model.

The definitions for the five stages are provided below:

- Awareness: Adoption unit is aware of exporting as an opportunity; however lack motivation to pursue further at this stage (Lim, Sharkey, & Kim, 1991, Rogers, 1962, Wickramasekera & Oczkowski, 2006).
- Interest: Adoption unit has a positive disposition towards exporting (Lim, Sharkey, & Kim, 1991, Robertson, 1971, Rogers, 1962)
- Evaluation: The adoption unit undertakes a mental trial of exporting to determine possible benefits before committing to a actual trial (Robertson, 1971, Rogers, 1962).
- Trial: The firm exports on a small scale to determine the benefits of exporting (Reid, 1981, Robertson, 1971, Rogers, 1962).
- Adoption: Adoption unit views exporting favourably and continues to export (Reid, 1981, Rogers, 1962, Wickramasekera & Oczkowski, 2006)

Figure 1: A five stage synthesised Model of Export Adoption



(Lim, Sharkey, & Kim, 1991, Reid, 1981, Robertson, 1971, Rogers, 1962, Wickramasekera & Oczkowski, 2006)

The dotted lines in the model (Figure 1) indicate the ability for the firm to skip stages as was highlighted in the seminal models developed by Rogers (1962) and Robertson (1971) and also shown in the study conducted by (Lim, Sharkey, & Kim, 1991).

3. The Sampling Framework

The population of this study included all SME's within Queensland Food and Beverage Industry (QFBI). Although there have been studies that have examined internationalisation in the Food and Beverage Industry (Philp, 1998). A

review of the extant literature suggests that this is one of the first studies to conduct an in depth examination of firm internationalisation in the QFBI. Surprisingly, most of this success has been achieved by the overwhelmingly large number of small to medium sized enterprises that are operating within the industry (Department of State Development, 2007). The selection of this industry was important for numerous reasons. Foremost, it is a traditional industry that has played a significant role in contributing to the export success of the Queensland economy. The industry has a high proportion of SME's that are responsible for most of the exports.

This study will specifically examine the internationalisation behaviour in terms of export development. Accordingly, this study does not consider other possible modes of market expansion available to the firm (Leonidou & Katsikeas, 1996). However, focusing on exporting and the development process does allow for richer insights, into what processes firms go through when deciding to export (Bilkey, 1978, Leonidou & Katsikeas, 1996).

In addition to the reasons cited above, the QFBI was chosen as it operates within a relatively homogenous economic and political environment enabling a degree of experimental control. A recent Austrade report also highlighted a higher incidence of INVs in this industry in comparison to other industries (Austrade, 2002).

4. Methodology

The design of this research corresponded with calls from Fan & Phan (2007) to examine how the existing stage models of firm internationalisation can explain the internationalisation process of INVs. This study examined the impact that a range of Independent variables identified in the literature had on the proposed model of Export Adoption. To do this the study used a two stage research approach (Creswell, 2003). Firstly quantitative data was collected using a questionnaire (survey instrument) developed from existing scales in the internationalisation literature, and then qualitative data was collected using interviews. This process effectively allowed for statistical significance to be highlighted, whilst allowing for a phenomenon of internationalisation to be explained and understood in greater detail (Creswell, 2003). This strategy was invaluable in this study as it allowed for firms to be

classified into the stages of the I-model, whilst the qualitative component was able to highlight the transition of firms through the stages. Specifically, this study used a questionnaire (survey instrument) and interviews to highlight the proposed export development process (Liamputtong & Ezzy, 2005, Saunders, Lewis, & Thornhill, 2003). The unit of analysis in this study was the manager or the managerial team, and specifically the manager that was most responsible for the decision to export or to make marketing decisions (Liamputtong & Ezzy, 2005). The study utilised the key informant technique to assist in the selection of individuals to participate in the study. The use of key informants has been highlighted as being an effective means of gaining representative views from the decision making units of firms (Mitchell, 1994, Seidler, 1974).

A database of 702 firms was established from a combination of sources including: the Queensland Food Manufacturer Directory (Department of State Development, 2007), The Australian Suppliers Directory (Austrade, 2007), the Queensland Wineries and Regions List (Tourism Fair Trading and Wine Industry Development, 2006) and a general internet search for Food and Beverage firms. Data from the Australian Bureau of Statistics indicated that the current population of firms for the industry codes was approximately 1,000 (Australian Bureau of Statistics., 2007). However, despite all reasonable attempts this number was not obtained in the process of database development. The inability to reach the desired sample size can in part be attributed to the large number of firms that were no longer in operation. It could also be associated to the bias some of these sources have for certain producers such as exporting firms. All firms were contacted in December 2007 to participate in the study 253 firms agreed to participate in the study, 334 declined and 114 were unreachable or had shutdown. After three progressive mail outs via email and mail a total of 79 useable responses were received. This provided a response rate of 11.25%. Mail and for that matter email surveys have been criticised for being subject to non-response bias (Armstrong & Overton, 1977). To reduce the impact of non-response bias the extrapolation method was used to check for potential bias. In-depth interviews were conducted with key informants from firms that were identified as

being INVs, or had the potential to be INVs (Liamputtong & Ezzy, 2005, Mitchell, 1994). Purposive sampling was used to select these firms (Saunders, Lewis, & Thornhill, 2003).

5. Findings and Discussion

5.1 Model Analysis

Due to the limited number of respondents a Binary Logistic Regression analysis was utilised in this analysis to provide an effective means of examining and predicting a firm's exporting status. Specifically, the use of this form of analysis allowed for the development of a model that could estimate the probability of a firm being an 'Exporter' or a 'Non-Exporter'. Admittedly this analysis shifted beyond the initial scope of this study to test the theory of export adoption. Alternately it provided a means of identifying the best set of predictors for examining the decision to export. Nevertheless the results of this analysis, and particularly the misclassifications, provided indirect support for the proposed model developed in this study. In addition, the lack of time-series data was partially overcome in this analysis with the use of follow up interviews as suggested by Calof and Beamish (1995).

The final model developed for this study is seen to achieve the central criteria of model development as outlined by Hosmer and Lemeshow (2000). That is "the goal of any method of model development is to select those variables that result in a 'best' model within the scientific context of the problem". In saying this, the development of the model in this study had to strike a balance between two key goals. On one hand the model had to be parsimonious and succinct, and on the other hand it had to be theoretically plausible (Hosmer & Lemeshow, 1989). In any case the objective of this study was not to specifically create a model that would be the best model of predicting exporting. The objective was to explain INV internationalisation with the five stage export development model. Accordingly the model was designed to be simple, whilst still being rich from a theoretical standpoint. Rigorous testing of model fit was conducted using the Likelihood Ratio Test (-2LL), however this test removed numerous variables that

accounted for a high degree of the model's theoretical richness. The retention of these variables has been indicated as an acceptable practice by Hosmer and Lemeshow (2000) due to the theoretical importance they held.

The final model was capable of predicting the overall probability that a firm was an 'Exporter' or a 'Non-Exporter' with an 84.8 percent success rate. This was an improvement from the proposed model which lacked the independent variables that managed to predict overall exporting status with a 59.5 percent success rate. The model was found to be valid with a Chi-Square value of 52.3 that was shown to be highly significant at 0.000 with 9 degrees of freedom (Hair, 2006). Similarly, the results of the Hosmer and Lemeshow Goodness of Fit Test indicated that the model had an overall good fit with a Chi-Square value of 4.525 found to be non-significant at 0.807 (Tabachnick & Fidell, 2007). The Classification Histogram of Observed Groups and Predicted Probabilities, shown in Figure 2, shows a relatively good concentration of firms at both poles, although it would appear that there is an emphasis on the ability of predicting exporters. Equally important are the results of the Classification Table of Observed Groups and Predicted Probabilities (Table 1). The results indicate that the final model only misclassified 12 firms in total.

Figure 2: Classification Histogram of Observed Groups and Predicted Probabilities

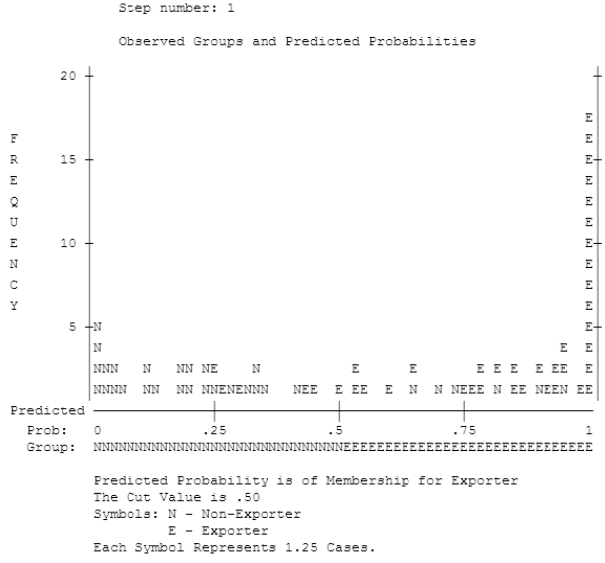


Table 1: Classification Table of Observed Groups and Predicted Probabilities

Observed			Predicted		
			Exporting Status		Percentage Correct
			Non-Exporter	Exporter	
Step 1	Exporting Status	Non-Exporter	26	6	81.3
		Exporter	6	41	87.2
		Overall Percentage			84.8

a The cut value is .500

Although the final results could not directly provide support for the proposed stage model of export adoption, the use of follow up interviews on misclassified firms from the logit model and selection of INVs/potential INVs from the initial dataset did provide an avenue to evaluate the research propositions. The following will examine the Export Development Process of a group of such firms. This discussion will examine their internationalisation process by comparing their internationalisation experiences (drawn from the questionnaire and follow up interviews) against the Export Adoption model proposed in this article. Where firms were misclassified by the logistic regression analysis, the results of the questionnaire and interview will be used to provide insights into why this occurred. The aim of this section is to report on the evaluation of the research propositions for study.

5.2 Is there evidence of INVs in the QFBI?

The results of this research indicate that there are INVs within the QFBI. The results relating to the length of time that firms had been in the Industry were compared against the synthesised 5 stage model of export adoption. Out of the 79 firms that participated in this study, 5 of these indicated that they had fully adopted exporting within a six year period of start up. Based on the definition utilised in this study, and in the INV literature (Oviatt & McDougall, 1997, Wickramasekera & Bamberly, 2003), these firms could be classified as INVs. Importantly, this finding provides support for the notion that the existence of INVs is not strictly limited to the high technology sector as has been cited in the extant literature (Bell, 1995, Jones, 1999, Knight & Cavusgil, 1996, Oviatt & McDougall, 1994). The

QFBI is a traditional industry; therefore the discovery of firms in this industry provides further evidence that the INV phenomenon is not limited to any industry type.

5.3 Is there an emerging tendency for firms in the (QLD) Food and Beverage Industry to be INVs

The results of the interviews conducted for this study highlighted that rapid internationalisation is occurring in the QFBI. The drivers to this trend in the industry would appear to be linked to two key drivers. Firstly, the need to diversify from the Australian market to spread risk:

Exporting allows us to diversify our client base and to reduce risk, and to expose us to more growth

Secondly, the characteristics of the products produced by the firms in terms of quality and cost:

We produce high quality boutique wine...it's hard to get...we only product 6,000 cases

These results are consistent with the literature examining the INV phenomenon, that highlights the fact that unique and innovative products are a major factor driving internationalisation (Madsen & Servais, 1997). Another significant point that arose in the interviews that supported the notion that firms will internationalise quickly was that one informant stressed the fact that the industry is globally oriented. The globalisation of industries is a factor that has been highlighted as being a key driver to the existence of INVs in the literature (Knight & Cavusgil, 1996, Rialp, Rialp, Urbano, & Vaillant, 2005). Bearing this in mind this factor may continue to play an important role in driving rapid international expansion in the industry in the coming years. Finally, the fact that in many cases the decision to export stemmed from firms being approached to export goods relatively soon after start up could indicate that this trend may be set to continue.

5.4 Is the internationalisation of INVs consistent with the Proposed Innovation Adoption model of Export Development?

In all the interviews conducted it was possible to see that firms did progress through a staged based approach to internationalisation as was outlined in the synthesised model of export development (Lim, Sharkey, & Kim, 1991,

Rogers, 1962). All firms that were examined were 'Aware' of exporting, and for that matter 'Interested' as well. The decision to export did occur in line with an 'Evaluation' of the potential benefits and costs of exporting (Rogers, 1962). This was considered from a general overview of exporting, to a specific 'Evaluation' of export markets. Finally, there was support for a 'Trial' of exporting, however this 'Trial' stage was unnecessary in two cases due to the informant having prior experience:

My background so it was important that I already had experience in exporting so we didn't hesitate. It's not like we had to worry and do years of research and get the right business partners...it was a no brainier I knew how to get shipping companies to load goods on a container and how to insure them and do all the paperwork

This in itself provided an additional finding that was extremely significant to this research which was firms do have the ability to skip stages. The idea of skipping stages was outlined in the seminal works of Rogers (1962) and Robertson (1971).

The main objective of this research was to find an appropriate theoretical framework to explain the internationalisation process of INVs. In the past the literature indicated that stage models were incapable of explaining the existence of INVs (Knight & Cavusgil, 1996, Oviatt & McDougall, 1994, Oviatt & McDougall, 1997). This was due to the supposed deterministic incremental nature of the models that lended resulted in the firm internationalising in a slow gradual manner long after being established in the domestic market (Andersson & Wictor, 2003, Chetty & Campbell-Hunt, 2004, Rialp, Rialp, Urbano, & Vaillant, 2005). However, in formulating these arguments many scholars argued against the U-model, and by implication their comments impacted upon the I-model. This was without any consideration of the key salient features of the I-model that set it apart from the U-model (Wickramasekera & Oczkowski, 2004).

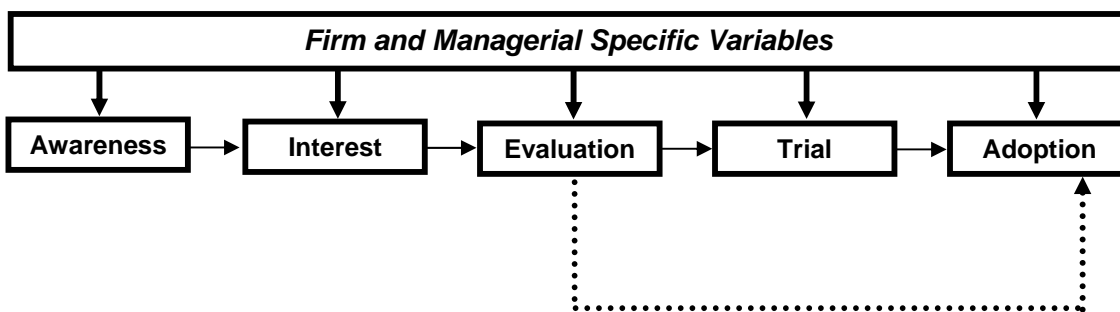
The I-model is not bounded by a need to follow stages or a deterministic incremental sequential pattern. In the seminal work conducted by Robertson (1971) he indicated that in the Innovation Adoption process there was no

specified sequence of stages that had to be followed. Earlier Rogers (1962) indicated that the decision-maker could skip stages. These features clearly highlight that the I-model does not have the deterministic structured design that made it incapable of explaining rapid internationalisation. The existing models of export development advanced our understanding of firm internationalisation. However, they were limited however by the fact that not all of the models incorporated the dynamic nature of the Innovation Adoption Models. Accordingly, this study re-evaluated the models of export development to develop a synthesised model of export development that highlighted the richness of the original models.

In reflecting on the results of this study, although the data from the questionnaires could not be used to directly test the synthesised model of export adoption, the responses obtained from the interviews based on misclassified firms from the logit model and INVs/Potential INVs did provide strong support for the case that firm internationalisation could be explained by the proposed model. Generally the firms did move through the stages of the synthesised model of export adoption (Lim, Sharkey, & Kim, 1991, Reid, 1981, Robertson, 1971, Rogers, 1962). All firms interviewed were 'Aware' of exporting at one point in their establishment, however lacked the 'Interest' to seek more information (Lim, Sharkey, & Kim, 1991, Rogers, 1962). The fact that some firms classified themselves as 'Interested' in exporting indicates that firms do shift from 'Awareness' to 'Interest' before conducting a proper 'Evaluation' of exporting (Lim, Sharkey, & Kim, 1991, Robertson, 1971, Rogers, 1962, Wickramasekera & Oczkowski, 2006). All firms interviewed indicated at some point they sought information relating to exporting to 'Evaluate' what was involved (Robertson, 1971, Rogers, 1962). Such avenues for this information included seminars, Austrade, contacts in the Government, potential customers or information off the Internet. In some instances firms indicated that they exported on a limited scale to allow them to determine the benefits of exporting, much like a 'Trial'. Although in two cases there was a digression from this stage straight to 'Adoption' of exporting. This confirmed one of the proposed paths for stage skipping illustrated in Figure 3. The ability of the firms to skip stages in both instances was made possible through the key informant's previous experiences (Robertson, 1971,

Rogers, 1962). The fact that there was evidence of skipping stages reiterates the point that the I-model is dynamic where the decision maker is not bounded by the need to develop in an incremental sequential manner (Robertson, 1971, Rogers, 1962).

Figure 3: Evidence of Stage Skipping in Synthesised Model



Overall, based on the interview results, it is apparent that the internationalisation of INVs in the QFBI is consistent with the synthesised Innovation Adoption Model of Export Development.

The results of this analysis clearly indicated that the synthesised Innovation Adoption Model presents itself as a likely solution for explaining the rapid internationalisation of INVs. The model was shown not to be limited by the deterministic incremental sequential aspects in explaining the internationalisation process of INVs, as has been suggested in the literature (Knight & Cavusgil, 1996, Oviatt & McDougall, 1994, Oviatt & McDougall, 1997). Instead, the results of this analysis indicated that the model could be quite flexible as it can adapt to the experiences of the decision maker as was initially postulated in the Innovation Adoption models developed by Rogers (1962) and Robertson (1971). From a broader perspective the model was also quite effective for explaining other cases where firms did not hold the prior experiences. Therefore based on the results of this analysis it can be concluded that the synthesised five stages Innovation Adoption Model of Export Development presented in this study could be an appropriate theoretical framework for explaining the INV internationalisation process.

6. Conclusion

The literature on INV internationalisation has suggested that the stage models are incapable of explaining the internationalisation of INVs due to the incremental sequential nature of the model. This research has shown that the I-model is not bound by the limitations indicated within the literature and can accordingly be used as an effective theoretically grounded framework for explaining the internationalisation process of INVs.

This study focuses on the QFBI. Despite the numerous benefits obtained from focusing on this single industry, it does affect the generalisability of the results. Accordingly the result of this analysis has limited applicability to other industries.

Ideally it would have been beneficial to examine the export development model using a technique such as Structural Equation Modelling (SEM) as it explicitly recognises measurement error and allows for the simultaneous examination of all relationships in the model (Tabachnick & Fidell, 2007). This would have provided more conclusive statistical evidence that firms do move through the five stages of the synthesised model.

The scope of this study has been specifically to consider market expansion of SMEs in terms of exporting due to the theoretical and economic benefits associated with exports. However, the specific focus on the mode of exporting has meant that this study has not considered other possible international entry modes available to the firm (Calof & Beamish, 1995) and the model has limitations in explaining the internationalisation of large firms.

References

- Andersen, Otto. 1993. On the Internationalization Process of Firms: A Critical Analysis. *Journal of International Business Studies*, 24(2): 209-51.
- Andersson, Svante & Ingemar Wictor. 2003. Innovative Internationalisation in New firms: Born Globals-the Swedish Case. *Journal of International Entrepreneurship*, 1(3): 249-75.
- Armstrong, J. Scott & Terry S. Overton. 1977. Estimating Non-response Bias in Mail Surveys. *Journal of Marketing Research*, 14(3): 396-402.
- Austrade. 2007. Australian Suppliers Directory. <http://www.austrade.com> (accessed July 25, 2007).
- Austrade. 2002. Knowing and Growing the Exporter Community. <http://www.austrade.com> (accessed May 12, 2007).
- Australian Bureau of Statistics. 2007. Counts of Australian businesses, including entries and exits, Australia June to June: Australian Bureau of Statistics. <http://www.abs.gov.au/ausstats/abs@.nsf/cat/8165.0> (accessed April 23, 2008).
- Bell, Jim. 1995. The Internationalization of Small Computer Software Firms: A Further Challenge to "Stage" Theories. *European Journal of Marketing*, 29(8): 60-75.
- Bilkey, Warren J. 1978. An Attempted Integration of the Literature on the Export Behaviour of Firms. *Journal of International Business Studies*, 9(1): 33-46.
- Bilkey, Warren J. & George Tesar. 1977. The Export Behavior of Smaller-sized Wisconsin Manufacturing Firms. *Journal of International Business Studies*, 8(1): 93-99.
- Calof, Jonathan L. & Paul W. Beamish. 1995. Adapting to Foreign Markets: Explaining internationalization. *International Business Review*, 4(2): 115-31.
- Cavusgil, S. Tamer. 1980. On the Internationalisation Process of Firms. *European Research*, 8(6): 273-81.

Chetty, Sylvie & Colin Campbell-Hunt. 2004. A Strategic Approach to Internationalization: A Traditional Versus a "Born-Global" Approach. *Journal of International Marketing*, 12(1): 57-81.

Chetty, Sylvie K. & R. T. Hamilton. 1996. The Process of Exporting in Owner-controlled Firms. *International Small Business Journal*, 14(2): 12-25.

Clark, Timothy, Derek S. Pugh, & Geoff Mallory. 1997. The Process of Internationalization in the Operating Firm. *International Business Review*, 6(6): 605-23.

Creswell, John W. 2003. *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*. 2nd ed. California: Sage Publications.

Crick, Dave. 1995. An Investigation into the Targeting of UK Export Assistance. *European Journal of Marketing*, 29(8): 76-94.

Czinkota, Michael R. 1982. *Export Development Strategies: U.S. Promotion Policy*. New York: Praeger.

Department of State Development. 2007. *Food Processing and Supply: Department of State Development*. http://www.sd.qld.gov.au/dsdweb/v3/guis/templates/content/gui_cue_cntnhtml.cfm?id=1092 (accessed April 20, 2007).

Fan, Terence & Phillip Phan. 2007. International New Ventures: Revisiting the Influences Behind the 'Born-global' Firm. *Journal of International Business Studies*, 38(7): 1113-31.

Gankema, Harold G. J., Henoch R. Snuif, & Peter S. Zwart. 2000. The Internationalization Process of Small and Medium-sized Enterprises: An Evaluation of Stage Theory. *Journal of Small Business Management*, 38(4): 15-27.

Hair, Joseph F. 2006. *Multivariate Data Analysis*. 6th ed. Upper Saddle River, N.J.: Pearson Prentice Hall.

Harvey, James W. 1979. Evaluative Conflict and Information Search in the Adoption Process. *Advances in Consumer Research*, 6: 209-13.

Hosmer, David W. & Stanley Lemeshow. 2000. *Applied Logistic Regression*. 2nd ed. New York: Wiley.

Hosmer, David W. & Stanley Lemeshow. 1989. *Applied Logistic Regression*. New York: Wiley.

- Johanson, Jan & Jan-Erik Vahlne. 2003. Business Relationship Learning and Commitment in the Internationalization Process. *Journal of International Entrepreneurship*, 1(1): 83-101.
- Johanson, Jan & Jan-Erik Vahlne. 1977. The Internationalization Process of the Firm: A Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of International Business Studies* 8(1): 23-32.
- Johanson, Jan & Jan-Erik Vahlne. 1990. The Mechanism of Internationalisation. *International Marketing Review*, 7(4): 11-24.
- Jones, Marian V. 1999. The Internationalization of Small High-Technology Firms. *Journal of International Marketing*, 7(4): 15-41.
- Knight, Gary A. & S. Tamer Cavusgil. 1996. The Born Global Firm: A Challenge to Traditional Internationalization Theory. *Advances in International Marketing*, 8: 11-26.
- Leonidou, Leonidas C. & Constantine S. Katsikeas. 1996. The Export Development Process: An Integrative Review of Empirical Models. *Journal of International Business Studies*, 27(3): 517-50.
- Liamputtong, Pranee & Douglas Ezzy. 2005. *Qualitative Research Methods*. 2nd ed. South Melbourne: Oxford University Press.
- Lim, Jeen-Su, Thomas W. Sharkey, & Ken I. Kim. 1993. Determinants of International Marketing Strategy. *Management International Review*, 33(2): 103-20.
- Lim, Jeen-Su, Thomas W. Sharkey, & Ken I. Kim. 1991. An Empirical Test of an Export Adoption Model. *Management International Review*, 31(1): 51-61.
- Madsen, Tage Koed & Per Servais. 1997. The Internationalization of Born Globals: An Evolutionary Process? *International Business Review*, 6(6): 561-83.
- Mitchell, Vincent-Wayne. 1994. Using Industrial Key Informants: Some Guidelines. *Journal of the Market Research Society*, 36(2): 139-45.
- Moen, Øystein. 2002. The Born Globals: A New Generation of Small European Exporters. *International Marketing Review*, 19(2/3): 156-75.

- Oviatt, Benjamin M & Patricia Phillips McDougall. 1994. Toward a Theory of International New Ventures. *Journal of International Business Studies*, 25(1): 45-64.
- Oviatt, Benjamin M. & Patricia Phillips McDougall. 1997. Challenges for Internationalization Process Theory: The Case of International New Ventures. *Management International Review*, 37(2): 85-99.
- Philp, Norman E. 1998. The Export Propensity of the Very Small Enterprise (VSE). *International Small Business Journal*, 16(4): 79-93.
- Ramaswamy, Kannan, K. Galen Kroeck, & William Renforth. 1996. Measuring the Degree of Internationalization of a Firm: A Comment. *Journal of International Business Studies*, 27(1): 167-177.
- Rialp, Alex, Josep Rialp, David Urbano, & Yancy Vaillant. 2005. The Born-Global Phenomenon: A Comparative Case Study Research. *Journal of International Entrepreneurship*, 3(2): 133-71.
- Reid, Stan D. 1981. The Decision-Maker and Export Entry and Expansion. *Journal of International Business Studies*, 12(2): 101-12.
- Robertson, Thomas S. 1971. *Innovative Behavior and Communication*. London: Holt, Rinehart and Winston.
- Rogers, Everett M. 1962. *Diffusion of Innovations*. New York: Free Press of Glencoe.
- Saunders, Mark, Philip Lewis, & Adrian Thornhill. 2003. *Research Methods for Business Students*. 3rd ed. London: Prentice Hall.
- Schiffman, Leon G & Leslie Lazar Kanuk. 1991. *Consumer Behaviour*. 4th ed. New Jersey: Prentice-Hall.
- Seidler, John. 1974. On Using Informants: A Technique for Collecting Quantitative Data and Controlling Measurement Error in Organization Analysis. *American Sociological Review*, 39(6): 816-31.
- Steen, John T. & Peter W. Liesch. 2007. A Note on Penrosean Growth, Resource Bundles and the Uppsala Model of Internationalisation. *Management International Review*, 47(2): 193-206.
- Sullivan, Daniel. 1994. Measuring the Degree of Internationalization of a Firm. *Journal of International Business Studies*, 25(2): 325-342.

Tabachnick, Barbara G. & Linda S. Fidell. 2007. *Using Multivariate Statistics*. 5th ed. Boston: Pearson/Allyn & Bacon.

Tourism Fair Trading and Wine Industry Development. 2006. *Queensland Wineries and Regions: Tourism, Fair Trading and Wine Industry Development*. <http://www.dftwid.qld.gov.au/wine/Wineries+and+Regions> (accessed June 20, 2007).

Tourism Regional Development and Industry. 2008. *Food Industry Development Overview*. http://www.dtrdi.qld.gov.au/dsdweb/v3/guis/templates/content/gui_cue_cntnhtml.cfm?id=2244 (accessed July 03, 2007).

Wickramasekera, Rumintha & Geoff Bamberly. 2003. Exploration of Born Globals/International New Ventures: Some Evidence from the Australian Wine Industry. *Australasian Journal of Regional Studies*, 9(2): 207-20.

Wickramasekera, Rumintha & Edward Oczkowski. 2004. Key Determinants of the Stage of Internationalisation of Australian Wineries. *Asia Pacific Journal of Management*, 21(4): 425-44.

Wickramasekera, Rumintha & Edward Oczkowski. 2006. Stage Models Re-visited: A Measure of the Stage of Internationalisation of a Firm. *Management International Review*, 46(1): 39-56.