Longevity Determinants of Embroidery Enterprises in Taal, Batangas, Philippines

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Abstract

The study specifically aimed to identify factors affecting business longevity. It focused on knowing how embroidery enterprises managed to persist in the industry for many years despite the competitive business environment. After discovering the significant relationships of such factors to longevity, problems experienced by the enterprise cluster were ascertained in order to come up with recommendations that can be proposed to the enterprise owners.
Embroidery entrepreneurs have been experiencing a continuous decline in sales due to lack of innovation and intense competition. In the evaluation of their personal entrepreneurial competencies, they scored low on risk-taking, persuasion and networking, and opportunity seeking; thus, implying that these are their weaknesses. On the other hand, the statistical results of this study say that longevity is a function of the entrepreneur's competencies (i.e., persistence, commitment to work contract, demand for quality and efficiency, information seeking, and systematic planning or monitoring), the generation currently managing the business, competition, and the customer's preferences. These results suggest that these independent variables are significant and are deemed critical to business longevity. Thus, entrepreneurs have to find ways on how to use these competencies as an advantage in reinventing their businesses and in reviving their industry.

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1. Introduction

Embroidery, known to exhibit the history of the country and the aesthetic talent of Filipinos, has been a substantial part of the success of the Philippine economy. It is an ancient artistic craft, under the Philippine garments industry, which involves great workmanship in terms of creating highly ornate pieces and garments by adorning indigenous fabrics (e.g. piña, jusi, ramie, cotton, to name a few). Currently, three provinces in Luzon island (in northern Philippines) are highly regarded and known for embroidery: Laguna, Batangas and Bulacan.

Since the 1900s, the town of Taal in Batangas Province has been known to produce artistically decorative products called "Burdang Taal"(or Taal embroidery in English). The town has been regarded as the Barong Capital of the Philippines. According to de la Paz (n.d.), "Burdang Taal refers to the long tradition of hand embroidery since the turn of the century executed on fabric." It was at the height of success of Philippine embroidery that Taal exquisitely took part and proved their embroidery skill of producing excellent hem stitches and embossed designs meant for international recognition.

Through the years, Taal's embroidery industry has experienced challenges that threatened its existence, namely: a) low demand; and b) intense competition. Despite the competitive business environment, Taal embroidery enterprises managed to survive. In order to aid in sustaining Taal's embroidery industry, it is deemed necessary to study the coping mechanisms of the enterprises and identify the gaps that need to be addressed.

The main focus of this study is to determine the factors affecting business longevity. Specifically, it aimed to: 1) present the profile of the entrepreneurs and the embroidery enterprises; 2) identify factors that contribute to the longevity of Taal embroidery enterprises; 3) determine the strength of relationship of the factors to business longevity; 4) distinguish and analyze which of the factors make significant contributions to longevity; and 5) identify the problems faced by the embroidery entrepreneurs as well as come up with recommendations that would benefit them. The study evaluated the contribution of internal factors (i.e., future successor, owners' age and highest educational attainment, the generation currently managing the business, and the entrepreneurs' competencies) and external factors (i.e., competition, customer's preferences, technological and economic factors) to business longevity.

Business longevity has been a subject of a plethora of studies done worldwide; however, the Philippines seems to be left behind in this matter. Santiago (2000) and Santiago (n.d.) were the only studies conducted under the Philippine setting that were closely related to this study; however, both studies failed to focus on one industry due to the diversity of their samples. Due to the limited literature about local business longevity, the authors opted to pursue a study that focused on one industry in the Philippines, particularly Burdang Taal, which has existed for decades. This study could be one of those initiated efforts that explored what it is like to be in an industry that has existed for a long time. This study sees this as an opportunity to spread the word on how the enterprises have survived, and to increase the awareness of the people regarding the situation of the

embroidery enterprises. In addition, the authors aimed to come up with recommendations that would avoid possible dissolution of these businesses. The results of the study could serve as an aid in tapping and rediscovering investment opportunities that will push the indigenous creativity of Filipinos to global standards while at the same time preserving Philippine heritage through the continuity of a centuries-old craft.

This study is divided into seven sections. Section 1 (Introduction) describes the rationale and objectives of the study while Section 2 reviews the related literature. Section 3 shows the hypotheses of the study after which Section 4 explains the methodology. Sections 5 and 6 present the results and analyses of the study and integration of findings, respectively, while Section 7 recommends.

2. Review of Related Literature

2.1. Business Longevity

Longevity refers to the length of existence of a business. Initially, majority of the studies regarding this topic were about family businesses but through time, researches were extended to the study of small and medium enterprises (SMEs). One of the differentiating factors of these studies is the size of the firms being focused on. Others targeted small firms while some concentrated on large firms.

The extensive literature available focused on determining the key factors that account for longevity of firms in varying industry sectors or cultural backgrounds. In addition, various approaches were done in many

research studies concerning the factors associated and related with longevity and business survivability. Ibrahim, McGuire and Soufani (2009), Williams and Jones (2010), Lee, Masuo and Malroutu (2005), and Mengistae (2006) empirically analyzed the factors of longevity while Srisomburananont (2004), Santiago (2000), Scotland (2010), and Antheaume, Barvelivien, and Robic (2012) used qualitative methods (i.e., case studies).

Ibrahim et al. (2009) made an empirical investigation of factors contributing to longevity of small family firms in Montreal, Toronto and New York. The authors examined the perception of multigenerational small family firms with factors such as family members' involvement and commitment, succession planning, and the family firm's competitive advantage. This study failed to give an in-depth analysis of its empirical data. In this connection, Williams and Jones' (2010) research tested succession planning, industry sector, educational level of owner, and location as factors associated with longevity. According to its citation of Ward (1987), Trow (1961) and McGivern (1978), it was emphasized that longevity's most important determining factor is having a succession plan. It was further concluded that among the aforementioned factors, succession planning and location were the only ones related to longevity. Scotland (2010) studied the factors that influence positive succession outcomes and longevity in long-lasting Australian family firms. The author determined the factors that allowed the firms to succeed where others have failed. Nine factors that lead to positive succession and greater longevity were identified by the study. These factors were about effective leadership and strong family values that deals with the passing of the baton

from one generation to another. Similarly, Srisomburananont's (2004) study was about the key success factors in transforming traditional family business for success and long-term survival in changing markets. It focused on the determination of the factors that lead to the success or failure of a family business. Succession planning, which was a part of his work, became useful in the analysis of this study.

Aside from the abovementioned factors, other researchers focused on other variables related with longevity, namely: 1) entrepreneur's characteristics; 2) educational attainment; 3) business traits; 4) business resources or constraints; 5) organizational structure; and 6) other micro- and macro-environmental variables. Headd (2003), for example, noted that business survival is a function of the traits of the business and the owner. This was supported by the citation of Lee et al. (2005) that business management skills are critical to the success or failure of a business. In addition, studies cited by Santiago (2000) evaluated the personality traits of the entrepreneurs, their psychological make-up and management styles. Existing theories say that risk taking, being innovative, and having leadership qualities and persistence are crucial characteristics that draw the line between a successful and an unsuccessful entrepreneur. This leads to the idea that entrepreneurs are the key determinants of the business' survival and/or success; thus, it is necessary to test the correlation between the entrepreneurs' characteristics and longevity. In addition, this factor is also connected to educational attainment since it is part of the profile of the entrepreneur. Mengistae (2006) concluded in his study that there is a positive relationship

between the owner's educational attainment and the probability of business survival. He noted that as the number of years of entrepreneur's schooling increases, the probability of business survival increases too. In this regard, the authors of this study decided to test for the relationship of the internal factor variables, i.e., succession planning, age, educational attainment and entrepreneur characteristics to business longevity.

The previously mentioned empirical studies about business longevity used various statistical tools that are favorable and applicable for large samples. If not in hundreds, their sample sizes consisted of more than a thousand respondents. This is the reason why the authors of this study did not use the analytical tools of past researches and instead consulted a statistician in helping them identify the appropriate tools for this study.

On the other hand, Santiago's (2000) research included longevity factors such as organizational configuration, micro- and macro-environmental variables. Since this extensive research is after theory building, it used the case method for data gathering and analysis. Similarly, Scotland (2010) used multiple case studies for his research. Antheaume et al. (2012) also qualitatively analyzed if French family businesses that have existed for a long time conduct sustainable development policies.

It is noticeable that a few of these studies dealt with business longevity qualitatively. Such studies had four to five multiple case studies. On the contrary, the authors of this study opted to use both quantitative and qualitative methods so as to compensate for the gaps of one method in contrast to the

other. Quantitative methods were used in order to accommodate a number of variables and test for its significance to longevity. As for qualitative methods, the authors did not consider conducting a case study so as to cover a larger scope and entertain numerous viewpoints of Taal's embroidery entrepreneurs.

These abovementioned studies were some of the literature available globally that gave overviews of what a study in business longevity seems like. Most of these studies were conducted internationally. Santiago (2000) headed a research program composed of a selection of case studies that focused on business longevity. His focus on business survival rather than business success was adopted by this study. Santiago's (2000) conceptual framework proposed that business longevity is a function of the strategies implemented by the company. This framework also considered the presence of change in the firm, entrepreneur, micro- and macro-variables that affect the strategies of the firm and consequently, business longevity. Both studies of Santiago (2000) and Santiago (n.d.) are partly similar since both studies assessed the responses of family firms in the Philippines to turbulent events and external shocks, respectively. The only gap in their work was focusing on only one industry in the Philippines. Their samples were composed of family firms engaged in different ventures that make their studies too broad.

2.2. Embroidery in Taal, Batangas, Philippines

"Embroidery is one of the rare Filipino industries which adopt the Filipino tradition of craftsmanship" (Tolentino, 1988). The intricate stitchery of designs laboriously handmade by embroiderers adds value and individuality to the indigenous cloth they are using such as piña and jusi, among others. As cited by Atienza (2007), Comendador (2006) said that "the presence of embroidery on the garment greatly increases the potential selling value of the product, especially for export materials." In the Philippines, the town of Lumban in Laguna province, Taal town in Batangas province and Bulacan province, are the well-known provinces where the embroidery industry is dominant, flourishing and concentrated. Moreover, Burdang Taal has existed for over a century now with Taaleños (as people living in Taal are referred to) starting to engage in handmade embroidery as their source of livelihood since way back then.

Several studies were conducted to ascertain the situation of the industry. Tolentino (1988) made an industry study of the embroidery industries in Taal, Batangas and Lumban, Laguna. His study delved on the status, prospects and problems of the industry in these places. Similarly, Garcia's (2001) study of the embroidery manufacturing businesses in Taal, Batangas briefly described the status of the industry that time. Atienza (2007), on the other hand, focused on evaluating the performance of a specific key player in the embroidery industry in Taal, Batangas. In comparison, the entrepreneurial study of Macalalag (1998) dealt with the practices and traits of entrepreneurs engaged in handmade embroidery in Lumban, Laguna while a comparative study made by de Vera (1961) identified the socio-demographic characteristics of the embroiderers in Batangas and Bulacan. De Vera's (1961) study also traced the development of both traditional and modern modes of embroidery.

These studies were able to give ample information about the situation of the embroidery industry in the year the study was conducted. Garcia (2001) worked on a study regarding the embroidery manufacturing businesses in Taal, Batangas. Her brief industry analysis defined the status and identified the problems of the embroidery cottage industry in the place. Furthermore, since she was a clothing technology student, she also focused on tackling the history and traditions of embroidery design and techniques that have been used by the Taal embroidery craftsmen/craftswomen. It was discovered that problems in finance and marketing were present in the industry. Garcia's (2001) work was not able to give in-depth analysis of the data she gathered from the thirteen respondents of her study; thus, this research gap opened an opportunity to fully integrate the profile and qualities of the entrepreneurs engaged in key business decisions in order to develop a lucid analysis of Taal's embroidery industry. Her work might be considered similar to this study but Garcia's (2001) thesis is more comparable to Tolentino's study (1988).

Tolentino (1988) focused on the macro-level analysis of the embroidery industry in Taal, Batangas and Lumban, Laguna. A part of his study said that there were twenty-two embroidery enterprises registered in Taal's municipal office back then. Primarily, he found out that Taal's different markets spur higher cost of production that eventually drives higher prices of products. Hence, entrepreneurs complain about low demand and limited market brought about by the high prices of their products. However, after a decade, Macalalag (1998) mentioned in the results of her study that prices of Batangas embroidered products are cheaper than the ones made in Lumban, Laguna because of lower labor cost and the abundant source of raw materials within the vicinity. In essence, the study focused on determining the key environmental factors that affect the operations and situation of the embroidery craftsmen/craftswomen in Lumban. A similar type of study was performed by Tiburcio (2010) but hers was about the micro-, small- and medium-scale shoe manufacturers in Marikina. It also analyzed the characteristics of the entrepreneurs in the place.

On the other hand, Atienza (2007) sought to assess and present the overall performance of Chona's Handmade Embroidery and Gift Shop in Taal, Batangas, Philippines. Her macroenvironmental analysis gave brief overviews of the embroidery industry in the Philippines and in Taal, Batangas. This is partly similar with Tolentino (1988) except that Atienza's (2007) work was at the micro-level, focusing only on one enterprise. Her work is also slightly comparable with Macalalag's (1998) study that analyzed the industry by evaluating several enterprises comprising the embroidery the industry in Lumban, Laguna. According to her, there were over 100 embroidery establishments in 2007. Comparing this study with Tolentino's (1988) study, the number of the enterprises has increased tremendously over time, from 22 to over 100. Therefore, one of this research's tasks was to update the current number of the embroidery enterprises in Taal, Batangas.

"Embroidery gives embroiderers a sense of fulfillment in the creation of something aesthetically satisfying," de Vera (1961) stated. Her study revolved around analyzing the factors that positively or negatively affect the embroidery industry in Batangas and

Bulacan provinces. Similarly, she also traced and identified factors that perpetuate the use of a particular mode, hand or machine, and those that deter the use of the other. The descriptive and relational level of analysis used in her work were handy in this study. She concluded that the economic aspect is the greatest factor that influences the development or decline of embroidery. Her focus is on the social and aesthetic part of embroidery and this comprehensive study allowed the authors to fill the gap of analyzing the managerial practices and innovations implemented by the entrepreneurs in each of the functional areas of the enterprises.

Analytical tools of the abovementioned studies were mostly similar. Personal Entrepreneurial Competencies (PEC), and Strengths, Weaknesses, Opportunities and Threats (SWOT) analyses were very useful in identifying the factors that affect the embroidery enterprises in Taal, Batangas. Keeping the tradition of sustaining this old craft requires certain qualities in order to stay engaged in the industry. Knowing the competencies of the entrepreneurs through PEC analysis, and interviews determined how these embroidery enterprises were able to sustain and keep the industry alive.

A number of enterprise studies used PEC as a tool to gauge the competencies of entrepreneurs. PEC analysis was developed by the University of the Philippines Institute of Small Scale Industries (UP ISSI) in Diliman, Quezon City, Philippines. Some of the enterprise studies reviewed were by Tiburcio (2010), Cabuhat (2009), and Bellen (2009) that focused on the shoe manufacturing enterprises in Marikina, the pork crackling processors in Sta. Maria, Bulacan, and the abaca fiber craft enterprises in Tabaco, Albay,

respectively. All of these studies used the PEC tool in determining the strongest and weakest traits which greatly manifest in the business operations of the enterprises and entrepreneurs in their study. Tiburcio (2010) found out that micro- and small- scale entrepreneurs are goal setters while large-scale entrepreneurs are opportunity seekers. Bellen (2009), on the other hand, had results showing that persistence, goal setting, persuasion and networking, and information seeking are the significant traits of the studied abaca fiber entrepreneurs. As mentioned, PEC is evidently an aid in determining entrepreneurial traits quantitatively through a 5-point Likert scale questionnaire. Therefore, this tool was also used as a basis for examining the correlation of business longevity and the internal factors, i.e., entrepreneurs' competencies.

Meanwhile, a work about the correlation of motivation and performance was conducted by Padmanagara (1991) who used Spearman's Rho or Rank Correlation Coefficient. Since this study and Padmanagara's work both used nonparametric variables, the researchers settled on the same statistical tool to determine the correlation of the identified independent variables and business longevity.

The studies conducted in relation to business longevity focused on business success and business performance while only a few of them managed to focus on business survival only. In fact, most of these studies were conducted internationally while only a few available studies were done locally. Then again, due to the limited studies regarding business longevity, this study focused on one industry in the Philippines: Burdang Taal. Studying how the embroidery enterprises have managed to stay in the industry for

decades were perceived to be important in the light of a dearth in the literature. This just goes to show that Burdang Taal was left behind in terms of the interest given to it by researchers. Some studies on Taal's embroidery barely touched the micro-level analysis of enterprises comprising this particular industry while others compared two different places where embroidery is a dominant enterprise. The literature review shows that these studies are either too old or too limited or both to represent the status and problems of the industry. The time gaps among these studies are too large which imply that these studies need updating for there have been several changes in the trend, production and demand for the embroidered products. Moreover, the business longevity factors in Taal, Batangas, Philippines alone were not fully explored yet. This study contributes to the extant literature on business longevity in the Philippines that particularly focused on a century-old craft (embroidery) and micro-business cluster that is in danger of becoming extinct.

3. Hypotheses of the Study

Thus, based from the extant literature, the following hypotheses were developed and explored:

Ho: There is no significant relationship between the independent variables (i.e., age, educational attainment, having a successor, the generation currently managing the business, entrepreneurs' competencies, competition, customer's preferences, technological factors, and economic factors) and the dependent variable (i.e., business longevity).

H1: There is a significant relationship between age and business longevity.

H2: There is a significant relationship between educational attainment and business longevity.

H3: There is a significant relationship between the generation currently managing the business and business longevity.

H4: There is a significant relationship between the opportunity seeking and business longevity.

H5: There is a significant relationship between persistence and business longevity.

H6: There is a significant relationship between commitment to work contract and business longevity.

H7: There is a significant relationship between demand for quality and efficiency and business longevity.

H8: There is a significant relationship between risk-taking and business longevity.

H9: There is a significant relationship between goal setting and business longevity.

H10: There is a significant relationship between information seeking and business longevity.

H11: There is a significant relationship between systematic planning or monitoring and business longevity.

H12: There is a significant relationship between persuasion and networking, and business longevity.

H13: There is a significant relationship between self-confidence and business longevity.

H14: There is a significant relationship

between total PEC scores and business longevity.

H15: There is a significant relationship between having a successor and business longevity.

H16: There is a significant relationship between competition and business longevity.

H17: There is a significant relationship between customer's preferences and business longevity.

H18: There is a significant relationship between technology and business longevity.

H19: There is a significant relationship between economic factors and business longevity.

4. Methodology

4.1 Date and Place of Study

Conducted in Taal, Batangas, the interviews for this study were held during the months of October and December 2012.

4.2. Research Design

This study focused on a dominant group of enterprises that are actively participating in Taal's embroidery industry. It ought to have an overview of the industry by identifying and discussing the factors affecting longevity of the enterprises, managerial practices, and coping mechanisms that are concretely evident in the business operations. This was achieved by having a descriptive and empirical research about Burdang Taal that analyzed the considerations of continuing the business and staying in the industry. This allowed the identification of problematic areas and also formulation of strategies that will benefit the enterprises.

4.3. Sources of Data

This study made use of primary and secondary data. Since the secondary data available are very limited, the authors decided to use primary data in order to get the information needed. These were sourced from the embroidery enterprises in Taal, Batangas. The profiles of the enterprises and its entrepreneurs comprised the primary data. For comparison, one of the researchers also interviewed the president of the Lumban Embroidery Association (LEA) as a chairperson and as an entrepreneur herself. This was intended to know the success story of Lumban's embroidery industry. Also, a major seamstress of Patis Tesoro, one of the renowned Filipina designers recognized for creating clothes from embroidered materials, was interviewed to know more about the types of cloth used in making Barong Tagalog and gowns.

As for secondary data, relevant information came from reputable sources. The data about the study area were gathered from records of the municipal government of Taal, Batangas. Records of procurement and sales volume of raw materials (i.e., fabrics) came from the entrepreneurs and/or suppliers.

4.4. Data Collection

The study sought its secondary data from government institutions in Taal, Batangas and various university libraries. On the other hand, primary data were collected from embroidery

entrepreneurs that were interviewed based on the semi-structured questionnaire of the study. The questionnaire is not only composed of close ended questions but also open ended questions that allowed the respondents to elaborate their answers. The study also used the Personal Entrepreneurial Competencies (PEC) questionnaire (Diaz, 1993) as the basis for determining the internal factors affecting longevity, i.e., entrepreneurs' characteristics. To this end, judgment sampling was conducted in which the sample conforms to certain criteria. The focus of this study revolved around the enterprises that passed the research criteria: 1) the enterprise makes use of fabric materials originally from natural sources; and 2) the business is at least 10 years in operation. For an enterprise to be considered in the sample, they are expected to have faced major challenges in the industry than the younger enterprises. These enterprises were chosen because they were expected to give more insights in terms of their lengthy experience in the industry. Currently, there are 69 enterprises registered in the municipal treasurer in Taal, Batangas but only 24 enterprises satisfied the criteria. However, one entrepreneur did not permit to be interviewed; thus, leaving a sample size of 23.

4.5. Data Analysis

Both qualitative and quantitative measures were used in evaluating and examining the data collected. The quantitative measure applied in the analysis of the obtained data on profile of the entrepreneurs and enterprises was through the use of descriptive statistics. This was achieved through tabulations, frequencies, percentages and mean.

Correlational statistics were likewise used. Meanwhile, the qualitative measure was relevant in the interpretation of the quantitative data.

The study used Spearman's Rho or Rank Correlation Coefficient, two tailed t-test, Strengths, Weaknesses, Opportunities and Threats (SWOT) analysis, and PEC analysis. Given the small sample size and nonparametric variables of this study, the appropriate statistical tool used was Spearman's Rho or Rank Correlation Coefficient (rs). This tool determined the strength of relationship of each independent variable to the dependent variable (i.e. longevity). The Spearman's rank correlation coefficients were interpreted according to the category below in order to measure the independent variables' strength of relationship with business longevity.

$r_s < 0.16$	too low to be meaningful
$0.16 < r_s < 0.29$	weak correlation to low
$0.30 < r_s < 0.49$	low to moderate
$0.50 < r_s < 0.69$	moderate
$0.70 < r_s < 0.89$	strong correlation
$0.90 < r_s < 1$	very strong correlation
*negative value	inverse relationship

4.6. Conceptual Frameworks

Figure 1 summarizes the internal factors explored in terms of their correlation with business longevity while Figure 2 presents the external factors examined relative to their correlation with business longevity. Such structure in these conceptual frameworks was patterned after Padmanagara's (1991) framework.

Fig. 1. Conceptual Framework of Independent Internal Factors and Dependent Variable
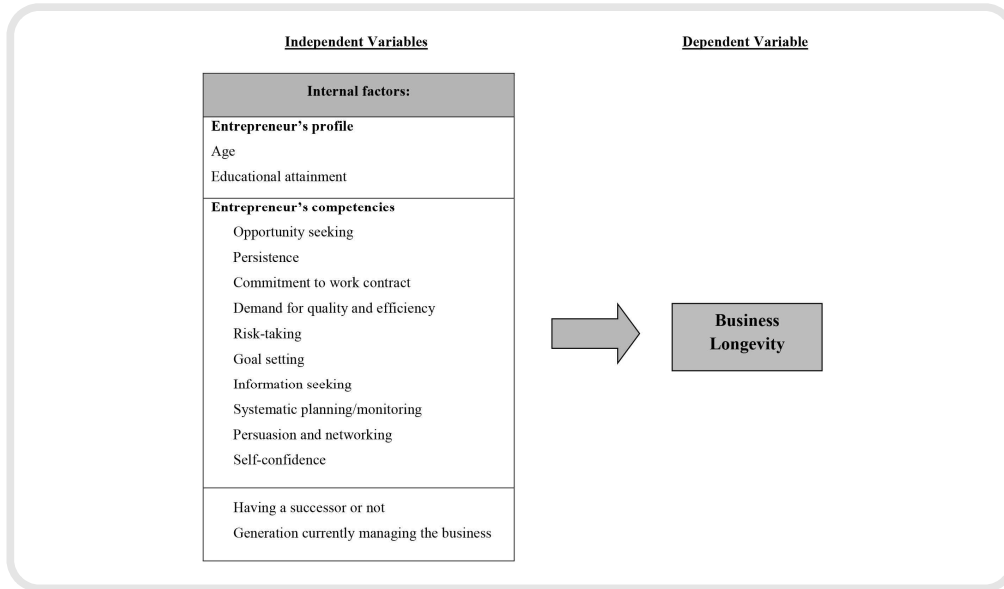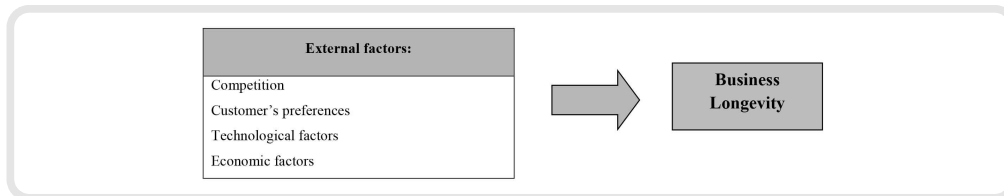
(Adopted from Padmanagara, 1991)

Fig. 2. Conceptual Framework of Independent External Factors and Dependent Variable

(Adopted from Padmanagara, 1991)

5. Results and Analyses

5.1. Profile of the Enterprises

For this study, twenty-three (23) embroidery enterprise owners were interviewed. Only one enterprise is involved in retailing while the remaining 22 enterprises in both manufacturing and selling embroidered products. One respondent has been solely engaged in retailing due to her old age and lack of embroidery skills. Meanwhile, 22 of the enterprises were considered micro-scale since their asset size is less than PhP 3 million. One respondent, the pioneer among all the interviewees, has an asset size greater than PhP 3 million but less than PhP 15 million; yet her enterprise's scale of operation can still be considered small-scale.

In addition, fifteen (65%) of the 23 respondents have been in the business between ten to twenty years. One (4%) has been existing from 21 to 31 years while five of them (22%) have been involved in the

embroidery business from anywhere between 32 to 42 years. On the other hand, two enterprises (9%) have continued operating from 54 to 64 years. The length of existence was based on how long the enterprise started operating, not from the year they registered their businesses.

On the other hand, a variable in connection with longevity is the generation managing the business. Majority (78%) of the respondents, specifically, 18 of them are being handled by the first generation, the ones who established the enterprise. These enterprises are mostly located in the Taal Public Market.

5.2. Profile of the Entrepreneurs

Various age brackets were interviewed for this study. Since some businesses were inherited, some of the respondents are still young while most of them are beyond 40 years old. Since majority of the respondents are above 40 years old, ten of the respondents said they have no dependents now. Their children have already graduated and stopped depending on them while others are married and have separated from them.

Almost all of the interviewed respondents were females, married, and college graduates. Of the 23 respondents, only four of them are not natives of Taal, Batangas in the Philippines because their husbands lived in Taal ever since. A lot of them grew up with embroidery either as their past time or as the business of their parents or grandparents; thus, this craft has also become a hobby for most of the respondents. To be exact, 20 respondents (almost 87%) said that their hobby is embroidery or sewing.

5.3. Entrepreneurial Competencies

It was revealed that Taal embroidery entrepreneurs scored high in particular competencies such as commitment to work contract and goal setting. The high score in commitment to work contract was due to the nature of the business venture that requires honoring their word in terms of prompt delivery to customers. On the other hand, the respondents of this study mentioned that having successors in handling of the business were part of their goals. However, they fell short in other competencies that served as their weaknesses, namely: opportunity seeking, risk-taking, and persuasion and networking (Table 1).

5.4. Statistical Analysis of Factors Affecting Business Longevity

The statistical results of this study indicate that longevity is a function of the entrepreneur's competencies (i.e. persistence, commitment to work contract, demand for quality and efficiency, information seeking, and systematic planning or monitoring), the generation currently managing the business, competition and the customer's preferences (Tables 2 and 3). Among these factors, competition has the highest correlation with business longevity. This result was perceived to be driven by the intense competition in the industry that pushes the entrepreneurs to step up in order to have their businesses survive through time. These results suggest that the significant independent variables are critical to business longevity and the entrepreneurs have to find ways on how to use these competencies to their advantage so as to reinvent themselves and revive their industry.

Table 1. Summary Table for the Mean Scores and Manifestations of the Ten Entrepreneurial Competencies

PEC Characteristic/Trait	Mean Score	Manifestations of the Trait to the Embroidery Enterprises
Opportunity Seeking	15.61	• Keeping up-to-date with trends • Somehow being vigilant with the external environment
Persistence	16.43	• Correctly complying with the needs of customers • Providing good quality products and service to customers • Constant supervision of business operations • Solving bottlenecks along the way • Ongoing production even if the situation is not favorable • Disregarding the criticisms that the embroidery industry in Taal is dying • Redeemed themselves after several fire incidents
Commitment to Work Contract	19.83	• Ensuring that their products are completed on time • Fulfilling the contracts they have with their customers and suppliers • Promising customers that they do not sacrifice quality during the production process
Demand for Quality and Efficiency	15.78	• Supervision of the embroiderers' work • Being the one who mans the boutique or store • Quality control
Risk Taking	13.87	• Due to the tedious process of borrowing from banks, some prefer to borrow from "bumbays"or informal lenders
Goal Setting	18.52	• Having a successor • Formulation of intended strategies • Approximation of target sales • Disclosure of goals to family members and employees
Information Seeking	16.78	• Use of catalogs for the designs of embroidered products. Seldom use the internet for this purpose. • Seeking for reliable source of supplies
Systematic Planning and Monitoring	16.87	• Scrutinizing the procured raw materials • Constant supervision of the embroiderers' work • To keep track of records, some seek help from accountants
Persuasion and Networking	13.48	• Giving advices to customers when it comes to designs • Developing and maintaining good working relationship with suppliers and employees • Projecting good image to customers through good service • Used the network of family, friends and colleagues
Self Confidence	17.87	• Believing that Burdang Taal is still the best among the rest

From the summary in Table 2, only 7 out of 15 variables showed significant values that are correlated with business longevity. Even though others were considered insignificant according to the statistical test results, this does not suggest that these variables are not important in a business venture. These results only reflect the internal factors, as manifested by the entrepreneurs, which guarantee Taal's enterprises' longevity. The variables' positive relationship with business longevity implies that as the factor increases, the possibility of business longevity and survival increases too.

The result obtained from the correlation analysis (Table 3) showed that there is an inverse relationship between the economic factors and longevity. This means that those external factors in the economy do not greatly

Table 2. Summary Table of the Correlation of Longevity and the Internal Factors

INTERNAL FACTORS	SPEARMAN'S CORRELATION COEFFICIENT(r_s)	DEGREE OF ASSOCIATION (alpha=0.05)
Age	0.3100	Not significant
Educational Attainment	0.1772	Not significant
Having a successor	-0.2190	Not significant
Generation currently managing the business	0.4974	Significant
Entrepreneurial competencies:		
Opportunity seeking	0.0281	Not significant
Persistence	0.44996	Significant
Commitment to work contract	0.4285	Significant
Demand for quality and efficiency	0.5685	Significant
Risk-taking	0.2913	Not significant
Goal setting	0.2806	Not significant
Information seeking	0.4724	Significant
Systematic planning or monitoring	0.4758	Significant
Persuasion and networking	0.3979	Not significant
Self-confidence	0.2397	Not significant
Total of all PECs	0.6412	Significant

Table 3. Summary Table of the Correlation of Longevity and External Factors

EXTERNAL FACTORS	SPEARMAN'S CORRELATION COEFFICIENT(r_s)	DEGREE OF ASSOCIATION (alpha=0.05)
Competition	0.6258	Significant
Customer's preferences	0.4663	Significant
Economic factors	-0.3067	Not significant

affect the business operations and they do not contribute to the longevity of the enterprises. Although it could be misleading (as the results showed that economic factors are not related to business longevity), it should be into consideration that such results only pertain to the strength of its relationship with longevity. The respondents' answers to this category varied a lot resulting to a trend that is not significant for this test.

Using Spearman's Correlation Coefficient, the relationship of significant internal and external factors is estimated to range from low to moderate (Table 4).

5.5. SWOT Analysis

The SWOT matrix presents the strengths, weaknesses, opportunities and threats of the embroidery enterprise cluster in Taal, Batangas, Philippines (Table 5). Various SO (strengths-opportunities), WO (weaknesses-opportunities), ST (strengths-threats) and WT (weaknesses-threats) strategies are generated from the matching in the matrix. Such strategies include market development, product development, creation of an association of Taal embroidery entrepreneurs, product design innovation, strategic alliance building with fashion designers, establishing branch locations and outlets, aggressive

Table 4. Summary Table of the Relationship Between the Significant Internal and External Factors, and Longevity

INTERNAL AND EXTERNAL FACTORS	SPEARMAN'S CORRELATION COEFFICIENT(r_s)	RELATIONSHIP WITH BUSINESS LONGEVITY
Internal Factors		
Generation currently managing the business	0.4974	Low to moderate
Entrepreneurial competencies:		
Persistence	0.44996	Low to moderate
Commitment to work contract	0.4285	Low to moderate
Demand for quality and efficiency	0.5685	Moderate
Information seeking	0.4724	Low to moderate
Systematic planning or monitoring	0.4758	Low to moderate
Total of all PECs	0.6412	Moderate
External Factors		
Competition	0.6258	Moderate
Customer's preferences	0.4663	Low to moderate

marketing campaigns, developing close ties with suppliers and local government units (LGUs) to boost fiber production, conducting market surveys, training the out-of-school youth to engage in embroidery and encouraging home-based embroidery enterprises.

6. Integration of Findings

This section deals with the integration of one analysis to the results of other analyses. PEC analysis was employed as a basis for the statistical analysis. It was found out that entrepreneurs scored low in risk-taking, persuasion and networking, and opportunity seeking; thus, implying that these are their weaknesses. These results eventually matched the correlation findings making them insignificant to business longevity. In this regard, the low scores in those traits accounted for the various problems encountered by the respondents. For instance, the problem of lack of innovation can be

attributed to their general PEC result of being low in opportunity seeking. They could have mitigated this problem by searching for market gaps in order to address what the market really wants. In the case of the entrepreneurs, since they scored high in information seeking and this trait was found to be significantly affecting business longevity, this could serve as their edge to search for new information so as to develop new ideas that could improve their businesses. Also, since competition and customer's preferences, which both came out as significant in business longevity, are prevalent and continuously changing, respectively. Therefore,it is the entrepreneur's responsibility to devise new strategies in order to have a viable fit with their environment. On the other hand, the lack of promotional strategies and sole market channel led to the key weakness of the industry (i.e. limited markets served) and key threat of intense competition. This was caused by the respondents' low risk-taking attitude to search for new markets or even tie up with large market chains. This can also be partly

Table 5. SWOT Matrix

External / Internal	STRENGTHS	WEAKNESSES
	1. Enterprises are located in Taal's center of commerce. 2. Taal is still known for its embroidery. 3. Taal embroiderers are very skilled. 4. Entrepreneurs receive strong support from family members	1. Lack of innovation 2. Quality of products have been fading for most enterprises 3. Limited markets served 4. Low production capacity
OPPORTUNITIES 1. There are untapped markets 2. Fashion trends are revolutionized 3. UPLB's use of "Sablay" (embroidered ceremonial graduation sash) 4. Potential for creating an association due to their number 5. Increase in number of local fashion designers 6. The enterprises are near some suppliers in the area	**SO STRATEGIES** **S1, S2 & O1:** Market development **S2 & O6:** Vertical integration or maintain good relationship with the suppliers or connect with other LGUs to encourage fiber production **S3 & O2 & O3:** Product development **S4 & O4:** Create an association for Taal embroidery entrepreneurs	**WO STRATEGIES** **W1 & O2:** Be updated with current trends and come up with creative ideas and designs **W2 & O4:** Create an association that would help each other project a better image for Burdang Taal **W3 & O1:** Market development **W3 & O5:** Strategic alliance with these fashion designers
THREATS 1. Intense competition among industry players 2. Increase in number of rental shops and stores adopting rental services 3. Lumban's continuous flourishing state 4. Climate change that could affect both raw material sourcing and clothing trends 5. Lower purchasing power of customers due to economic reasons 6. Existence of other uses for piña cloth	**ST STRATEGIES** **S1 & T1:** Consider other geographical locations for branches **S1 & T2:** Aggressive marketing strategies such as increasing market outlets and formulation of promotional activities	**WT STRATEGIES** **W1 & T1:** Market surveys **W2 & T2:** Make embroiderers work in-house **W3 & T1:** Search for other possible areas to operate **W4 & T4:** LGU should encourage and train out-of-school youth to be involved in embroidery

offset by their information seeking trait since they could find new market segments to tap.

Meanwhile, their low persuasion and networking trait caused problems such as embroidery craftsmen/craftswomen who slack off and thus resulting to low production capacity. These problems also became the weaknesses of the industry. However, the

respondents' high score in commitment to work contract and demand for quality and efficiency, both significant to business longevity, can somehow solve those problems. With the entrepreneurs' determination to honor their word with their customers, they could come up with ways (e.g. supervise them from time to time) to avoid embroidery craftsmen/craftswomen who are not productive and efficient. For the presence of rejects, this problem was considered as a weakness that led to low quality products. Although the respondents rated high in terms of the demand for quality and efficiency traits, there is no guarantee that all the products produced are in good shape since some of those have minute errors.

As mentioned earlier, the respondents scored low in persuasion and networking, which is the reason behind the perception that there is a problem in the supply of raw materials (i.e. piña cloth). This problem can be solved by their information seeking trait by searching for new contacts and connecting with those that would be helpful to the business. The lack of skilled workers or embroiderers, on the other hand, was rooted from the youth's lack of interest to the craft. The entrepreneurs could also take part in solving this dilemma by persuading their children and relatives to learn the craft so as to avoid its extinction. Lastly, the problem of waning working capital during the lean months can be solved by their systematic planning and monitoring trait. The generation currently managing the business is a significant factor affecting business longevity, thereby it is responsible for all these findings. This generation is in-charge of capitalizing on those strengths to overcome its weaknesses and problems.

7. Recommendations

The statistical findings generated from this study show that there are significant internal and external factors which affect business longevity. Such results allowed the generation of options for the entrepreneurs, wherein some would possibly address the problems they face. These were based on the statistical results and SWOT analysis and these recommendations were classified according to operational and strategic categories. The creation of an association consisting of Taal embroidery entrepreneurs, market development, product development, implementation of aggressive marketing strategies, having strategic alliances with fashion designers, conducting market surveys, and making the embroidery craftsmen/craftswomen work in-house. For the local government of Taal, it was recommended that they should come up with beneficial programs (e.g. livelihood programs, financial assistance, trade fair sponsorships) that could aid the entrepreneurs. If considered and implemented by the entrepreneurs, there is a high possibility that their negative image being projected in the minds of the public would be changed by reinventing themselves and coming up with new ideas that would benefit not only a sole enterprise but also the whole industry.

This manuscript has not been published previously and is not under consideration by another publisher or journal, and the study in this manuscript has been conducted in accordance with the Ethical Guidelines set forth by the Institute of Management Research at Kangwon National University.

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