

Does the firm size matter on firm entrepreneurship and performance? U.S. Apparel Import Intermediary Case

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Abstract

Purpose – The purpose of this study was to investigate whether the relationship between firm entrepreneurship and performance is dependent upon firm size within a small- and medium-size enterprise (SME) population, using non-manufacturing, industry-specific empirical data.

Design/methodology/approach – Survey methodology was employed, using a national sample of U.S. apparel import intermediary (AII) SMEs. Regression analysis was performed to determine the type of the moderator variable, firm size, and to test statistical significance of the firm size effect on the relationship between firm entrepreneurship and performance measures.

Findings – The study's results suggested that the firm size effect was present on the relationship between firm entrepreneurship and SMEs' longevity performance; however, there was no statistical significance of the firm size effect on the relationship between firm entrepreneurship and SMEs' creative contribution or profitability performance.

Research limitations/implications – Although the study results were based on randomly selected nation-wide surveys, the findings should be viewed as industry- and time-specific; generalization to a larger population, or to other firms, must be undertaken with caution.

Practical implications – These findings help to recognize and understand the heterogeneity of the relationship between firm entrepreneurship and performance even within a population of SMEs. Therefore, the results suggest that AII SME managers should put different emphasis on firm entrepreneurship, depending upon specific goals and the firm size.

Originality/value – The study shows that different approaches to SME entrepreneurship research are needed to recognize diversity within an SME population. The study also supports that performance measures are not necessarily correlated, thus justification of selection is critical.

Keywords: Entrepreneurship, Firm size, Performance, Import Intermediary, The Apparel Industry, SME.

Paper type Research paper

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Introduction

Firm entrepreneurship has been widely discussed as an important strategic element for various firm operations. It has long been shown to play a significant role in firms' competitiveness, revitalization, and superior performance (Covin and Miles, 1999; McKinney and McKinney, 1989; Schollhammer, 1982; Zahra, 1991; Zahra and Covin, 1995) in developed economies as well as in transition economies (Antonicic, 2006; Antonicic and Hisrich, 2000). Particularly, firm entrepreneurship has actively been sought as a potentially viable means for higher firm performance by small- and medium-size enterprise (SME) researchers, resulting in SME entrepreneurship research stream (Ackelsberg, 1985; Covin and Slevin, 1989; Miller and Toulouse, 1986).

Due to the relative lack of resources and limited network capabilities of SMEs, research shows that SMEs tend to face a greater uncertainty toward external environment than large firms and, thus, the tendency to innovate products and services is higher in order to sustain continuous evolution and changes (Garengo et al., 2005). However, most empirical findings on SME entrepreneurship research have not considered possible heterogeneity – specifically various firm sizes – within an SME population, generating an oversimplified view of SME business operations (Ackelsberg, 1985; Covin and Slevin, 1999; Garengo et al., 2005). This calls for an important research question regarding whether all sizes of SMEs perform the same level of entrepreneurship and obtain the same degree of performance. In other words, will there be any differences in the impact of

firm entrepreneurship on their performance between micro, small-size, and middle-size firms within an SME population?

In addition to lacking understanding of possible firm size effect on SME entrepreneurship, much SME research uses a mix of various performance measures primarily used for large firms without particular justification of why those measures were used (Murphy et al., 1996). Furthermore, by reporting the performance results in the aggregate level of various performance measures, the findings on a specific performance measure often overlook or misrepresent reality. This research trend set forth another important question regarding whether performance measures used for large firms, such as profits, sales, and growth rates, are equally relevant and effective to evaluate SME performance. If these measures are not, what type of performance measures are important for a certain population of SMEs and how much do each of these new performance measures impact various-sized firms within an SME population?

To respond to these critical questions, the study surveyed a national sample of U.S. apparel import intermediary (AII) firms asking the degree of each firm's entrepreneurship and specific performance outcomes that were found to be significant for AII. The study first offers a brief overview of U.S. AII and the significance of AII in SME entrepreneurship research. The research framework is presented, followed by the discussion of industry-specific performance measures and the relationship between these measures and firm entrepreneurship. Next, research method and data collection procedures are detailed. The study results follow, and,

finally, the paper concludes with a summary of the study findings, the contributions to the literature, the implications of the findings, and future research opportunities.

U.S. apparel import intermediaries in SME entrepreneurship research

Today's apparel industry in the United States fundamentally differs from that of the past. The old apparel market environment was dominated by domestic manufacturing with consolidated manufacturing processes and relatively light competition (Dicken, 2003), while the new apparel market environment is led by global manufacturing and intense competition (Jin, 2006). This new market environment has created the hyper-dynamic apparel industry, in which part of apparel supply chain has had to take various entrepreneurial approaches in order to survive and succeed in it (Dyer and Ha-Brookshire, in press). Apparel import intermediaries (AIIs) are one of those apparel supply chain members.

AIIs are domestic apparel service firms that link domestic wholesalers/retailers and foreign distributors/manufacturers to facilitate import transactions in the global apparel supply chain (Ha-Brookshire and Dyer, 2008). One of the interesting findings in the AII literature is that AIIs seek different performance goals from other larger firms. For example, instead of focusing on sales- or profit-oriented performance, AIIs aimed to reach a long-term presence from which they could impact the industry through creative expression. This long-term oriented goal of survival has then led AIIs to implement their core functional activities in unique ways, based on entrepreneurial outlook gained from years of personal industry immersions.

Consequently, AIIs provide an important context for SME entrepreneurship research. First, the characteristics of the hyper-dynamic apparel market environment

offered an exceptional context for firm entrepreneurship research as the more hostile environment with which small firms dealt, the more important firm entrepreneurship was found to be for their financial success (Covin and Slevin, 1989). Second, because AIIs play a middleman role between domestic clients and foreign suppliers, they seemed to seek different strategies and performance evaluation criteria from other types of firms that are heavily focusing on domestic business transactions (Dyer and Ha-Brookshire, in press). Therefore, AIIs provided a unique perspective of SME entrepreneurship for firms operating in a global economy. Third, in terms of the firm size, over three fourths of AIIs were reported to be SMEs with fewer than 150 employees and less than U.S. \$100 million of annual sales, with some ranging up to 500 employees or U.S. \$500 million of annual sales (Ha-Brookshire and Dyer, 2007). This characteristic of firm size suggested a variety of sizes within the AII population that would help to detect possible heterogeneity within an SME population (Carter et al., 1994).

Research framework

Since Covin and Slevin (1989, 1991), firm entrepreneurship has been discussed as firm behavior that has a strong and direct impact on firm performance. They explained firm entrepreneurship by three types of firm behavior: innovation, proactiveness, and risk-taking. That is, entrepreneurial firms are more likely engaged in extensive and technological product innovation – aggressively and proactively competing with industry rivals – and prone to make strong risk-taking decisions. Based on this thesis, firm entrepreneurship was found to have positive impact on overall financial performance or growth in both U.S. and U.K. small businesses (Bercherer and Maurer, 1997; Chaston, 1995; Sadler-Smith

et al., 2003), in the short term as well as in the long term in the case of Swedish SMEs (Wiklund, 1999), and even in transition economies (Antoncic, 2006; Antoncic and Hisrich, 2000). Similarly, the current U.S. AII literature suggested that firm entrepreneurship could be an important strategic element for AIIs business operations (Dyer and Ha-Brookshire, in press; Ha-Brookshire and Dyer, 2008).

While these previous studies provide an understanding of the critical role of firm entrepreneurship on performance, the moderator effect of firm size within an SME population has been little discussed with regards to the relationship between firm entrepreneurship and SME performance. Chen and Hambrick (1995) found that small firms and large firms differed in competitive behavior; smaller firms were initiating competitive challenges more aggressively, delivering them faster, and executing them more secretly than larger firms. Dean, Brown, and Bamford (1998, p. 724) also argued that smaller firms have advantages built upon speed, flexibility, and niche-filling capabilities, while large firms have advantages based on “deep pocket” to exert bargaining power over suppliers and customers, and to compete on broad-based strategies and reputation. Therefore, it was expected that the difference in firm entrepreneurship and performance would be found between smaller firms and larger firms even within the AII population.

The outcome of firm operations, firm performance, is extremely difficult to define and measure. Defining SME performance is even more difficult due to the greater complexity of SME operations. In fact, Murphy, Trailer, and Hill (1996) found that more than half of the most frequently used SME performance measures were not significantly correlated and, even if they were, over one fourth of the significant correlations were, in fact, negative not

positive. This result suggested that a random mix of performance measures would not help to capture SME performance successfully. For instance, for some SMEs that are not heavily leveraged by financiers, certain financial measures, such as return on shareholder equity, might not be as important as other financial measures, such as sales volume, depending upon the owner’s business priority in a given time. For other family-owned SMEs whose goal is to carry over their family legacy, long-term survival may be more important than short-term sales growth rates. In this example, despite all being important financial measures, return on shareholder equity, sales volume, and short-term sales growth rates would not be a common characteristic of firms’ overall financial performance.

Consequently, it is clear that SME performance measures should be sensitive to industries and research contexts. The study selected three performance measures that were found to be relevant and important for AII performance—longevity, creative contribution, and profitability (Dyer and Ha-Brookshire, in press). Although each performance measure was discussed as potentially important for AII performance, there have been no empirical findings that suggest these measures were highly correlated with each other to form a common dimension of AII performance. Therefore, the three performance measures were evaluated individually rather than summed up to create a single dimension of AII performance. Two measures, longevity and creative contribution, were associated with strategic performance and one measure, profitability, was related to financial performance. Using these AII performance measures, the study suggested that firm entrepreneurship impacts on AII performance and this relationship varies depending upon firm size. Furthermore, the moderating effect of firm size differs,

depending upon each performance measure in question. Figure 1 presents the study framework.

Hypotheses development

The strategic dimension has been considered particularly important for export performance since Cavusgil and Zou (1994), as they emphasized exporting as a firm's strategic response to external and internal forces. In this light, strategic performance is also critical for AII performance as AIIs are one of the industry's strategic responses to the transformation from the old to the new apparel market environment in the United States (Ha-Brookshire and Dyer, 2008). Dyer and Ha-Brookshire (in press) found that a long-term presence, or longevity, was one of the most important strategic goals that AII executives commonly shared. This goal reflected AIIs' vulnerable middlemen position between powerful domestic retailers and foreign suppliers in the global supply chain, as well as the U.S. apparel market environment where SMEs come and go quickly with an extremely high rate of turnover. Longevity performance has also been discussed in the software industry in which venture capital plays a significant role in firm success. Mann and Sager (2007) argued that firm longevity alone is a reasonable indicator of firm success in the venture-backed software industry, because longevity generally suggests that a firm is making sufficient progress to avoid being liquidated by its venture capital investors.

Not all AIIs achieve the same level of longevity performance. Taking advantage of speed, flexibility, and niche-filling capabilities, smaller AIIs would be able to meet fast-changing market needs more efficiently and effectively than larger AIIs (Dean et al., 1998). In addition, when speedy, flexible, and niche-seeking smaller AIIs adopt firm entrepreneurship as one of

their key strategies, they would have a greater chance for a long-term survival than larger entrepreneurial AIIs. Therefore, the study hypothesizes:

H1: The smaller the size of a U.S. AII firm, the stronger the positive impact of firm entrepreneurship on longevity performance.

Freely impacting the market through creative contributions was another important goal that AIIs pursued (Dyer and Ha-Brookshire, in press). This goal characterized the overwhelming dominance of the retailers in the U.S. apparel industry in which large retailers dictate product trends, designs, merchandise assortments, and other creative aspects in apparel business (Jin, 2006). Thus, when an AII is no longer a supplier for Tommy Hilfiger and becomes a Tommy Hilfiger in their own right, its success was thought to be achieved. In achieving this objective, larger AIIs may have more resources to increase their name recognition in the market and to hire qualified human resources to make their own creative contributions to fashion trends and product designs (Dean et al., 1998; Hambrick et al., 1982). When more resources are cultivated by firm entrepreneurship, larger AIIs would have a greater chance to make creative contributions in the market than smaller entrepreneurial AIIs would. Consequently, the study hypothesizes:

H2: The bigger the size of a U.S. AII, the stronger the positive impact of firm entrepreneurship on creative contribution performance.

Given today's U.S. apparel industry is one of the exemplars of a buyer-driven

commodity chain, the evaluation of AIIs' financial performance is extremely challenging. The market environment of a buyer-driven commodity chain (for example, apparel, footwear, or toy industries) differs from that of a producer-driven commodity chain (for example, semiconductor or aircraft industries) in that giant retailers or brand-name merchandisers have tremendous power over suppliers throughout contract negotiations (Gereffi, 1994; Jin, 2004). For example, in the U.S. apparel industry, big box retailers, such as Wal-Mart, have constantly forced apparel suppliers, such as AIIs, to continuously reduce costs and upgrade quality, while the unit input costs were increasing due to raw material or human resource costs (Marquard, 2007). In fact, Wal-Mart requires apparel suppliers to follow a "plus one" mandate, that is, every year, the supplier must either reduce the price or raise the quality another level, affecting apparel suppliers' profitability greatly (Marquard, 2007, p. 56).

In this unique market environment of the buyer-driven commodity chain, even a simple performance measure, such as profitability, offers different meanings from that in the producer-driven commodity chain environment. As seen in Wal-Mart's "plus one" requirement, import suppliers may achieve the increase in import units from overseas and, thus, increase in the overall import sales level, yet profitability may not be necessarily increasing. Supporting this, Dyer and Ha-Brookshire (in press) reported that AIIs were less concerned with short-term profitability and, instead, more concerned with keeping employment and surviving for a longer term to make their creative contributions on the market. Despite that profitability is one of the most commonly used performance measures (Bilkey, 1985), in the case of AIIs, profitability was not stressed as an important indicator for firm performance. In addition,

this role of profitability was not expected to differ by the firm size of AIIs. For example, larger entrepreneurial AIIs may have more units sold to retailers, taking advantages of their own-branded items, reputation, or other broad-based strategies (Dean et al., 1998); however, higher profitability may not be warranted due to a constant cost-reduction pressure by retailers (Marquard, 2007). Smaller entrepreneurial AIIs may have a sufficient sales level to survive; yet higher profitability may not always be achieved due to a lack of economies of scales (Hambrick et al., 1982; Singh, 1990). Consequently, the study hypothesizes:

H3: The firm size of U.S. AII has no impact on the relationship between firm entrepreneurship and profitability performance.

Research method

Sample and response rates

The initial sample frame was generated through *ReferenceUSA* which provides detailed information about more than 14 million U.S. businesses, including the classification of firms based on NAICS codes (infoUSA, 2007). Following Ha-Brookshire and Dyer (2007), the list of U.S. AII firms was created using (a) U.S. apparel wholesalers under NAICS codes 42432 (men's and boys' clothing and furnishing merchant wholesalers) and 42433 (women's and girls' clothing and furnishing merchant wholesalers). This sampling list included approximately 18,000 firms.

Given the average response rate of 21% in business survey research, an adjusted sample frame size of approximately 800 firms was targeted to yield sufficient responses for the most statistical data analyses (Paxson, 1992, as cited in Dillman, 2000). Firms were randomly selected from the initial sample frame and a total of 807 surveys were mailed to firms from across

the nation. Sixty-five firms returned their surveys, without further follow-up contacts. Using Dillman's (2002) mixed-mode survey technique, follow-up contacts were made via phone, e-mail, and personal visits for the remaining firms. After six weeks from the initial mailing, a total of 154 surveys from AIIs (over 70% of their business operations come from importing) were used for further data analysis, indicating an adjusted effective response rate of 20.8%. Over 136 (88.3%) firms had more than 70% of total sales generated from direct import operations, suggesting the majority of the respondents were engaged in importing not domestic wholesaling. Out of the 154 AII respondents, 59 (38.3 %) were Chief Executive Officers or Presidents, 45 (29.2 %) were Vice Presidents, 25 (16.2 %) were Division Managers, and 13 (8.4 %) were General Managers. Twelve (7.8 %) specified themselves as other, including Owners, Chief Designers, and Chief Merchandisers. These results confirmed that the survey respondents were executives who were qualified to provide expert opinions about their firms' strategies and performance (Cavusgil and Zou, 1994). Testing for non-response bias and measurement differences indicated that the use of different follow-up contact modes was not an issue in this study.

Measurement

Firm entrepreneurship. The measurement items were adapted from Covin and Slevin's (1989) nine-item scale for entrepreneurial posture. This scale intended to capture firms' propensity for innovation, proactiveness, and risk-taking. Respondents were asked to identify the extent to which she or he would agree or disagree with each statement regarding her or his firm's entrepreneurial posture on a scale of 1 to 7, where 1 is strongly disagree and 7 is strongly agree. Necessary grammatical

changes on each item were made for easy understanding for AII respondents.

Performance. Years of import operations was used as a proxy for longevity, following Mann and Sager (2007). The study specifically asked years of "import" operation, instead of years of general firm operation, to capture longevity performance achieved by AIIs' successful import operation, not any other business activities such as acquisition, merger, or domestic transactions. A number of days or years of business operations was believed to be a sufficient and reasonable indicator of firm success in the AII setting as it was in the venture-backed software industry (Mann and Sager, 2007). To measure creative contribution performance, respondents were asked to evaluate their creative contributions on the market, compared to main competitors in the past 12 months, on a scale of 1 to 7, where 1 is extremely poor and 7 is extremely successful. When firms are small and privately-owned, objective economic information is difficult to obtain; firm managers' subjective evaluations were shown to be successful performance measures (Dess and Robinson, 1984). For profitability performance, respondents were asked to express their perceptions on their profitability performance on a scale of 1 to 7, where 1 is much worse and 7 is much better over the past 12 months, compared to main competitors. As per Bilkey (1985), when firms are operating under the situation where managers have to make decisions with limited information on the market, firm managers' "perceived" evaluations on profitability is an important and relevant performance measure.

Firm size. Although there is no unified way of measuring the size of the firm (What is SMEs? 2003), the study assessed the firm size using its overall annual gross sales in U.S. dollars, not the number of employees (Jin, 2006). Overall

annual gross sales was more appropriate for the study because of the increasing overseas outsourcing and a great amount of subcontracted jobs in the global apparel industry and, thus, the number of employees in the United States may not provide a meaningful picture of apparel firm size (Jin, 2006). In addition, respondents were asked to classify their overall annual gross sales based on the categories the study provided, instead of indicating the exact dollar amount. First, it was expected that not all respondents, such as Division Managers, Chief Designers, or Chief Merchandisers, would have the most recent and exact financial information; however, they would have an overall understanding of their annual gross sales to be able to choose one of the categories provided by the study. This method was designed to help to reduce incomplete responses. Second, the study sought to compare differences across the firm size groups (Bello and Williamson, 1985), rather than to measure the descriptive statistics of overall annual gross sales, such as means and standard deviations. Thus, it was not necessary to ask respondents to provide the exact annual gross sales figures.

The survey instrument was refined and pre-tested through a series of processes before being finalized. First, to ensure face or content validity, a preliminary survey instrument was evaluated by five academic professors in the areas of apparel and research methodology. No major revisions were made. Next, in order to evaluate individual item content, clarity of instructions, and response format, the revised survey was further refined through pre-testing. A total of 15 AII managers received the pre-test questionnaire and seven of them replied. No systematic problems were identified.

Results

Variables

To ensure that Covin and Slevin's (1989) nine items were measuring a single construct of firm entrepreneurship, principal component analysis (PCA) was performed as it is preferred when prior knowledge suggests that specific and error variance represent a relatively small proportion of the total variance (Hair et al., 2005). PCA analysis of the study data yielded one factor with eigenvalue greater than 1 and 62.2% variance explained, suggesting unidimensionality of firm entrepreneurship. The standardized Cronbach alpha coefficient was 0.86, showing a good reliability of the measure. The nine items were summed for further statistical analyses.

Four performance measures, longevity, creative contribution, and profitability were each measured and individually coded. Correlation coefficients among the three performance measures showed that the three measures were sufficiently different from each other (see Table 1). Based on overall annual gross sales, firm size was grouped into three categories—Mini, Small, and Medium—that would yield a similar sample size for each group (Wolff and Pett, 2000). A mini-size firm was defined as having overall annual gross sales of less than U.S. \$25 million and 59 firms (38.3%) fell into this group. A small-size firm was classified as having overall annual gross sales between U.S. \$25 million and U.S. \$100 million, and 46 firms (29.9%) belonged to this group. A firm with over U.S. \$100 million yet less than U.S. \$500 million of overall annual gross sales was categorized as a medium-size firm and 49 (31.8%) firms were accounted for this group. There was no useable response available from firms with over U.S. \$500 million of overall annual gross sales.

Model estimation and testing

A moderator effect occurs when the moderator variable changes the direction or

strength of the relationship between another independent variable and the dependent variable (Hair et al., 2005). Regression is commonly used when assessing a moderator effect by creating interaction terms in the model (Hair et al., 2005; Sharma et al., 1981). However, when a moderator variable is a categorical variable, the model becomes more complex. In this study, a small firm category was selected as the reference group, coded zero as a dummy variable, and omitted from the regression models. Following Kraemer and Blasey (2004), all independent variables were centered to reduce potential multicollinearity (that is, the correlation among the independent variables) problems that often occur with interaction terms in regression analysis. The study's categorical independent variables, a mini firm category and a medium firm category, were centered by being coded -1/3 and +1/3, respectively. The study's ordinal independent variable, the sum of the nine entrepreneurial posture items, was centered at its median, 4.28.

To determine the type of moderator variables and the effect of moderator variables, the study estimated the subsequent regression equations for each performance measure, based on Sharma and his colleagues' (1981) procedure:

$$\text{Model 1: } y = b_0 + b_1X$$

$$\text{Model 2: } y = b_0 + b_1X + b_2D_1 + b_3D_2$$

$$\text{Model 3: } y = b_0 + b_1X_1 + b_2D_1 + b_3D_2 + b_4XD_1 + b_5XD_2$$

where:

y = dependent variable (that is, longevity, creative contributions, and profitability)

X = independent variable (that is, the degree of firm entrepreneurship; centered at its median)

D_1 = categorical variable for a mini-size firm; coded -1/3

D_2 = categorical variable for a medium-size firm; coded +1/3

b_0 = intercept

b_1 = regression coefficients

Models 1, 2, and 3 were estimated and compared to determine the type of moderator variables and if the interaction terms (that is, moderator effect) were statistically significant, using an F -ratio test (Hair et al., 2005; Sharma et al., 1981). Table 2 summarizes test statistics of regression analysis for Models 1, 2, and 3. For longevity performance, Model 3 explained more variation in the dependent variable than Model 2 and the F -ratio test was statistically significant at 0.10 of alpha level (F -ratio=2.92; p -value=0.06), supporting the moderator effect of firm size on the relationship between firm entrepreneurship and longevity performance. However, Model 1 was not statistically different from Model 2 (F -ratio=1.03; p -value=0.32), suggesting firm size as a pure moderator variable type. That is, firm size was not related with firm entrepreneurship, yet only interacting with it (Sharma et al., 1981). For creative contribution performance and perceived profitability performance, the F -ratio tests were not statistically significant, suggesting Models 1, 2, and 3 were not statistically different from each other. The study hypothesis H2 stating "the bigger the size of a U.S. AII, the stronger the positive impact of firm entrepreneurship on creative contribution performance" was not supported, while the study hypothesis H3 stating "the firm size of U.S. AII has no impact on the relationship between firm entrepreneurship and profitability performance" was supported.

Analysis of moderator effect on longevity performance

In order to verify if smaller firm size has a stronger impact of firm entrepreneurship on

longevity performance (H1), regression coefficients estimates for Model 3 in longevity performance were further examined. First, the values of variance inflation factors (VIFs) for all independent variables ranged from 1.64 to 5.31, well below the common threshold of 10, and multicollinearity did not seem to be an issue for this study (Hair et al., 2005; Kraemer and Blasey, 2004). Second, the effect of firm entrepreneurship was estimated by the sum of b_1 and b_4 for the mini-size firm group (2.63) and the sum of b_1 and b_5 for the Medium-size firm group (-1.19), while b_1 represented the effect for the small-size firm group (0.30). These results suggested the smaller firms had a stronger positive impact of firm entrepreneurship on longevity performance and larger firms had a weaker and negative impact of firm entrepreneurship on longevity performance. The study hypothesis H1 stating “the smaller the size of a U.S. AII, the stronger the positive impact of firm entrepreneurship on longevity performance” was supported. Because firm size was a pure moderate variable, subgroup analysis was not necessary in this study (Sharma et al., 1981).

Conclusions

The purpose of the study was to verify whether the relationship between firm entrepreneurship and various performance measures differ by firm size in SME business operations. After surveying apparel import intermediary SMEs in the U.S. apparel industry, the study showed three important findings on the firm size effect, firm entrepreneurship, and performance of AII. First, firm entrepreneurship had a stronger and positive impact on longevity performance for smaller AII, while it had a weaker and negative impact on longevity performance for larger AII. It appeared that despite the fact that they are small in terms of annual gross sales, smaller

entrepreneurial AII seemed to achieve better longevity performance than larger entrepreneurial AII. These findings were consistent with the previous research on SMEs that smaller firms have more advantages with speed, flexibility, and niche-filling capabilities in the fast-changing and competitive market environment, and, thus, they survive longer than larger firms.

Second, however, the study results did not support the study position that firm size would affect the relationship between firm entrepreneurship and AII's creative contributions on the market. It appeared that firm entrepreneurship had little impact on AII's creative contribution performance and more resources to hire creative designers or product merchandisers did not necessarily help larger AII achieve a greater creative impact on the market. Although this finding was somewhat surprising in that innovative, proactive, and risk-taking firm behavior did not seem to help firms' achievement of getting recognized by their creative contributions, it could be explained by the nature of AII businesses and their middleman role in the global apparel industry. That is, it is highly likely that AII are much more focused on delivering domestic retailers' requests and filling market needs, rather than leading the market by setting the hottest trend or introducing the most creative product, even if creative contribution is what AII want to achieve (Dyer and Ha-Brookshire, in press).

Third, the study results supported that profitability was not a significant financial performance measure for AII entrepreneurship and firm size had no statistically significant effect on the relationship between AII's entrepreneurship and profitability. In the buyer-driven market environment where major retailers set the price, cost, and margin of every product, suppliers like AII may suffer profitability, regardless of the firm size. This finding was

consistent with Dyer and Ha-Brookshire (in press) that AIIs were not heavily focused on short-term profitability; instead, they were targeting a more long-term oriented survival.

The study made several important contributions to SME entrepreneurship research. From an academic perspective, first, the study's results empirically supported Murphy and his colleagues' (1996) argument that when performance measures are selected, they must justify why such measures are relevant for the purpose of specific performance evaluations. For example, profitability, one of the most commonly used economic measures, was not a useful indicator of AII performance built upon firm entrepreneurship because of the unique commodity chain environment of the U.S. apparel industry. Instead, longevity performance was found to be more useful to understand the impact of AII entrepreneurship. This finding suggested that not all firms are equally marching down for superior profitability and growth; some firms simply exist to survive, keeping their legacy and employment for their people. Thus, the study highlighted that special care is necessary when selecting performance measures in firm research.

Second, the study's findings emphasized that, even within a population of SMEs, heterogeneity exists in strategy execution and its outcomes. By showing the different relationships between AII entrepreneurship and longevity performance across various firm size groups, the study offered possibilities to revisit SME research tradition that often overlooks differences within an SME population. Third, this study was the first empirical research investigating the role of firm entrepreneurship and the moderating role of firm size, using apparel import intermediary firms. The study helped academic researchers recognize a unique business environment in which import intermediaries operate in a global economy,

which can be far different from domestic manufacturing and exporting firms.

From a practical perspective, the study also makes significant contributions to firm managers who are responsible for various performance outcomes. Managers in smaller AII firms (less than U.S. \$25 million of annual gross sales) may want to emphasize innovativeness, proactiveness, and risk-taking business decisions if they need to survive and achieve a long-term presence in the market. Managers in larger AII firms (more than U.S. \$100 million but less than U.S. \$500 million of annual gross sales) may want to keep in mind that their entrepreneurial posture may, in fact, hurt longevity performance partly because of high sunk costs and significant financial resources that may not necessarily help them when competing with smaller entrepreneurial firms. Additionally, AII managers may not want to exhaust all of their resources on firm entrepreneurship if their goals are to accomplish higher profitability and creative contributions.

As in most other research, the study also has limitations. The study results are industry and time specific; thus, generalization of the findings to a larger SME population and to all time periods must be limited. Because of the unique hyperdynamic market environment of the U.S. apparel industry, it would be particularly misleading if the study findings are interpreted for other import intermediary sectors that deal with products, such as food, toys, consumer electronics, and automobiles. Each industry has a unique inherent market situation and, thus, more empirical studies, as well as longitudinal studies, would help to validate the current study results. Given that many industries in other developed economies are also import-oriented, cross-cultural research would be of value, using AIIs in other developed economies. Finally, the development of other performance

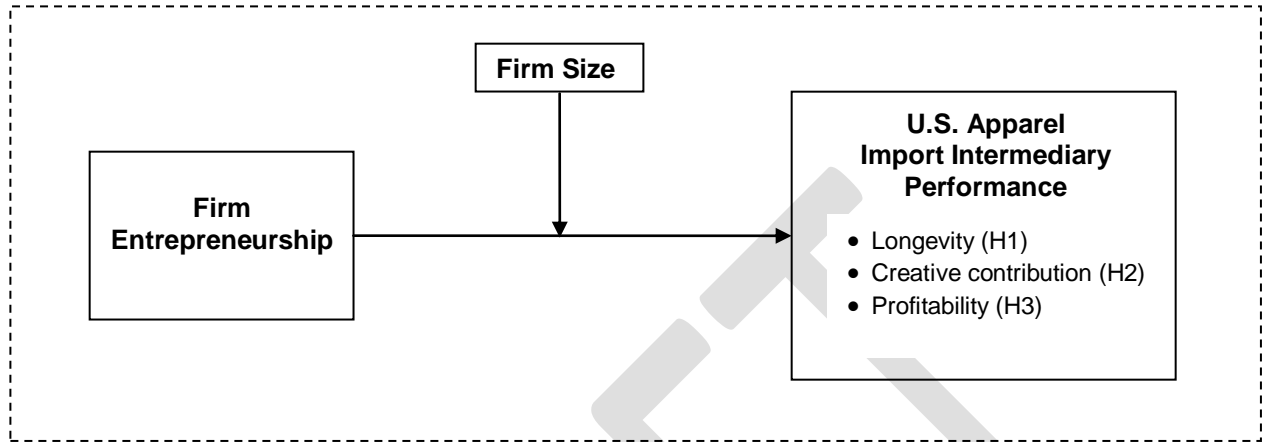
measures that are relevant and meaningful for AII SMEs is of the utmost importance as

it would help to increase our understanding of AII business operations.

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Figure 1.

Research framework



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Table 1.

Correlation coefficient matrix of performance variables

	Mean (S.D.)	Longevity	Creative contribution	Profitability
Longevity (Years)	25.1 (10.9)	1.00		
Creative contribution	5.25 (1.38)	0.51*	1.00	
Profitability	5.14 (1.29)	-0.00	0.06	1.00

Note. * indicates correlations significant at the 0.01 significance level.

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Table 2.**Summary test statistics of regression analysis for models 1, 2, and 3**

	R^2	F-value	p-value	F-ratio	Significance of F-ratio	Hypothesis
Longevity performance						
Model 1	0.01	1.03	0.31	1.03	0.31	
Model 2	0.21	13.11	0.00	4.12	0.02	
Model 3	0.27	10.86	0.00	2.92	0.06	H1: Supported
Creative contribution performance						
Model 1	0.01	0.71	0.34	0.71	0.34	
Model 2	0.02	0.99	0.34	0.02	0.98	
Model 3	0.05	1.43	0.22	0.16	0.85	H2: Not supported
Profitability performance						
Model 1	0.00	0.04	0.84	0.04	0.84	
Model 2	0.00	0.13	0.95	0.00	1.00	
Model 3	0.02	0.60	0.67	0.03	0.97	H3: Supported

Table 3.

Regression analysis of model 3 for longevity performance

Variable	Regression coefficient estimate	t-value	p-value
Firm entrepreneurship (Ent), b_1	0.39	2.20	0.03
Mini firm class (Mini), b_2	2.03	3.35	0.00
Medium firm class (Med), b_3	2.20	3.46	0.00
Ent X Mini, b_4	2.24	3.51	0.00
Ent X Med, b_5	-1.58	-2.20	0.03

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