

## CHAPTER 5

### QUALITATIVE RESEARCH SUCCESSFUL AND NON-SUCCESSFUL CASES

#### 5.0 Introduction

The study of business creation and the problems pertaining performance have been studied intensively throughout times but largely lately. However, studies seeking to analyze the difference in performance of females versus male owned business across sectors are uncommon in general and particularly in the context of island of Puerto Rico, whereas these are virtually unknown.

This case study uses triangulation techniques to identify the competitive advantages existent in SMEs on the island and how these factors determine success. The methodology utilized is based on in-depth personal interviews, on observation of businesses premises and the utilization of data files from the analyzed firms. To increase objectivity, interviews are implemented not only with the owners /CEOs, but also data collected includes archival information with employees and accountants to increase validity and reliability.

Case study was selected, as the method of research because of its historical and contextual nature. However, this method of research has often been questioned. Specifically, many researchers believe that the method not being quantitative in nature does not possess the confidentiality many sectors ascribe to quantitative methods. Seeking to resolve this

issue, this chapter not only analyzes the results from this case study, but also discusses why the qualitative system has been used as input and as exploratory research for the second phase of the study.

## **5.1. Results and analysis of the cases**

What follows is the description of each case analysis in a case-by-case format. Findings are divided by sector (successful and non successful). In addition, each case describes the history, interview analysis, and the application of the competitive audit test. Further, the cases presented are summarized in table format. Conclusions and recommendations appear at the end.

### **5.1.1. Successful Firms: Historical and demographic data, business activities, current actions and future.**

Firm 1 was founded 28 years ago on January 31 with \$3,000 dollars though it was not until a year after when the owner formally initiated the business on a weekend basis. Service was provided in an ambulatory manner from a borrowed truck and with \$1,000 as initial investment for merchandise inventory. Respondent is the president/ owner/CEO. Currently there are 20 employees and three more will be added in the year 2000. Sales revenue for 1999 was \$12 million while one fiscal year ago these were 10 million. In the year 2000 sales are expected to increase by 10%.

Business unit activity: The firm sells mostly wood (45%) but also offers general hardware mix products: paint, cement, steel, bath equipment and other miscellaneous. Business is oriented (40%) to wholesale activities and (60%) to retail. Most employees are relatives and have been with the firm for a long-time. New hires are few. Customer's service, satisfaction, and good accounting systems are a consistent focus of these firm operations. The firm is customer driven and consultation with customers regarding new

needs is constantly done. Human resources though apparently not high in skills seem to be satisfactory.

Firm's activity, development, and current situation. The idea for forming this company came from the founders love for wood, his desire to succeed and to help, his family and because of his drive and determination to seek better opportunities. He initially worked as an accountant at a well-known lumber and supplies store. Moreover, to achieve "his dream", he worked in the industry for seven years and one year with regular pay and a weekend job, before going alone. His mentor was the firm's owner, who upon learning of his weekend operation allowed him to continue with his firm for three months. His job provided him guaranteed pay and encouraged this owner/CEO to try out his luck. This opportunity has been his inspiration, and action for which he has been forever grateful. At the outset and to sound off the market, the owner he talked to buyers in the field who expressed, their frustration at the quality of materials available. Soon after, he decided to serve their needs; he started by borrowing a truck on weekends and began to deliver the wood to cabinetmakers at their homes. As to the wildest expectations of the owner, in three months of hard weekend work, he had recovered his investment and made more money than he earned on salary in one year (salary was \$165 per week). Coming from a family of 17 brothers and sisters, this entrepreneur has achieved a remarkable success in a relatively short time. He is the only brother in business and outdid, by far, his parents' small neighborhood store.

Location. Originally, the firm's was situated at another site in the same street but has been moved twice, until ten years ago when the premises were located at the current site, where it remains. Product offer is mostly based on refined wood and all types of products oriented to the construction industry. Relevant is its bath and accessories section. Furthermore, this firm became the first to have an air-conditioned showroom in the Western

side of Puerto Rico. Most of the firm's clients are wholesalers, small retailers and institutions; sales are both cash and credit. However, 60 % of sales come from small consumers. The CEO has established excellent commercial relationship exists with all sectors. Additionally, the firm has a high recognition level and is an industry leader. Though decisions are centralized, employee's opinions are considered relevant. Previously, the wife was the controller and right hand person; even though she came to the business when it was solid firm. A succession system is implemented.

Interestingly, the founder believes his success is due to credibility, reputation, good relationship to all, and in his serving his clients right with added value. Advertising is mostly in-house and location is excellent with high visibility. Main Competition is incoming from a local giant chain per example Pitusa's lumber, and previously form Builders Square, a failed multinational. The CEO believes that his firm has a very effective competitive strategy and that having his competitors located closely has helped more than threatened him. The competitive scenario has changed amply now compared to the one which existed when the firm initiated. Those days the big firms were: Frontera Hardware, Esmoris Madera, Puerto Rico Lumber, and Cesani Hardware. None exist today. This entrepreneur added that, ten years ago he saw in an industry show what would be the hardware store of the future, yet he already had the system installed at his premises. Average earnings per year are 12 million dollars; currently the firm is establishing a computer inventory system.

Analysis of firm 1. This firm has an enormous reputation in the community, both among clients and colleagues. The owner keeps control and is the center of activity. To ensure that competition does not get out of hand, he helps other storeowners by subletting products on consignment. Though his business was initiated with scarce resources, trust in

his abilities, his capacity, and a strong motivation, backed up by wife and family, inspired him further. His training in the army, large family and studies prepared him for a life of discipline, hard work and dedication. All these factors combined, provided him with the capacity to develop resources and obtain and project competitive advantages over well-established firms. Advertising wise, since the firm's starting point and this still goes on, including matching competitors prices if clients bring a written validated note. Special and customized services are offered even to the client's doorstep as well as supplying requested labor are predominant competitive tools. Supervision and making sure customers are treated promptly is well emphasized. Wood has become a niche and constitutes the majority of the firms' services, added to bath and kitchen equipment. Good product mix, trendy merchandise and obtaining via catalog anything, has proved to be a successful strategy. Loyalties among personnel, plus good employee retention, in addition, to stringent cost control and trust have positioned the firm to an advantageous situation.

During this last two years, the firm has developed more areas of strength's economies of scale in buying and sales, and in his supplying government and major contractors. Supplier vendor relationships are excellent; all sectors are informed of offers and take advantage of them, in addition of being provided to using cash discounts. To keep informed the administration attends fairs, a knowledge base that is later transferred on to customer improvement. Technology is being used now by establishing a computerized inventory system. Currently new services like broadening the showroom and improving training programs will be installed. Delegation and less centralized decision-making plans are underway. Applying the competitiveness audit test to this firm derive significant results. In a scale of 100 the firm obtained a 90% score, an excellent performance.

Firm 2. Was founded 25 years ago on January with \$15,000. Respondent is the president/owner/CEO. Currently there are 15 employees and the number is expected to increase by 10% yearly. Sales revenue for 1999 was \$ 4 million dollars with an expected increment of about 10% yearly. Business unit activity: the firm sells mostly glass and derivatives and high-priced quality prime wood. Prime customers are specialists in wood and glass; therefore, knowledge of the market is a must. The

firm operates in a specialized niche market. Business is oriented 30% to wholesale activities and 70% to retail. Most employees are long-term employees many of whom worked for the firm owner's defunct father's factory. Only two employees are new hires and are mostly students relatives of workers. Emphasis is in customer's service and satisfaction. Management assures that cost control and strict accounting systems are the main reasons for success. Physically, the firm does not look attractive and is overcrowded in space distribution. It also appears to be customer driven offering continuous consultation to customers seeking to improve their homes. Employees appear knowledgeable and seem to participate in some level of decision-making, yet not amply.

Firm's activity, development and current situation. This Firm started as a corporation since it's beginning. Before locating where it is 8 years ago, premises were at three previous sites. The business specialization, price range, high value and reputation is excellent; a fact well recognized by most specialized buyers around the area who recognize the firm's quality offer and prestige. Wooden doors, mirrors, accessories and complements for wood and crystal are also sold as complementary line items. To enrich and provide a partial one-stop sale, varnish for boats and homes and special glues and wood protectors are also offered. The owner stresses that his main advantage is being in a unique sector where he deals mostly with knowledgeable clients. He entered this niche because of his knowledge and love for wood and his exposure to his father's business of quality wood door making. Contrary to his father, he states, he knew early that manufacturing small quantities was not profitable. Decision-making is centralized but the owner appreciates his workers honest opinions. An apparent drawback is that no succession is planned which might be a growth deterrent. No external management been implemented nor are there plans to use it, except for a highly reputable local accounting firm, which also handles all governmental responsibilities and affairs. In terms of decision-making, the CEO considers himself conservative in decision-making and is quite satisfied with his business.

Knowledge of the market and his suppliers is apparent. Regarding suppliers, the firm does not use one single supplier. The owner quickly points out about the hindrances of this process if

difficulties arise. Therefore, he has alternative suppliers and also multiple tasks employees. To be informed about the environment, he attends fairs; he often travels to become acquainted with his suppliers, many of whom are from Brazil. Most of the products offered are imported directly from US and South America. Service is the key to his market position, a trait he ensures by providing his clients with optimum service, counseling, competitive prices and, managerial efficiency. Cost control and growth restraints are emphasized. Even though the firm has some competitors, this does not worry him. Moreover no growth plans exist yet, nor does the owner consider them probable since, he enjoys the position, size, and solvency the firm has always had. Regarding business plans, no business plans were ever done; however, he does prepare advance orders and has budgets. Average yearly sales are 4 millions dollars. Similarly, the firm takes advantage and saves by paying suppliers early on a cash basis.

Analysis of firm 2. This firm competitive advantage resides in its specialized niche market of high quality unusual wood and glasses. Expertise and knowledge, from both the owner and its employees, of their client's wishes and market has been a sustained advantage for over two decades. Resources were obtained early in the business life, the owner's and his team capabilities and drive has turned the business into a reputable institution. In spite of the premises not being attractive or comfortable by local standards, this firm operates in a recognized niche. Success to them rests on their market knowledge, hard work, reputation and smallness of size. The CEO states that they do not offer only products supply but high quality products; he also aim to always have the best wood in the market and to maintain good collaboration with all, a fact he considers also key to success. Location is an area of strength as well as his administrative system and cost control. The firm shows financial soundness and increases its soundness by establishing excellent supplier, client and bank relationship while taking advantage of discount and good credit offers. Financial planning is stressed constantly. However, a few apparent disadvantages were observed or perceived by

this analyst. It is this researcher's belief that his unwillingness to expand operations, his centralized decision making will instill competition. Likewise, not offering better incentive to his employees, and just following industry standards is negative and instill exodus. Ranking for this firm on the competitiveness audit test places the business at a 95% performance. This is quite above the minimum 80% efficiency factor.

Firm 3. Started in 1980 with \$25,000 dollars. Respondent is the president/owner/CEO. There are 85 employees and plans exist to increase them to 85 in the year 2000. Sales revenue for 1999 is \$12 million; expectations are to increase sales by 10% yearly, at minimum. Moreover, employees are very knowledgeable and actively participate in decision-making. Business unit activity: the firm is oriented to selling products of a typical hardware store. Emphasis is in prompt service competitive prices and delivery. A major focus is the sale of bathroom and kitchen equipment of modern design oriented toward home development. Sales are oriented to both wholesale and retail customers. The firm operates in a rather competitive market and is a well-recognized competitor in the area. Growth, high levels home based competition, as well as vendor relationship, is central to the firm growth and positioning.

The firm offers credit system, is quite responsive to customer needs, and believes in employee's involvement and development. Administratively, this is the most technologically advanced firm, and a manual of rules is currently under consideration. Competition to them is basic for growth and efficiency. A good cash base, cost control and a strict accounting system are implemented, in addition to offering good quality products. The firm premises and the location factor are predominant aspects for their success. A program of customer satisfaction continuous consultation is implemented and revised often. Especially this service is offered to customers seeking to improve their homes.



Firm activity, information and current situation. This firm started when the owner and founder saw a for sale ad for a small hardware store in his hometown for \$25,000. He borrowed money from relatives and bought it. Before buying the business, and during the first two years of founding, he taught at a university (Master in Social work) and worked at a friend's hardware. Later on, he raised additional money to buy a bigger and well-located lot that he saw for sale. The main business premise and central office at that location and this remains the main site today. After leaving his jobs, he devoted solely to operate his business. The business expanded operation in 1990 by opening a second business unit. Thus, in 1995 another business unit was opened; this followed by a third business unit, which was opened in 1998. Plans for a fourth business unit are underway; these premises should be in operation by the end of February 2000. This will make a total of four business sites. In the year 2002 the four sites are operating successfully.

This entrepreneur/founder expressed that he never visualized growing, but realized that to obtain profits and to be successful he needed to grow in order to obtain economies of scale. Competition to him is growth. Success is due to a well-organized structure and hard work, with some delegation of authority. In spite his very apparent success, no plans were ever done. However, he stresses and it is the opinion of some of his assistants, that he mentally structured everything he wanted to do and explained the concept to his employees accordingly. He considers himself a risk taker. Currently and since five years ago, the firm prepares forecasts and budgets and exhibits good financial and sales structure. To provide soundness of operations, the firm offers its own credit card, services clients at home, and delivers merchandise free of charge the same day.

Employee's loyalty and satisfaction is a goal. Likewise, many of his employees

started with him and know the business as well as the owner. Even though most employees are long-term, the firm is constantly updating its database and employs new groups in summer time so as to attract and recruit new employees. Employee's participation is sought after even though final decisions rest on the owner. Historically, though the firm started with 3 employees it currently has 85. Financing which originally was obtained from friends and family is now provided and constantly offered by banks. The owner belongs to professional and local civic associations. The owner/CEO believes his firm has a niche which consists in offering merchandise oriented to newly built homes specifically kitchens and baths. A strong belief exists in offering differentiated services, home delivery, and of developing their line of business in his hometown area, where his friends and family roots are a solid advantage.

Analysis of firm 3. All of this firm's four-business units are managed from the Mayaguez central office, and they have locally based managers at every site. Decision-making, accountability, and empowerment are given to all. Major decisions are in accordance to plans, which, are discussed in a weekly staff meeting rotated throughout the units. Resources of all nature are ample now. Physical location is well chosen and sites are placed in prominent areas in main highways. Financially, the organization is sound and human resources are creative, active and loyal. To the owner, his best resources are his human assets. Professional development and flexi-time is encouraged creating, thus, participative management. Remuneration and a happy atmosphere pervade though, more in some units than others. The core competence for them is their uniqueness: same day delivery, credit card system and customized well-priced offer of baths and kitchens for development. Capabilities are developed around the clock.

Community base and relations are nurtured as well as supplier's relationships. There is an apparent strong market orientation and advertising is implemented via all media, an

added focus to their growth. Additionally, technology is implemented in computerized system for personnel, inventory, including procedure manuals was recently implanted. The firm is ahead of competition and is a solid field of middle class to lower middle class customers. This SME has outgrown its competitors and the CAT has proved to be an additional measurement. On a 10-point scale of the twelve factors applied, this firm has rated the highest at 95.8%. Improvement needs to be done in establishing either a benefit system or health improvement program as an incentive measure.

### **5.1.2. General commonalties, differences analysis of results and observations.-among successful firms.**

Among the successful firms interviewed, their owner's founders manage most of their firms, and most firm founders achieved higher level education, with the exception of firm 2. Their profile shows that all are locally born, raised and educated and, extract from humble origins. Common trait is that all have at least a bachelor in business administration focusing in accounting except F3, whose owner possesses a master in Social work. A strong belief exists toward the need to encompass strong societal and business ties, and in the strength that strong family ties provide them. All CEOs are ambitious, have an intense desire to do well, and are happy to have out-done their elders. Further, commitment to work and prospering is a further commonality. None of the firms under analysis prepared any formal plans at founding time.

Currently all these firms implement budgets and forecasts and, as such, are able to plan. No strategies exist still. Financing the business premises at founding time, in all cases, came initially from family borrowing. Only the funds from one firm came from banks in the form of loan guarantee backed-up by certificates of deposits. Currently these firms are all financed via credit lines extended by banks are incorporated. Financial soundness

proliferates among all firms. On the average the number of employees by store unit is 20 persons and firms have been founded an average 24.3 years. Income by unit is about 5 million (US) in the independent sole units and 3 million in the multiple unit business (F3). Starting capital was on the average \$20,000, except F1, which initiated formally with \$3,000.

Across the board, all firm's founders believe that knowledge of the market, customers loyalty, and in the strength and quality of the human resource base as their source of strength. A further source of strength and competitive advantage is the constant search for new products and complementary lines at the right prices in order to "guarantee" customers loyalty. Offering the latest trends in the market and servicing promptly, they believe, adds to their success base and customer added value. Key to success is their strong capability for hard work, costs constraints, their credibility and reputation for honesty. Excellent organization and a good cash base, so as to take advantage of sales offer and cash discounts, is another source of competitive advantage. Additionally, the back up and support received from family and friends have become key to them, since most all their time is devoted to the business.

Research per se is not done by any of the firms. However, all attend business fairs, association meetings and, through these networks, their supplier's magazines and words of mouth communication, they become aware of latest trend. To publicize and keep their firms competitive, inside the firm and/or on the spot advertising is done; radio ads and word of mouth communication works strongly for all. Throughout the years and via extension of personal credit, these firms have been able to keep certain trusting customers. Loyalty is rewarded with good product offers and pricing strategies. While decision-making at most firms is centralized and rather dictatorial, owners consult their employees. Moreover, employees are treated fairly and are very loyal. In addition, the majority of firms have had

the same employees throughout the business life. Across the board, new techniques are being devised to retain employees and customers' loyalty: cash bonuses, a common industry practice, larger store and loyal client discounts, extension of limited credit plus prompt services. In general, well-known clients mostly order by phone and pay upon receipt and premises are visited when in doubt. Customer traffic is relevant and influential.

Performance measurement of informal plans is done mostly via end of year sales, tracking sales and securing customers orders constantly, so as to make sure goals are achieved. In addition, continued reputation is a visible signs of continued success. CEOs believe that to achieve success firms need: location factor, parking space, and to attract consumers with varied and trendy merchandise at the right prices. Alternatively, all belief in the importance of service delivery, collaborating, and attending the right civic and social events belonging to the networks and continue to prosper. Even though all these firms expect to continue doing well in the future, they know quite well that their success is tied to the economy, and to the economic cycles that determine the stability and relative success in the construction industry. Most firms, additionally, recognize and make excellent usage of their resources and need to take care about their finances, having good cash flow and supplier relationships and keep premises attractive. To avoid interest charges, they pay most accounts in cash, within 30-45 days, an excellent profit incentive. To most firms, if payment is received within 15-30 days they obtain savings of 10- 15% of the billing. Another relevant commodity is the location and visibility factor and having good inventory. Neither firm has either an adequate system of delegation, only one firm has established succession, proper employee accountability and participative decision-making capacity among subordinates. This lack of managerial strength could backfire in case of sudden sicknesses or accidents.

Regarding overall expectations for the next five years and growth, most firms are satisfied

with the size they have attained and their income which is believed higher than expected in the industry. Most firms do not confront the idea posited by some researchers who insist that no growth is dangerous. During the next five years and in the future, all firms analyzed expect to consolidate their position by: solidifying further their cash base, improving customer's service and obtain further clients loyalty via improvement in products offer and providing better trained employees. Furthermore, competition is seen as healthy and it forces them to be better not just surviving. It is also their belief that the large number of small satellite firms that have emerged the last two years will fail since they do not possess the capability to compete. For these firms, to compete better nowadays a need exist to recognize and continue tracking the economy, and to increase overall sales volume by about 10% yearly. In spite of the influx of foreign firms, local firms belief to have profited more from competition than lost.

On a negative side, these firms' disadvantages reside in the owners' realization that, if they do not often supervise and remind employees of their duties and the need to offer courteous service to clients, business will suffer. The same occurs with sales deliveries that are key to competition in this market; they need to make sure it occurs as planned. They also belief, contrary to some research, that delegation can create problems if employees are not well supervised and closely monitored. A need was expressed to have stronger backing from associations and government. To them, most government offered plans and even privately rendered conferences is not appropriate and timely. Their consultants like accountants, it was expressed, offer counseling though mostly preposterous. All firms acknowledged the need to urgently increase employees training, to establish proper job definition, delegation and to create organizational charts so as to continue to operate and compete efficiently in the future. Regarding investing in R & D, no much exist. In addition, no firm has ever accessed

government assistance or consulting. The only time assistance is sought after is to file proposals for government projects. Moreover, two of the owners admit to weak credit collection policy, the exception is firm 3 which has credit card system managed by a local bank. Growth is anathema to most. Only one of the firms cares to growth. The other firms are comfortable with the market position achieved and the financial position attained.

## **5.2. Non-successful firms**

Firm 4. Was founded in 1929 with about \$5,000 in capital; it was located in a family owned lot. Respondents are the former vice-president/administrator to the original firm. The current owner started initiated in 1989 as one of the new co-owners. A new administrator is in power, but because of a family split in the firm, she refused direct participation. Indirectly, data was obtained through accountants and one of the former managers who is no a co-owner. There are currently 7 employees; and there are existent plans to diminish the number. Income for 1999 was \$300,000 down dollars from a \$1.1 million made in the 90's. Income is expected to decrease slightly in the year 2000. Business unit activity: the firm is oriented now to selling a small weak mix of miscellaneous products typical of hardware store and some remnants of their previous iron stock. Sales are oriented to both wholesale and retail customers. The firm operates in a rather competitive market and though they are known in the area as "nice people" the locale is not the place to look for neither variety nor trendy products. One of original 40 remains; three others are relatives, all of which have been a long time with the firm.

Firm activity, information and current situation. The firm analyzed originated from the traditional corporation when succession was implemented, at its time this was a unique firm. The original business was established based on a perceived need for foundry work destined to supply the needs of ships, hospital, trucks and covers for septic work and streets.

At founding time, this was the only business of this nature island wide it offered custom made and contract services that included products for the United States Navy, a privilege for a town company, then. The former business was started by a visionary man, not formally educated and of humble origin that used to work for a sugar refinery company as bookkeeper and mechanic. The company from the beginning operated as a corporation owned totally by the founder and his family; the founder was married and had two daughters who according to tradition did not work outside. Ten years later administrative partner was invited in, with 10% ownership; the intention was to obtain and improve managerial skills. “A further purpose for this liaison was color. Those days of color broad color discrimination required that for dealing with the US army someone of lighter” skin is hired. The owner was dark skin.

Later on, by the mid 1940’s, the administrators and owners complemented the service offer by establishing a hardware store. Product offer included those intended mostly to satisfy the needs of the same previous sectors and of the homes established in the city. In addition to traditional hardware products, unique products made by the foundry were offered, per example: iron pots and pans. Financing both at start-up and at mature stage was done using personal capital. Premises were owned and rating was triple AAA, as per Dun and Bradstreet, an excellent rating. Cash was and is scarce, while the firm was and still relies on private line of credit as back up to business operations. Accounting system control has improved and is still provided by a reputable accounting firm, a condition required for Small Business Administration (SBA) loans. Product offer remains limited.

The firm’s peak successful period was reached from 1987 to 1988, at which point the firm sold 1.1 million yet; never during that period break-even occur. Sales were about 40% foundry and 60 % hardware. Employees on payroll were 35-40 at peak time. Cost structure



was about 48%, considered, by them, high by industry standards. Decisions were centralized and made by the owners; no plans were written, nor were succession planned. The managerial association formed by the early 1940's worked for some time. The business grew, and soon became renowned for its offer. Being unique, an almost monopolistic system of services, the firm grew while its existence was recognized as a monopoly for some time. Moreover, products were mostly custom-made, providing a unique niche. By the 1940's, the owner, contrary to tradition, brought in his two daughters and their husbands to work with him.

During the 1950's the firm solidified but other competitive firms entered the market in the San Juan area, creating, as such, competition. Even though newly entrants did not directly compete with them, their customer base was eroding. Business kept apparently well, accounts were covered, and respect was broad. Written plans never existed nor were forecasting done or used as a planning tool. However, accounting records were precise. In general, orders were mostly well implemented yet; often delivery was late, losing, as such, some clientele. The foundry sector provided over 60% of the income but, numerically speaking, the number of clients was larger in the hardware sector. Since "orders were custom made and contracts were based on "personal word", some products orders were often not collected. Company strength derived from producing quality, and unique products oriented to the industrial market. 1940-60's were excellent years for the firm. By late 1950's, however, Puerto Rico's economy started changing from an agricultural to a totally industrial economy.

By the 1960's further erosion surged with the entrance of union leadership from the US mainland. These union leaders were searching for bounties and started havoc for the administration. Twice they had to temporarily closed down because of strikes, yet the firm

survived. By the 1970's business was slowly deteriorating without being noticed by owners. Still, existent funds covered debts and allowed the firm to have a minimum return. Private money covered the rest of the debts and saved face. By 1988, a third generation came in. This is formed by an administration of newly emerging college grads though inexperienced. A new managerial mode was attempted and the elders resisted the imposition and scrutiny. An outside expert audit was called for by the new managers/administrators as a diagnostic step, to determine the business situation, and to prevent being "blamed" for failures. Financial reports presented by the auditors were not encouraging.

A new plant strike started in 1990 and, as a result, because of the firm's lack of capacity to meet the demands of strikers either managerially or financially (nor to supply the unreasonable benefits desired), the company decided to fold and re-establish and entrench itself. By then, the original founder had died and the remaining founder had now remarried to one of the daughters, who a widowed. This "new" family now possessed a majority or 50% of the firm from the wife and the partner's 10%. As a result of this new composition, the firm was reorganized and divided for the two families. One part, the foundry group and the cause of union problems, was assigned to one family this group totally folded two years later. The foundry sector inventory and scrap were sold mostly below market prices. The hardware group was assigned to another group and still remains and lingers performing minimum operations. This sector is lead by an engineer university graduate who started her career at the firm and has been with the company since 1990. The new hardware management has struggled to keep afloat to no avail since competition is too strong and a cash shortage in the firm is pervasive. The firm has not ever met minimum income nor breaks-even but still survives. No location costs exist since the premises are owned and paid for, and some family money sustains it. As it appears, this could be Firm 4 last year in

operation, though unconfirmed. Income is below \$300,000 per year. Now in 2002 the firm remains in business and continues to be weak.

Analysis of firm 4. The firm premises and the location factor are still good. Employee's knowledge of the business is good; service potential remains limited and slow while delivery is weak. No major sales emphasis exists and responsiveness to customer needs is non-existent. This firm initiated in a very specialized market, had ample resources and competences; the level of creativity, technology and capability of the group was unseen those days. As such, the firm served in a niche and unserved market. Though lacking in education, the founder made his firm a highly prestigious one. Just establishing a business of this nature was a milestone. Financial soundness, excellent location for a factory, a good clientele and exclusive markets were main sources of competition. However, as competition intensified, and the environment changed the firm lost the advantages attained and has not been able to recuperate still. The economic transition from agricultural to industrial society of Puerto Rico slowly eroded business orders and sales while the firm was unable to counter-attack. After sustaining the leadership in the field for so many years, the firm initiated a downturn during the 70's. By the 90's all apparent solvency went down the drain. Currently, the firm is basically the last place to go to obtain a product and most people believe it is non-existent economically and their owners remain and retain the business out of pride.

In the competitive audit factors scale this firm rate very low in performance, a 57% percent. Currently no competences exist in any area. The firm is located at the same site, has an erratic and obsolete product line mostly made up of old inventories, has reduced its client base significantly and suffers from recurrent cash crunches. Sales continue downward.

Firm 5. This firm presents some similarities to firm 4. It was founded in 1995 with a

combined inventory of \$50,000, a name buyout (for \$140,000) for a total capital mix of \$190,000. Respondent is the president/owner/CEO. Employees currently are 9 from a total 15 at founding time. Sales were \$300,000 in 1999 and expectations are to liquidate in the year 2000. Business unit activity: the firm sells typical products characteristics of any hardware store. Neither distinct advantages nor qualities are identified. Customers are mostly homeowners and small number minor contractors buying on credit. The firm operates in a rather competitive market and has not been able to keep up with major competitors. Operations are kept with minimum personnel. Cost control and strict accounting systems are in operation. Location is not good for the target market aimed at. Employees are average in knowledge and service skills. Rent is high and, an increasing cost contract diminishes income potential specially because of diminishing sales.

Firm's activity, development and current situation. This company was founded after the firm under the same name folded. As part of the liquidation package, the owner (an accountant and product buyer, who had stock-sharing, for the original firm) decided to establish his own firm in the same type of business. The name and some of the inventory for \$140,000 to be paid in installments were bought from the original firm. Some extra inventory was added and credit was obtained from suppliers. This owner though educated had never owned a business previously. His related business experience was obtained only at the original main company. The firm was located in the same main highway and about two kilometers from the former establishment. The former firm, whose name was bought, used to sell on the average \$12 million per year and had about 60 employees; their product offer was also basically the same as that of any other hardware store and geared mostly to small consumers. However, they were renowned for low prices and as "the worker's house". The firm under analysis operates on the same terms, except that, no price advantage exists,

competes in a more difficult environment and has no customer identification.

The firm is oriented mostly to small consumers who live in satellites areas located nearby and to transient customers who travel to nearby towns. Sales are both on cash and credit. Services and relationship to other competitors is known as excellent but product offer is limited because of lack of existent cash. In addition, some customers/clients have folded without paying debts of about \$20,000, leaving thus the firm at a worse financial situation. As to the owners account, the first two years of operation were excellent and financing came from private funding and guaranteed bank loans. Their problems started during the firm's third year due to high rent, which coincided with the beginning of the renovation and the closing of the highway access (plans the owner never foresaw). As a result, sales declined.

As a preventive measure and to cut costs, after assets were reevaluated by the government and huge debts accumulated, the owner reduced his sales force, and cut down in inventory. Product offer is not big and net sales are at their lower point in the 4th year. Currently, in the fifth year, the owner has not been able to cover costs, pay government debts nor sustain it at least breaking-even. A decision to fill for bankruptcy was done and the firm was supposed to closed down by end of February or beginning March 2000. As of May, 2002 the firm is still in limbo but has not totally folded its operations.

Analysis of firm 5. This firm is an exception since the owner acknowledges failure yet cannot change his situation because of lack of capital and advance age. On the average, most hardware stores tend to gravitate to a mix offer of clients made up of contractors and small customers. This firm problem is typical of a company that does not do its research and establishes a business without knowledgeable assistance. The problems faced are not totally managerial, since the owner is quite capable, knows its numbers, is realistic and has accepted

the fact that he can not recuperate lost image neither in this type of business nor at the present location. Though he is closing the business totally, he plans to liquidate creditors. Being at an early middle age he can recuperate from this loss and establish another business. The problem faced today by this firm was not unforeseen.

When the locale was leased, the planned construction and access closing by the government was a plan established much earlier. Therefore, his mistake was not accessing government plans, which proved to be his demise. Using the name of a firm that had already failed, no matter how much recognition the name had, was another mistake. Of course, entering the market in a traditional hardware store without distinctive traits complicates the spectrum in a highly competitive industry. The business location is at a traditional site for cars, niche products and for construction wholesale supplies. Nevertheless, there are also two other large stores of this kind in the neighborhood and not enough client bases. Additionally, the business possesses no distinguishable characteristics and is just like any other business that also happens to have a non-distinctive facade. Resources, which were partly tied down to a name and a rather high rent of \$2,500 dollars is a too high fix cost for a small store, this has worsened the firm economic position.

Neither competitive advantages nor areas of strength exist in this business in spite of the owner's apparent administrative capacity. In addition, it appears that the owner is not able to acknowledge any responsibility for his demise; he just blames and rests responsibility for his demise on competition and governmental decisions. The audit competitiveness audit test assigns this firm a 63.75% rating, a very low classification.

Firm 6. Was founded in February 1996 with 7 employees and \$75,000 dollars in a locale owned by the founder and adjacent to where the original hardware store, owned by his

family, was. Originally the founder used to be chief buyer and was the engineer who built the premises. Respondent is the president/owner/CEO. Currently the firm has 4 employees including the owner's son and a part-time secretary and employees have been with the family all their life. Income, which reached a maximum of about \$500,000 the first two years, went down to 300,000 the 3rd year. During 1999 personnel was reduced to two employees, son, owner and part time secretary, sales went down to \$200,000.

Expectation is to go downward in the year 2000. Business unit activity: the firm sells mostly bath and bath related equipment of good quality but out-dated and high priced. In addition it sells paint and related elements and products for household use; no cement and related construction products are sold now but they did so during the first year of founding. The number of customers keeps decreasing throughout the years; however, the owner expects to recuperate some customers. Clients are mostly homeowners (mostly elderly) and students who live in rented apartments nearby. Sometimes painting contracts for buildings appear nevertheless these contracts are mostly on credit. Small sales are cash and operations are kept at a minimum. Location currently is not the best since traffic is heavy and to reach their private parking takes a long time. The locale physical appearance is not attractive in design nor colors and atmosphere.

Firm activity, development and current situation. This firm was initiated after the founder picked up proceeds from the liquidation of a family owned hardware store and corporation. The former firm was one of the leading innovating service hardware stores of its kind with a high reputation in the community. Mostly they served contractors, the industry and, in smaller proportion, the general population. It had the reputation of being rather expensive even though some of the lines carried were excellent. As population and competition from incoming businesses increased the advantageous position, they firm had

declined. However, the owners and their family were leading society members and kept up pretenses of success for some long years. At failing and dissolution time, the business was managed by the third generation.

The current business operates in the same line of business as its predecessor yet with tremendously lower glamour, smaller location and started wrong from its founding. The owner basic reason for forming the same type of business was that he had experience in the sector and as an obligation to provide employment for his four children, just like the generation before him did. When the firm initiated operation, all the family, except the wife, worked at the business. As of May 2002, only two family members operated the store and the business exist only by pride. Operations are none-existent.

One of the founder's early decisions was to change the firm name. Only the family's name was tied to the firm. As a result, and as soon as suppliers, with whom this founder was counting to supply him with a line of credit, realized and knew that this was a different corporation and business, credit was severed. After two years of founding, the economic situation deteriorated badly. No large capital existed, no supplier line of credit and meager bank reserves. Net income was low from the beginning, most inventories acquired from the family business were not saleable; neither wholesale nor retail clientele materialized. After suppliers retired their line of credit, the owner was forced to go to expensive commercial and personal credit lines creating, as such, a deeper cash crunch.

Product offered by the firm was not typical of the industry since it tried to specialize in baths; tiles, paint and a merge of small products typically sold at home supplies. Also, the firm had high levels of obsolete inventory atypical of the times and clientele for whom they were intended, in addition to being overly priced and not in the style range of consumers who



could pay for the brands. Large amount money was tied in and there appears to be not a high possibility to sell the stock. Regardless of ads and sales announcement, the owner has not been able to liquidate his inventory. Moreover, customer's traffic is almost non-existent. In the four occasions the researcher visited, not ever more than two persons came in together. Currently sales rest mostly in sales of small items intended for home use; and, since the location for the hardware is a bad one, in addition to offering outdated merchandise, sales continues to go down drastically. The situation in the year 2002 is even more deteriorated though pride keeps the owners hanging on. There is also an apparent lack of managerial capacity. Though the owners personal reputation is good, business-wise the firm is non-existent in competitive terms. Adding to the firm's malady is the owners' debt to the government's social security system, and CRIM (property and inventory tax system). Both debts are punishable with high interest rates.

Future prospect for the hardware store is almost non-existent. Financial expectations are lower for this year. The owner acknowledges that he expects to sell a farm to pay government, clear his name and later will decide what to do. The audit competitive test places this firm at 57.5% level of efficiency, a very low rating.

Analysis for firm 6. This firm does not appear to possess any distinct advantages, qualities nor identified areas of strengths. It is apparent that at founding, the firm was able to obtain some sales because of loyal friends and family backing, but as the product-mix deteriorated, the support evaporated. This firm lacks the managerial skills required for survival. No distinct competitive advantages exist nor were competencies found anywhere. Though this company founder possessed ample experience in the industry, he started with the wrong foot when all signal the firm should have survived. Even though physical resources

and reputation did exist, the mix of variables was negative from the start. The product-mix and service orientation in addition to lack of managerial skills and a bad location were negative factors from the beginning. Plans were never made nor did any customer base ever exist. Financially, the firm was weak from the beginning. Currently the owner owes money to all and is incapable to turn the tide. Moreover, no realization of the real problems accumulated exists. Even in January, during the last interview, the owner expected to improve.

This firm initiated by possessing more resources than most yet, the capabilities of the founder and his employees/family have did not help to develop the firm. Neither name nor reputation adds to improve the firm's precarious situation and image because it lacked the right mix of product and customers. From the beginning not even the owner, it is the researcher's belief, had a clear idea of what he planned to do. In general, the bath and kitchen inventory was incorporated not noticing that style and prices did not match the taste of customers in the price range he aimed to target. As a result, sales did not materialize. Adding erratic product items did not make a difference since the product/service mix and advertising could not improve a poor product service selection. Lack of cash reserves deteriorated even further an already poor situation.

To add misery to the malady, not having enough cash to support operational decision and the inability to cover costs and government responsibility created chaos. There is no apparent possibility for this entrepreneur to continue and compete in the market, as it is. On the contrary, he will continue bleeding his precarious finances. This firm future remains very uncertain. The only salvation is to fold by filling for bankruptcy protection and save whatever remains. Filing for unemployment benefits could solve the fate of the son and employees temporarily. Taking his share of blame and preparing a payment plan will diminish

slightly the firm's losses. However, family pride and name prevents the owner to make these decisions. Regarding the Competitive audit test, this founder comes out in a rather poor situation. He does not even reach a 64% point in a scale of 10 in the 12-point factor scale. Indecision to change the product mix, to make efforts to advertise- via personalized ads- its wholesale bidding deteriorated the firms' capacity and the only opportunity it initially had. As such, the firm touched bottom and has not been able to even cover operational costs. A current customer toward whom the owner aims for small buys is a terrible and volatile mix. He will be better off by liquidating inventory and subletting the premises than to continue in a dead-end business.

### **5.3. Commonalties, differences, analysis of results, and observations.- non-successful firms.**

These firms are all managed by their owners/founders. Two of founders received higher-level education, and are commitment to hard work. None of these firms prepared neither any formal plan nor does it today, yet, budgets are prepared generally in-house and neither firm access external consultants nor administrators. Two firms have received government-backed loan via the Small Business Administration, guaranteed bank loan program.

On the average, the number of employees is 6 and the firms have been founded for about 4 years, except Firm 4. Income by unit is less than \$300,000 dollars per year and neither firm appears to be able to increase neither income nor employees. Most of these firms started with higher capital than the successful firms in the study. In addition, the firm's owners had certain level of experience in the industry, in general. The profile of the owner/founder describes them as Hispanic, Puerto Rican native, mostly of humble background with the exception of F6, which comes from successful Spanish businessmen and well placed socially. Owners in this sector also believe in the need to have society and business ties and in the strength that strong family ties provide them. Some believe are very

bitter about society and government's role in their demise. These firms also believe that their human resource is a strong loyal motivator. A motivation to form their company was emulating parents, economic need and firm desire to prospect beyond family expectations.

Non-successful firms agree in their position that the market is saturated and the government has pushed them down the drain with property taxes and high cost per employee. Neither of these firms foresees positive changes in the next five years nor do they visualize being able to remain much longer in business. One firm expects a kind of miracle to turnover his business and, since this founder takes social security, this is a way of staying on by doing something. All these firms agreed that at some point their reputation and location was a positive factor, not anymore for all. Even though market research was not ever done, owners do, however, attend fairs, read industry brochures and attend associations meetings (Chambers of Commerce) as source of information. Most industry knowledge is, however, acquired via contacts, via visits to competitive businesses locally and abroad, and through client's relationships.

These firms have several common traits with successful firms. Most of these firms did relatively well in their beginnings, they also realize and reaffirm that to succeed you need to work hard, establish cost constraints and have an excellent client product mix. Another commonality is that firms' owners are happy at being self-employed and making their own decision, though some at major costs. However, with one exception, (F5), neither did more than break-even and thought this was O.K. Thus, however, they have not been able to achieve nor retain these factors/qualities that gave them an initial positive position. Nowadays, satisfaction to these firms comes from covering debts and supporting themselves and families. Usage of resources by the non-successful sector is weak. Atmosphere and appearances are somewhat gloomy; likewise is visibility; merchandise organization, music,

ambiance, friendliness and decor. In addition, workers appear less busy, halls and illumination is unattractive.

Some of these firms believe government is to blame for their maladies, that competition is too strong and taxes too high and, in addition, that the high cost of benefits per employees is killing them. None believes they should include better technologies, employees, comply with employee benefits nor training since they do not possess the economic means. Mostly, these firms have employees of 20-25 or more years who are ready to retire and uncovered by benefits. One problem that surfaced throughout the dialogue with government employees and bankers is that, with the exception of one firm, these firms are being fined by the government for non-compliance with the law, specifically the non payment for Social services and employees benefits like social security or unemployment tax, a breach to the law and a terrible negligence that affect deeply employees retirement and benefits.

While competences and areas of strength were immediately seen and highlighted in successful firms, in this group neither outstanding nor relevant competences are seen. These firms exhibit market myopia and lack of competitive and managerial skills. Two of these firms never had the resources or the capability of entering such a highly competitive market.

**5.4. Tables highlighting and comparing successful versus non-successful firms**

The following tables summarize those aspects which throughout the six cases were either common criteria or diverse.

**TABLE 5.1.** Common elements & differences: successful & non-successful firms

| <b>What is your company's Strategy? Did you have any when you started your business?</b> | <u>Successful firms</u><br>None  | <u>Non-successful firms</u><br>None   |
|--|--|---|
| Which factors have made your firm  | -Knowledge of the industry, having quality products & strong focus on clients. Human | -Before they had knowledge of market<br>-Failed because of lack of Innovative |

|   |   |   |
|---|---|---|
| Successful or could have made it successful?  | resources & employees development & close supervision<br>-Care for all, hard/work, willpower * dedication with emphasis in organizational development, strong management with good accounting & financial soundness.<br>-Location, having cost controls & good cash base.<br>-Networks, trust & economies of scale                              | product line<br>-Too much focus in custom orders<br>-Lack of adaptable technology & Good product and cash position<br>-Weak price strategy<br>-Weak financial situation and loss of clients |
| How do you Evaluate if your strategy is successful?   | -Sales obtained vs. sales planned.<br>-Customers opinions<br>-Cash base versus plans done<br>-Returning/customers<br>-Accounting reports  | -Sales obtained<br>-Repeated orders & debt coverage<br>-Number of customers   |
| What is your Company's mission in terms of future growth?   | -Expect 10% overall growth & improved sales.<br>-Establish new outlets, increase personal services & keep informed<br>-Increase customers loyalty   | --Survival. Makes enough to break-even<br>-No future growth expected.<br>-Pay debts/liquidate/survive   |
| Any changes is expected in the next five years? Any changes seen the last five years?             | -No changes seen or foreseen. Need exist to track the economy & trends better. Increase employees.<br>-More competitors & client mix changes are expected.  | -Liquidate obsolete inventory<br>-Try pick up new customers<br>-Aim to Break even and improve contacts with small contractors<br>-Penetrates homes  |
| <b>What is your company's Strategy? Did you have it when you started your business?</b>           | <b><u>Successful firms</u></b><br>None  | <b><u>Non-successful firms</u></b><br>None  |
| Which are your company main areas of strength(s)?   | -Credibility, reputation & good community relationship.<br>-Customer orientation priority & obtaining direct purchases & good prices from suppliers<br>-Location & prices offered.<br>-Dedication, family, respect for clients. Cost controls.<br>-Advantage in cash/distribution, nets & clients loyalty & service, besides clients counseling | -Location<br>-No cost/owns site<br>-Before: clients & good location<br>-Personnel<br>-Owned premises.   |
| Your main weaknesses?   | -Credit policy, train employees better, diversify t/ other products.-Need to implement more social action for employees & improve health plan.<br>-Instill better service for clients   | -Outdated, not having access to main technology & unable to sell right products.<br>-Obsolete merchandise & high Inventory.<br>-Not right market attack, cash problems                      |
| Which challenges affect overall business performance & future?                                    | No challenges expected if they keep working hard to satisfy clients.  | -All type of problems, cash scarcity, heavy competition, lower sales, near bankruptcy. Need to associate, buy cheaper & eliminate tax debts.  |
| Changes in environment might affect Plans? Competitor, societal analysis, strengths & weaknesses? | Yes. Changes in government, laws, and clients. But, they can face them.   | Lots of them. Just to survive is all. Strong competition from large firms &, high government demands.<br>-Competition, debt and lack of capital   |
| Is your firm successful?  | Yes   | Was, but it is not anymore  |

**TABLE 5.2. Distinctive Competencies and Competitive Advantage**

|  | <u>Successful</u>  | <u>Non-Successful</u>  |
|--|--|--|
| Which is your company's main potential | -Continue right product offer to clients & being unique in offer to clients<br>-Continue to grow & develop niche market at home base | -None, right now.<br>-Penetrate homes<br>-Just continue holding by |

|  |   |   |
|--|---|---|
| Which are your main competences (s) & or advantages?   | -Location & quality of personnel<br>-Cost/controls, knowledge of market & being in niche areas.<br>-Discipline , being cautious with prices & customer/Service w/ varied products | -Before knowledge of market not anymore<br>-Owned location, reputation  |
| Are there any advantages unique to your firm ?         | -Knowledge of market & clients<br>-Quality products & employees   | None specially, just like any other firm.                               |
| Which sector should you emphasize to stay competitive? | -Continue service quality<br>-Improve training  | -Sell old inventories & collect debts.<br>-Increase cash & more clients |
|  | <b>Successful</b>   | <b>Non-Successful</b>   |
| Areas of strength in five years ?                      | -More sales & financial soundness.<br>-Economy of cost & better resources.  | Unknown   |
| Any change utilizing main resources in the future?     | None foreseen, keep improving.  | -None planned.<br>-Improve cash position                                |
| which are the most relevant areas to develop?          | -All areas need constant reviewing  | -All. Most urgent is financial & to buy at better prices. Get more cash |
| The least relevant areas?                              | All relevant  | All important   |
| What is needed to continue being competitive?          | Improve all sectors & cash. Get more clients, products, inc marketing   | Get cash & keep customers happy.  |
| What is success to you?                                | -Sell well, obtain respect & ROI  | - Get good sales & cover debt   |
| How is decision- making implemented?                   | -Decisions made by the owner. Opinions are sought. Partial participative Mgt  | Was and continues centralized in decision-making.                       |

### 5.5. Cases analyzed under the competitiveness audit (TCA) test

As was expressed before, this method of analysis was devised with the sole purpose of equating qualitative aspects and having a common comparative tool.

**TABLE 5.3. Successful firms**

| COMPETITIVENESS FACTORS   | F1   | F2  | F3   |
|---|--|---|--|
| 1. Strategy dimensions, long-term goals and decisions concerning means to reach goals. Probe that plans of some nature exist.                     | No formal plans or written strategy existent. Only acct. Plans & cash budgets. 7 pts | No written strategy. Accounting & mental plans always. 7 pts              | No written strategy. Accounting and budgets exist. 9 pts                                     |
| 2. Human resource policies that support business performance, including planning, staffing, compensation, appraisal, training & development, etc. | Do exist. Formal organigram nor training practices. Seminars are given: 8.           | All exist. No formal appraisal. On the job training. 8 pts.               | All exist. No formal appraisal & on the job training & development. 9 pts                    |
| 3. Intra- business unit communications. Effective flow of inf. Horizontally and vertical, within the unit. Cross-sharing.                         | Communications exist & are good. Can be improved. 9pts.                              | Communications flow can be improved. 8.5 pts.                             | Good open communications. Cross sharing still is needed. 9 pts.                              |
| 4. Total quality management- emphasis on improving customer satisfaction. Monitor total quality improvements.                                     | Continuously sought after. Will increase training. 9.5 pts                           | Observed all the time by employees and owner. 10 pts.                     | Observed all time by all sectors. 10pts.   |
| 5. Product/service development and improvement. Innovation  | Very innovative in all. Space in service area small. Will incr. Line: 9              | Very innovative but can improve. 9 pts.                                   | Most innovative in all aspects. 10 pts.  |
| 6. Marketing and sales response/ customer needs. Tracking and improve responses to customers requirements   | Follow up is given. Suggestions boxes. Employees need to be supervised often. 9 pts. | Constant follow & good. Personalized services. Limited customers space: 9 | Excellent follow up . Personal & prompt service. Ambiance and suggestions boxes. Raffles: 10 |
| 7. Vendor relationships. Involvement of vendors in improvements & development   | Very good with most. Pay timely 9 pts.   | Quite good in all respects. Needs to develop & improve                    | Participative development & improvement: 10pts.  |

|  |   |  |  |
|--|---|--|--|
|  |   | vendor relationships 8.5 pts                       |  |
| 8. Process improvements. Degree at which service improvements is valued  | Very valuable. Employees need to see it more. Can improve: 9            | Very valuable. 9.5 pts.                            | Highly valuable. 10 pts.                               |
| 9. Type of management: participative, empowerment  | Almost centralized decision-making. Needs improvement. 9.0 pts          | Rather centralized decision-making 8.5 pts         | Participative. Major decisions made by owner. 9.5 pts. |
| 10. Organization structure. Role definitions, formal reporting allocation, groupings, coordination and integration | Most functions exist, no Organization chart. Simple structure. 8.5 pts. | Functions exist but no formal charts. 8.5 pts      | Charts exist to show system. 10 pts                    |
| 11. Business unit culture. Shared norms, values, attitudes and culture.  | Some norms are shared, apparently. Religion strong in some. 9 pts.      | Shared norms exist.. Cohesiveness obvious. 9.5 pts | Shared norms and culture. Other not obvious. 9.5 pts.  |
| 12. Recognition of need to function with international competitors   | All are very aware. No expansion 9 pts.                                 | All are very Aware. Of it. 9 pts.                  | All are very Aware. 9 pts.                             |
| Total accumulated points 1-10 rating per category among 12   | 107/120= 89.16%   | 105/120=87.5%                                      | 114/120=95%  |

Source and base of the 12 competitiveness factor dimensions: Ahlbrandt & Slevin, 1992 in Slevin and Covin (1995). The model was initially applied to established new ventures that showed investment potential. Minimum rating should be eight out of 12. Basis for individual answers: indicating positive performance on a factor. Scores can be converted to %s and averaged.

**TABLE 5.4** Non-successful firms

| COMPETITIVENESS FACTORS  | F4   | F5  | F6   |
|--|--|---|--|
| 1. Strategy dimensions, long-term goals and decisions concerning means to reach goals                          | Neither formal plans nor strategy. No long term goals. Dubious plans: 6.5 pts. | Specific goals exist 7. Financial analysis. Neither formal plans nor strategy. 7.5 pts. | Erratic plans. No strategy. Weak usage of accounting. 5 pts.                   |
| 2. Human resource policies that support business performance, including planning, staffing, compensation, etc. | Planning non-existent. Emergent approach. Salaries by law. Weak. 7 pts.        | Compensation OK. Planning, staff, and training is weak 7 pts.                           | All aspects weak. Salaries by law. No formal training. Benefits unpaid: 5 pts. |
| 3. Intra- business unit communications. Effective flow of inf. Within the unit. Cross-sharing.                 | No cross sharing only order top-down. 6 pts.                                   | Top down approach. OK. Process of inf. 7 pts.   | Weak in instructions yet relaxed flow of communication 7 pts.                  |
| 4. Total quality management- how it emphasizes customer satisfaction. Improving customer satisfaction          | CST. Satisfaction good before, bad now. No improvement. 6 pts.                 | Customer satisfaction weak because of products scarcity. Basic services ok.:8pts        | Service of existent product ok. Variety is problem. 7 pts.                     |
| 5. Product/service development and improvement. Innovation   | No service improvement. 6.5 pts.   | No foreseen service improvement. 7 pts.   | Service weaker. No improvement: 6.5pts.  |
| 6. Marketing and sales response/ customer needs  | None existent. 6 points.   | Some exist. 6 points.   | Some exist. 6 points.  |
| 7. Vendor relationships  | Rather weak. 7 pts.  | OK. Still. 7.5 pots.  | None almost :5.5 pts.  |
| 8. Process improvements. Degree of continuous improvements achieved in products and services                   | No improvement only deterioration. 6 points.                                   | No improvements. Basic services. Bankrupt. 7 pts.                                       | No improvement anywhere. 6 points.   |
| 9. Type of management: participative, empowerment  | Centralized though now a bit less. 7. 5 pts.                                   | Semi centralized. 9.0 points  | Centralized decisions. 8.0 points.   |
| 10. Organization structure. Charts delineate reporting, allocation, and communications systems.                | None. 0 points.  | None. 0 points.   | None. 0 points.  |
| 11. Business unit culture. Shared norms, values, attitudes, beliefs,   | Few norms are apparently shared. Culture OK. 8                                 | Apparently loyalty exist and beliefs.   | Shared norms and culture. Owner did  |



|  |                            |                              |  |
|--|----------------------------|------------------------------|--|
| culture, and assumption guides to behavior.                        | points.                    | Cohesiveness too. 9.0 points | not paid SS. & employed benefits. 8.5 points |
| 12. Recognition of need to function with international competitors | Aware. None seen. 9 points | Very aware. 9 points.        | Very aware. 9 points.                        |
| Total competitive factors points                                   | 68.5/120=57.08%            | 76.5/120=63.75%              | 69/120=57.5%                                 |

## 5.6. Conclusions, implications and linkages to other studies

The qualitative research described in this paper examined the role competitive advantages and distinctive competences play in determining success for Puerto Rican small and medium sized businesses (SMEs). This research involved three successful and three non-successful cases, which for some might be considered relatively a small number, however, they are considered more than adequate for diverse reasons. The construction industry was selected because it is highly representative of a significant economic sector in the Puerto Rican economy not just in terms of growth and income, but also because it represents the second position, percentile speaking, in terms of firms failing during the first three years of life.

The resource-based view of the firm perspective was chosen as the theoretical framework underlying this analysis, especially because this theory explains, in a precise manner, the conditions that determine firm performance and closely relates performance to core competences and competitive advantages. This view stresses how the competitive advantage of firms relies on the valuable resources the firm possesses and, additionally, explores the relationship between resources, competition and profitability and how to sustain competitive advantages. One of the propositions of this view, expresses that environmental change is relentless and that firms need to be innovative in order to compete and succeed, which confirmed even further the adequacy of this theory as the best suitable for this research. Thus, the focus on the firm's internal strengths increased the unchallenged selection for this view as focus for this empirical analysis.

The conclusions pertaining this research address not only some of the most relevant concerns in this study, but also how research findings relate to significant literature and empirical research, on a limited basis. Conclusion presented involves the most significant findings, some of a more general nature and others more specific. To counterbalance firm's opinions, a brief summary on the point of view of contractors is presented, when appropriate. Conclusions reached and how they relate to research findings and studies appear forth:

First.- Demographic similarities and general findings across successful and non-successful firms showed that: Initial analysis showed that demographics of both sectors owner/founders is mostly similar in terms of marital status, backgrounds, motivations and goals. Age of founding happened to differ. Successful firms owners in this study initiated their businesses earlier than non-successful owners/founders and also became more successful. Goals in business ownership present similarities in terms of the achievement and independence sought, across groups. Most owners have university degrees in business with focus in accounting, except one owner who did not complete higher education. In all firms studied, the main motive to found their business was seeking independence and success and with was done with an average investment of \$20,000. Income for a typical firm in this industry is 4 millions US dollars. Founders are all Puerto Rican native, of humble origins that tried to outdo their elders and acquaintances.

These study findings positively suggest that, ingrained motivation to establish their businesses, risk factor and youth increases success expectations. Therefore, it appear that founders who started younger, as is the case of the successful firms studied, tend to perform better than founders who started later tying, thus, empirical findings to literature regarding risk and age of business founding. Moreover, in the case of the firms analyzed, most had

specific reasons to succeed, either because the parents did bad, to solve the economic situation of the family, others because of the need for status. What can be inferred from this research is that the stronger the motive the higher the level of success entrepreneurs has reached.

Of the firms analyzed, three are performing excellent and growing, one filled for bankruptcy, another is financially and managerially null and the other is agonizing as to what to do in the immediate future. Business skills, knowledge of the market, personnel, clientele and offering quality products and differentiated services, were the most highly rated skills among all respondents, even the non-successful firms, however different the results. How the firms analyzed deals with customers, employees and governmental responsibilities and how the resources found were used provided a highly different perspective.

Second.- Firms interviewed, in general, concur that the primary sources of competitive advantages and the most desired to possess, which they have, in this industry (qualities that, in general coincide, with most areas of strength) are: loyal and trusted employees, excellent and loyal customers, location, financial soundness and budgeting, strong organized management stressing cost control and a varied up to date product line. Of lesser importance, to them, are accounts collection system and supplier relationships as sources of competitive advantages. However arguably, the non-successful firms, though they speak of budgetary control, might not understand it, since two of the firms interviewed have repeatedly failed to comply with governmental benefit retention and compromises, to mention a few. Doyle & Wong, (1997) found a commonality when they asserted, that successful firms are those that achieve a sustainable competitive advantage that is founded in customer satisfaction and financial performance. Results also support the researcher assumptions that entrepreneurs with the greatest competencies and capabilities tend to choose

the best avenues (strategies) and then use these competencies to achieve success.

Third.- Competences and capabilities. Competences are firm specific skills that empower business to adapt quickly to changing opportunities while capabilities is the result of what firms can do using their team of resources. To most successful firms examined, their competencies reside mostly in their knowledge of the market and customers, on selecting and developing excellent personnel and on having established strong cost controls, on having a good location, on being alert to changes and reacting quickly to pressures. To a lesser extent, competences also reside in having good community base, business and family networks, inventory planning, supplier /customer relationship and experience. Education, price competition and other fiscal and tax pressures is not considered as relevant. On the other hand, managerial capacity to do the most with the resources possessed, abundant or not, is what to them differentiate one firm from another. They are assertive in expressing that whichever relationship they possess, has taken year to attain.

Non-successful firms, on the other hand, believe that they do not possess any competencies and that they are just like all firms and offer services like everyone else. However, some of these firms, at some point in time did appear to have possessed competencies. Their loss of competencies might have occurred because of their incapacity to face-up competition, which then were non-existent but as soon as more firms came into the market environment, they lost their edge. The construction industry is to everyone's opinion a highly competitive, aggressive sector and requires prompt reaction that, to most interviewed, only comes with competent management. Success in this sector is thus rather difficult and volatile.

Studies infer that firms obtain income, not just because they have better resources, but

also because their distinctive competence relies in making better use of their resources, Penrose (1959). Regarding non-successful firms, evidence suggest an explanation as to why firms which were successful. Accordingly, it is reported that, sometimes-unanticipated changes in the economic structure of an industry may cause that, what once and advantageous to the firm, is no longer valuable. Therefore, the competitive advantage previously existent ceases to exist. The process of losing competitive advantages is called “Schumpeterian Shocks” by authors like (Barney, 1991 and Schumpeter, 1934, 1950).

Fourth.- Success to firms studied is due to various factors. Most successful firms identified that their success is due, mainly, to precise market identification, having strong customer orientation based on respect and trust, on providing good quality products, based on their capability in managing existent resources. Well responsive human capital and prompt, efficient and personalized customer service as well as on the owner managerial expertise rate equally. Having the right location is to them important but not a priority. The success achieved by this firms has been attained because of “their way of doing business”, their credibility and reputation for honesty developed throughout many years in business.

To a lesser degree, success is tied to perceiving and knowing trends in the market, competing well with others and communicating, to sales growth, good relationship among all, cooperation across industry groups and having sound financial position. Contrary to other opinions, firms, specially those in niche market, belief that regardless of wherever they are and the financial position attained, their customers will come to them wherever they are located at. Marketing usage appears also to be a strong indicator of success and is used as a tool for its capacity to attract consumer and stimulate traffic. However, most firms acknowledged they have not changed much their attitudes on how to invest and implement marketing practices to any significant level. Their reputation and levels of exposure is strong

in the community and in nearby areas is an additional source of strength.

It is assumed that hard working and innovative entrepreneurs who exhibit a capacity to create and innovate are more successful; in these firms it is paramount. Studies by Doyle and Wong (1996:531) address the idea that companies with strong marketing and planning have a strong correlation with performance. Non-successful firms, on the other hand, could not express clearly, what success meant for them. Mostly, success, to them, means remaining in business and surviving for a few more years. Neither of these firms appears to be clear either into what services they should exactly perform in business or on how they can achieve any goal. Nor are they clear on how to respond appropriately to the high levels of competition and on how to acquire the required managerial readiness to continue in business. Industry experts agree on most factors mentioned by successful firms. However, they contradict the marketing emphasis, which, to them, is not a relevant factor. Compliance with orders, offer of quality products at the right price and time and quantity are the main requisites for success in the construction industry.

To this researcher, the apparent discrepancies are not so abysmal; they just vary according to the client served: small consumer and large contractor. Literature reviewed also posits a further commonalty with these findings, as Castrogiovanni (1996), Shonesy and Gulbro (1998), Lussier (1996) found out. They report that small business owners should, among others, be concerned with information about the economy and with knowing that success and failure are bound together, even though at opposite ends of the continuum.

Fifth.- Performance and growth expectations in most successful firms appears to be specifically related to financial soundness and customer retention. Growth is measured mostly quantitatively not in the size of the firm. These firms express the need to have

quantitative and qualitative performance measures to compare: the most relevant are growth in sales, return on investment, break-even analysis, and number of returning clients. There is also an apparent level of size (smallness) acceptable to survive in the industry. Apparently firms with higher levels of sales of more than \$300,000 can handle future challenges well, but are not considered successful in this industry.

Sixth.- Planning and growth. All firms across sector expressed that they never executed any formal written plans at any point, yet some of these firms are very successful. They achieved their goals by having clear mental frames of what they expected to accomplish and maybe, also some luck. Currently some of the successful firms do plan via budgets and exert ample control measures. Owners emphasized that their mental plans always existed based on what they expected to achieve in the future. Planning, per se, to these firms does not appear to be an strong indicator of success. Admittedly their budgets and informal plans vary quite often and is just a tool for them.

Literature reinforces various arguments regarding planning realities in SMEs: Timmons argues (1990) that one of the most striking characteristics of the successful entrepreneurs is his or her attitude towards and use of planning and that in practice, however, it is very rare to see structured plans in small firms. Other studies express that there is no consistent association between the strategic planning process and performance (Kargar and Parnell, 1996:6). Naffziger and Kuratko (1991) and also refer to in Naffziger and Mueller (1999: 1), on the contrary, reaffirmed in a study that 71 out of 188 small business had planning processes that included written plans for at least three years into the future. From this researcher standpoint, the successful firms interviewed have shown after a long endurance in the market a high capacity of adaptation and have remained on top. Non-

successful firms expressed similar attitudes as to what success is, regardless of their situation.

In terms of growth plans, none of the successful companies did foresee any growth plans. On the contrary, most firms replied as to being happy to keep their status quo. Growing further, to them, means losing control. Only one firm grew to create four business units and the owner explains he did it as “part of its natural process”. Most successful firms in the island, observed and studied by this researcher, appear to be happy with the size and performance obtained and with their cash flows and client base. Empirical results reaffirm the assumption that not all firms care to grow and some are rather complacent with the positioning obtained.

Seventh.- Perceptions of industry and the environment. For successful firms under analysis, the industry and the levels of competition have reached high points. The industry is constantly changing, and competition is constantly and incoming from all sectors: local firms, employees, chain stores and multinationals. However, because of cultural loyalties and the nature of their customers, services and credit relationship, most clients come back. New firms, to them, cannot provide services, as their large and small customers are accustomed to. The non-flexible nature of large firms does not facilitate serving customers as requested by them. It is their belief that competition rather than hurt has helped them. It has created more loyalty and has made them realize their weaknesses and increase differentiated services.

To successful firms, the construction industry has no entry barriers and is open to all. To them, anyone entering the field needs to have is: knowledge of the industry, solid managerial expertise and some previous experience in the field, desire to work hard, to be ready with sound financial backing and networks of information and social contacts and being flexible in offer while constantly following latest technology in the field. Industry



contractors see the requisites to entry in the same light. Non-successful firms do not agree with these opinions. The non-successful group acknowledged the environment is terrible for them and, that possessing capital and having the right contacts and supplier credit is terribly relevant to prevail. Most do not foresee any possibility of improvement in almost any area.

Eighth.- Areas of weaknesses to firms. While successful firms acknowledged areas of strength they also uncovered and coincided in their weaknesses. Firms expressed weakness and a need to further improve on several aspects: need to improve personnel training, increase their customer satisfaction programs and employees benefits and implement better marketing techniques. Non-successful firms, though not possessing evident advantages, replied that customer service, human factor, location and financial soundness are, to them, the most relevant aspect of any business and that not being strong in them constitutes a weakness.

Ninth.- Relationship between planning and performance. It seems evident that the relationship between planning and performance in small firms bears significance on strategy and managerial decisions. Results from firms analyzed suggest that while formal plans were not ever executed, some type of informal and accounting plans did exist. Therefore, guidelines to future actions apparently existed. Moreover, not possessing formal plans did not inhibit success or growth in successful firms. It might be that, in these specific cases, other factors made the difference. Planning literature associated with this study suggests two key issues should be addressed: planning should be an integral part of strategic management and the benefits outweigh the costs. Additionally, effective planning not the process appears to be positively associated with success (Kargar and Parnell, 1996).

Tenth.- Measurement and evaluating firms applying the utilization of the Competitive audit test proved to be an excellent and additional performance evaluator. The application of this test to each firm reaffirms research findings in regard to successful firms need to be performing efficiently in many aspects. Under this test twelve sectors are rated. Consequently, Firm 1 exhibits a competitive rating of 90%, ten percent above the expected 80% for good performing firms. Firm 2 has an 88.3% rating, while firm 3 shows the highest rating 95.8%. The opposite occurs with the non-successful; all the firms analyzed neither was able to perform near the 80% competitive mark. Likewise, their responses did not appropriately match nor compared in any aspects to the answers given in the interviews by the former sector.

Eleventh.- Why so many firms still fail in Puerto Rico? Reasons for failures in this industry, according to opinions given by the interviewed, bankers and contractors are varied. Bankruptcy in the construction industry and in the Puerto Rican economy, is occurring for multiple reasons: personal traits and demographics of business owners; age, levels of risk taking and aggressiveness (best productive year for business owners place them in their early 25-30 and, it is known that entrepreneurs tend to make their fortunes before their forties); lack of related business experience at founding and not being involved intensively in their businesses, and lack of financial capacity, appears to be the most relevant factors. Lack of business intuition and getting into business for quick cash out, though a common answer appears less relevant.

Findings indicate that firms that have shown a capacity to react to environmental changes appropriately and have the capability to make the right decisions will continue doing well. The opposite happens to firms who do not possess the characteristics identified. Reports posited by private and public sources show that the rate of business failures is quite

high. Nevertheless, if many firms in the same industry and geographic location do well, as is the case of the firms analyzed in the construction industry, there is no apparent reason for so many bankruptcies, except the lack of the factors that instill success, since the industry is doing tremendously well.

Twelfth.- Future plans for all the interviewed including successful firms, appear definitely positive until five more years. The non-successful group expresses ambivalence. The former group is certain that there are, however, major areas of improvement. In the short term, these firms foresee a need to increase their capability for environmental research, increase their knowledge of the market and industry, and improve employees training and decision-making capacity and create more employee benefits, not those necessarily salary related to stimulate employees. In the long term, there is need to establish organizational charts with clearly delineated line of authorities, and to increase general operations to obtain sales beyond the 10-15% percentage. Non-successful firms, on the other hand, do not expect almost anything of the future and acknowledge a rather weak performance and failure. However, these firms expect to exit responsibly and ethically by paying their debts and protecting their employees before closure, even at a personal expense.

It is the researcher's observation and opinion that results from this research regarding competitive advantages and core competencies as determinants of firm performance taken from a single industry has shed some light into the problem of why some firms established in the Puerto Rican market for at least three years are failing. Since this research was done in only one industry, opinions stated might not necessarily be inferable to other sectors. However, in the specific sector analyzed, results support the proposed linkage between resource-based capabilities of a firm and the competitive advantage obtained. In this case

study, the performance of successful firms seems to be positively related to high quality service, reputation, and financial soundness and cost control. Successful firms, as well as non-successful and users of service are very aware of the strength of offering clients value and efficient servicing. All firms recognized the need to develop areas of strength to attain or remain successful.

It is also evident that formal plans did not exist from start-up. However, well performing firms appear to be those that were more precise in determining and reacting to changes in their environment and taking opportunities as encountered. To infer that the cases studied provide the input necessary to design the preventive model planned is an aberration. Nevertheless the information attained will appropriately serve as guidance and a positive input to delve into the topic further. As a consequence, more inquiries and assessments will be required of the determinants of success across industries, while recognizing the need to use a larger sample, in the future, to be able to offer conclusive findings and provide decisive inferences across industries. Further on, the identification of competences and competitive advantages in the firms analyzed and the knowledge of the apparent mistakes incurred by non-successful firms encourages this researcher to re-conceptualize her views and extend this study across more sectors.

In general, findings also suggest the need for future research to explore not only the role that the existence of competitive advantage and core competencies have in the success or failure of firms, but also to analyze how firms use marketing activities, plan and sustain their competencies across times. Of no less relevance, is studying further the level at which success is determined by the choices of the entrepreneur more than the existence of resources. Implementing such research might provide a better understanding of why small firms differ in performance with apparently equal resources and opportunities and, potentially could aid

small business owners, lenders, policy-makers researchers and educators to assist firms in achieving success while preventing failures.

While literature has shown many studies concerning failure rates in businesses and success determinant factors, having knowledge on how these or which factors appeared in local firms is highly relevant. It is this researcher's hope that the knowledge of these factors might be of interest to businesses and could be of some assistance in helping turn around businesses if problems surge. Studies by Ponthiew and Insley (1996) signal that firm's can avoid unsuccessful approaches while at and entering businesses because the information gathered by studying and observing failing firms may result in better educated decision makers. It is the hope of this researcher that this findings result applicable in Puerto Rico.

While this researcher was examining the evidences for success and failure, she reached the conclusion that chance or luck also plays a role in survival and growth of firms. According to Venkataraman and Van de Ven (1998:253), in their study about environment jolts, "firms lucky to survive environmental changes and during their first few years are better suited to grow". Also, that "new and small business success or failure is only partly within the control of an entrepreneur and partly a random process beyond his or her control. Besides, these authors also report, it is not clear that firms who have superior enterprise, ability, and slack are more likely to succeed than those who do not, what is clear is that the ability to survive and grow is seriously affected with each succeeding jolt, whatever the ability." This researcher is of the same belief.

Lastly, this researcher believes, as an answer to the questions posited in this research, that in the competitive world of business, firms must constantly seek tools that can provide them with the competitive edge needed to succeed in the marketplace. Firms need also to

incorporate planning, identify resources and competitive advantages, which could help managers, make the right choices, when opportunities come forth, to attain success. Moreover, obtaining these levels of performance demands thorough examination of the firm's internal and external environment both, from a managerial standpoint and from their teams. Readiness and knowledge will be the key to understand the factors that influence success and failure. This researcher, in light of these empirical findings though seeking to attain the purpose of this research, cannot definitely conclude that success to the firms under study came from superior capability nor generalize that failing companies are inferior. Time will tell.

## CHAPTER 6

### RESULTS FROM THE SURVEYS & INTERVIEWS TO SUCCESSFUL AND NON-SUCCESSFUL FIRMS

#### 6.0 Introduction

Phase II. Quantitative phase. Quantitative research results and analysis.

Quantitative results for this dissertation are presented in several parts: first, general results are presented in a descriptive format with non-grouped data under general results heading. Next, most significant results are presented and analyzed under various statistical packages specifically designed for nonparametric studies. Statistics most commonly used are run under SPSS, EXCEL and Minitab. Analyses are geared to probe the formulated hypothesis and are, as such, analyzed under the Kruskal-Wallis test, Spearman correlation coefficient and Chi square test. Some of the results are presented in general context, across gender and across sectors. Variables are analyzed only in terms of those that probed to be significant to some extent. The remaining variables were described only in general aspects. Further along, other answers not so forcefully related to the main subject are analyzed also; the intention being to use such findings for either policy recommendations or to answer issues.

In addition, and further ahead, the non-successful firm results are presented and analyzed as well. Limited analysis is done for the failing firms because of the limited data and responses. Nevertheless, a comparison of certain key questions posited to both

successful and non-successful firms CEOs is completed. This chapter also contains results from the direct interviews and experts opinions. Lastly, significant research findings are used to test the formulated and findings are compared to literature and to other empirical studies in order to derive conclusions and offer recommendations.

In general, for most variables these are crossed-analyzed against gender. However, when considerations call for, statistics are also crossed across line or size of business. Results were analyzed under statistics recognized as the most adequate for nonparametric tests, including: Kruskal-Wallis, Spearman correlation and sometimes the Pearson rank correlation. In addition, Chi square test with its corresponding P-value is used. Results are mostly presented in tables and figures in the form of descriptive and analytic statistics. Data is presented according to variables grouping and following literature findings as studied by a majority of research regarding success determinants. Accordingly, findings are presented in terms of three main groupings: owners/entrepreneurs traits, demographic traits of the business, and the strategic tools used by the business. Likewise, according with research objectives, competitive advantages, capabilities and potential problems and barriers are also analyzed.

Consequently, results are also presented by sectors, and according to research aims. For clarification purpose, it is important to stress that originally the information was processed without collapsing data, but due to the similitude between responses and the multitude of replies provided by owners, data was grouped. An example will serve to clarify. To the questions which resources has given your firm success, replies centered on many types, per example, quality of employees, serving the client well, hard work, dedication, loving your job and business, devoting many endless hours to business, and being there or in charge all the time, are just a few examples. Most firms CEO's provided similar replies.



Often, though, answers were written so as to provide more emotional replies. This caused havoc in data transformation. Therefore, grouping became a logical analytical choice. In addition to the patterns of analysis mentioned above, results are also presented in general format, and across gender. When appropriate, findings are also presented and analyzed by business sector, i.e. service, retail, and wholesale.

Similarly, this chapter centers and illustrates results from the survey questionnaires mailed to successful and non-successful CEOs (called the study or main sample), the direct interviews, and results from the interviews to experts across sectors. Further along, results are analyzed and presented in an index, which aims at profiling indicators for local firms as well as policy orientation. This section is exhibited in the next chapter, chapter 7. In terms of the index of success or model, with their respective analysis, on all sections, results from the findings of both successful and non-successful firms are presented and paired to the index. Likewise, significant results have a sign S, the non-significant NS, and those near significance are so expressed. It is important to notice that often non-significant variables are only specified by general results and not in specific statistics. Moreover, all analysis is gender crossed and only when convenience called for cross tabs are done across business line or sector.

## **6.1. General, specific findings, and analysis:**

### **6.1.1. General findings.**

Overall, responses for the study stem from the representative sample of 49 firms located across some of the island main 78 existent municipalities. The sample included three of the main metropolitan areas: Nine (9%) of the replies were from San Juan, the capital and metro area; 11.4% were from Ponce, the 2<sup>nd</sup> largest city, and 22.9% from Mayaguez, the 4<sup>th</sup> largest city in population. Other smaller municipalities and towns made up the remaining questionnaires. This study main sample shows that, across sectors, only 27.1% of the sample

is female versus 72.9% male-owned businesses. Furthermore and profiling, 55% of the businesses sampled had more than 10 years established; 27% of the owners had university degrees and higher levels of education. In general, the educational levels reached by the entrepreneurs were very high. Results show that 77.1% of the respondents had some post-graduate courses. Moreover, 27.3% of the respondents were between 36-50 years of age. None of the CEO's was less than 27 years old. On average, 72% of respondents had certain experience when they founded their business. Regarding experience, the overall distribution is 35.6% had experience in management, 35.6% in other businesses, and 4.4% had created, though not managed, other businesses. In terms of the form of organization, 43.8% were incorporated, 50% individual proprietorship, 4.2% were societies, and 6.3% had mixed arrangement.

Moreover, sixty three (63%) of the businesses had more than 10 years experience in their actual business sector. Regarding nationality, 89% of the respondents are native whilst the rest have resided in Puerto Rico for over 10 years. The various industry sectors are well represented with 23.4% in retail, 14.9% in wholesale, 29.9% in service and agriculture and 31.9% in manufacturing. Thus, firms in retailing and wholesaling appear as the most successful, compared to those in the service sector (success as defined by sales and ROA). Similarly, most firm owners replied that the size of their firm was determined by choice. Results and the analysis pertaining each question is addressed mainly on question by question basis. Following, and in tune with the methodology described on chapter 4, is the illustration of the various aspects describing the owner entrepreneur traits and how these were measured to determine if these traits or demographics are significant as determinant of success.

### **6.1.2. General correlation analysis.**

In order to find out the relationship or independence of one variable from another,

several analysis were done and correlations were ran, at early stages. However, in lieu of the decision-making criterion established initially, a formula was used to determine which variables had a correlation on the .25 with a 0.05 level of significance. Near significance is measured by .10%, a natural process in the Social Sciences. As such, variables highlighted fell under such categories. Here on the researcher was able to analyze in a more centered manner. Afterwards, more specific statistics were run. Following is a correlation analysis presenting and how each variable relate to another. Tables presented further ahead envelop simple statistics in the form of general descriptive statistics, Kruskall Wallis, Spearman and /or Pearson rank order correlation, as the variables requires, and Chi square tests. The p-value on all statistics is taken as the statistical deciding factor. Moreover, the formula used to calculate the next correlation and applied the minimum amount necessary for analyzing results appear in red and represent the variables that posit acceptable levels of correlation.

The formula of

$$r^2 = \frac{(1.96)^2}{N-2 + 1.x^2} \text{ whereas } r = .28$$

Thus, this will be the variable that will be analyzed firstly. Others will be analyzed in a search for potential relationship.

## Correlation 6.1.

|       | RP3    | RP5    | RP6    | RP20   | RP26   | RP27   | RP30   | RP42   | RP88   | RP96  | RP122  | RP127  | RP128  | RP136  | RP183 | RP184  | RP187 | RP189  | RP198 |  |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|--------|--------|--------|-------|--------|-------|--------|-------|--|
| RP5   | -0.041 |        |        |        |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.786  |        |        |        |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP6   | -0.182 | -0.007 |        |        |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.216  | 0.961  |        |        |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP20  | 0.160  | -0.292 | -0.075 |        |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.330  | 0.076  | 0.649  |        |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP26  | 0.565  | -0.342 | -0.077 | 0.160  |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.000  | 0.022  | 0.610  | 0.339  |        |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP27  | 0.586  | -0.292 | -0.206 | 0.129  | 0.917  |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.000  | 0.060  | 0.184  | 0.461  | 0.000  |        |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP30  | -0.341 | 0.144  | -0.072 | -0.260 | -0.380 | -0.213 |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.023  | 0.358  | 0.641  | 0.120  | 0.013  | 0.193  |        |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP42  | 0.159  | 0.150  | 0.235  | -0.065 | -0.090 | -0.123 | 0.063  |        |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.355  | 0.390  | 0.168  | 0.742  | 0.608  | 0.496  | 0.732  |        |        |       |        |        |        |        |       |        |       |        |       |  |
| RP88  | 0.122  | 0.352  | -0.070 | -0.295 | -0.125 | -0.055 | 0.126  | 0.072  |        |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.443  | 0.022  | 0.661  | 0.096  | 0.442  | 0.749  | 0.451  | 0.694  |        |       |        |        |        |        |       |        |       |        |       |  |
| RP96  | 0.083  | -0.049 | -0.342 | -0.098 | 0.031  | 0.057  | 0.113  | -0.093 | 0.433  |       |        |        |        |        |       |        |       |        |       |  |
|       | 0.602  | 0.761  | 0.027  | 0.587  | 0.851  | 0.738  | 0.498  | 0.609  | 0.007  |       |        |        |        |        |       |        |       |        |       |  |
| RP122 | -0.385 | 0.002  | -0.044 | 0.039  | -0.459 | -0.407 | 0.124  | -0.075 | -0.105 | 0.293 |        |        |        |        |       |        |       |        |       |  |
|       | 0.017  | 0.991  | 0.795  | 0.835  | 0.005  | 0.015  | 0.484  | 0.704  | 0.556  | 0.093 |        |        |        |        |       |        |       |        |       |  |
| RP127 | -0.166 | -0.225 | -0.051 | 0.099  | -0.090 | -0.138 | 0.109  | -0.159 | 0.124  | 0.157 | -0.022 |        |        |        |       |        |       |        |       |  |
|       | 0.312  | 0.168  | 0.759  | 0.588  | 0.593  | 0.428  | 0.532  | 0.409  | 0.485  | 0.382 | 0.903  |        |        |        |       |        |       |        |       |  |
| RP128 | 0.197  | 0.009  | 0.148  | -0.214 | 0.271  | 0.280  | -0.155 | 0.047  | 0.109  | 0.204 | -0.240 | 0.058  |        |        |       |        |       |        |       |  |
|       | 0.256  | 0.961  | 0.396  | 0.273  | 0.121  | 0.126  | 0.404  | 0.818  | 0.551  | 0.272 | 0.194  | 0.744  |        |        |       |        |       |        |       |  |
| RP136 | -0.168 | -0.088 | 0.098  | 0.009  | 0.231  | 0.265  | 0.238  | 0.140  | -0.244 | 0.123 | 0.160  | 0.033  | -0.161 |        |       |        |       |        |       |  |
|       | 0.277  | 0.570  | 0.525  | 0.958  | 0.137  | 0.098  | 0.139  | 0.438  | 0.134  | 0.455 | 0.352  | 0.843  | 0.364  |        |       |        |       |        |       |  |
| RP183 | -0.385 | -0.185 | 0.080  | -0.367 | 0.001  | 0.119  | -0.003 | -0.321 | -0.069 | 0.070 | -0.021 | 0.120  | 0.133  | 0.103  |       |        |       |        |       |  |
|       | 0.052  | 0.376  | 0.699  | 0.102  | 0.994  | 0.578  | 0.990  | 0.146  | 0.768  | 0.744 | 0.924  | 0.584  | 0.576  | 0.631  |       |        |       |        |       |  |
| RP184 | -0.282 | -0.159 | -0.081 | 0.415  | -0.244 | -0.208 | 0.148  | -0.211 | -0.103 | 0.287 | 0.261  | -0.144 | -0.518 | *      | 0.070 |        |       |        |       |  |
|       | 0.241  | 0.514  | 0.741  | 0.110  | 0.315  | 0.407  | 0.585  | 0.450  | 0.705  | 0.264 | 0.311  | 0.568  | 0.040  | *      | 0.790 |        |       |        |       |  |
| RP187 | -0.593 | 0.050  | 0.228  | -0.264 | -0.508 | -0.564 | 0.294  | 0.098  | 0.008  | 0.067 | 0.289  | 0.417  | 0.134  | 0.293  | 0.242 | -0.127 |       |        |       |  |
|       | 0.001  | 0.794  | 0.225  | 0.192  | 0.005  | 0.002  | 0.129  | 0.663  | 0.966  | 0.747 | 0.153  | 0.038  | 0.532  | 0.130  | 0.333 | 0.678  |       |        |       |  |
| RP189 | -0.279 | -0.413 | -0.105 | 0.152  | -0.358 | -0.209 | 0.387  | 0.280  | 0.236  | 0.053 | -0.116 | 0.118  | -0.024 | 0.036  | 0.374 | 0.551  | 0.266 |        |       |  |
|       | 0.233  | 0.079  | 0.659  | 0.521  | 0.121  | 0.391  | 0.113  | 0.378  | 0.362  | 0.839 | 0.657  | 0.652  | 0.935  | 0.884  | 0.209 | 0.200  | 0.319 |        |       |  |
| RP198 | -0.208 | 0.068  | 0.299  | -0.215 | -0.058 | -0.086 | -0.095 | -0.054 | 0.049  | 0.084 | 0.228  | 0.039  | 0.213  | -0.059 | 0.413 | -0.179 | 0.427 | -0.463 |       |  |
|       | 0.187  | 0.673  | 0.055  | 0.221  | 0.717  | 0.602  | 0.565  | 0.764  | 0.776  | 0.623 | 0.194  | 0.826  | 0.242  | 0.721  | 0.050 | 0.491  | 0.021 | 0.053  |       |  |
| RP199 | -0.182 | 0.249  | -0.295 | 0.036  | -0.295 | -0.239 | -0.157 | -0.011 | 0.387  | 0.014 | 0.103  | 0.036  | -0.041 | -0.331 | 0.315 | -0.177 | 0.101 | 0.433  | 0.052 |  |
|       | 0.295  | 0.149  | 0.085  | 0.851  | 0.091  | 0.181  | 0.391  | 0.958  | 0.031  | 0.943 | 0.588  | 0.850  | 0.838  | 0.060  | 0.176 | 0.544  | 0.600 | 0.082  | 0.769 |  |

### **6.1.3. Specific results**

#### **6.1.3.1.Owner entrepreneur traits.**

The variables appearing in table 6.1 were analyzed in general and in specific terms in terms of how they relate to the entrepreneur demographics.

Thus, the traits that identify successful CEO include level of education, origin, experience previous to founding business, and business related experience. This table and most tables present general and specific results, and are classified and analyzed by gender, typically. Whenever other measures are presented they are identified as such. In relation to traits, only previous business experience probed to be a significant measure. For clarification, significant measures are highlighted and specified, accordingly. Analysis. from table 6.1 above shows that in terms of level of education, across the board, female attained higher levels of education than males; in addition, the level of education reached correlates with the level of success. This allows for interpreting that, in general, if female owns a business their CEO is educated and this factor helps them to succeed. Comparing across gender, the majority of respondents are either Island born or raised here (above 87%), also most are older than 27 years of age.

However, referring to the self-rated market positioning, while the variable did not show significance, it does show that observing firms in general, there are significant differences in the positioning of firms of different size (measured by the number of employees) and gender. In general, results show that men's owned firms appear to be better positioned than females. Also, when evaluating size, male owned firms appear much larger than females. No differences in positioning are seen if women own firms.

Regarding self-reported success, most CEO's believe their firms are successful and consider themselves leaders in their field and/or challengers. Nevertheless, a significant

percentage of owners believe that they are just trying to survive in their field of work. Other variables describing the traits of entrepreneur were not significantly related to performance.

**TABLE 6.1.** Owner/entrepreneurs traits

| VARIABLES CLASSIFIED           | Category analyzed     | General results % | Male % | Female % | Type of analysis | Kruskal Wallis P value | Spearman or Pearson rank, r & P value | Chi square P value Significance |
|--------------------------------|-----------------------|-------------------|--------|----------|------------------|------------------------|---------------------------------------|---------------------------------|
| Years in Business              | 0-3                   | 12.7              | 14.3   | 7.7      |                  |                        |                                       |                                 |
|                                | 4-6                   | 25.0              | 22.9   | 30.8     | Gender           | .971                   | -.005 .971                            | NS                              |
|                                | 7-10                  | 8.2               | 5.7    | 15.4     |                  |                        |                                       |                                 |
|                                | More than 10          | 53.1              | 57.1   | 46.2     |                  |                        |                                       |                                 |
| Education                      | University            | 43.8              | 42.9   | 46.2     | Gender           | .971                   | -0.005 0.971                          | NS                              |
|                                | Technical Studies     | 12.5              | 14.3   | 7.7      |                  |                        |                                       |                                 |
|                                | Post-graduate         | 20.8              | 20.0   | 23.1     |                  |                        |                                       |                                 |
|                                | Others                | 22.9              | 22.9   | 23.1     |                  |                        |                                       |                                 |
| Origin                         | Born and raised in    | 87.5              | 88.6   | 91.7     |                  |                        |                                       | NS                              |
|                                | Born in raised out    | 0                 | 0.0    | 0.0      |                  |                        |                                       |                                 |
|                                | Other alternatives    | 10.4              | 11.4   | 8.3      |                  |                        |                                       |                                 |
| Age p6                         | 27-35                 | 18.4              | 20.0   | 15.4     |                  |                        | 0.901                                 | 1.058 NS                        |
| None less <27                  | 36-45                 | 26.5              | 25.7   | 30.8     |                  |                        |                                       |                                 |
|                                | 46-50                 | 20.4              | 22.9   | 15.4     |                  |                        |                                       |                                 |
|                                | 51-60                 | 22.4              | 20.0   | 30.8     |                  |                        |                                       |                                 |
|                                | More than 60 years    | 10.23             | 11.4   | 7.7      |                  |                        |                                       |                                 |
| Experience p12                 | Management            | 37.2              | 38.2   | 27.3     | Gender           |                        | 0.2801 0.036                          | 3.838 NS                        |
|                                | Exp. in other bus     | 32.6              | 38.2   | 27.3     |                  |                        |                                       |                                 |
|                                | Exp in bus creation   | 4.7               | 5.9    | 0.0      |                  |                        |                                       |                                 |
|                                | Other                 | 25.6              | 17.6   | 45.5     |                  |                        |                                       |                                 |
| Previous bus. Experience p13   | No                    | 37.5              | 28.57  | 71.3     | Sex/Line         | 0.038 0.987            | -0.303 .0365 -0.015 0.920             | 4.396 0.03S 0.137 0.987 NS      |
|                                | Yes                   | 62.5              | 61.54  | 38.46    |                  |                        |                                       |                                 |
| Bus. Related experience p14    | No                    | 41.3              | 36.4   | 53.8     |                  | 0.275                  | P 0.278                               | 1.176 0.278 NS                  |
|                                | Yes                   | 58.7              | 63.6   | 46.2     |                  |                        |                                       |                                 |
| Self-Rated market position p30 | Market Leader         | 43.2              | 40.6   | 50.0     | Gender Line bus  | 0.636 0.538            | -0.072 0.641 0.144 0.358              | 1.99 0.641 12.35 0.4178 NS      |
|                                | Challenger            | 20.5              | 21.9   | 16.7     |                  |                        |                                       |                                 |
|                                | Trying to survive     | 25.0              | 25.0   | 25.0     |                  |                        |                                       |                                 |
|                                | Problems to survive   | 4.5               | 6.3    | 0.0      |                  |                        |                                       |                                 |
|                                | Niche in spec markets | 6.5               | 6.3    | 8.3      |                  |                        |                                       |                                 |
| M. reason to start business    | P. Independence.      | 28.3              | 29.4   | 25.0     |                  |                        |                                       | NS                              |
|                                | Be own Boss           | 23.9              | 29.4   | 8.3      |                  |                        |                                       |                                 |
|                                | Challenge             | 23.9              | 17.6   | 41.7     |                  |                        |                                       |                                 |
|                                | Other                 | 23.9              | 23.5   | 25.0     |                  |                        |                                       |                                 |

### 6.1.3.2. Business characteristics or firm traits

In general, table 6.2 that follows pinpoints to the fact that within respondents, men own a much higher percentage of firms than women's, have larger firms and appear to have reached much more success, if measured in sales and employees.

**TABLE 6.2.** Business characteristics or firm traits.

| VARIABLE CLASSIFIED                 | Category analyzed   | General results %   | Male %              | Female %            | Variables crossed | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|-------------------------------------|---|---------------------|---------------------|---------------------|-------------------|-------------------------|------------------------|---------------------------------|
| Current Employees p3 (Grouped data) | 0-24* No growth in 3 years  | 81.3                | 77.1                | 92.3                | Gender            | 0.213                   | -0.182 0.216           | 1.881 0.390 NS                  |
|                                     | 25-99   | 10.4                | 11.4                | 7.7                 | By line           | =0.203                  | <b>-0.034 0.022</b>    | <b>23.981 0.004 S</b>           |
|                                     | More than 100   | 8.3                 | 11.4                | 0.0                 |                   |                         |                        |                                 |
| Non grouped employees full time     | 0-10, 11-50, 51-100, >_100. *positive but weak, low significance        |                     | 61.8 20.6           | 75.0 25.0           |                   | 0.286                   | -0.159 0.291           | NS                              |
| Part-time employees P22             | 0-10 11-50 51-100 More than 100   | 84.2 10.5 5.3 0     |                     |                     |                   |                         |                        | NS                              |
| Line of Business p5                 | Retail Wholesale Serv/Agriculture Others (const 4.1, manufacturing 4.1) | 22.4 10.6 28.5 36.5 | 23.5 14.7 29.4 32.4 | 23.1 15.4 30.8 30.8 | Gender            | .961                    | -0.007 0.961           | NS                              |
| How business originated 29          | New Business  | 68.8                | 71.4                | 61.5                |                   |                         |                        | 6.263 NS                        |
|                                     | Existent Business   | 22.9                | 22.9                | 23.1                |                   |                         |                        |                                 |
|                                     | Inherited Business  | 4.2                 | 5.7                 | 0.0                 |                   |                         |                        |                                 |
|                                     | Others Ways   | 4.2                 | 0.0                 | 15.4                |                   |                         |                        |                                 |
| Is your firm successful? P40        | No Yes  | 8.3 87.5            | 5.9 94.1            | 16.7 83.3           | By line           | 0.698                   | 0.003 0.985            | 1.467 0.6891 NS                 |
| Legal form of organization          | Corporation   | 42.9                | 42.9                | 46.2                |                   |                         |                        |                                 |
|                                     | Individual business   | 49.0                | 48.6                | 53.8                |                   |                         |                        |                                 |
|                                     | Society   | 4.1                 | 8.6                 | 0.0                 |                   |                         |                        |                                 |

The number of full time employees per firm shows that respondent firms tend to be small and some are run by owners, the numbers in non grouped system are: 0-5= 45.7%, 6-10= 19.6%, 11-15=10.9%, 16-24=8.7%.

This is corroborated by government statistics on the island as well as overall banks reports. Regarding employees, beyond the 100 number there are no women owned firms; females' firms are mostly at equal or less than 24 employees (92.3%). The majority of businesses considered themselves "successful". Surprisingly, results seemed to be paired also on how the business was legally established. It appears that legal formation appears to be almost equally matched between individual business and corporations.

An analysis of the responses shows that, relating self acknowledged market position (p30) and line of business (p3) success is not gendered nor closely associated. Yet, only in the case of male owned firms, there is a correlation almost meaningful between the line of business and the market position attained. Of interest is the legal form of organization. Typically, studies point out that female owned firms are significantly more oriented to societies than corporations, making it difficult for all to access credit and venture capital. In this case percentages exhibit that though more male firms are formed as corporations than societies, the difference is not significant. No specific responses were obtained as to why one method was used versus the other, only choice. Regarding success in general, most firms rated themselves as successful; specifically male owners who perceived themselves as more successful.

#### **6.1.3.3.Strategies used by the firms.**

Table 6.3A ahead describes the strategies delineated and the specific areas where the interviewed businesses concentrated their efforts to achieve effective or successful performance. As originally stated, strategy is measured in terms of the existence of business plans at founding and current, on the goals set, strategies designed at founding time as well as in reaching and updating goals. In addition, targeting investment in R & D, and expressed innovativeness are considered high indicators of success. Most research specifies that



successful firms are those that are innovative, research constantly and incorporates planning to their strategy. For this study specific questions were designed to determine the level of strategic planning and implementation. Also, the strategic analysis is based on self-expressed perception of criteria specifying how the strategy is implemented and if it is or not differentiated, and its focus. Other aspects on which the strategy rests are based on consistent findings which state that organizations with clearly defined strategies perform better than those firms whose strategies are characterized by lack of clarity and emphasis (Miles and Snow, 1978). As such, measuring strategy for the successful firms analyzed provides the following results and subsequent analysis.

**TABLE 6.3A.** General strategy used by the business

| VARIABLES classified                    | Category analyzed  | General results % | Male % | Female % | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|---|--------------------|-------------------|--------|----------|-------------------------|------------------------|---------------------------------|
| Changed location?<br>P12                | No                 | 40.4              | 44.1   | 30.8     |                         |                        | 0.696 0.404 NS                  |
|   | Yes                | 59.6              | 55.9   | 69.2     |                         |                        |                                 |
| Initial Investment<br>(1)<br>P16        | Less than \$5,000  | 45.8              | 28.6   | 50.0     |                         |                        |                                 |
|   | \$5,001-15,000     | 20.8              | 45.7   | 33.3     | 0.241                   |                        |                                 |
|   | \$15,001-50,000    | 22.9              | 5.7    | 0.0      |                         | -0.173 -0.245          | NS                              |
|   | More than 50,000   | 10.4              | 20.0   | 16.7     |                         |                        |                                 |
| How business was financed initially     | Family Loan        | 21.3              | 17.6   | 30.8     |                         |                        | NS                              |
|   | Bank Loan          | 36.2              | 41.2   | 23.1     |                         |                        |                                 |
|   | Others, combined.  | 42.6              | 41.2   | 46.2     |                         |                        |                                 |
| Initial Investment                      | Average            |                   | 35592  | 22136    |                         |                        |                                 |
|   | Min                |                   | 500    | 500      |                         |                        |                                 |
|   | Max                |                   | 190000 | 100000   |                         |                        |                                 |
|   | Standard Deviation |                   | 48016  | 29992    |                         |                        |                                 |
| How long you expected to break Even P20 | One Year           |                   | 16.7   | 22.2     | 0.076                   | -0.292 0.076           | Near sig                        |
|   | 2-3 Years          |                   | 46.7   | 44.4     |                         |                        |                                 |
|   | 5 Years            |                   | 26.7   | 33.3     |                         |                        |                                 |
|   | More than 5 years  |                   | 10.0   | 0.0      |                         |                        |                                 |

The overall strategic analysis shows that most firms have changed location yet, it is unknown if this was a set plan or just circumstantial. Consequently, measuring if respondents based the results of the strategy on original planning and how these goals were implemented shows that, relative to the strategy used, many of the business had changed location, a

decision which to them resulted in better positioning. Another measure is average initial investment, for males it was \$35,592 versus \$22, 136 for females. Thus, female firms started smaller. Meanwhile, the minimum investment for each gender was \$500 and the maximum average was \$190,000 for males versus \$100, 000 for females. This might signal that women firms, by starting smaller might not grow as much as males and that if you look at the female sector their firms are smaller. In addition, table 6.3A shows that most firms reported expecting to break even between the 2-3 years. Even though break even as a measure did not result as significant, we can interpret that if we look at firms whose owners are males, there is a significant difference across line of business to those firms whose owners are males in how they expected to break even. This does not occur in the case of female owners. Looking at all firms in conjunction however, shows no significance.

Moreover, results from table 6.3B ahead shows that fewer females founded firms drafted a business plan at founding time than males (76% to 48%). Thus, female businesses ensured their plans materialized by complying and offering quality service and checking projections. No significant differences are seen across gender on those issues.

Indeed, most owners seem to have devised a strategy at founding time via budgets, thus ensuring financial soundness. It appears that the strategy devices was first in the direction of the services to be rendered, second, in terms of the return on investment, and third in terms of the marketing orientation. In addition, updating plans was considered important and was implemented by the majority. Likewise, females did not foresee changes in their plans and made less changes to their business strategy than males nor did they foresee changes in the environment that might have affected their plans.

**Table 6.3 B.** Continuation of strategy devised. Formal plans

| VARIABLES classified  | Category analyzed | General results % | Male % | Female % | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance  |
|---|-------------------|-------------------|--------|----------|-------------------------|------------------------|----------------------------------|
| Did you draft a formal business Plan at founding time at founding P34 | No                | 56.3              | 48.6   | 76.9     | 0.082                   | -0.2540 0.082          | Near Sig                         |
|   | Yes               | 43.8              | 51.4   | 23.1     |                         |                        |                                  |
| How did you ensure plans materialized? (1)p35                         | Projections Prod. | 32.4              | 30.0   | 20.0     | 0.182                   | 0.213 0.186            | 4.141 0.3773 NS                  |
|   | Sales Goal        | 8.8               | 23.3   | 0.0      |                         |                        |                                  |
|   | Work Hard         | 17.6              | 16.7   | 30.0     |                         |                        |                                  |
|   | Qulty/Service     | 29.4              | 23.3   | 40.0     |                         |                        |                                  |
|   | Others            | 11.8              | 6.7    | 10.0     |                         |                        |                                  |
| Was a strategy designed at founding time P37                          | No                | 30.0              | 26.7   | 40.0     | Gender Line             |                        | 0.635 0.426 NS<br>0.102 0.992 NS |
|   | Yes               | 70.0              | 73.3   | 60.0     | P5=                     |                        | 0.103/0.992 NS                   |
| In which areas?   | Production/growth | 3.6               | 5.0    | 0.0      |                         |                        | NS                               |
|   | Marketing/Sale    | 32.1              | 40.0   | 12.5     |                         |                        |                                  |
|   | Services          | 28.6              | 25.0   | 37.5     |                         |                        |                                  |
|   | Financially Sound | 35.7              | 30.0   | 50.0     |                         |                        |                                  |
| Updated your strategy? P39  | No                | 21.6              | 17.9   | 33.3     |                         |                        | NS                               |
|   | Yes               | 78.4              | 82.1   | 66.7     |                         |                        |                                  |
| Visualize changes to affect plans                                     | No                |                   | 57.1   | 70.0     |                         |                        | NS                               |
|   | Yes               |                   | 42.9   | 30.0     |                         |                        |                                  |

Table6.3C ahead shows the growth strategy delineated by firms. In terms of growth, the one foreseen by most male and female is in service, product offer expansion, not size per se; neither sector intended to grow in size but on sales and service improvement. The following variables shown on table 6.3C proved to be non-significant.

**Table 6.3C.** Continuation of strategy devised. Growth strategy

| VARIABLES classified          | Category analyzed | General results % | Male % | Female % | Cross Analysis by gender & line of business | Spearm an r and P value | Chi square P value Significance     |
|-------------------------------|-------------------|-------------------|--------|----------|---|-------------------------|-------------------------------------|
| Any growth plans? P140        | No                | 14.6              | 18.2   | 10.0     | By sex<br>By line                           |                         | 0..337 0..539 NS<br>0.887 0.8286 NS |
|                               | Yes               | 75.0              | 81.8   | 90.0     |   |                         |                                     |
| Which area of growth plan?(1) | Prod. Expansion   | 26.3              | 25.0   | 30.0     |   |                         |                                     |
|                               | Size              | 21.1              | 17.9   | 30.0     |   |                         |                                     |
|                               | Services          | 42.1              | 46.4   | 30.0     | By sex<br>By line                           |                         |                                     |
|                               | Quality           | 2.6               | 3.6    | 0.0      |   |                         |                                     |
|                               | Human resources   | 4.2               | 3.6    | 10.0     |   |                         |                                     |
|                               | Other             | 2.1               | 3.6    | 0.0      |   |                         |                                     |

**6.1.3.4. According to research objectives: competitive advantages and areas of strength.**

Table 6.4 ahead, and the continuation of table 6.4 address the competitive advantages firms’ thought they possessed and the factors that originated them. It appears combining sectors there is a significant association between the main CA obtained during the three years researched and gender.

As such, 90% of firms whose owners were women expressed that their main CA resided in the offer of product or service they are already in and, in second instance, in offering quality service. In the case of males the CA cited only amounted to 31.3% in the same area. In addition, there are significant differences in respect to firms responses for firms owned by men respect those owned by women in the same quoted advantage. The main competitive advantage for females is in the same market they are, not the same for males.

Evaluating aspects that have given the firm CA or resources usage shows that, there are significant differences between genders regarding the main competitive advantage. In addition, there is a significant correlation between the gender of owner and the principal CA in the years studied. For example, in the second CA chosen for large firms 100% (quality of

products and services and location advantage) of responses is given by only two factors; this significance is not seen in female owned firms.

**TABLE 6.4** According to research objectives: competitive advantages, core competencies, and resources,

| Variables classified               | Category analyzed  | General results %                    | Male %                             | Female %                         | Cross Analysis by gender & line of business | Kruskall Wallis P value | Spearman r and P value       | Chi square & P value Significance       |
|------------------------------------|--|--------------------------------------|------------------------------------|----------------------------------|---|-------------------------|------------------------------|---|
| Main CA now p96                    | Actual market  | 9.8                                  | 25.0                               | 40.0                             | Gender Line                                 | 0.029 0.147             | -0.342 0.027<br>-0.049 0.761 | 14.464 0.002 S<br>13.815 0.129<br>NS    |
|                                    | Exclusive service  | 14.6                                 | 6.3                                | 50.0                             |   |                         |                              |   |
|                                    | Quality prod/serv  | 31.0                                 | 40.6                               | 0.0                              |   |                         |                              |   |
|                                    | Location advtgage<br>Serv/client/orient<br>Other/ Prices   | 4.8<br>17.1<br>10.1                  | 35.8                               | 10.0                             |   |                         |                              |   |
| Main CA advantage 3 years ago P101 | Qty prods./serv<br>Actual market<br>Exclusive service<br>Location                                  | 26.8<br>16.22<br>24.32<br>32.43      | 40<br>10<br>20<br>30               |                                  | By sex<br><br>By line                       | 0.566                   | 0.216 0.199                  | 5.603 0.133<br>NS<br>10.545 0.308<br>NS |
| CA in next 3 yrs. P106             | Qty prdts serv.<br>Exclusive serv.<br>Actual market<br>Unique products/<br>Innovativeness & prices | 29.4<br>11.8<br>8.8<br>6.1<br>6.1ea. | 28.0<br>8.0<br>32.0<br>25.0<br>7.0 | 22.22<br>33.33<br>22.22<br>22.22 | By gender<br>By line                        | 0.584                   |                              | 3.402 0.334<br>NS<br>7.382 0.5974<br>NS |

Moreover, there is a similarity in the responses given as what has given their firms CA and those reported as areas of strength, but in the case of male owned firms of large size the strength and competitive advantage exist in having reached product differentiation. To most firms their main competitive advantage resides and will continue to be in their actual areas of expertise and service. The same response was given regarding their sustained competitive advantage; there is no apparent visualization of changes to other sector. Regarding the factors that have given CA, only for firms owned by men there is significant association between the factor that has given them CA and the size of the enterprise. Besides,

in the latest case, the factor that provided CA is the quality of product and services and reputation (mostly explain in other) explains 100% of the CA.

**Continues TABLE 6.4** ...According to research objectives

| VARIABLES classified                                 | Category analyzed         | General results % | Male % | Female % | Cross Analysis by gender & line of business | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|--|---------------------------|-------------------|--------|----------|---|-------------------------|------------------------|---------------------------------|
| Sustained * C Advantage * very spread responses. P90 | Actual market             | 5.4               | 32.1   | 0.0      | By sex                                      | 0.250                   | 0.192 0.255            | 4.508 0.212                     |
|  | Comp prices               | 13.5              | 15.2   | 0        |   |                         |                        | NS                              |
|  | Technical services        | 8.1               |        |          | By line                                     | 0.119                   |                        | 10.278 .3385                    |
|  |                           |                   |        |          |   |                         |                        | NS                              |
|  | Exclusive service         | 18.0              | 14.3   | 22.2     |   |                         |                        |                                 |
|  | Quality product/ service. | 18.4              | 14.3   | 33.3     |   |                         |                        |                                 |
|  | Client orientation, other | 16.2<br>20.4      | 39.3   | 44.4     |   |                         |                        |                                 |
| Factors have given your firm CA? P87                 | Actual market             | 9.8               | 35.3   | 20.0     | By sex                                      | 0.094                   | -0.265 0.094           | 5.499 0.139                     |
|  | Unique prod/serv          | 12.2              |        |          | By line                                     | 0.650                   | -.0940 0.566           | NS<br>5.694 0.7701              |
|  | Exclusive service         | 4.9               | 8.8    | 40.0     |   |                         |                        | NS                              |
|  |                           |                   |        |          |   |                         |                        |                                 |
|  | Quality prods             | 14.6              | 11.    | 0        |   |                         |                        |                                 |
|  | Client orientation        | 17.1              |        |          |   |                         |                        |                                 |
|  | Other                     | 41.4              | 44.1   | 40.0     |   |                         |                        |                                 |
| CA overall analysis                                  |                           |                   |        |          |   | 0.177                   | -0.407 0.189           | NS                              |

In the case of general firms and those owned by women, the significance seen in men owned firms is not seen. On the factors that can and will make their firms succeed, across gender, answers signal that they reside on offering a good product or service mix first and on possessing knowledge and excellent understanding of their clientele.

This coincides with Teece et al's (1997) findings that denote that organizational capabilities include knowledge and skills of employees as well as efficiency in organizational structure, strategic planning procedures and ability to attract creative personnel. Among this capabilities are organizational, marketing, and technical, all of which are considered in

literature as sources of sustained competitive advantage. As Spanos and Lioukas (2001:914) asserted, these variables will be source depending on the interconnectedness on their mutual dependence. These factors were also analyzed deeply by Amit and Schoemaker, 1993, and Dierickx and Cool in 1989. Since the focus of this thesis is determining the competitive advantages existent in Puerto Rican SMEs and how they compare to other firms elsewhere, table 6.4A focuses on the factors that across history have provided these advantages. Thus, market capabilities or measures include building special relationships with customers and suppliers, market knowledge, control over distribution, etc. For this study, several questions were drafted to determine market positioning, among these are Lado, Boyd and Wright (1992).

Table 6.4A explains the factors that have given the firms CA, specifically seeking to highlight this and considering areas of strength. To clarify, areas of strength are also related and equated to the factors that have made the firms succeed. In the female case, areas of strength appear to rest on the quality of their labor force while for male's strength gears toward their client orientation. Neither difference is significant. Areas of competence, are totally related to the entrepreneur capability and decision-making, across the board, reside on the owners' perseverance, hard work, financial soundness, and dedication to their businesses.

The same answers were provided on the qualitative cases and interviews carried on for this research. Overall, when analyzing the CA, there is a significant correlation between the factors reported as giving the firms competitive advantages and the line of business. This significance is almost there in the case of firms owned by men but not in the case of firms owned by women.

**Table 6.4A.** Continues competitive advantages. Relevant areas of strength.

| VARIABLE S classified                            | Category analyzed                              | General results %    | Male %      | Female %    | Cross Analysis Across sector   | Kruskal I Wallis P value | Spearman r and P value                               | Chi square P value Significance |
|--|--|----------------------|-------------|-------------|--------------------------------|--------------------------|--|---------------------------------|
| Most relevant area of Strength P43               | Responsibility                                 | 17.5                 | 20.0        | 10.0        | By sex                         | 0.304                    | -0.217   | <0.05<br>NS<br>NS               |
|  |  |                      |             |             | By line                        | 0.632<br>0.991           | 0.267<br>0.151 0.657<br>0.009 0.961                  |                                 |
|  | Quality of employees                           | 12.5                 | 6.7         | 30.0        |                                |                          |  |                                 |
|  | Client orientation                             | 20.0                 | 23.3        | 10.0        |                                |                          |  |                                 |
|  | Quality service/prod                           | 17.0                 | 16.7        | 20.0        |                                |                          |  |                                 |
|  | Perseverance/dedication                        | 12.5                 | 13.3        | 10.0        | By sex<br>By line              |                          |  |                                 |
|  | Speed to solve problem, others                 | 15.0<br>5.0          | 13.3<br>6.7 | 20.0<br>6.7 |                                |                          |  |                                 |
| Successful? p40                                  | No   | 8.7                  |             |             | By line                        | 0.698                    | 0.003 0.985  | <b>1.467 0.003 S</b>            |
|  | Yes  | 91.11                |             |             |                                |                          |  |                                 |
| Why is your firm successful? P41                 | Size/ # of employees to success.               | 16.7<br>30.9<br>20.8 |             |             | General<br>By gender<br>H<br>M | 0.605<br>0.501<br>*      | 0.159 0.355<br>0.216 0.262<br>*                      | <0.05<br><br><0.05              |
|  | Sales & satisfaction                           | 16.7                 |             |             |                                |                          |  |                                 |
|  | Others, including financial soundness          | 5.9                  |             |             |                                |                          |  |                                 |
|  |  |                      |             |             |                                |                          |  |                                 |
| Relevant weaknesses 12d ,p46                     | Responsibility, Quality of employees           | 4.4<br>13.3          | 3.0<br>12.1 | 8.3<br>16.7 | Gender<br>By line<br>By line   |                          |  | 1.960 .7431NS<br>13.453- 0.3370 |
|  | Client orientation                             | 13.3                 | 12.1        | 16.7        |                                |                          |  |                                 |
|  | Quality service/prod                           | 6.7                  | 9.1         | 0.0         |                                |                          |  |                                 |
|  | Perseverance/dedication                        | 62.2                 | 63.6        | 58.3        |                                |                          |  |                                 |
| Compared to firms when you started, how are you? | Better   | 88.6                 |             |             | General<br>H<br>M              | 0.055<br>0.071<br>0.012  | -0.088<br>0.570<br>0.013<br>0.942<br>-0.292<br>0.358 | NS<br>NS<br>NS                  |
|  | Worse  | 5.0                  |             |             |                                |                          |  |                                 |
|  | Same   | 6.8                  |             |             |                                |                          |  |                                 |
|  |  |                      |             |             |                                |                          |  |                                 |
| What is success to you? P127                     | Perseverance                                   | 14.3                 |             |             | Gender<br>size<br>H<br>M       | 0.224<br>0.304<br>0.632  | -0.166<br>0.312<br>-0.217 0.267<br>0.151 0.657       | <0.05<br><br><0.05<br>NS        |
|  | Goals orientation,                             | 17.1                 |             |             |                                |                          |  |                                 |
|  | Financial soundness                            | 14.3                 |             |             |                                |                          |  |                                 |
|  | Quality of service employees, reputation, etc. | 8.6 ea.<br>5.7       |             |             |                                |                          |  |                                 |

Table 6.4A below shows that across sector there is no specific common response as to what gives strength or success. This factor changes across size of firm and gender. Considering all firms, there is no significant correlation between the areas of strength and the line of business the firm is in. However, among firm in the mid size categories of grouped 25-



99 employees the correlation is significant. As such for women success depends on the line of business chosen.

Analysis. When analyzing weaknesses, areas of strength across gender and size, there is no major difference. Across gender, strength was reported as stressing clients' satisfaction and development of quality employees required to offer optimize service. Interestingly, the same areas reported, as those of strength are perceived across groups as their weakness, in the opposite spectrum. This can be interpreted as a necessary area for improvement. Thus, this coincides with the qualitative results whereas all firms recognize the need to invest in better training personnel and also perceived they had nice people yet all needed better training. Both studies report their understanding need to invest more in human capital. A very specific question was asked as to what entrepreneurs/owners understood as success (p127). In this respect, the variables were crossed by gender and size (number of employees). Results show that many CEOs believe that success for a firm is significantly associated with the size of the firm. Analyzing the numbers of employees in grouped data shows that smaller firms (0-24 employees) operate in all business sectors and do not point out to similar success determinants. Meanwhile, firms in groups of employees category two (25-99 employees) believe their success is in production, in their reputation as a goal oriented firm. Meanwhile, firms in category three (more than 100 employees) believe their strength is in the quality of their employees and constant planning. In summary and observing results, Spearman and Kruskal-Wallis test allow for potential implications. Results show that firms owned by men are larger than those owned by women. Also, no women owned firms were in the group of more than 100 employees. Thus, firms that considered themselves successful now, also considered themselves successful three years ago, and expect to continue in the same pattern in the future.

Furthermore, comparing areas of success, there is a positive association between what firms believe is their success and the size of the enterprise. Thus, across firms, responses vary as to what CEO's consider their reason to succeed. Most firms base success first on their product mix, next, in competing well, and third, in having reached financial soundness. Interestingly, responses for both genders are similar in giving importance to the same criteria. However, while smaller firms replied this way, larger firms saw success in their chosen market and financial soundness that allowed them to seize opportunities. Another measure of success taken was comparing the firms to those in existence (p136) when they founded their firms. As such, significant differences were found with firms in different business areas. For firms owned by women, there is no significance but in the case of male-owned significance, in general, significance is almost reached. This also means that firms in general are doing better than others, comparatively.

#### **6.1. 3.5. Resources.**

In terms of which resources are important, table 6.4B shows that these variables differ remarkably in some areas while in other areas differences were not significant. Since the majority of replies fell on the very important categories, other categories will not be addressed. Physical resources were considered very important by male 63.6% and by female on 82%.

In addition, financial resources were considered very important by both 73% for and females 82% while 78% of males and 100% by females considered human resources very important. On the relevance of technological resources, 53% male considered them relevant against 82% by female. Marketing resources were considered more important by female owners than male respectively the percentage of responses were 91% females against male 64. An almost paired response rating was given to community relations 100% and reputation, a factor that each sector rated as terribly important by 100%.

**Table 6.4B.** Resources necessary to gain competitive advantages

| VARIABLES classified  | Category analyzed          | General results % | Male % | Female % |         | Kruskall Wallis P value | Spearman and P value | Chi square P value Significance |   |  |               |
|---|----------------------------|-------------------|--------|----------|---------|-------------------------|----------------------|---------------------------------|---|--|---------------|
| Most important resources or factor that will make your firm successful now and in the future(1) p84 | Prod mix/quality services  | 9.5               | 38.2   | 23.1*    | General |                         |                      | 3.235/0.5193NS                  |   |  |               |
|   | Capacity to innovate       | 7.1               |        |          |         |                         |                      |                                 | M |  | 13.504 0.3335 |
|   | Orientation services       | 8.5               |        |          | F       |                         |                      | 9.900 0.1289                    |   |  |               |
|   | Competition                | 29.2              | 14.7   | 15.4     |         |                         |                      |                                 |   |  | NS            |
|   | Knowledge bus. environment | 9.5               |        |          |         |                         |                      |                                 |   |  |               |
|   | Financial soundness        | 7.1               | 11.8   | 7.7      |         |                         |                      |                                 |   |  |               |
| Knowledge of clients  | 9.5                        | 14.7              | 23.1   |          |         |                         |                      |                                 |   |  |               |
| Other   | 19.7                       | 20.6              | 30.8   |          |         |                         |                      |                                 |   |  |               |

\* A large number of respondents did not consider the answer as explained, even when clarification was requested. Many wrote down their replies and included family ties, reputation as to the resource that allowed them to obtain loans and any means necessary.

Summarizing. No differences are seen in the resources possessed that might have caused CA and levels of success differences across firms. Recollecting and analyzing by gender and line of business no differences were found. As such, other factors might be what cause these differences. In addition to the existence and importance of resources, there are other factors that in literature are considered relevant resources: reputation, R&D, innovativeness, and how firms scan and analyze internally and externally to compete, among others. However, for this study, reputation probed to be the most significant resource across gender or size. Nevertheless, once again, male firms appeared to implement more analysis and plan more than women owned; firms were also, apparently, more successful. To the question of internally analyzing their firms, all CEO's believe that internal analysis is very important for their firms' performance. No resource priorities were expressed; all firms will continue to devote their efforts to the same market in which they operate.

### 6.3.1.6. Differences in business across gender.

In order to determine if performance differences existed across gender, some questions were posited to all respondents. To this question both, male and female CEOs reported to

perceiving none. However, to the interviews many replies were given directly. Table 6.4C describes and compares if any differences exist across line of business.

**TABLE 6.4C** Do you perceive diff. business run men/women (1). Replies across gender.

| VARIABLES classified (P192)                     | General results % | Male % | Female % | Specific category analyzed | Kruskall Wallis P value | Pearson rank order and P value | Chi square P value Significance |
|---|-------------------|--------|----------|----------------------------|-------------------------|--------------------------------|---------------------------------|
| Business growth is a personal process           | 26.2              | 25.81  | 27.27    | By gender                  | 0.965                   | 0.007 0.965                    | 14.849 0.0952 NS                |
| Women prefer family relation to profession      | 4.8               | 6.45   | 0        | By line of bus.            | <b>0.0231</b>           | -0.033 0.834                   | 27.866 0.4179 NS                |
| Women opt for family care priority              | 4.8               | 0      | 18.18    | By size                    | 0.490                   | -0.083 0.602                   | 27.372 0.0723 NS                |
| No difference between bus dif. Sexes            | 11.9              | 16.13  | 0        |                            |                         |                                |                                 |
| B.S. decision are not gendered                  | 7.1               | 6.45   | 9.09     |                            |                         |                                |                                 |
| Bus. Size relates to personal choice not gender | 2.4               | 3.23   | 0        |                            |                         |                                |                                 |
| Success for business women is larger            | 2.4               | 0      | 9.09     |                            |                         |                                |                                 |
| Biases exist granting financial credits         | 2.4               | 3.23   | 0        |                            |                         |                                |                                 |
| No differences are perceived                    | 38.09             | 38.71  | 36.36    |                            |                         |                                |                                 |

Frequency Missing = 6

Many of the women owners reported being taken less serious than men, getting less financial credit than men and at higher rating. The Kruskal –Wallis test still show that when comparing these differences, these exist across line of business, profiles and explains how are the type of firms managed by women. Women CEOs found certain reluctance and doubt as to their seriousness in business, yet it did not prove significant statistically. Table 6.4C shows the responses.

Performance measurements across gender. To contrast how firms across gender performed, a series of questions were asked, including financial analysis, and comparing firms current performance to those firms that were founded or existed at the same time as theirs. These measures represent not only the strategy used to succeed, but also reflect

managerial capability. The first measurement use was how firms operations resulted in terms of their set objectives; most firms seemed to be better for most across the board (63%). Comparing performance to plans, all firms seem to fare as planned; most firms' owners expressed that results were better than expected and planned. Furthermore, the most relevant performance indicator for any firm was sales and financial measures. In this case, sales will be addressed in a longitudinal fashion; sales three years ago, sales in the year analyzed, and three years into the future. Overall, tables 6.5 A, B, & C show the trend, it appears that growth in sales occurred in all firms. Nonetheless, observing sales results across gender. There is also a significant difference on the sales level attained by male owned firms. Interestingly, if we look at the table on sales by levels and gender, female firms do not fare at a disadvantage, when classified. On average sales the past year results are close to each other. Females do exhibit higher numbers on sales on the less than \$100,000 level and at the \$250,000 to 1 million range while male-owned firms showed significantly higher levels than 1 million dollars mark. On sales expectations over the next 3 years (table 6.5 C), males tend to expect higher growth on sales than females.

### COMPOSITE SET ON SALES TRENDS

**TABLE 6.5A.** Average Sales Level Reached Across Gender Now

|                              | Less than \$100,000 | \$100,001-250,000 | \$250,001-1000,000 | More than \$1000,000 | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|------------------------------|---------------------|-------------------|--------------------|----------------------|-------------------------|------------------------|---------------------------------|
| Male                         | 23.5                | 23.5              | 20.6               | 32.4                 | 0.605                   | -0.077 0.610           | NS                              |
| Female                       | 33.3                | 16.7              | 25.0               | 25.0                 |                         |                        |                                 |
| TOTAL                        | 26.1                | 21.7              | 21.7               | 30.4                 |                         |                        |                                 |
| 1) Sales by line of business |                     |                   |                    |                      | <b>0.002</b>            | <b>-0.342 0.022</b>    | <b>23.981 0.004 S</b>           |
| 2) By gender                 |                     |                   |                    |                      | 0.605                   | -0.077 0.610           | 0.756 0.860 NS                  |

Analysis. In addition to comparing sales by levels, which resulted in no significance, sales were also compared to firm performance in terms of the number of employees (p3) and the line of business (p5). Thus, average sales in the year the interviews were held (2000),

were definitely associated with the line of business. Furthermore, there are significant differences across business sectors and sales are significantly correlated to the line of business the firm is.

Likewise, there is an inherent and significant association between the lines of business chosen by men, they appear larger and more successful in terms of sales. There is a significant difference in sales across sectors either if the firm is male or female owned. This means that some business sectors are associated with higher levels of sales. For sales that occurred three years ago, table 6.5B shows that when all firms are analyzed jointly, once again, sales are significantly associated to the line of business. There were significant differences between the different lines of business considered. Also, statistics show that there is a significant correlation between sales and business sector yet, the same correlation does not occur when firms are separated across gender. Thus, the difference exists across sector not gender. In other words, differences are cumulative.

**TABLE 6.5B** Sales three years ago

| Sales                    | Less than \$100,000 | \$100,001-250,000 | \$250,001-1000,000 | More than \$1000,000 | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|--------------------------|---------------------|-------------------|--------------------|----------------------|-------------------------|------------------------|---------------------------------|
| Males                    | 29.0                | 12.9              | 25.8               | 32.3                 | 0.971                   | -0.05 0.971            | NS                              |
| Female                   | 41.7                | 16.7              | 33.3               | 8.3                  |                         |                        |                                 |
| TOTAL                    | 32.6                | 14.0              | 27.9               | 25.6                 |                         |                        |                                 |
| 1)Sales Line of business |                     |                   |                    |                      | <b>0.015 0.001</b>      | <b>-0.292 0.060</b>    | <b>0.021 S</b>                  |
| 2)number of employees    |                     |                   |                    |                      |                         | <b>0.586 0.000</b>     | <b>&lt;0.05 S</b>               |

Regarding expected or future sales, table 6.5C exhibits results across gender. Analysis show that when firms in total are observed, there are differences that are almost, though not yet, significant in sales expectation for the next three years across sectors. The identical pattern occurs regarding the correlation, which are almost significant. This does not happen across gender. In this case, differences are not even nearly significant.

**TABLE 6.5.C.** Expected sales next three years

|   | Less than \$100,000 | \$100,001-250,000 | \$250,001-1000,000 | More than \$1000,000 | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|---|---------------------|-------------------|--------------------|----------------------|-------------------------|------------------------|---------------------------------|
| Male  | 21.4                | 10.7              | 35.7               | 32.1                 | 0.723                   | -0.054 0.728           | NS                              |
| Female  | 22.2                | 22.2              | 22.2               | 33.3                 |                         |                        |                                 |
| TOTAL   | 21.6                | 13.5              | 32.4               | 32.4                 |                         |                        |                                 |
| 1)Sales Line of business<br>2)number of employees |                     |                   |                    |                      | 0.059                   | -0.291 0.085           | Near significant lines          |

Expected sales follow the same trend across level of sales, sales period, line of business, and gender, as it occurred in the same year and in previous years. In addition to performance measured in sales, other variables were measured. Nevertheless, all results are self-reported and no financial statements were revised. In general, neither of the measures proved significant in terms of performance differences across gender. Associations and profiles could be found across gender, though. Table 6.6 shows the varied measures analyzed neither of which proved significant.

**Table 6.6.** Specific performance measures across gender

| RESULTS FROM TESTS*  | Categories                   | General Results % | Male % | Female % | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|--|------------------------------|-------------------|--------|----------|-------------------------|------------------------|---------------------------------|
| Perform last year?<br>Criteria: Better, as planned, worse, do not know.<br>Overall profit ? (P122) | Better                       | 50.0              | 63.0   | 63.6     | .791                    | -0.044<br>0.795        | NS                              |
|  | As planned                   | 22.9              |        |          |                         |                        |                                 |
|  | Worse                        | 6.3               |        |          |                         |                        |                                 |
|  | Overall by size in employees |                   |        |          | 0.062                   | -0.385 0.017           | NS                              |
|  | By gender                    |                   |        |          |                         |                        | NS                              |
| Perform in sales? (p123)   | Better                       | 45.8              |        |          |                         |                        | NS                              |
|  | As planned                   | 29.2              |        |          |                         |                        |                                 |
|  | Worse                        | 6.3               |        |          |                         |                        |                                 |
| Marketing share? (P124)  | Better                       | 27.1              | 38.4   | 45.4     | .598                    | -0.093 .606            | NS                              |
|  | As planned                   | 25.0              | 36.4   | 36.4     |                         |                        |                                 |
|  | Worse                        | 4.2               |        |          |                         |                        |                                 |
| Cash flow? (P125)  | Better                       | 41.7              | 60.0   | 41.7     | .528                    | .105 .535              | NS                              |
|  | As planned                   | 25.0              | 24.0   | 50.0     |                         |                        |                                 |
|  | Worse                        | 6.3               |        |          |                         |                        |                                 |
| ROI ? (P126)   | Better                       | 29.2              | 52.6   | 40       | .657                    | .084 .665              | NS                              |
|  | As planned                   | 16.7              | 21.0   | 40       |                         |                        |                                 |
|  | Worse                        | 6.3               |        |          |                         |                        |                                 |

|  |  |                   |              |              |                 |                            |                   |
|--|--|-------------------|--------------|--------------|-----------------|----------------------------|-------------------|
| *positive relationship but weak, significant at low level.>          | Full time employees now p210-10, 11-50, 51-100, More than 100                      |                   | 61.8<br>20.6 | 75.0<br>25.0 | 0.286           | -0.159 0.291               | NS                |
|  | Product, quality/ services, competition, financial soundness, knowledge of clients |                   |              |              | 0.752           | 0.059 0.758                | NS                |
| How did you perform last year /objectives? Measured in total profit. | Better, as planned, worse, do not know   |                   | 63.0<br>25.9 | 63.6<br>36.4 | 0.528           | 0.105 0.535                | 1.517<br>NS       |
| Financially compared to last year P143                               |  | By sex<br>By line |              |              | 0.2854<br>0.144 | 0.59 0.702<br>-0.114 0.467 | 2.508 8.522<br>NS |

When considering all firms performance, across sectors, most firms performed quite well. When comparing firms objectives\* no differences exist within categories. To the question of how is your firm today compared to when your firm was founded, most firms performed better (84.1%) than expected, only 11% performed as expected (same) and 4.5% did worse. Another performance indicator was comparing the firm to others founded at the same time, 88.6% of the firms felt they fared better, 6.8% did perform as expected and 4.5% did worse. Comparing financial performance to the previous years the CEO's reported that 77.3 % did better, 15.9% as expected and 6.8% performed lower than expected. Two further questions were asked, have reached planned sales level? Firms responses were very positive: reached the expected levels 59.1%, did not reach 20.5%, and surpassed goals 20.5%. Of course, since no firm performs in a vacuum, and in our environment relationships are very important, CEOs were asked to compare themselves to their competitors performance, results are promising: while the majority felt things were ok or the same (57.8%), 40% felt things were improving and only a 2.2% felt things were worse.

Analyzing performance in terms of overall profit reported, for firms whose owners are male there is a significant correlation between performance last year in relation to objectives



and earnings. Firms of smaller size, again, express very varied reasons while larger size firms are more specific in the category much better. Before finalizing the analysis, and in consonance with the research goals and literature, results contend to the fact that firms that plan perform better than those that do not. Questions were asked on the subject of planning and on the hiring or not of technical assistance aiming at improving performance, no differences on replies were obtained. Results did show that larger firms used more technical assistance and plan in more specific and complex pattern, including ROI, etc. To the questions where do you expect your firm to be in 5 yrs replies were: the majority expected to be better by 88.4%, worse only a 4.7% and the same 7%. Overall, expectations for all firms are to obtain total improvement. In terms of external assistance 75% did request and obtain it and it was mostly in the form of banking and accounting counseling. A disclosure of how this assistance was obtain is: Fomento's office 9.1%, SBA by 12.1% banks by 42.4%, consultants by 3% and other sectors by 33.3%. This sector includes relatives and accountants, among others.

## **6.2. General problems and barriers encountered by local firms .**

Following (table 6.7) is an analysis on general problems considered to be of importance for firms and which might help to reach policy conclusions for this dissertation. Throughout many years popular reports, business owners, and government sources have reported barriers and problems to development mostly stemming from multinationals, questions were asked on that respect. Replies, though affirmative, were not as significant as expected (see table 6.7). Moreover, female reported more problems and barriers than male. Factors affecting entry or market endurance for women were: economies of scale and government policies, loan facilitation and location, as well as limited training and funding access. When the same complaints were analyzed for statistical significance neither was of

relevance. Women seemed to believe that more barriers exist than males (60% to 45%, respectively). Responses regarding the barriers differ (factor affected 1).

**Table 6.7.** Barriers and problems that might affect firms performance

| VARIABLES classified   | Category analyzed   | General results % | Male %                     | Female % | Kruskall Wallis P value | Spearman r and P value | Chi square P value Significance |
|--|---|-------------------|----------------------------|----------|-------------------------|------------------------|---------------------------------|
| Factor affected (1) your firm entry into the market P185                               | Economics of scale  | 30.0              | 12.5                       | 20.0     | Gender By line          |                        | 8.699/0.6497<br>NS              |
|  | Financing   |                   | 12.5                       | 0.0      |                         |                        | 34.236/ 0.4082<br>NS            |
|  | Government polices  |                   | 12.5                       | 20.0     |                         |                        |                                 |
|  | Location/low costs  | 5.0               | 25.0                       | 0.0      |                         |                        |                                 |
|  | Mega stores   | 15.0              | 37.5                       | 0.0      |                         |                        |                                 |
|  | Other   | 15.0              | 0.0                        | 60.0     |                         |                        |                                 |
| Factors any firms wanting to succeed needed to control before entering the market p185 | By size of firms  |                   |                            |          | <b>0.006</b>            | <b>-0.593 0.001</b>    | <b>S</b>                        |
|  | By line of business   |                   |                            |          | 0.071                   | -0.413 0.079           | NS                              |
| Barriers to entry P183   | Capital requirement   | 53.8              | Gender By line bus. Men=W= |          | M 0.193                 | -0.382 0.072           | NS                              |
|  | Financing   | 26.9              |                            |          | W 0.480                 | -0.500 0.667           | <b>&lt;0.05</b>                 |
|  | Product differentiation                                       | 7.7               |                            |          | 0.145                   | -0.385 0.052           | NS                              |
|  | Permits/govt. problems  | 3.8               |                            |          | 0.765                   | -0.292 0.187           | <b>&lt;0.05</b>                 |
|  | Experience/Knowledge Business concentration in Big metro area | 3.8               |                            |          | 0.604                   | 0.500 0.667            | NS                              |
| Why do businesses fail, most cited reasons are: (P195). Too many degrees of freedom    | Lack of administrative capacity                               | 20.0              | Gender By line             |          | 0.056                   | 0.229 0.055            | 9.186/0.2396<br>NS              |
|  | Competition   | 29.9              |                            |          |                         |                        | 24.870 0.2538<br>NS             |
|  | Economic problems   | 13.3              |                            |          |                         |                        |                                 |
|  | Lack of capital start.  | 11.1              |                            |          |                         |                        |                                 |
|  | Lack of adequate Mkt analysis.                                | 6.7               |                            |          |                         |                        |                                 |
|  | Lack of cost control  | 6.7               |                            |          |                         |                        |                                 |
|  | Lack of creativity  | 4.4               |                            |          |                         |                        |                                 |
|  | Others  | 6.7               |                            |          |                         |                        |                                 |

Regarding the factors that any firm entering the market needs to control to succeed, responses appear in table 6.8 and in general are: Quality of product/service 28.2%, capital requirement 15.4%, Ease to obtain credit/capital, prices, general and administrative capacity received each 10.3% responses. While market knowledge, dedication, and economies of scale ranked, and product performance obtained 2.6% response each. Contrary to expectation, as

typically is said in the market and in literature, reputation and research capability only obtained 5.1% and 7.7% of the replies, respectively.

Analysis of results point out to significant differences respect to firms of different size as to what they need to control. Smaller firms diversify or spread their responses more than larger ones. These smaller firms differ with larger firms responses; per example the need to offer better quality of products or services is needed by larger not smaller firms. Regarding gender comparisons on the same subject, results are similar and have the same significance. When comparing firms in general for the same factor firms entering the field need to control, across sector or line of business, differences are near significant. Yet these differences are not significant when the difference is analyzed by gender.

When analyzing barriers to entry, across firm size there is a correlation almost significant between barriers to entry and size. As such the smaller firms find more barriers than larger firms. Medium sized firms reported only as barrier capital requirement while much larger firms find product differentiation. Results are similar for most firms owned by men yet not by those owned by women. The correlation among problems and women owned firms is not significant. The reason could be that their firms are smaller. In terms of the analysis by line of business, it shows that between firms in general there is a significant association between barriers to entry and the line of business the firm is in. This dependence is significant in the case of firms owned by men not for those owned by women. Furthermore, when firms are analyzed in general, the distribution of the barriers to entry and the significance of this dependency is not observed when the firms are analyzed by gender.

If local firms felt threatened *by* foreign firms, 70% of the firms interviewed responded negatively while 30% was affirmative. Local firms believe they have advantages in flexibility of decision making and knowing the market as well as having business contacts. To them, if

planning and creativity as well as cost control is used correctly all firms should perform well. Explanations repeatedly pointed out those local firms that do not perform well mostly occur because they either are in the wrong market or because of excessive expenditures. To the question if the smallness of the local Puerto Rican market affected business, 51.3% of respondents replied negatively while 48.7% was affirmative. Because of the closeness of responses and smallness of the sample conclusive remarks cannot be expressed yet this also implies that problems do exist and are perceived across gender.

Trying to specifically contrast both successful and non-successful firms as well as experts opinions results, on the reasons why businesses fail, brought the following responses: those that fail is because of lack of cost, weak management and not adapting to changes, high competition levels and economic problems possessed by firms since they entered the market. In this respect both failing and successful firm found that improvement and success would come as managers become better prepared to face environmental changes. Women do not mention lack of adequate market analysis or lack of cost control, a reason most often quoted by males as the first reason for failures. Regarding the same subject, women owners do not mention lack of market analysis nor cost control, the reason most frequently cited by males. In general, analysis of results posits that there are almost significant differences between firms whose owners are either male or female in respect as to why firms fail. . Thus, statistical tests show only that there are differences that are almost significant across gender. Responses were more qualitative than of quantitative nature.

### **6.3. Other performance measures.**

Table 6.7 presents general results of firm's performance across sectors and describes only the descriptive aspects of results by sectors. Previous analyses were discussed in the sections presented before.

**TABLE 6.8.** Descriptive statistical results by area of service

| Variable   | Categories analyzed            | Retail | Wholesale | Service/<br>Agriculture | Others | Total |
|--|--------------------------------|--------|-----------|-------------------------|--------|-------|
| How long you expected to break even                  | One Year                       | 12.5   | 16.7      | 7.7                     | 36.4   | 18.4  |
|  | 2-3 Years                      | 50.0   | 0.0       | 61.5                    | 45.5   | 44.7  |
|  | 5 Years                        | 37.5   | 50.0      | 23.1                    | 18.2   | 28.9  |
|  | More than 5 years              | 0.0    | 33.3      | 7.7                     | 0.0    | 7.9   |
| Legal form of organization                           | Corporation                    | 18.2   | 71.4      | 71.4                    | 20.0   | 42.6  |
|  | Individual business            | 81.8   | 14.3      | 28.6                    | 66.7   | 51.1  |
|  | Society                        | 0.0    | 14.3      | 0.0                     | 13.3   | 6.4   |
| Did you draft a formal business plan at              | No                             | 63.6   | 85.7      | 35.7                    | 60.0   | 57.4  |
| Founding time  | Yes                            | 36.4   | 14.3      | 64.3                    | 40.0   | 42.6  |
| How did you ensure plans materialized?(1)            | Projections/Prod.              | 22.2   | 50.0      | 16.7                    | 35.7   | 28.2  |
|  | Sales Goal                     | 22.2   | 25.0      | 16.7                    | 14.3   | 17.9  |
| Materialized? (1)                                    | Work Hard                      | 11.1   | 0.0       | 33.3                    | 21.4   | 20.5  |
|  | Quality Service                | 44.4   | 25.0      | 25.0                    | 14.3   | 25.6  |
|  | Others                         | 0.0    | 0.0       | 8.3                     | 14.3   | 7.7   |
|  |                                |        |           |                         |        |       |
| Was a strategy designed when founding business?      | No                             | 30.0   | 25.0      | 30.8                    | 33.3   | 30.8  |
|  | Yes                            | 70.0   | 75.0      | 69.2                    | 66.7   | 69.2  |
| In which areas?                                      | Production growth              | 0.0    | 33.3      | 0.0                     | 0.0    | 3.7   |
|  | Marketing/Sales                | 42.9   | 33.3      | 33.3                    | 25.0   | 33.3  |
|  | Services                       | 42.9   | 0.0       | 0.0                     | 62.5   | 29.6  |
|  | Financially Sound/H            | 14.3   | 33.3      | 66.7                    | 12.5   | 33.3  |
|  | Knowledge/Market               | 0.0    | 0.0       | 0.0                     | 0.0    | 0.0   |
|  | Cash Flow                      | 0.0    | 0.0       | 0.0                     | 0.0    | 0.0   |
|  | Pay Debtors                    | 0.0    | 0.0       | 0.0                     | 0.0    | 0.0   |
|  | Defined goals/Responsibilities | 0.0    | 0.0       | 0.0                     | 0.0    | 0.0   |
|  |                                |        |           |                         |        |       |
|  |                                |        |           |                         |        |       |
| Have you updated your strategy Throughout the years? | No                             | 33.3   | 16.7      | 9.1                     | 30.0   | 22.2  |
|  | Yes                            | 66.7   | 83.3      | 90.9                    | 70.0   | 77.8  |
| Continues table 8.8... Variables                     | Categories analyzed            | Retail | Wholesale | Service/Ag<br>riculture | Others | TOTAL |
| Main competitive advantage now (1)                   | Actual market                  | 22.2   | 66.7      | 25.0                    | 21.4   | 29.3  |
|  | Exclusive service              | 11.1   | 0.0       | 25.0                    | 21.4   | 17.1  |
|  | Quality product/service        | 11.1   | 33.3      | 41.7                    | 35.7   | 31.7  |
|  | Other                          | 55.6   | 0.0       | 8.3                     | 21.4   | 22.0  |
| How often do you update your plans                   | Every 2-3 yrs                  | 0.0    | 0.0       | 10.0                    | 20.0   | 8.6   |
|  | Never                          | 0.0    | 0.0       | 20.0                    | 20.0   | 11.4  |
|  | All the time                   | 0.0    | 0.0       | 0.0                     | 20.0   | 5.7   |
|  |                                |        |           |                         |        |       |

|                                       |                         |       |       |       |       |       |
|---------------------------------------|-------------------------|-------|-------|-------|-------|-------|
| Any sustained competitive Advantage?  | Actual market           | 11.1  | 33.3  | 37.5  | 21.4  | 24.3  |
|                                       | Exclusive service       | 22.2  | 0.0   | 37.5  | 7.1   | 16.2  |
|                                       | Quality product/service | 11.1  | 16.7  | 25.0  | 21.4  | 18.9  |
|                                       | Other                   | 55.6  | 50.0  | 0.0   | 50.0  | 40.5  |
| Perform Last Yr/Objectives            | Better                  | 50.0  | 100.0 | 61.5  | 58.3  | 63.2  |
| Overall profit                        | As planned              | 37.5  | 0.0   | 23.1  | 41.7  | 28.9  |
|                                       | Worse                   | 12.5  | 0.0   | 15.4  | 0.0   | 7.9   |
|                                       |                         |       |       |       |       |       |
| Any growth plans?                     | No                      | 18.2  | 20.0  | 8.3   | 21.4  | 16.7  |
|                                       | Yes                     | 81.8  | 80.0  | 91.7  | 78.6  | 83.3  |
| Which area do you plan to growth? (1) | Prod. Expansion         | 22.2  | 40.0  | 44.4  | 7.1   | 24.3  |
|                                       | Size                    | 33.3  | 20.0  | 22.2  | 14.3  | 21.6  |
|                                       | Services                | 33.3  | 20.0  | 33.3  | 64.3  | 43.2  |
|                                       | Quality                 | 0.0   | 20.0  | 0.0   | 0.0   | 2.7   |
|                                       | Human resources         | 11.1  | 0.0   | 0.0   | 7.1   | 5.4   |
|                                       | Other                   | 0.0   | 0.0   | 0.0   | 7.1   | 2.7   |
| Importance reputation                 | Very imp.               | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
|                                       |                         |       |       |       |       |       |
| Importance business contacts          | Very imp.               | 63.6  | 57.1  | 84.6  | 78.6  | 73.3  |
|                                       | A bit imp.              | 18.2  | 42.9  | 7.7   | 14.3  | 17.8  |
|                                       | not too imp.            | 18.2  | 0.0   | 7.7   | 0.0   | 6.7   |
|                                       | not relevant            | 0.0   | 0.0   | 0.0   | 7.1   | 2.2   |

Overall, findings by general area of business, pinpoint to the fact that firms in the wholesale, service agriculture for island SMEs appear better than the retail sector. Break even for most firms are expected within 2-3 years. Legally, the corporations system is clearly the preferred form of organization, except for retailers who seem to prefer individual business. Most firms did draft a business plan, and wholesalers in particular excel significantly at such endeavor. Firms ensured that their plans materialized mostly via projections. Though all sectors analyzed did design a business strategy and updated it, most CEO's designed their strategy on the marketing and sales sector. Financial considerations were higher for the services sector.

In relation to the competitive advantages across area of business, wholesalers saw them as residing on their actual market and quality of products and services, while retailers saw them in an array of varied aspects. The service sector expressed that their competitive

advantage rests mostly on offering quality and exclusive service and on reviewing their offer continuously. Updating plans was not a subject considered much since to them all is an automatic process. Regarding the existence of sustained competitive advantages, no clearly sustained advantage is seen. It could be not being able to understand the concept or exactly what they said. Or firms CEO's expressed that whichever advantage is in the areas where they are working or in the same market their firms serve. Sustenance to them is continuous improvement.

In terms of how firms performed to objectives and overall profit, all groups was better than expected, except for wholesalers who solidly backed their answer as obtaining superb performance. All firms reported growth plans and rated about equally on product or service expansion (40% for wholesalers and 64% for service sector), and size. Regarding the importance of resources, all resources were considered relevant but reputation and networks described in human contacts or community relations rated the highest.

#### **6.4. Results from non-successful firms**

Trying to compare the same questions across non-successful firms with different levels of performance did not result as expected. However, scrutinizing the replies from the ten firms that did answer the questionnaires, as well as experts opinions, results did not prove to be statistically significant. Responses from the non-successful sector. Like those from the successful firms, are also presented grouped in three main sections: traits of the entrepreneurs, traits of the firm and the strategies delineated. Results appear in table format and are only presented in descriptive manner.

##### **6.4.1. Entrepreneur and firm traits**

Table 6.9A shows that 60% of non-successful firms had more than 10 years, way passed survival period, as per literature. Moreover, eight percent (80%) of the respondent

firms are male. While 50% were well educated, had college degree, and 30% were in technical type of businesses like plumbers, etc. In addition, over 77% of the respondents had 36 or more years of ages. Before establishing their firms, only 44% of the CEOs had some experience about their trade.

**TABLE 6.9A.** Characteristics of Firm characteristics Entrepreneur /owner.

| Variable                       | Description        | Frequency Percent | Variable                       | Description     | Frequency Percent |
|--------------------------------|--------------------|-------------------|--------------------------------|-----------------|-------------------|
| Years of founding              | 4-6                | 30                | Number of employees P3         | 0-24            | 100.0             |
|                                | 7-10               | 10                | Line of business P5            | Retail          | 60                |
|                                | Más de 10          | 60                |                                | Construction    | 10                |
| Sex (p6)                       | 1 male             | 80                | Business foundation year (P12) | Different trade | 30                |
|                                | 2 female           | 20                |                                | 0-3             | 20                |
| Education (p7)                 | Post-Graduate      | 10                | Legal form of organization P29 | 4-6             | 10                |
|                                | Technical Studies  | 10                |                                | 7-10            | 0                 |
|                                | University         | 50                |                                | More than 10    | 70                |
|                                | Specify            | 30                |                                | Corporation     | 30.0              |
| Age P9                         | 22-26              | 11.1              |                                | Individual Bus  | 60.0              |
|                                | 27-35              | 11.1              |                                | Society         | 10.0              |
|                                | 36-45              | 33.3              |                                |                 |                   |
|                                | 46-50              | 33.3              |                                |                 |                   |
|                                | 51-60              | 11.1              |                                |                 |                   |
| Experience 10                  | Management         | 37.5              |                                |                 |                   |
|                                | Other              | 62.5              |                                |                 |                   |
| Initial investment             | \$ 20,000 or under | 70.0              |                                |                 |                   |
|                                | \$ 20,001 -30,000  | 30.0              |                                |                 |                   |
| Did you have previous Business | 1 yes              | 44.4              |                                |                 |                   |
|                                | 2 no               | 55.6              |                                |                 |                   |

Additionally, most firms initiated with about \$20,000 investment. For clarification purposes, table 6.9A is presented in split format and describes owner's characteristics on the left and firm characteristics on the right. Likewise, is the case of table 6.9C that represents two different aspects, growth and decision making capabilities. Regarding firm traits, table 6.9A describes this pattern. These firms all were small and had less than 24 employees, sixty percent were in retail and 30 in multiple types of businesses: plumbing, electrician, screen makers, food stores, etc. On the average respondent firms were old; some had been in



business as family firms for over twenty years. The legal form of organization most common is individual firm by 60% and corporation by 30%. Forming firms as individual family firms is a pattern that also occurred in successful firms.

#### 6.4.2. Strategy or plans followed

Table 6.9B ahead encompasses whichever strategy, if any, was followed by failing firms and seeks to answer why some firms fail where others succeed. Overall, most firms initiated with a substantial investment, financed initially with family funds yet the larger firms borrowed from government subsidized loans.

**TABLE 6.9B** Strategy used.

| Variable                                  | Description        | Frequency Percent | Cumulative Percent |
|---|--------------------|-------------------|--------------------|
| Initial investment P18                    | Less than \$20,000 | 50                | 50                 |
|   | \$20,001-50,000    | 30                | 80                 |
|   | 50,000-100,000     | 20                | 100                |
| How business was financed                 | Personal funds     | 11.1              | 11.1               |
|   | Family and banks   | 33.3              | 44.4               |
|   | Other              | 55.6              | 100.0              |
| Amount of investment P20                  | 20,000-50,000      | 16.7              | 16.7               |
|   | 5000               | 16.7              | 33.3               |
| Used Professional counseling P21          | No                 | 12.5              | 12.5               |
|   | Yes                | 87.5              | 100.0              |
| Whose Counseling P22                      | Fomento            | 20                | 20                 |
|   | SBA                | 40                | 60                 |
|   | Other              | 20                | 80                 |
|   | Family             | 20                | 100                |
| How long you expected to break even P23   | 2-3 years          | 14.3              | 14.3               |
|   | 4-6 years          | 28.6              | 42.9               |
|   | 5-10 years         | 14.3              | 57.1               |
|   | More than 10 years | 42.9              | 100.0              |
| Business Plan P37                         | Yes                | 25                | 25                 |
|   | No                 | 75                | 100                |
| How did you ensure plans materialized P39 | Working hard       | 100               | 100                |

Most firms did use professional counsel, especially from government sources. Moreover, break-even expectations varied amply across firms and the majority did not prepare business plan at founding (75). What this firms did was small budgets; in addition, the majority of firms did their own accounting (68%).

Strategy and/or growth plans and sales performance. In order to determine how managerial decision influenced somewhat the firm's performance, certain specific questions were drafted. Responses show (see table 6.9D) that over 33% were small firms (10 or less employees), 17% were medium sized and remarkably over 33% were large (over 100 employees). The number of part time employees was limited.

Interestingly, table 6.9C also shows that none of the firms expected to increase the number of employees, on the contrary.

**TABLE 6.9 C.** Growth plans/strategy. Decision making activities & strategy

| Variable                                     | Description   | Frequency Percent | Variable   | Description              | Frequency Percent |
|--|---------------|-------------------|--|--------------------------|-------------------|
| Full time employees P24                      | 0-10          | 33.3              | Year you closed down or restructured (P28)             | 97                       | 20.0              |
|  | 11-50         | 16.7              |  | 98                       | 40.0              |
|  | 51-100        | 16.7              |  | 99                       | 40.0              |
| Part-time employees P25                      | More than 100 | 33.3              | Do you consider your firm as one functioning well? P40 | No                       | 33.3              |
|  | 0-10          | 100.0             |  | Yes                      | 66.7              |
| How many employees in 3 years, full time P26 | 0-10          | 44.4              | Most relevant area of strength (1) P41                 | Quality of products      | 25.0              |
|  | 11-50         | 11.1              |  | Quality of employees     | 12.5              |
|  | 51-100        | 22.2              |  | Client orientation       | 37.5              |
|  | More than 100 | 22.22             |  | Good services            | 25.0              |
| How many part-time employees in 3 years, p27 | 0-10          | 85.7              | Most relevant weaknesses (1) P44                       | Responsibility employees | 50                |
|  | 11-50         | 14.3              |  | Loosing clients          | 50                |
| Average sales last year P30                  | 6,000         | 16.7              |  |                          |                   |
|  | 60,000        | 16.7              |  |                          |                   |
|  | 70,000        | 16.7              |  |                          |                   |
|  | 95000         | 16.7              |  |                          |                   |
|  | 100,000       | 16.7              |  |                          |                   |
|  | 200,0000      | 16.7              |  |                          |                   |
| Sales 3 years ago P31                        | 4,000         | 16.7              |  |                          |                   |
|  | 70,000        | 16.7              |  |                          |                   |
|  | 80,000        | 16.7              |  |                          |                   |
|  | 115,000       | 16.7              |  |                          |                   |
|  | 140,000       | 16.7              |  |                          |                   |
|  | 1,200,000     | 16.7              |  |                          |                   |

Performance measures in sales show that firms' sales are diminishing, overall. Except one firm, all were selling less and blame this malady on several aspects. Sales were exhibited in totality because of its limited number. It is interesting to notice that some firms sales level though lowering, had reached a respectable number for SMEs in trouble. No differences are perceived in performance responses across firms, as such, a potential explanation for demise is inadequate management or ownership decisions.

In addition, table 6C describes the decision-making pattern followed by the respondent firms. These firms had either closed down or restructured, 67% of owners considered their firms functioning well. Regarding what was the strongest point answers are similar to successful firms CEOs. These owners believe their quality products and services were excellent and that the problem resided in a change of clients taste and preference. To these firms, the malls and multinationals, with cheaper prices became client's preference and their demise. Their weaknesses were reported to be losing clients and the low level of responsibility of their employees. However, when interviews to bankers and experts in bankruptcy were implemented, these sectors alleged that these firms demise occurred because of unfocused vision, bad administration and not being with the times.

While trying to understand if any specific reason caused this firms decline, a few other questions were asked, among them: if you had to start again which mistakes would you avoid, did you carry on any analysis when sales started to slip by? Which were the main problems the firm confronted ever. Responses varied. On the whole, some CEOs responded that they realize things were not going well, however they read of somebody else's problem and did not take it seriously until too late. Besides, owners expressed that they sought advice and loans to restart but found no help. Their main problem was always cash deficiency, which made it difficult to stock up properly. Some of the firms did believe financial analysis

was important but only two firms did some. Advice to all firms manage efficiently, control costs and study before initiating a business.

Summarizing . From this owners responses, it is difficult to assess what caused that firms that were successful or at least supported families at some point, to lose their competitiveness. Replies obtained by the majority of those who answered is that competition caught them by surprise and they were unable to recuperate. In other cases, they did offer their services in the same manner and thus, consumers demanding more forced them to foreclose. From the responses obtained, no differences in responses were found as to what at some point were the resources and competitive advantages possessed. But, as to what caused their demise, firms signal lack of capital, government problems and not enough clientele. Some did admit to not being able to update and satisfy consumers. However, from the experience of some successful firms and their responses, there are no major discrepancies in responses across sector. Still, these firms did not make it and the successful ones interviewed did so. As such, it remains unanswered as to which are the causes that makes some firms succeed while others do fail. The answer might be management diligence and expertise or the environment; conclusions from this variety of studies and samples, shows answers that still are not conclusive.

## **6.5. Interviews with experts**

In general, experts interview were implemented and served to supplement research. Specialists consulted were bankers, lawyers who worked with bankruptcy cases, government loan specialists and assistants, and project designers. Across the board, the same questions were posited to each. The questions analyzed in totality were: 1) Economically, how do you find firms in Puerto Rico are performing? 2) Do you find local firms have problems to compete? 2a) If so, in which sector? 3) Which are the problems that, to your knowledge, are

affecting local firms the most? 4) Statistics show a progressively increasing numbers of failures, to what do you believe this trend is due and how can firms be helped?.

Responses, in general, indicate that firms whose owners are serious, work hard, and manage conservatively are doing quite well and are competing adequately. On the contrary, the failures occurring in the market are coming from mostly new entrepreneurs who initiate with large loans, spend freely and manage poorly. To these experts, these firms enter the market to take advantage of opportunities and without adequately analyzing the environment, only for the money. Quickly they fail. Worse, these same firms owners are experts at closing businesses, at disappearing quickly from the scene, and at opening new firms. It is a repetitive pattern. Of course, responses point out at exception. Some firms learn by their mistakes and continue solid. Other firms are composed of by traditional firms and family successions. In these group owners have too many relatives as employees, all are supported amply with the firm's funds, and not often have outside uninterested experts to provide unbiased opinions. More than not, though the firms originated well these are now outdated in most aspects. In these cases, mismanagement is not exactly efficient. Firms are often plagued by lack of vision, some inertia, and lack of innovativeness. To all interviewed, the worse problems beleaguering the market is low management expertise, not investing in employees training, having badly paid personnel, and not adapting to consumers changes. As such, as soon as new firms enter the field and pay employees better they take off; clients do the same. New consumers look for better services and prices.

To the question if there are problems to compete, the answer is yes. Replies centered on lack of economies of scale, lack or R & D, poor innovation, and financial problems. Problems reported related to non-availability of funds, non-existence of adequate financial statements and under reported earnings that cannot ease loans accessibility. Another problem

is that typically many SMEs are not incorporated, under-report and do not show substantial income. Many owners hide income therefore when there is need for funds the statements undersell. What can be done to remedy the situation? Organizations and government have to inform and educate business towards the benefit of reporting. On the other side, more market analysis is required previous to entering the market. Assessment will signal the level of saturation in some areas and whereas niche markets are unfilled. Of course more accounting, financial projections and analysis will assist firms to compete adequately.

Thus, considering responses in all, it also appears that problems are tied to differences on the type of resources present and in the usage of these resources. Moreover, the competitive advantages and /or areas of strength that provide those advantages differ significantly across firms. Specifically the line of business appears to be significantly tied to the success level attained and the size of firms reached. Across the board, women owned businesses appear to present more problems, and are smaller than males and less successful, if measured by the sales level obtained. Yet they appear to be more stable and less failure prone. Firms' owners, in general, expressed considerably that, for a firm to succeed there has to be expense controls, reach a reasonable size, be financially sound, and diversify their current markets. Furthermore, across successful and non-successful firms as well as firms owned by males or females, no differences were perceived by firms managed by different genders.

In addition, empirical studies in the island like the ones implemented by the Retailer's Association in Puerto Rico (1998) and the Dominican Republic (2001) reports that firms do have problems to compete, yet this do not appear due to the islands smallness, or inherent barriers as is usually said but to inability of the CEOs to analyze, administer and respond to the challenges posited. Also, while some firms are finding trouble, many of the mid-sized and

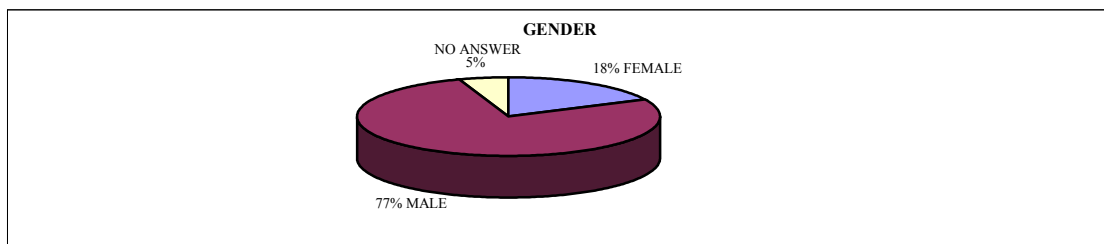
large firms are competing extremely well. Example of this is local firms buying failing multinationals and vice versa (Masso Hardware buying Builder Square a US multinational in 2000). Many multinationals are also buying well-established firms to avoid the difficulty of obtaining permits and to position themselves in well-established markets. Likewise, there is an ample amount of financing and support programs that are broadcasted yet are not accessed properly. On the same token, it is accepted commonly that SMEs avoid taxes by underreporting an event that might erode financial opportunities because of lack of purported funds. Furthermore, many small businesses stopped changing or updating either business premises or services with its corresponding problems.

#### **6.6. Direct interviews**

In order to supplement the survey previously presented, these researcher opted to Amplify the questionnaires results with interviews in which only a limited number of questions were used, all of which were related to the dissertation main aim. Administration of this second instrument was done face-to-face, and was carried on by students from the course Creation of New Businesses, further along; these replies were corroborated by phone. Results from the fifty-six (56) interviews are graphed and illustrated below. Taken as a whole, results appear to have some similitude to the answers provided in the questionnaire and Case Study. In general, there were more males than female business owners. Results from the direct interviews shows that women-owned firms are mostly located in garages near their homes, they hire and establish their firms with friends, work less hours, appear to have more accommodating schedules, and are more oriented toward services than male-owned firms. On the contrary, male-owned firms typically set their firms outside the home, hire outsides and work hours that are more extensive. Additionally, even if women-owned firms are in high producing services areas, their businesses are oriented to areas where less income needs to be reported and have higher margins. Furthermore, females see their firms as supplementary

income, created for satisfaction and independence but mostly not for being breadwinners, contrary to male owned. This attitude might change because of new social trends placing women as breadwinners. In addition, thirty-one of the firms were founded after 1978 to 1994. Only seven of the firms were founded before from 1930-1976 and these were small cafeterias (inherited already) and bookstores. Overall results. Research outcomes emerging from the 56 direct personal interviews (see figures 2 & 3) reveals that, in spite of the low response rate, only 18% of the firms interviewed were women-owned business while 82% were males. In total, 66% of the firms were in retail and service sectors, while most businesses have been established for over ten years.

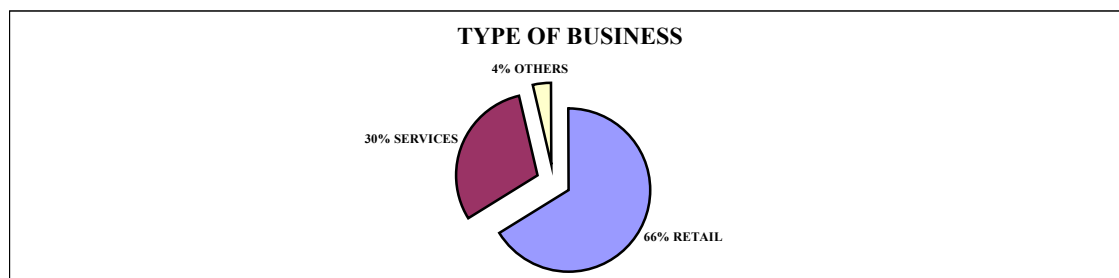
**Figure 6.2.** Distribution of direct interviews



Results are based on direct interviews to 56 small businesses in Puerto Rico, across gender and sector.

Responses from the direct interviews also provide evidence (these results are not shown in table or report format) that, on average, 15% of businesses are between 6-10 years of founded. 20% of the firms have between 11-15 years, 25 % more than 15 years. None of the firms is less than 3 years old, and the remaining are under 6 years of being established.

**Figure 6.3.** Types of business firms are prone to



Source: Direct interviews.



Findings from direct interviews also exhibit that areas of strength are, in order of importance: good management, working hard, customer service, having business experience and location. Further, good service, quality of products and trusted employees follow; last is marketing. All firms' owners interviewed expressed that having excellent working capital and management was the most desirable resource. Yet, in general terms, most CEOs expressed that the success of their firms is due to the dedication, good management practice, and love for their stores, among others. The weaknesses most commonly mentioned were: problems with location and relocation costs (16%) government regulations (10%), high competition from similar businesses (10%), and robberies (5%). Some had minor complaints like weather conditions, business cycles, entering business with inexperience, and lack of reputation and image building due to lack of advertisement expense. These results coincide with findings in the other methods of analysis used, including expert interviews.

#### **6.7. Comparison of findings across methods of studies.**

Results from direct interviews informed of similar findings to those reported by the expert's interviews and questionnaires. Findings show that in terms of strength, weaknesses, and problems found replies differ from the surveyed firms responses only in terms of priorities. Reported areas of strength and resources were quite similar across groups. Nevertheless, problems and weaknesses reported emphasized in questionnaires replies tended more toward problems of competition and mega stores than government regulations, as were the responses from owners in the direct interviews. It might be that firm's smallness tends to cause more problems than those found when certain size is reached. These responses are also similar to findings reported in the case studies reported in chapter V.

Responses as to what made their firms succeed, were hard work, perseverance, family support and self-satisfaction, across the board. However, surveyed firms predominantly emphasized cost controls. In all findings, having previous business experience and being educated, as well as initiating with a solid financial base was the root to success. The barriers encountered and difficulties are similar across studies and gender, but women reported facing more problems accessing funds and being taken seriously. Mostly, the female sector was, in the majority of firms, financed by family funds and in all studies there were more male-owned firms than female-owned. Mostly, many firms' owners did not access bank credit because they believed they would not get it. Deeply, it could be because relatives are always ready to help. In terms of the problems found, these existed for most firms at the initial phase of the business, and were tied, mostly, to cash problems and, on the women side, on probing to others their level of commitment to their businesses. Once this stage was surpassed, operations progressed accordingly. In addition, most owners are married and the business tends to be joint investment registered as a society. What is a paradox is that joint businesses though legally belonging to the partners are registered to the women's name. This legal formation makes accessing funds difficult, especially for females. Across the board, and tracking sales and size, in all studies, firms owned by women were smaller and had lower sales level. In addition, they were more oriented to societies than corporations and initiated smaller. Most women-owed firms reported no growth intention.

Expert's opinions provided similar responses to the questionnaires and direct responses probes. This specialist's opinion placed emphasis on the purported fact that they believe bankruptcies occur mostly because of mismanagement and too much personal expenditure early in the life of the firm while not being backed by reinvestments. On the opposite end, the existence of adequate and controlled management and of expenses instills success. Similar responses were given in the cases analyzed and reported in chapter V. To the

question if there are differences in performance across gender and type of business, none were reported. Statistical differences resulted in the case that some type of businesses grow larger and derive larger income than other types. However, all are seen as choices.

### 6.8A Summary of results and statistical probes

The following table summarizes the different criterion used to analyze this thesis. Based on results extracted from the descriptive statistics, statistical probes, and expert opinions, there is conclusive evidence on the similitude of responses obtained all of which are in accordance to the thesis goals. On the one hand, the table that follows presents the most relevant results which include: traits that profiles the CEOs, traits of firms, followed by the strategy and performance indicators across gender, sector and size of enterprises. Lastly, aspects that caused firms to encounter problems or performance barriers are presented jointly to potential differences across gender. The table is self-explanatory and each of the variables crossed is presented in term of the significance of results. Areas if significance is darkened.

**Table 6.9.** Summary results of main variables. Statistical probes and significance.

| Variable compared  | Variables Crossed   | Kruskall Wallis (P-Value) | Pearson Spearman (r, P-value) | Chi-square (p-value)                 | Significant Or not? |
|--|---|---------------------------|-------------------------------|--------------------------------------|---------------------|
| Traits of CEOs   | Significant, <b>previous experience</b> Education, age, background, & experience. | <b>PE= 0.038</b>          | <b>0.0365</b>                 | <b>0.036</b>                         | <b>S</b>            |
| Traits of the firm                                       | Initial investment, size, location.<br><b>Line of business</b>                    | <b>0.034</b>              | <b>0.022</b>                  | <b>0.004</b>                         | <b>S</b>            |
| Resources by gender                                      | Physical, HR, MKT, & Technology   | NS                        | NS                            | NS                                   | NS                  |
| Main competitive advantage P96/p6                        | <b>By gender, sign.</b><br>By line 3 d.   | <b>0.029</b>              | <b>-0.342 0.027</b>           | <b>0.002 **</b>                      | <b>S</b>            |
| Factors that have given your firm CA? emplo by size. P87 |   | 0.501                     | 0.122 0.443                   | 5.499 0.139 NS                       | <b>Males=S</b>      |
| Any sustained advantage?                                 | By gender<br>By line of business  | 0.250<br>0.119            |                               | 4.508 0.212NS<br>10.278 0.3385<br>NS | NS                  |

|  |  |                         |                        |                  |                      |  |
|--|--|-------------------------|------------------------|------------------|----------------------|--|
| P90  |  |                         |                        |                  |                      |  |
| What is success to you? Number of employees. P (127) vs. P3      | By gender and line                         | 0.224                   | -0.166 0.312           | < 0.05 **        | NS                   |  |
| Success vs. line of business, p5/P127/P40                        | By line of business                        | 0.991                   |                        | 0.003 S          | F= S                 |  |
| Num employees by gender p6/p3                                    |  | 0.213                   | -0.182 0.216           | 1.881 0.390      | NS                   |  |
| Actual average sales correlated to num. of employees             | Num of employees= size                     | 0.001                   | 0.668 0.000            | < 0.05**         | M= S<br>F= NS        |  |
| Average sales vs. line of business p26/p5, P26/p5                | By line business                           | 0.002                   | -0.342 0.022           | 23.981 0.004     | S                    |  |
| Sales 3 yrs ago P26/6  | By line of business                        | 0.001                   | 0.060                  | 0.021            | S                    |  |
| Relationship of B.E. & success, in general, (NS) & across gender | Gender                                     | 0.076                   |                        | Near Significant | M= NS<br>F= NS       |  |
| Self rated market position success Number of employees NS        | Gender                                     | 0.022                   | -0.460 0.008           | Near Significant | NS                   |  |
| Self reported success/ line of business 30/p5                    | Line                                       | 0.538                   | 0.144 0.358            | NS               | NS for either gender |  |
| Reasons for success? P42/p3                                      |  | 0.605                   | 0.159 0.355            | <0.05 **         | S                    |  |
| Areas of strength /success p43                                   | By line of business                        | 0.304<br>0.632<br>0.991 |                        | < 0.05 **        | M= S                 |  |
| Performance in term of your objectives P122/p3                   |  | 0.062                   | -0.385 0.017           | NS               | M=NS<br>F= NS        |  |
| Barrier to entry/or to perform? 183/p3 Factors firms             | By gender and line<br>Size firms/employees | 0.765<br>0.006          | --0.185<br>0.376 0.001 | NS<br>S          | M=S<br>F=NS          |  |

|                                    |           |       |                 |    |    |
|------------------------------------|-----------|-------|-----------------|----|----|
| need to analyze                    |           |       |                 |    |    |
| Factors firms need to control P187 |           | 0.006 | -0.593<br>0.001 | NS | NS |
| P189/p5                            |           | 0.071 | -0.413 0.079    | NS | NS |
| Why businesses fail? P198          | By gender | 0.056 | 0.229 0.055     | NS | NS |

### 6.8B. Hypothesis testing

In line with the null hypothesis formulated, the following table exhibits results for each one and their acceptance or rejection areas. The criteria of acceptance are values equal or lower to the P-value of 0.05. In the case of some variables that resulted in near significance, notice is expressed, as per results. While table 6.10 illustrates these results, conclusions pertaining results will appear in the conclusion section.

**Table 6.10.** Hypothesis testing

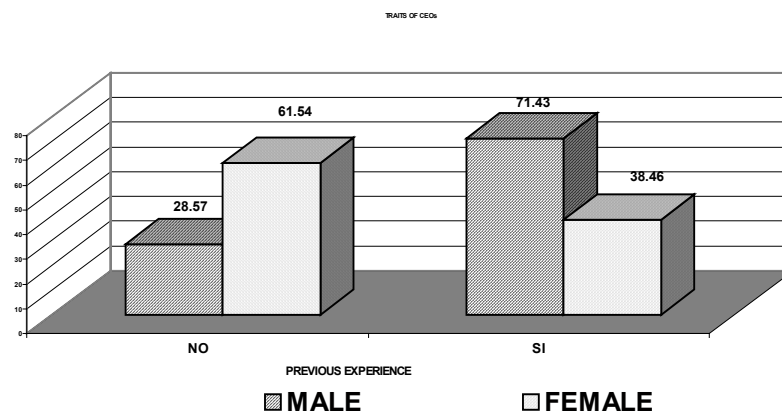
| Hypothesis HO | Description of hypothesis   | Accept or reject        |
|---------------|---|-------------------------|
| H1            | The traits of the CEO/entrepreneur (i.e., level of education, his or her business related experience) the profile or traits of the firm (age, time of founding, initial investment, size and industry) and the strategy used do not affect significantly the level of success attained by the firm  | Reject                  |
| H2            | The competitive advantages and core competencies existent in successful firms in PR, as well as their performance are not significantly different across sectors (i.e., type of industry), gender, or size. (Cochran, 1981), gender (Orser et al, 1992) or size (Orser, Chell and Baines, 198=98).  | Reject                  |
| H3            | A) Firms success performance and/or failure do not depend on the competitive advantages attained by the firm or on how these are sustained. B) This sustainability of CA do not surge from the indirect effects provided by the available resources and capabilities developed by the firms within the environment and industry in which the firm operates. | Reject A .<br>Accept B. |
| H4            | A firm's strategy in terms of the level of planning, competence in advertising, R&D, and human resources as well as the development of intangible assets like reputation, does not affect positively the firm's direction and performance.  | Reject                  |
| H5            | Firms that define their strategy based on the theory of resources and capabilities will not obtain better and more positive results than those that do not use this focus.  | Reject                  |

|     |  |                     |
|-----|--|---------------------|
| H6  | The factors that determine firm's success do not vary significantly across gender nor are there barriers inherent to gender; the variance found across firms is not due to the size and growth patterns of firms.  | Reject              |
| H7  | Business owner's gender is not correlated to the size and sector in which the firm is or to the firm's performance or survival rate.   | Reject              |
| H8  | A) Businesses owned & operated by women do not appear as likely to survive and succeed as those operated by men.<br>B) Differences are due to external circumstance and not to personal attributes, like previous experience, product market characteristics, & size of the firm, which automatically determines the level of success attained | Reject both A and B |
| H9  | The factors necessary for firms to succeed do not vary significantly across successful and non-successful firms in terms of resources and core competencies.   | Reject.             |
| H10 | A) The difference between successful and non-successful firms does not reside on the exploitation of resources, innovativeness in products and services, and pro-activeness. B) Differences does not rest on the role and attitude of management, the level of sales reached and size attained   | Reject A and B      |
| H11 | The problems inherent to firms in Puerto Rico are not due to inherent barriers like the island smallness nor do they differ significantly from those possessed by firms elsewhere.   | Accept              |

Summary. In terms of the hypothesis formulated six (6) hypothesis were totally rejected, four (4) were rejected in part and one (1) was accepted. Rejecting the formulated null hypothesis contends positively with this researcher position regarding that there are differences in performance across gender being they out of choice or other circumstances. Also, in the specific case of Puerto Rico, education and innovation trigger success yet at the same time contrary to typical opinions failure is not due so much to competition from mega stores and multinationals, but also to mismanagement and of loosing competitive advantages once held. If in the future this same success or failure inducing factors prevail, one can infer that this might be due to external factors, or environmental circumstances and the economic downturns. Moreover, the following two figures, in order of appearance, precisely profiles how firms perform in terms of gender and previous experience in the Puerto Rican market in the sector in which they operate.

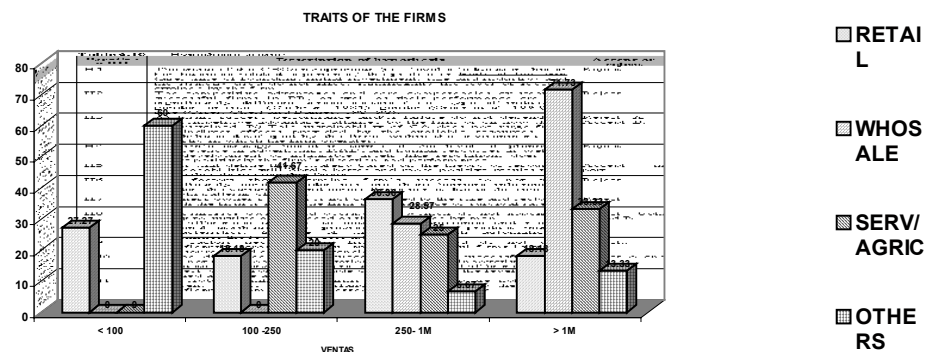
Figure (6.4) ahead shows that when profiling, if you are female, you possess less experience in business and, as such, your business might be smaller; the opposite occurs in the case of male-owned firms. The next figure illustrates sales performance across sector; it also shows that business areas such as manufacturing and wholesale are more prone to grow and generate larger sales than other sectors, such as retailing.

**Figure 6.4.** Previous experience crossed by gender. Traits of the CEOs



Unfortunately, these are the investment sectors most often chosen by women entrepreneurs, thus, remaining small and subject to intense competition.

**Figure 6.5.** Traits of firms and sales by sector



**6.9. Conclusions from quantitative research, direct interviews and expert opinions.**

Quantitative research findings and the complementary information derived from the different sources either questionnaires, direct interviews and expert opinions, as well as the cases (presented in chapter 5) analyzed and presented here, examined which are competitive advantages existent in Puerto Rican SMEs, how this distinctive competences are formed, and how these play a predominant role in determining success. Specifically, statistical and general analysis focused on investigating if differences on performance exist across sector, gender, and size. This research used triangulation methods and was based on the Resource-based view of the firm as the underlying theory for this study.

Furthermore, the study was implemented island wide, included firms from the retailing, service (including from micro to medium size enterprises), small manufacturing, and agricultural transforming companies. Though respondent firms were not as many as predicted, sample selection met the criteria necessary for a sample to be representative of the population. In this case, the required sample was 12% of the registered firms at the Department of Commerce. Questionnaires were sent to over 14% of the population, a large percentage from a statistical standpoint. Regardless of the fact that replies were not as expected, results are validated via usage of a combination of factors and gathering data mechanisms as well as replies matching, including, as previously specified, direct interviews, and expert opinions. Moreover, results were matched to literature reviews and results from recognized empirical studies implemented abroad. In addition, data was processed utilizing known statistics probed to be valuable for nonparametric studies. As such, Kruskal-Wallis, Spearman Correlations and Chi-Square tests were run. Correlation analysis as well as other typical tests was used to detect the relationship existent among variables and results were then used to proceed with the corresponding probes. Results were presented in tables and graphs.



The resource-based view of the firm, the perspective chosen for this study was used because this theoretical framework explains, precisely, the conditions that determine firm performance, also because it closely relates performance to core competencies and competitive advantages. Moreover, this view stresses how the competitive advantage of firms relies on the valuable resources the firm possesses and, additionally, explores the relationship between resources, competition and profitability and how to sustain competitive advantages. The focus on the relentless impact of the environment and the need for innovativeness was thoroughly scrutinized while emphasizing the role of the decision-maker figure, the entrepreneur/owner. Conclusions regarding the points address in this section and the significant findings appear forth in terms by sections:

1) In general, the study reveals that most CEOs are island born and raised, and are well educated. In addition, most businesses, even if both husband and wife manage it, are in the name of the husband; initial funding capital for small and mid-sized firms mostly came from family and friends, and is registered more as individual business than societies or corporations. In addition, most firms (55%) have been in business for more than 10 years and CEOs age, most are on average over 27 years of age, not too young.

2) The correlation analysis exhibited measures firms that statistically had a .25% correlation among them, thus this analysis was used as the initial phase for further tests, and showed that a large number of variables did relate to each other. Further, along this variables were crossed accordingly.

3) Entrepreneur profile. Analyzing the different criteria that makes up a profile including age, education, experience (either or not business related), origin, years in business, age of the CEO, self rated market positioning, and reasons to start their business, shows that between all the variables crossed only experience related to business and previous business

experience showed significant statistical significance. Spearman and Chi-square test exhibited that the level of experience attained is a strong determinant of success for firms. Moreover, results signal that the level of education attained for all entrepreneurs is high. Profiling one can tell that SMEs in the Island tend to be well educated; also, firms whose owners had higher levels of education did better than those that did not have it. In addition, profiling women, the sector appears to have slightly lower levels of experience than firms owned by males. This presents another profile, when looking at women-owned firms you can identify them as possessing less experience.

4) Counterchecking the business characteristics, shows that on average most firms interviewed were small and had less than 24 employees (81.3) and that women firms were smaller (92.3% of women's firms had less than 24) than those of men. Most women firms hired relatives and had little part-time employees, contrary to males. The line of business most predominant is service, small manufacture, retail and wholesale, respectively. Of these, female-owned tend to gravitate more towards small service and retail while the opposite sex toward manufacture and wholesale. Businesses originated mostly as new firms (68.8%) and 22.8% were formed out of existent businesses. Across gender, the trend is the same. Among the respondents, the majority thought their firm was successful (87.5%), irrelevant of gender. The legal form of organization most favored is individual businesses (49%) followed by corporation (4.9%). In terms of statistical significance, probes show while profiling the traits of the firms, that the number of employees is a significant trait and tends to determine the level of success across firms. Yet, in the case of females, whose firms are smaller, it potentially shows why these do not appear to be as successful as those owned by men's. There is also a correlation between the lines of business owned and the position or success the firm has reached. This correlation is meaningful only for men.

5) Regarding the strategies delineated, most firms changed location seeking to compete better; initial investment was less than \$5,000 for 45.8% of firms, the average for males was \$35,592 while it was \$22,136 for females. Implicitly, women firms started smaller as such, they might reach smaller size. Most firms did reach break even earlier than planned (2-3 years) and started their firms out of family loans. Regarding business plans, the majority did not formally plan but no major differences appear across gender. Counterchecking if strategies were delineated and in which areas, none were delineated. Yet, a minority of firms did prepare budgets. Nevertheless, firms CEOs affirm that they did revise their plans and mostly geared those plans towards focusing on development of higher marketing skills and seeking financial soundness. Statistically, none of the analysis done showed any significance. Two variables showed near significance, how long firms expected to break even and drafting a business plan. Attaining B.E. earlier, drafting, and updating plans related to success. It appears that firms that did plan performs better and reached their goals earlier attained higher levels of success. In addition, across gender, males reached their goals earlier than women-owned firms.

6) Strategy for growth was set for 75% of the interviewed CEOs but this were delineated in terms of increased services of improving product lines. No specific expansion in terms of size was planned nor foreseen. In neither gender, growth probed to be a significant measure. Relating cases results, questionnaires and some of the CEOs replies showed that a limited amount of them contemplated growth, those who did so developed their goals not from the beginning of business formation but as the business progressed and as a natural pattern.

7) Regarding the competitive advantages and areas of strength that provided firms with success, to most firms their advantage resided exactly in the provision of quality

products or services they were already offering, emphasis differed across gender. Moreover, no major differences were perceived across firm's competitive advantages during the three years studied. Statistically, there was significant advantage for firms in their current markets. Specifically and comparing gender, it appears that success correlated in opposite direction, meaning that if the firm initiate larger and had more employees they acquired larger advantages than those on the opposite side or smaller firms. Moreover, there is a significant association between the main CA obtained throughout the firm's life and gender.

8) What gave firms their competitive advantages? These are reported to be in the areas of strength firm's owners affirmed to possess. All sectors replies did not centered on common areas, yet replies suggest these CA reside on the quality of products offered (31%), exclusive service provided (14.6%), including knowledge of clients, areas of expertise in their current markets, and financial soundness. Differences across gender were only significant in their actual market, measured by Chi-square test and Spearman correlation. The areas of strength reported coincide with the firms' competitive advantages and relate strongly to the firm's research objectives. In other words, CA depends on the interconnectedness of factors. This coincides with research by Teece et al. (1997) whereas they relate organizational capabilities to knowledge of internal competencies (section 6.1.3.4.) and Spanos and Lioukas (2001) interconnectedness. Statistically, four sectors were significant under Chi-square  $<0.05$  at 5% confidence level: the level of responsibility used to develop their firms, the self expressed levels of success, as reported by the CEOs, why the firm is successful, and why they are successful (perseverance to attain goals and goal achievement), as detailed on table 6.4A. Success and strength was found to be closely related to size, and this significance occurs across gender with women-owned firms being satisfied as to their success, yet not as well satisfied as those as male owned firms.

9) Analyzing weaknesses illustrates that firms reported main weaknesses are not statistically significant. Yet, some of the reported areas of strength are related to areas of weaknesses, in the opposite end: in terms of need to improve training, need to offer more quality service and improve research skills. A common reply also brought in weaknesses in financial soundness but only in a minority of the successful sector. On the opposite spectrum, this was found to be the main weakness for non-successful firms, jointly to administrative skills and sales for the non-successful sector. Furthermore, statistical significance was found in terms of males. Research showed that they possessed more experience at starting business, which proved to be a capability that helped them succeed. This factor probed a disadvantage to women-owned firms since typically they possessed less experience and had younger and smaller firms, thus, they appear less successful. However, though not statistically significant, women-owned firms failed less than men's.

10) Regarding which resources were relevant to succeed and provided CAs, neither was statistically significant. Yet, both male and female considered very relevant, respectively: physical resources (63.6% to 82%), financial resources (73% to 82%), technological (53%-82%). Marketing (64%-91%), community relation, and reputation were strongly stressed (100% across sectors).

11) Establishing if differences in performance existed across gender was statistically significant in several respects. Nevertheless, to a direct question on the subject no significant replies were obtained. Yet, the Kruskal-Wallis test showed significance for women and that this sector prefers family relations to profession. On sales and size, the levels reached by male firms when compared to female were significantly larger, tending towards male. Across business sector chosen, there is a highly significant difference and associates more success to men because of the type of sector chosen, sales levels reached, and number of employees

retained on a regular basis. While women tend to operate in small retail and service, male tend to choose manufacturing, wholesale and larger size services, thus becoming more successful. The same occurs with the number of employees, male-owned firm have more employees, are larger thus, sell more, and appear more successful in size and revenue related. Yet, the satisfaction level reached by women is as good as those of men. Thus, it appears that differences occur out of choice. Likewise, a significant correlation was found between performances three years ago and earnings, in terms of the levels of sales reached at the time the questionnaires were implemented and for expected sales. In addition, in spite of economic problems, most successful firms expected to continue well. The opposite occur to the non-successful sector.

12). Regarding the problems and barriers faced by local SMEs, only three aspects proved to be significant statistically, CEOs reported that to succeed a certain size and the right sector as well as having the necessary capital was needed. Most problems centered on capital availability, problems with government policies and merchandise or inventory taxes (CRIM), competition incoming from the large multinationals. Though barriers were tied to problems areas, neither proved to be statistically significant. However, an overall analysis show that female firms were found to encounter more problems accessing credits than male's and also were found to have had certain social and economic discrimination, though not statistically significant.

13). Why firms fail. Only having too small firms was statistically significant across gender. Yet, successful firms specified that failures were due exactly to the lack of the factors that caused success, including lack of managerial skills. In addition, a majority of CEOs expressed that demise is due to the lack of administrative capacity, of having adequate capital, and too much competition that makes it difficult for firms because of their smallness.

This replies coincided with answers specified by non-successful firms. Expert's opinion matched both successful and non-successful firms as to the reasons that cause success and failure. These groups pointed out that to them, it is clear that what causes success is exactly what taken on the opposite side, causes failure: too much expenditure early in the life of the firm, lack of adequate cash, and mismanagement. Moreover, replies obtained from the direct interviews and case analysis provided similar responses.

14). Measuring general performance, except on the cases specified already, did not offer any statistical differences across gender, size, or sector. Hence, general conclusion can be sum up, when analyzing competitive advantages that determine success across gender, size, or sector for Puerto Rican firms, these are related to the experience possessed previous to starting their firms, to the capital held since the beginning of forming the firm, as well as the administrative skills, and sector chosen by the CEOs. Moreover, profiling firms, with the same analytic departure, conclusively shows that female-owned firms in Puerto Rico, though they remain in business longer, are smaller, appear less successful, sell less, are less prone to grow in size, and are in sectors not to prone to high growth. These results compare well to literature and to empirical studies on gender implemented elsewhere.

15). Analyzing the non-successful firms, categorically it can be stated from all sources that exactly the reasons that cause success for local firms is what, on the opposite spectrum, causes firm's demise. Firms fail for having initiated with lack of initial capital, administrative skills, limited experience, not being in the right sector, lacking innovations, or losing the advantages held previously, either for not being innovative or just because of decadence.

## CHAPTER 7

### ADJUSTED RBV MODEL UNDERLYING THIS THESIS

#### 7.0 Introduction

The objective of the designed model is to use it as guideline geared to stimulate firms managers incoming to the market so as to adequately prepare themselves before establishing their business. For firms already established in the market, the model should be used as a failure prevention mechanism. The design bears the same motives and intentions for policy makers, lenders and general interested sectors.

#### 7.1. Phase III. Design prescriptive model. *Explanatory phase.*

The model is intended to, also, serve for strategic reformulation for small business. In the case of government and policy makers, the intention is to use it as a guidance to analyze the potential for entrepreneurs and new firms.

#### 7.2. Variables included in the calculation and their weights

The data analysis was done both manually and using computer instruments, the data interpretation was done addressing the hypothesis and questions posited in the research. Responses were processed and analyzed using the statistical packages: SPSS, SAS, PRINQUAL, and EXCELL. Results are presented in typical tables, graphs and in report format. Data was analyzed mainly using multivariate and regression techniques. The latest were selected to identify areas of distinctive competencies and to determine how these relate to performance (variables) using one dependent, and n independent variables. Typical regression statistics for



measures of dispersion and centering data were used as well as descriptive statistics, t-tests, correlation, and discriminant analysis. The first trial results were obtained in simple raw form; later on, and due to the spread of responses, data was grouped together or collapsed, placing similar answers together. As such, the analysis was more meaningful.

The methods of analysis used to analyze the data and determine the index is explained in detail in chapter IV . After processing data in several stages the index was arrived at with 10 variables were chosen as indicators of success. The idea is to determine the level of “success”, dependent variable, at which this firms are analyze how “success” influences or is influenced by the independent variables. The ten variables were reached after a “ trial and error “ process while seeking to reduce the questionnaire had 207 variables, which in a certain way too many, making it considerable difficult to work with all of them.

The variables representing the index are:

|           |   |
|-----------|---|
| P4        | Years the owner has been in business                          |
| P7        | Level of education  |
| (P27-P26) | Average sales last year and 3 years ago. Trends determination |
| P40       | Level of success attained                                     |
| P122      | Last year performance relative to objectives-overall profit   |
| P126      | Last year performance to objectives –return on investment     |
| P143      | How is your firm financially compared to last year            |
| P144      | Have you reached your plans in terms of sales?                |
| P168      | Net profit on sales obtained                                  |
| P170      | Attractiveness of the market                                  |

This means that, when analyzing successful firms and entrepreneur’s performance, one can infer that firms whose CEOs possess a maximum of the characteristics included above will be more successful than those not possessing those. In other words, the higher the level of education, experience, increased planning, financial stability or solid cash base, as well as usage of planning, the more success the firm will reach. Thus, choosing attractive market, which per se, implies environmental scanning, will further induce success. Therefore, ROI, and solid

performance will be the return. While analyzing entrepreneurs, those that fall within the range of variables mentioned joint to certain level of risk and pro-activeness would be more success prone than those who do not. Thus, while offering credit certainly, some of these traits should be searched for.

Moreover, since constructing the index was calculated in an stochastic not a deterministic manner (based on the researcher choice and feelings), an statistical technique was selected that would allow gathering the information relative to success for this 10 chosen variables. This procedure is done using Principal Component, and Factorial Analysis. Since we have categorized variables, we then search for another technique that could do the job without supposing the variables are interval scales. As such, two (2) techniques are known: multiple correspondence analyses and the system of transforming categorical data to interval scale and then apply a technique for interval analysis PRINQUAL.\* (\*PRINQUAL is an analysis of principal qualitative components procedure is a data transformation procedure that is based on the work of Kruskal and Shepard (1974); Young, Takane, and de Leeuw (1978); Young (1981); and Winsberg and Ramsay (1983)).

Moreover, once the statistical technique was chosen, the 10 chosen variables were organized in such a way that the higher the value of the variable the highest the success of the firm. This was done in an intuitive manner but mostly it followed the hypothesis formulated and the literature reviewed. Exception are the variables education (p7), self rated market positioning (p30), how did the owner ensured plans materialized (p135), and how the owner compares his firms performance, financially to the previous year (p143). These variables were organized in a different manner. PRINQUAL technique was applied (a technique used to quantify data,

transforming from categorical to continuous data, and allows statistical processing numerical variables or data (see appendix section for further explanations) to quantify the variables, and using the transformed or grouped data, principal component analysis was utilized to reduce dimensionality and to construct the index. The transformation procedure was detailed in chapter 5. Analysis of variance and t-test are used (this are used to search if there are differences among the different categories of the average obtained by the index of success). After the PRINQUAL procedure provides is implemented, three methods of transforming a set of qualitative and quantitative variables to optimize the transformed variables' covariance or correlation matrix.

Further, the regression analysis is done with the intention of finding the relationship and significance of all variables. Only the 5 most significant variables, those that exhibit a significant correlation were used. If we look at Anova, the significance is 0.0000, meaning a perfect correlation. P-values are all under 0.05 and each of the variables has a lower value. The most significant variables are: p3 number of employees, pp7 education, p4 years in business and p9 age. The others, though significant, have a lower level of significance. The coefficient of all variables is positive, except p11 years of business foundation. Positive coefficients, taking each variable by itself, means that the higher the coefficient the more influence the value on the index and the correlation. The opposite occurs with p11. However, caution calls for with this variable because it has negative coefficient and positive correlation. Table 7.1 exhibits the scaled values and weights for each variable. As such, when analyzing the impact each variable has on the index, certain consideration needs be given to the weight as well as to the sample error of 12%-14%. This means that traits with higher weights are the most desirable characteristics conducive to success.

**Table 7.1.** How the index values were obtained.

| <b>Basic idea to calculate the index of success</b>                     |                          |                     |                       |                     |                     |
|---|--------------------------|---------------------|-----------------------|---------------------|---------------------|
|   | <b>Transformed Value</b> | <b>Scaled Value</b> | <b>Weighted Value</b> | <b>Scaled Value</b> | <b>Weight of</b>    |
|   | PRINQUAL                 | Included Missing    | PRINCOMP              | <b>0 to 100</b>     | <b>the variable</b> |
| <b>NUMBER OF EMPLOYEES</b>  |                          |                     |                       |                     | <b>0.31</b>         |
| 0 - 24 Employees  | -0.43                    | 0.00                | 0.00                  | 0.00                |                     |
| 25 – 99 Employees   | 1.50                     | 1.93                | 0.59                  | 3.29                |                     |
| More 100 than employees   | 2.98                     | 3.41                | 1.05                  | 5.82                |                     |
| <b>YEARS IN BUSSINESS</b>   |                          |                     |                       |                     |                     |
| 0 - 3 Years   | -1.15                    | 0                   | 0.00                  | 0.00                | <b>0.29</b>         |
| 4 - 6 Years   | -1.15                    | 0                   | 0.00                  | 0.00                |                     |
| 7 - 10 Years  | -0.36                    | 0.79                | 0.23                  | 1.26                |                     |
| More than 10 Years  | 0.93                     | 2.08                | 0.60                  | 3.30                |                     |
| <b>EDUCATION</b>  |                          |                     |                       |                     |                     |
| Other   | -1.47                    | 0                   | 0.00                  | 0.00                | <b>0.35</b>         |
| Technical Studies   | 0.1                      | 1.57                | 0.56                  | 3.09                |                     |
| University  | 0.1                      | 1.57                | 0.56                  | 3.09                |                     |
| Post-graduate   | 1.52                     | 2.99                | 1.06                  | 5.88                |                     |
| <b>PREVIOUS EXPERIENCE</b>  |                          |                     |                       |                     |                     |
| No  | -1.35                    | 0                   | 0.00                  | 0.00                | <b>0.15</b>         |
| Yes   | 0.72                     | 2.07                | 0.31                  | 1.70                |                     |
| <b>HOW DO YOU RATE YOURSELF/MARKETING?</b>                              |                          |                     |                       |                     |                     |
| An enterprise with a market niche in specifics markets                  | -0.83                    | 2.99                | 1.47                  | 8.15                | <b>0.49</b>         |
| A business with problems to survive                                     | -0.83                    | 2.99                | 1.47                  | 8.15                |                     |
| A business like any other trying to survive                             | -0.83                    | 2.99                | 1.47                  | 8.15                |                     |
| Not the best leader but a challenger                                    | 0.17                     | 3.99                | 1.96                  | 10.87               |                     |
| Market Leader   | 1.01                     | 4.83                | 2.37                  | 13.16               |                     |
| <b>DID YOU DRAFT A FORMAL BUSINESS PLAN WHEN FOUNDING YOUR BUSINESS</b> |                          |                     |                       |                     |                     |
| No  | -0.87                    | 0                   | 0.00                  | 0.00                | <b>0.27</b>         |
| Yes   | 1.13                     | 2                   | 0.54                  | 3.00                |                     |
| <b>IS YOUR FIRM SUCCESSFUL</b>  |                          |                     |                       |                     |                     |
| No  | -1.34                    | 0                   | 0.00                  | 0.00                | <b>0.25</b>         |
| Yes   | -0.08                    | 1.26                | 0.32                  | 1.77                |                     |
| <b>COMPARED TO WHEN YOU STARTED, HOW ARE YOU DOING TODAY?</b>           |                          |                     |                       |                     |                     |
| Worse than expected   | -4.35                    | 0                   | 0.00                  | 0.00                | <b>0.20</b>         |
| As expected   | 0.23                     | 4.58                | 0.90                  | 4.98                |                     |
| Better than expected  | 0.23                     | 4.58                | 0.90                  | 4.98                |                     |
| <b>FINANCIALLY, HOW ARE YOU COMPARED TO LAST YEAR PERFORMANCE?</b>      |                          |                     |                       |                     |                     |
| Worse   | -3.65                    | 0                   | 0.00                  | 0.00                | <b>0.25</b>         |
| Same  | 0.26                     | 3.91                | 0.99                  | 5.49                |                     |
| Better  | 0.26                     | 3.91                | 0.99                  | 5.49                |                     |
| <b>SALES THREE YEARS AGO</b>  |                          |                     |                       |                     |                     |
| 45000   | -0.02                    | 4.21                | 1.85                  | 10.28               | <b>0.44</b>         |
| 50000   | -0.02                    | 4.21                | 1.85                  | 10.28               |                     |

|          |       |      |       |       |  |
|----------|-------|------|-------|-------|--|
| 55000    | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 60000    | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 65000    | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 70000    | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 75000    | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 90000    | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 101000   | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 125000   | -0.02 | 4.21 | 1.85  | 10.28 |  |
| 145000   | -0.01 | 4.22 | 1.86  | 10.31 |  |
| 150000   | -0.01 | 4.22 | 1.86  | 10.31 |  |
| 225000   | -0.01 | 4.22 | 1.86  | 10.31 |  |
| 275000   | 0     | 4.23 | 1.86  | 10.33 |  |
| 300000   | 0     | 4.23 | 1.86  | 10.33 |  |
| 352000   | 0.01  | 4.24 | 1.87  | 10.35 |  |
| 400000   | 0.01  | 4.24 | 1.87  | 10.35 |  |
| 600000   | 0.03  | 4.26 | 1.88  | 10.40 |  |
| 750000   | 0.05  | 4.28 | 1.88  | 10.45 |  |
| 800000   | 0.05  | 4.28 | 1.88  | 10.45 |  |
| 980000   | 0.07  | 4.3  | 1.89  | 10.50 |  |
| 1000000  | 0.08  | 4.31 | 1.90  | 10.52 |  |
| 1100000  | 0.09  | 4.32 | 1.90  | 10.55 |  |
| 1500000  | 0.13  | 4.36 | 1.92  | 10.65 |  |
| 1700000  | 0.15  | 4.38 | 1.93  | 10.70 |  |
| 2500000  | 0.23  | 4.46 | 1.96  | 10.89 |  |
| 3500000  | 0.34  | 4.57 | 2.01  | 11.16 |  |
| 4000000  | 0.39  | 4.62 | 2.03  | 11.28 |  |
| 4500000  | 0.44  | 4.67 | 2.06  | 11.40 |  |
| 7500000  | 0.76  | 4.99 | 2.20  | 12.19 |  |
| 12000000 | 1.23  | 5.46 | 2.40  | 13.33 |  |
| 40000000 | 4.17  | 8.4  | 3.70  | 20.51 |  |
|          |       |      | 18.03 |       |  |

### 7.3. Profiles of successful firms.

Analyzing firms in general, it can be inferred that for a firm to be successful: the more education the owner possesses the higher the chance of success. In addition, the higher the level of experience, especially these related to the sector defined here as previous experience, indicates more possibility of success. Success might be reached, potentially, because of the possibility of entering into higher analytic levels of environmental scanning, planning and opportunity seeking and attainment. Moreover, firms that initiated with higher levels of investment and not cash strapped appear to have higher potential for success. In this specific aspect, initial investment and

return on investment, as well as sales performance appear to be closely related to success. Potentially, from the start a firm foundation, analysis and caution has to be taken to enter in an attractive market not just following fads or without analyzing. What is more, certain industry appears to be closely tied to higher growth and sales prospect. As such, planning of any nature appears to induce success. Extracting from the index, after n number of years firms reach certain levels of success and the higher the number the higher the success reached, other things being equal. As this index points out, actions taken by the owner, CEO's from the beginning apparently are the most relevant determinant of success.

This index, as well as results of descriptive statistics coincides with literature in several respects. Success according to findings by Cooper, Dunkelberg and Woo, (1989) is based on demographic factors such as age, gender and race, and education, all of which are usually associated with success. Results also indicate that the older the firm the more likely to remain in business, specially once the firm surpasses the first three years of operations and the learning curve. Comparing the firms analyzed for this dissertation to the index shows via graphs, also, that their competitive advantages are closely tied to the sector of business in which the firm currently performs. Likewise, Duchesneau and Gartner (1990) evidenced that traits of owner/manager, the strategy of the firm, and the way the business was approached since start-up were most relevant to success. Chawla, Pullig, and Alexander (1997)) implemented a similar study in the construction industry and obtained similar results. It appears, in our study, that firms that perform the best either in rough performance measures (ratios) or by qualitative aspects initiated in a solid financial and experience manner. Not to mention having highly committed CEO's. Furthermore, after applying the formula and with respect to the written answers provided by many of the CEOs interviewed, success, to them, apparently is not necessarily a

matter of size reached and performance attained, there are other qualitative aspects closely tied to it: the satisfaction derived, the help they can afford to provide to others and doing what they like best.

This study was not able to probe how planning influenced success, as Castrogiovanni (1996) did, maybe because of the limited sample. Yet, results show that the most successful firms in this study are those that planned. Also, this study related successful to non-successful firms and found no differences on resource usage; what firms CEOs expressed was that the products or service areas they were into is what gave them their competitive advantages or areas of success. Nonetheless, what this study did find (see graphs and figures below) is that firms that failed complained amply of having government and fiscal difficulties as well as financial and competitive problems from the beginning. This might be attributed and an indicator of lack of managerial capability. In these specific cases, though as Lussier (1995) found, firms that utilized counseling performed better. In addition, a potentiality exists to infer that what cause success in some firms and not in others. An explanation apparently resides on the education level, experience, type of business and expertise. This research, matching successful firms to failing firms did not provide the expected results, a very reliable statistical model, since, as explained before there was ample reluctance from failing firm to participate. However, relying in strict statistics, expert opinions, literature and replies, with a 12-14% of certainty, this research points out that differences on levels and type of success obtained, does vary across gender. This variation becomes thus a profile and explains, in a certain manner, that if women go into business, to succeed, to a larger extend owners should try to acquire experience and select sectors more prone to succeed. What varies and profiles is that the success level reached is significantly different across line of business. In addition, the determinant for these differences

appears to rest on the manager and the decision taken. Taken all together, size is closely tied to the type of line chosen yet, in the case of female, results from all findings, i.e., survey, direct interview, expert opinion, and literature point out at differences. Results do indicate that this is merely out of choice; however being a small sample with low female participation inhibits total inferences.

#### 7.4. Analysis of variance. Is presented in a summarized form as Duncan tables.

The summarized table shows variances grouped in one table. This represents the acceptance or rejection area for a specified value of alpha and a test to the null hypothesis.

**Table 7.2.** Duncan groupings.

| Duncan Grouping  | Mean   | N  |                       | df | MSE      |
|--|--------|----|-----------------------|----|----------|
| (P3) Number of Employments                             | 52.153 | 3  | More than 10          | 43 | 63.12069 |
| (P4) Years in Business                                 | 44.409 | 24 | More than 10          | 42 | 65.65628 |
| (P7) Education   | 48.294 | 9  | Post graduate         | 42 | 56.02067 |
| (P9)Age  | 47.723 | 5  | More than 60 year     | 41 | 60.60684 |
| (P9)Age  | 47.337 | 9  | 51 - 60               | 41 | 60.60684 |
| (P21) Full Time Employmess-Now                         | 50.303 | 3  | 51 - 100              | 41 | 62.09714 |
| (P23) How Many Employmess In 3 Years - Full Time       | 52.713 | 2  | 51 - 100              | 37 | 66.07924 |
| (P26) Average Sales Last Year                          | 46.822 | 13 | More than 10          | 41 | 63.81418 |
| (P27) Sales 3 Years Ago                                | 45.818 | 10 | More than \$1.000.000 | 38 | 70.03876 |
| (P28) Expected Sales Next 3 Years                      | 47.770 | 11 | More than \$10        | 31 | 70.77320 |
| (P30) Self - Rated Market Positioning                  | 47.622 | 17 | Market Leader         | 37 | 35.30114 |
| (P34) Formal Bussines Plan                             | 44.801 | 20 | Yes                   | 44 | 66.86054 |
| (P38) In Which Area (s)?                               | 52.583 | 1  | Production growth     | 23 | 53.26297 |
| (P60) Factor That Will Make the Firms Successful       | 47.247 | 6  | Competition           | 37 | 70.67761 |
| (P68) Factor That Will Make the Firms Successful       | 62.813 | 1  | Financial soundn      | 41 | 68.89882 |
| (P84) Most Important Resources                         | 46.009 | 13 | Competition           | 36 | 68.23144 |
| (P 101) Main Competitive Advantage NOW                 | 48.356 | 9  | Quality product       | 32 | 52.88969 |
| (P 111) Importance of Financial Measures Now           | 62.813 | 1  | Overall profit first  | 38 | 67.53253 |
| (P 117) Importance of Financial Measures in the Future | 62.813 | 1  | ROI                   | 34 | 78.31292 |
| (P 138) Whose Assistance?                              | 52.583 | 1  | Consultants           | 28 | 66.56368 |
| (P 143) Financially Compared to Last Year?             | 44.353 | 7  | Same                  | 41 | 70.33141 |
| (P 144) Reached Your Planned Sales Level               | 42.725 | 26 | Reached               | 41 | 69.23745 |
| P (190) Which Factors Have Affected Your Business?     | 55.732 | 1  | Financing             | 2  | 1.691871 |

Dependent Variable Success. Alpha = 0.1.



## 7.5 Regression analysis

The following regression analysis looks and was used to probe the relationship and significance of all variables, but is presented here only with the 5 most significant variables that exhibit a significant correlation. If we look at Anova, the significance is 0.0000, meaning a perfect correlation. P-values are all under 0.05 and each of the variables has a lower value. The most significant variables are: p3 number of employees, pp7 education, p4 years in business and p9 age. The others, though significant, have a lower level of significance. Moreover, the coefficient of all variables is positive, except p1 years of business foundation.

**Table 7.3.** Regression statistics

| Regression Statistics |       |
|-----------------------|-------|
| Multiple R            | 0.91  |
| R Square              | 0.82  |
| Adjusted R Square     | 0.68  |
| Standard Error        | 4.97  |
| Observations          | 35.00 |

ANOVA

|            | Df    | SS      | MS     | F    | Significance F |
|------------|-------|---------|--------|------|----------------|
| Regression | 15.00 | 2140.24 | 142.68 | 5.78 | 0.0003         |
| Residual   | 19.00 | 469.25  | 24.70  |      |                |
| Total      | 34.00 | 2609.49 |        |      |                |

|           | Coefficients | Standard Error | t Stat | P-value |
|-----------|--------------|----------------|--------|---------|
| Intercept | -8.83        | 11.70          | -0.75  | 0.460   |
| P3        | 6.57         | 2.08           | 3.17   | 0.005   |
| P4        | 3.51         | 1.34           | 2.61   | 0.017   |
| P5        | 2.68         | 0.89           | 3.02   | 0.007   |
| P6        | 3.02         | 2.29           | 1.32   | 0.203   |
| PP7       | 4.18         | 1.02           | 4.11   | 0.001   |
| P9        | 2.44         | 1.16           | 2.10   | 0.050   |
| P10       | 0.11         | 1.10           | 0.10   | 0.922   |
| P11       | -3.40        | 1.51           | -2.25  | 0.037   |
| P12       | -3.31        | 2.15           | -1.54  | 0.140   |
| P13       | 10.77        | 2.98           | 3.62   | 0.002   |
| P14       | -4.20        | 2.63           | -1.59  | 0.128   |
| P15       | -0.38        | 1.12           | -0.33  | 0.742   |
| P16       | 1.82         | 1.48           | 1.23   | 0.234   |
| P17       | 0.20         | 1.15           | 0.18   | 0.861   |
| P18       | -2.18        | 2.07           | -1.06  | 0.305   |

Positive coefficients, taking each variable by itself, means that the higher the coefficient the more influence the value on the index and the correlation. The opposite occurs with p11. However, caution calls for with this variable, since it has negative coefficient and positive correlation. This regression includes more variables and specifically those used for the index. Both some highly correlated and others not so related are presented here. P10,p16, p17 are excluded since their value exceeds the 0.05 level of significance. Only ten variables are used for the index.

#### **7.6. Discussion and interpretation of results based on index. Results to be presented by topics always in the same sequence.**

Performance's Index C and results of successful firms will be discussed mostly from the point of view of how competitive advantages; distinctive competencies, gender differences, and size differences determine success for SMEs and the Model for predicting small firm performance.

Conclusions. Regarding resource selection, two studies examined the importance of resources: Hart (1995) found that almost all entrepreneurs acknowledged the importance of resources in new venture creation, but focused instead on strategic choices and relegated resource decisions to a supporting role. Furthermore, a survey of MIT University entrepreneurs revealed that in retrospect, they considered the initial resource choices to be far more important than they believed initially (Hart , Green, and Brush,1997). These authors found that resource choices outweigh strategic choices in determining long-term success or failure. In the case of this study, successful firms appear to have utilized whichever resources they possessed to its maximum. In spite of these reviews and findings, statistically, no significance was found, only a

near significant relationship at 10%.

**Figure 7.1.** Final correlation at .28 level of significance.

FINAL CORRELATION= RELATIONSHIP LEVEL OF SIGNIFICANCE AT THE R= .28 WITH A TWO TAILED TEST

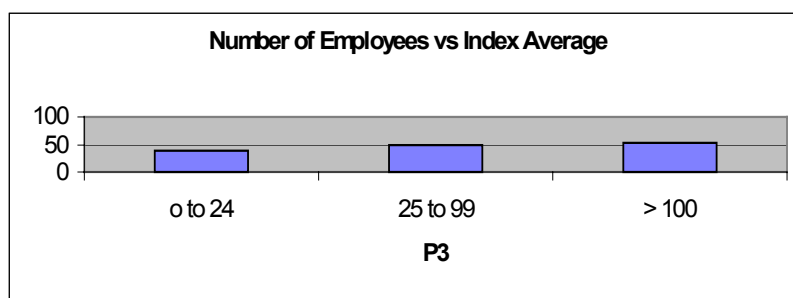
|  | P3          | P4           | P5            | P6           | P7           | PP7         | P8       | P9          | P10         | P11         | P12         | P13         | P14         | P15         | P16         | P17          | PP17          | P18          | P19          | P34      | P35      |          |             |
|--|-------------|--------------|---------------|--------------|--------------|-------------|----------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|---------------|--------------|--------------|----------|----------|----------|-------------|
| Number of employees                      | <b>P3</b>   | <b>1</b>     |               |              |              |             |          |             |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Years in business                        | <b>P4</b>   | <b>0.318</b> | <b>1</b>      |              |              |             |          |             |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Line of business                         | <b>P5</b>   | -0.03        | -0.149        | <b>1</b>     |              |             |          |             |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Sex                                      | <b>P6</b>   | -0.2         | -0.022        | -0.01        | <b>1</b>     |             |          |             |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Education> Levels of edu attained        | <b>P7</b>   | -0.03        | 0.0379        | -0.098E-04   |              | <b>1</b>    |          |             |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Origin                                   | <b>PP7</b>  | 0.229        | 0.0769        | -0.2         | -0           | -0.1        | <b>1</b> |             |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Age >1m,2f                               | <b>P8</b>   | <b>0.297</b> | <b>0.2965</b> | 0.092        | -0.04        | -0.1        | -0       | <b>1</b>    |             |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Experience > Areas of experience         | <b>P9</b>   | <b>0.29</b>  | <b>0.5531</b> | -0.06        | 0.026        | 0           | 0.24     | <b>0.28</b> | <b>1</b>    |             |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Bus foundation> Changed location         | <b>P10</b>  | <b>-0.29</b> | <b>-0.328</b> | 0.131        | 0.225        | -0          | 0.05     | <b>-0.3</b> | <b>-0.4</b> | <b>1</b>    |             |             |             |             |             |              |               |              |              |          |          |          |             |
| Bus related exp. Previous bus experience | <b>P11</b>  | <b>0.399</b> | <b>0.6453</b> | 0.127        | 0.099        | 0.03        | 0.19     | 0.172       | <b>0.71</b> | -0.2        | <b>1</b>    |             |             |             |             |              |               |              |              |          |          |          |             |
| Type of bus. Experience                  | <b>P12</b>  | -0.12        | <b>-0.403</b> | 0.085        | 0.122        | -0          | 0.08     | -0.23       | <b>-0.3</b> | <b>0.35</b> | <b>-0.3</b> | <b>1</b>    |             |             |             |              |               |              |              |          |          |          |             |
| Bus related experience                   | <b>P13</b>  | -0.22        | <b>-0.275</b> | -0.01        | <b>-0.3</b>  | 0           | -0.2     | -0.17       | 0.01        | -0          | <b>-0.3</b> | 0.06        | <b>1</b>    |             |             |              |               |              |              |          |          |          |             |
| Areas of bus experience                  | <b>P14</b>  | -0.19        | -0.039        | 0.115        | -0.16        | 0.05        | -0.1     | -0.13       | -0          | 0.11        | -0.2        | -0          | <b>0.55</b> | <b>1</b>    |             |              |               |              |              |          |          |          |             |
| Initial investement                      | <b>P15</b>  | 0.127        | 0.2083        | -0.19        | -0.14        | -0.2        | 0.22     | 0.161       | -0          | -0.2        | -0          | -0.1        | 0.06        | -0.04       | <b>1</b>    |              |               |              |              |          |          |          |             |
| How bus was financed                     | <b>P16</b>  | 0.101        | 0.0287        | <b>-0.27</b> | -0.05        | 0.03        | 0.18     | -0.19       | 0.1         | -0.2        | 0.07        | 0.15        | -0.1        | 0.013       | 0.13        | <b>1</b>     |               |              |              |          |          |          |             |
| Main reasons to start bus.               | <b>P17</b>  | -0.06        | 0.0007        | -0.21        | -0.03        | -0.1        | -0       | 0.072       | 0.09        | <b>-0.3</b> | -0.1        | <b>-0.3</b> | 0.03        | 0.032       | <b>0.34</b> | -0.2         | <b>1</b>      |              |              |          |          |          |             |
| Specific reasons to start bus            | <b>PP17</b> | 0.085        | 0.1265        | -0.08        | -0.15        | <b>-0.3</b> | 0.03     | 0.083       | -0          | -0.2        | -0          | <b>-0.3</b> | -0.1        | -0.09       | <b>0.78</b> | -0           | <b>0.784</b>  | <b>1</b>     |              |          |          |          |             |
| How is your firm functioning             | <b>P18</b>  | -0.22        | -0.177        | 0.008        | -0.1         | 0.13        | -0.1     | -0.02       | <b>-0.2</b> | <b>0.26</b> | <b>-0.3</b> | 0.18        | 0.01        | 0.019       | 0.03        | 0.05         | -0.006        | 0.003        |              | <b>1</b> |          |          |             |
|  | <b>P19</b>  | -0.08        | -0.028        | 0.133        | -0.1         | -0.2        | 0.01     | -0.02       | -0.1        | 0.1         | 0.01        | <b>0.32</b> | 0.11        | 0.094       | -0.08       | -0.0187      | -0.18         | -0.17        |              |          | <b>1</b> |          |             |
|  | <b>P34</b>  | -0.12        | 0.1525        | 0.111        | <b>-0.25</b> | -0.2        | 0.06     | 0.122       | 0.14        | -0.1        | -0.1        | -0.2        | <b>0.34</b> | 0.166       | <b>0.33</b> | -0.1         | 0.177         | 0.127        | -0.12        | 0.04     |          | <b>1</b> |             |
|  | <b>P35</b>  | -0.23        | -0.055        | -0.01        | 0.218        | -0.2        | 0.17     | -0.14       | <b>0.31</b> | -0.1        | 0.09        | -0.1        | <b>0.25</b> | 0.04        | 0.13        | 0.1          | <b>0.241</b>  | 0.184        | <b>-0.32</b> | -0.1     | 0.226    |          |             |
|  | <b>P40</b>  | 0.133        | 0             | -0           | -0.17        | -0          | -0       | 0.11        | -0.2        | 0.2         | <b>-0.3</b> | 0.21        | 0.07        | 0.128       | -0.12       | -0.1         | <b>-0.303</b> | <b>-0.39</b> | <b>0.257</b> | 0.06     | 0.115    | -0.2     |             |
|  | <b>PP14</b> | <b>3</b>     | 0.017         | -0.189       | -0.03        | -0.07       | 0.16     | 0.16        | 0.024       | 0.07        | -0          | -0.2        | 0.07        | <b>0.29</b> | 0.176       | <b>-0.32</b> | 0.09          | -0.226       | <b>-0.54</b> | 0.178    | -0.2     | -0.11    | <b>-0.3</b> |

The linear correlation in this model compares the relationship of each variable to the index. Per example p7, education has a strong correlation to the index. The stronger the educational level attained the more the success of the firm, taking the variable by itself. Likewise p3 or type of business the firm is into shows that certain areas are more prone to success than others. I.e., service sector has a lower success indicator than wholesale and manufacturing. See appendix sections for histogram of index values, eigen analysis, and other relevant statistics.

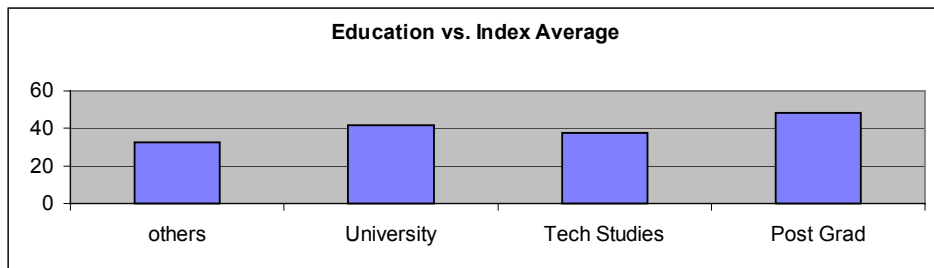
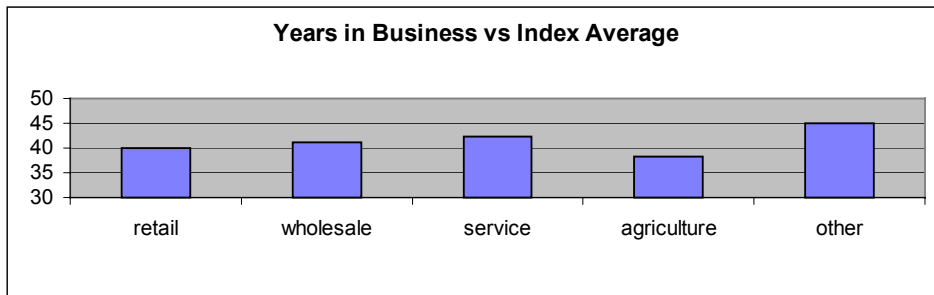
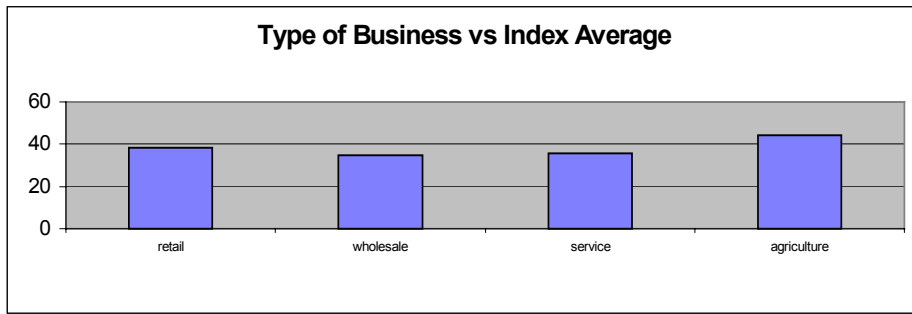
The following graphs and tables indicate how the firms studied perform against the index of success. Only significant profiling and variables within research objectives are exhibited. This index of success allows us to understand better why if there is a need to make decision regarding policy, loans, etc. which are the characteristics that will be most sought after in applicants. The significance of these figures is self-explanatory. Explanations will only be provided when considered necessary.

**SET OF TABLES 7.4 traits of firms and owners that determine success**

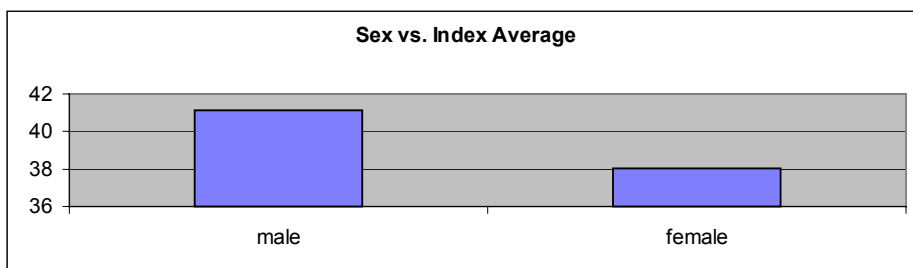
**TRAITS OF FIRM**



The larger the firm, measured by employees, the more successful.



The above figure indicates that the higher the level of education, the bigger the level of success reached by the firm.



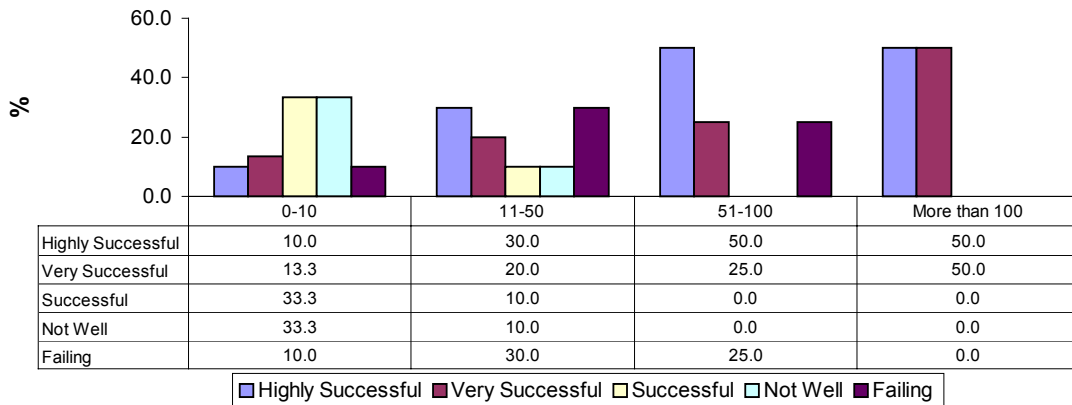
Male- owned firms appear more successful.

**TABLES & FIGURES 7.5. (SET OF)**

**RESOURCES, FACTORS THAT DETERMINE SUCCES, VRS COMPETITIVE ADVANTAGES AGAINST INDEX:**

**Most important resources**

|                     | Index  |
|---------------------|--------|
| Resources p84       |        |
| Other               | 36.09  |
| Knowledge of client | 35.939 |
| Prod. Mix/quality   | 41.806 |
| Financial soundness | 44.62  |
| Competition         | 46.009 |



**FIGURE 12. Full Time Employees**

**. Line of Business**

|                   | Retail | Wholesale | Service/Agriculture | Others | TOTAL    |
|-------------------|--------|-----------|---------------------|--------|----------|
| Highly Successful | 18.2   | 28.6      | 21.4                | 13.3   | 19.14894 |
| Very Successful   | 18.2   | 28.6      | 14.3                | 20.0   | 19.14894 |
| Successful        | 27.3   | 0.0       | 7.1                 | 46.7   | 23.40426 |
| Not Well          | 27.3   | 28.6      | 28.6                | 13.3   | 23.40426 |
| Failing           | 9.1    | 14.3      | 28.6                | 6.7    | 14.89362 |

**Importance marketing resources**

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 62.5              | 66.7            | 81.8       | 66.7     | 71.4    |
| A bit imp.   | 37.5              | 33.3            | 18.2       | 22.2     | 14.3    |
| not too imp. | 0.0               | 0.0             | 0.0        | 0.0      | 14.3    |
| not relevant | 0.0               | 0.0             | 0.0        | 11.1     | 0.0     |

Factor that will make your firm successful in future(1)

|                      | Highly Successful | Very Successful | Successful | Not Well | Failing |
|----------------------|-------------------|-----------------|------------|----------|---------|
| Prod mix/quality ser | 33.3              | 12.5            | 0.0        | 20.0     | 16.7    |
| Competition          | 0.0               | 12.5            | 0.0        | 40.0     | 33.3    |
| Financial soundness  | 11.1              | 37.5            | 22.2       | 20.0     | 0.0     |
| Knowledge of clients | 33.3              | 12.5            | 11.1       | 10.0     | 16.7    |
| Other                | 22.2              | 25.0            | 66.7       | 10.0     | 33.3    |

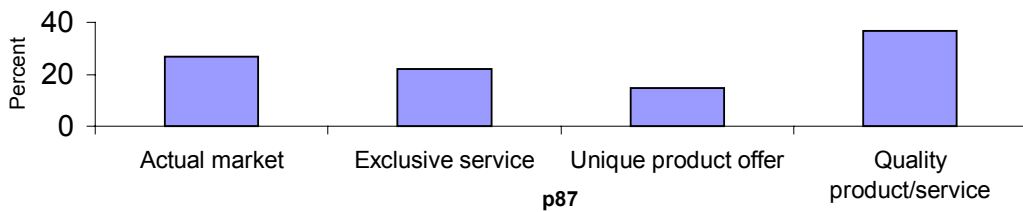


FIGURE Factors that given your firm competitive advantage (first)

This illustrates that success and competitive advantage for firms when rated against the index continues to be in the same areas shown by statistics, that is the actual market where they perform and offering quality of products and service.

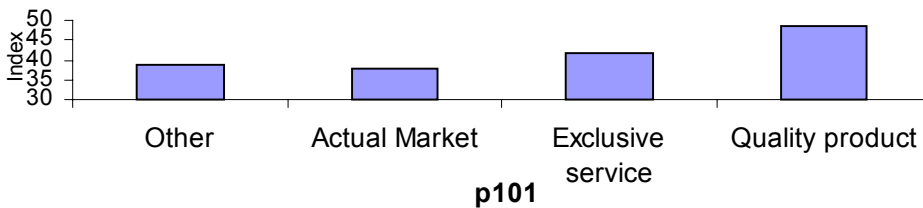


FIGURE .Main competitive advantage three years agos (p 101)

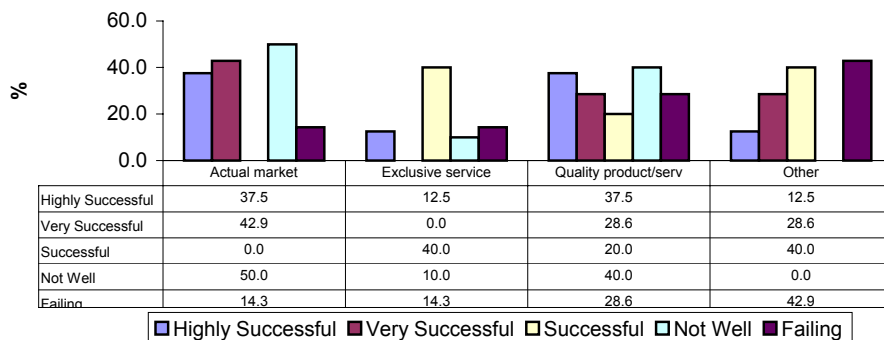


FIGURE 1. Main competitive advantage now (1)

Again, comparing firms longitudinally in the three years analyzed shows that highly successful firms statistically and measured against the index exhibit that success was due exactly to the same causes: actual market and offering quality products and service.

. In which areas reside your success?

|                   | Production growth | Marketing/Sales | Services | Financially Sound/H | Others |
|-------------------|-------------------|-----------------|----------|---------------------|--------|
| Highly Successful | 100.0             | 0.0             | 12.5     | 30.0                | 0.0    |
| Very Successful   | 0.0               | 33.3            | 25.0     | 10.0                | 0.0    |
| Successful        | 0.0               | 22.2            | 25.0     | 20.0                | 0.0    |
| Not Well          | 0.0               | 44.4            | 12.5     | 0.0                 | 0.0    |
| Failing           | 0.0               | 0.0             | 25.0     | 40.0                | 0.0    |

### 7.7. Performance measures against the index:

#### Set of figures 7.2 Sex vs. Performance

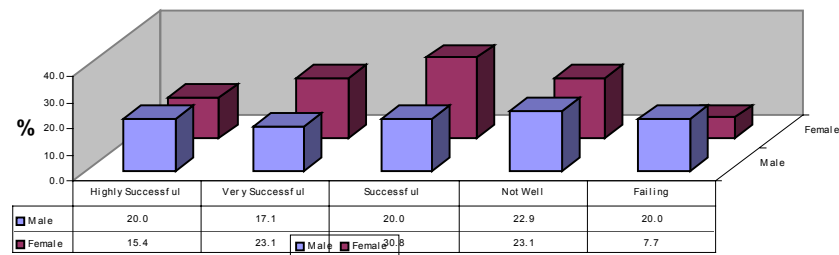


FIGURE 16. Sex Vs Performance

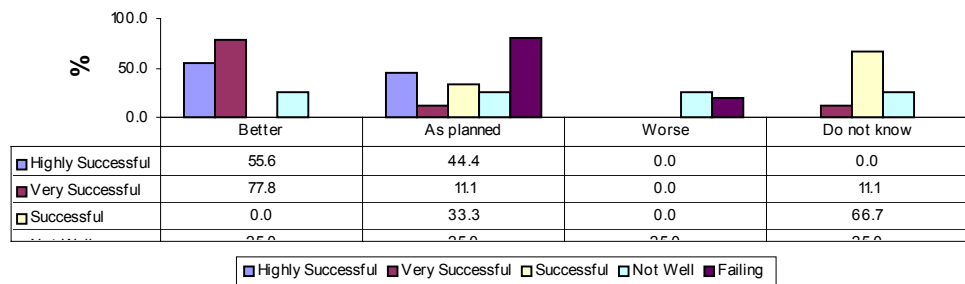


FIGURE Perform last Yr/ objectives



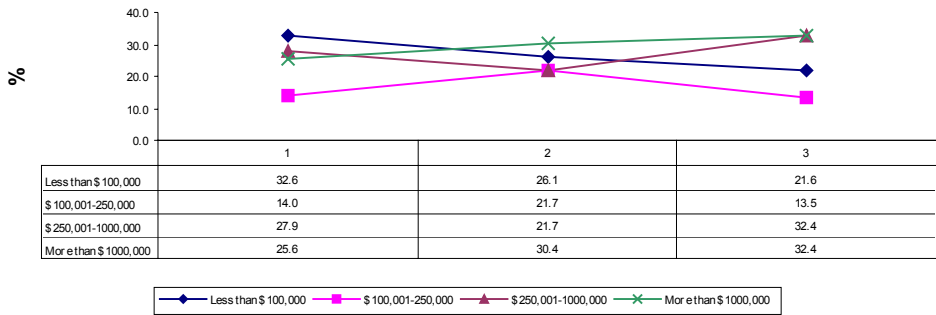


FIGURE 2. All firms

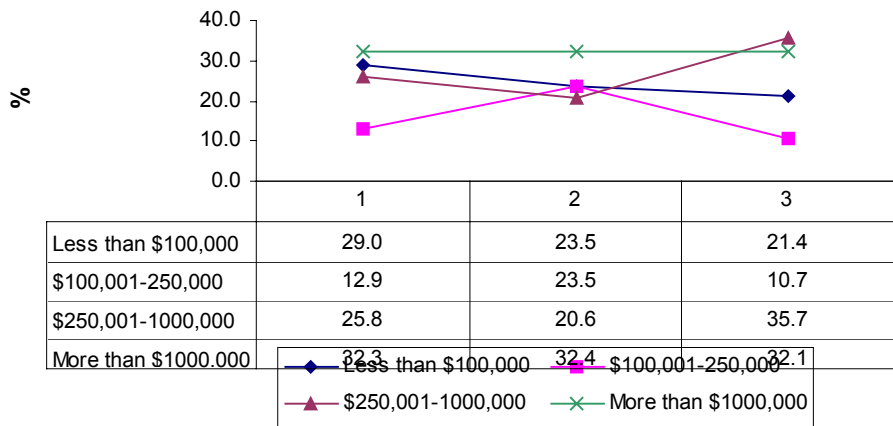


FIGURE 3. Males

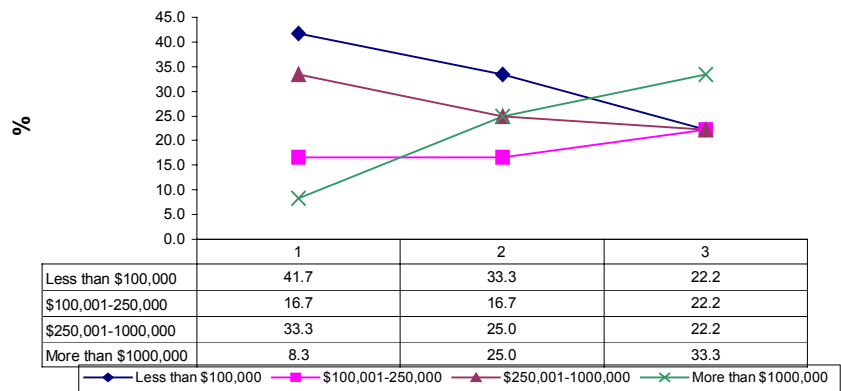
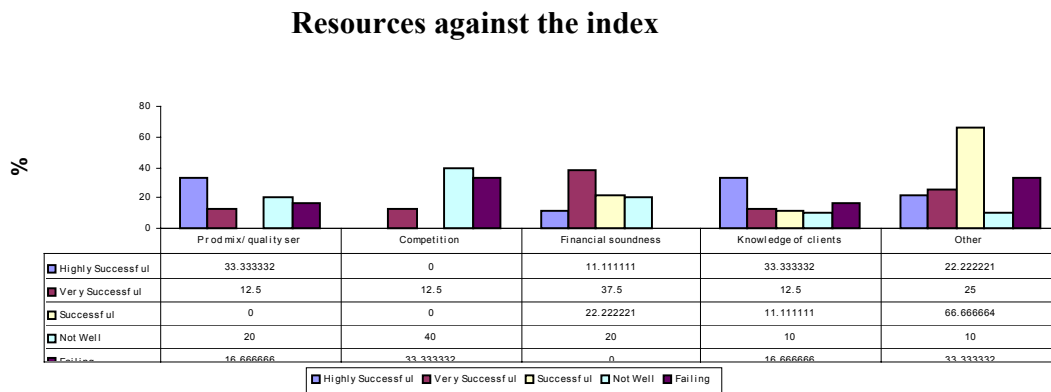


FIGURE 4. Females

Comparing firms against the index, shows that female-owned firms did well, yet not that many firms were in the above 1 million sales category.

**FIGURE 7.3.**



**FIGURE** Factor that will make your firm successful in the future(1)

**SET OF TABLES 7.6. Resources**

**TABLE** Importance physical resources

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 75.0              | 66.7            | 55.6       | 81.8     | 57.1    |
| A bit imp.   | 25.0              | 22.2            | 11.1       | 18.2     | 42.9    |
| not too imp. | 0.0               | 0.0             | 11.1       | 0.0      | 0.0     |
| not relevant | 0.0               | 11.1            | 22.2       | 0.0      | 0.0     |

**TABLE** Importance financial resources

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 100.0             | 66.7            | 70.0       | 72.7     | 71.4    |
| A bit imp.   | 0.0               | 33.3            | 20.0       | 27.3     | 14.3    |
| not too imp. | 0.0               | 0.0             | 0.0        | 0.0      | 14.3    |
| not relevant | 0.0               | 0.0             | 10.0       | 0.0      | 0.0     |

**TABLE** Importance human resources

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 100.0             | 87.5            | 90.9       | 72.7     | 57.1    |
| A bit imp.   | 0.0               | 12.5            | 9.1        | 27.3     | 42.9    |
| not too imp. | 0.0               | 0.0             | 0.0        | 0.0      | 0.0     |
| not relevant | 0.0               | 0.0             | 0.0        | 0.0      | 0.0     |

**TABLE Importance technological resources**

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 87.5              | 75.0            | 50.0       | 50.0     | 42.9    |
| A bit imp.   | 12.5              | 12.5            | 30.0       | 0.0      | 57.1    |
| not too imp. | 0.0               | 0.0             | 0.0        | 20.0     | 0.0     |
| not relevant | 0.0               | 12.5            | 20.0       | 30.0     | 0.0     |

**TABLE Importance marketing resources**

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 62.5              | 66.7            | 81.8       | 66.7     | 71.4    |
| A bit imp.   | 37.5              | 33.3            | 18.2       | 22.2     | 14.3    |
| not too imp. | 0.0               | 0.0             | 0.0        | 0.0      | 14.3    |
| not relevant | 0.0               | 0.0             | 0.0        | 11.1     | 0.0     |

**TABLE Importance community relations**

|              | Highly Successful | Very Successful | Successful | Not Well | Failing |
|--------------|-------------------|-----------------|------------|----------|---------|
| Very imp.    | 62.5              | 66.7            | 88.9       | 77.8     | 71.4    |
| A bit imp.   | 37.5              | 33.3            | 11.1       | 11.1     | 14.3    |
| not too imp. | 0.0               | 0.0             | 0.0        | 0.0      | 14.3    |
| not relevant | 0.0               | 0.0             | 0.0        | 11.1     | 0.0     |

**SET OF TABLES WITH FIGURES 7.7.**

## Performance's Index C

**TABLE . Line of Business**

|                   | Retail | Wholesale | Service/<br>Agriculture | Others | TOTAL    |
|-------------------|--------|-----------|-------------------------|--------|----------|
| Highly Successful | 18.2   | 28.6      | 21.4                    | 13.3   | 19.14894 |
| Very Successful   | 18.2   | 28.6      | 14.3                    | 20.0   | 19.14894 |
| Successful        | 27.3   | 0.0       | 7.1                     | 46.7   | 23.40426 |
| Not Well          | 27.3   | 28.6      | 28.6                    | 13.3   | 23.40426 |
| Failing           | 9.1    | 14.3      | 28.6                    | 6.7    | 14.89362 |

**TABLE . Full Time Employees**

|                   | 0-10 | 11-50 | 51-100 | More than 100 |
|-------------------|------|-------|--------|---------------|
| Highly Successful | 10.0 | 30.0  | 50.0   | 50.0          |
| Very Successful   | 13.3 | 20.0  | 25.0   | 50.0          |
| Successful        | 33.3 | 10.0  | 0.0    | 0.0           |
| Not Well          | 33.3 | 10.0  | 0.0    | 0.0           |
| Failing           | 10.0 | 30.0  | 25.0   | 0.0           |

This indicates that up to a certain size derives higher level of success. In the firms interviewed, the most successful had more than 10 employees. Yet those with over fifty were the most successful.

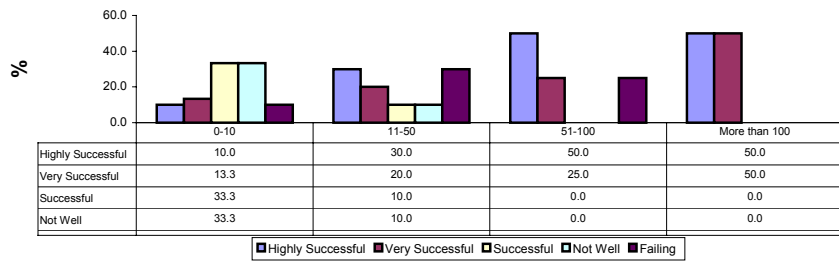


FIGURE 12. Full Time Employees

TABLE 5. Most Relevant Area of Strength(1)

|                        | Highly Successful | Very Successful | Successful | Not Well | Failing |
|------------------------|-------------------|-----------------|------------|----------|---------|
| Responsibility         | 0.0               | 14.3            | 27.3       | 22.2     | 14.3    |
| Quality of employees   | 16.7              | 28.6            | 9.1        | 11.1     | 0.0     |
| Client orientation     | 33.3              | 0.0             | 27.3       | 11.1     | 28.6    |
| Quality service/prod   | 0.0               | 14.3            | 18.2       | 22.2     | 28.6    |
| Perseverance/dedicate  | 16.7              | 14.3            | 9.1        | 11.1     | 14.3    |
| Speed to solve problem | 16.7              | 28.6            | 9.1        | 22.2     | 0.0     |
| Others                 | 16.7              | 0.0             | 0.0        | 0.0      | 14.3    |

TABLE . Factor that will make your firm successful NOW (1)

|                      | Highly Successful | Very Successful | Successful | Not Well | Failing |
|----------------------|-------------------|-----------------|------------|----------|---------|
| Prod mix/quality ser | 55.6              | 44.4            | 40.0       | 18.2     | 12.5    |
| Competition          | 0.0               | 11.1            | 0.0        | 36.4     | 25.0    |
| Financial soundness  | 0.0               | 11.1            | 10.0       | 9.1      | 25.0    |
| Knowledge of clients | 22.2              | 22.2            | 0.0        | 27.3     | 12.5    |
| Other                | 22.2              | 11.1            | 50.0       | 9.1      | 25.0    |

TABLE . Factors that will make your firm successful in future(1)

|                      | Highly Successful | Very Successful | Successful | Not Well | Failing |
|----------------------|-------------------|-----------------|------------|----------|---------|
| Prod mix/quality ser | 33.3              | 12.5            | 0.0        | 20.0     | 16.7    |
| Competition          | 0.0               | 12.5            | 0.0        | 40.0     | 33.3    |
| Financial soundness  | 11.1              | 37.5            | 22.2       | 20.0     | 0.0     |
| Knowledge of clients | 33.3              | 12.5            | 11.1       | 10.0     | 16.7    |
| Other                | 22.2              | 25.0            | 66.7       | 10.0     | 33.3    |

## 7.8. NONSUCCESSFUL FIRMS ANALYZED AGAINST THE INDEX

FIGURES 7.4 (set of figures and tables).

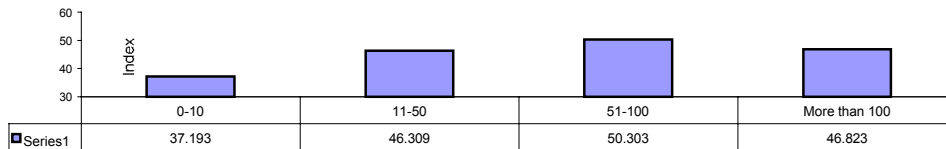


Figure Number of employees (p 3)

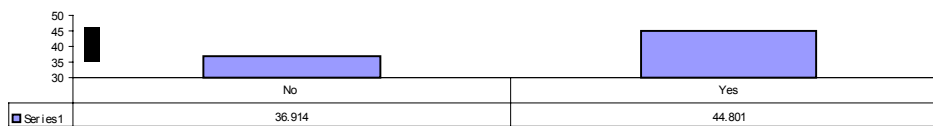


Figure Businessplan (p34)

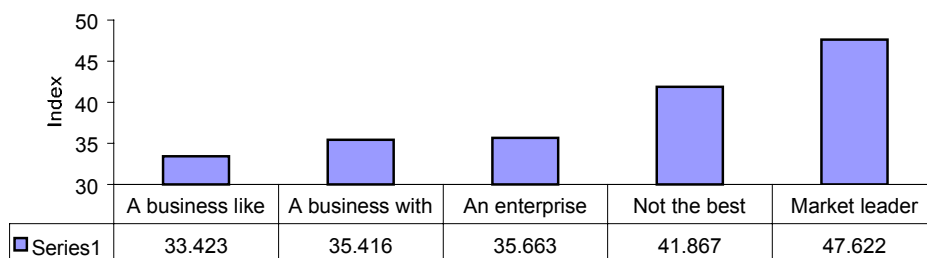


Figure s-f market position (p30)

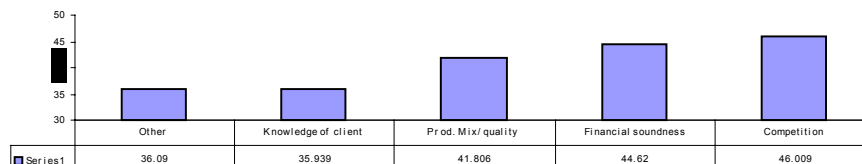


Figure Problems competing (p84)

Future sales ( as shown in the next figure) for this firms looks to stabilize and with no growth. Measures need to be taken to maybe turn the tide.

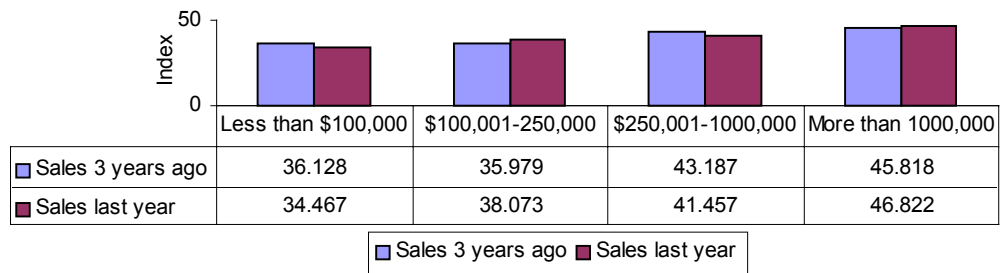


FIGURE Sales trends (p26, p27)

### 7.9 Conclusions about the value of the index of success for small businesses

The figures presented above clearly illustrate how in both the successful and non-successful sectors local firms fare against the index. Moreover, this also exemplifies how policy makers, bankers and government upon understanding which are the attributes CEOs need to succeed. As such, the interested sectors can analyze personality traits of these applicants to determine the potentiality that these prospectuses will have the potential to succeed.

However, though this might sound presumptuous from this researcher standpoint, but in the case of firms that started financially solid, these CEOs reported and appear to possess the attributes that this model precisely identifies. Hence, the success determinant most identified with success on the positive aspect are: traits, i.e. education, the right age and motivation, experience, risk prone, choosing growing business sector, and initiating with solid cash base and possessing good financial control. The non-existence of this attributes render demise.

Likewise, the existence of a medium size number of employees and being in sectors like wholesale, manufacturing and innovative capabilities on the part of the CEOs are partly tied to

success. The higher the existence or number of these traits in any firm, the larger is the assurance that money lent, or invested will be recovered adequately.

Studies implemented in other different countries by various authors regarding success or failure, including those of Lussier (1995,1999, 2000), Bruno and Leidecker 1987; Cooper et al 1990,1991, and Vesper, 1990; Gaskill et al (1993) among others, coincide that the variables most identified with success or failures (Corman and Lussier, 1001; Storey et al, 1987) are mostly relating to possessing adequate capital, record keeping and financial control, having experience previous to forming business, education, timing at entrance, and age of owner.

Likewise, other traits such as parents owning a firm, gender, and usage of advisors did not show a significant relationship in the Island's case. Moreover, the index points out that when diagnosing the potentiality of success for any business, it is advisable to concentrate strongly on the traits of the entrepreneurs, firstly, next on the feasibility study done, and thirdly, to focus on the market analysis and on the background of the potential investors. A combination of these variables, not an isolated number, is what will contribute and assisted bankers, policy makers and financiers to determine the potentiality of a venture. Thus, studies coincide with this research findings and relates that in the specific case of Puerto Rico the attributes or variables related to success or failure in opposite ends coincide with those found in other countries. Therefore, differences are not unique or due only to smallness or the particularity of the Island's CEOs.

## CHAPTER 8

### CONCLUSIONS, RECOMMENDATIONS AND FINAL CONSIDERATIONS FOR THE STUDY OF SUCCESSFUL AND NON-SUCCESSFUL FIRMS

#### 8.0 Introduction

This final chapter centers on summing up the conclusions derived from this dissertation findings and on recommending actions that can be suggested to businesspersons, government sector, and policymakers regarding activities that could induce success or demise for SMEs, in general, and local firms, in particular. Likewise, limitations of this research as well as future research orientations will be suggested. Similarly, the wrapping up stage reinforces the selection and adoption of the resource-based view of the firm as the model that most relevantly could explain how resources can be analyzed as the source of competitive advantages that will provide firms with the differences that, ultimately, will position them in an advantageous position vis-à-vis competition.

Conclusions also aim at explaining the queries and objectives along which this thesis was delineated, that is, investigating and examining what determines success and what makes some firms with similar resources grow and succeed where others do not. Furthermore, this chapter presents probes on why so many multinationals and foreign firms became successful and grew where many local firms did not. In addition, the chapter answers the fundamental premise established, that entrepreneurs and the decisions taken by him or her determine the level of success attained by the firm and positions the firm in advantageous position. This



section includes and examines profoundly the resources and capabilities existent in local SMEs that could be conducive to develop sustained competitive advantages while focusing attention on the firm and their CEO's or owner/manager. Moreover, a summary of the traits of the CEOs, the profile that identifies successful firms, as well as the strategies devised by their leaders/CEOs/managers, which could ultimately lead to establish those sustained competitive advantage aimed at is also presented.

While summarizing findings becomes paramount in this section, it is relevant to stress the predominant role of the Resource-based view has held in studying SMEs since earlier times (Penrose, 1959; Barney, 1986, 1991, 2001; Wernerfelt, 1984,1991; Prahalad and Hamel, 1990; Grant, 1991; Conner, 1991; Amit & Schoemaker, 1992,1993; Peteraf, 1993). Conclusively, using this theory, though challenged by some authors, was found to possess consolidating points of views across firm's standpoints. Decisively, throughout this thesis, it was found that, though some differences were found among different points of views regarding the Resource-based view, these were later considered challenges to the standpoints, specially on the role of management (Learned et al, 1969; Andrews, 1971; Nelson and Winter, 1982; Rumelt, Schendel and Teece, 1991; Fernández and Suárez, 1996; Fahy, 2001), yet, these differences were surmounted. Thus, choosing these concepts as predominant subjects for this thesis is just a natural circumstance, which, from this researcher standpoint, answers questions as to what determines success for SMEs and why some firms succeed where others fail.

Moreover, findings are also presented both from a general perspective, and within the context of the island of Puerto Rico. Furthermore, this thesis also presents the analysis done on the internal environment of firms and the context of decision-making, based on the premise that focusing on these aspects comprises mostly what the firm's directors can do in

lieu of the resources possessed. This can be interpreted as reviewing how firm resources can be brought together and exploited to create organizational capabilities, especially those that can be oriented to sustain competitive advantages for the firms.

### **8.1. General findings:**

These dissertation findings established that being successful requires that firms institute and sustain the competitive advantages needed for profitability either in their areas of services or products or in seeing the big picture. As Grant (2002:16) puts it, appraising<sup>49</sup> a firm strategy is viewing an interface between the firm and its environment as well as its concept of strategic fit. Thus, among the firms analyzed, successful firms were found to be those that devised plans and geared their actions to attain consistency with the firm's goals and values, with its external environment, its resources and capabilities, and with its organization and systems. As such, if any lack of consistency exists between the strategies or goals pursued by firms, its resources and capabilities as well as its environment, failure did result.

Hence, the goals established for this thesis, tried to answer the queries posited from the onset and were geared at increasing the understanding as well as to identity the dynamic processes by which firms perceive, remain in the market, and ultimately find the means to reach superior performance. Moreover, this thesis also analyzed the determinants of success for SMEs and identified if success varies across gender. Conclusively, results did signal that differences in firm's performance existed across gender and further specified in which areas. In consequence, analyzing these differences became relevant not just for women in business but for entrepreneurship. On the one side, relevance is due because women start more businesses than previously, have penetrated society not only in business but, also, in many

---

<sup>49</sup> Grant, R. M. in the fourth edition of Contemporary Strategy Analysis, 2002.

other respects. Women-owned firms are currently being founded away from nontraditional sectors, thus requiring further analysis. Further, though this view has changed significantly, small entrepreneurial firms were considered weak and with limited contributions to the economy, this is not the case anymore. Currently, small and medium sized firms contribute significantly to the economy, are vibrant, flexible, and as experts argue, these not only appear to be growing, but will contribute further with most new jobs created in the United States and in Puerto Rico<sup>50</sup>.

Thus, this chapter also summarized the construction of the model of success presented and designed. This designed model emphasizes not only the crucial role of the entrepreneur/owner and the allocation of resources that is advantages valued by customers, but also the traits and variables that could be identified as success determinants for firms. The model also identifies the traits that policy-makers and start-ups should identify with, if firms are to succeed. The reason being, and coinciding with Williams (1992), by identifying and profiling firms, by determining common aspects of the strategies pursued across successful firms, a framework for studying strategic choices and the link that might exist between organization and the environment in which they evolve is implemented.

## **8.2. Conclusions and final considerations according to the main and specific objectives proposed for this thesis.**

Seeking to answer these dissertation queries and main objectives, and to present conclusions from an academic, entrepreneurial, as well as government policy, recommendations are also addressed. With this in mind, results are first presented according to (part A) the three main classifications examined: owners/entrepreneurs traits, traits of firms

---

<sup>50</sup> This research has been documented by David Birch president of Cognetics, Inc., an economics research firm in Cambridge, Mass. The firm was sold in 2001 to a large multinational. In the case of Puerto Rico, "Fomento", the office of government statistics, provided the documentation.

and the strategies delineated by the CEOs. Further, (part B) presents findings related to the main objectives as well as considerations, recommendations, and limitations.

## **8.2 Part A): Results in terms of owners traits, traits of firms and strategies delineated**

### A1). Owners/entrepreneurs traits.

Results from the CEOs responses and initial analysis showed that demographics of male and female entrepreneurs were similar in terms of age, education, and marital status. Goals in business ownership are also similar while most entrepreneurs sought independence, self-support, and self-satisfaction. Yet, women rated economic necessity and recognition as significantly more relevant than their male counterparts. General results show that local firm's owners, overall, tend to be highly educated and that firms owned by females tend to ascribe to higher levels of education. In addition, local firms prefer services and retail to manufacturing and other higher producing sectors. Totaling responses, mature firms, especially those with over ten years in their sector, have reached higher levels of success than those with fewer years. Additionally, firms are mostly created when their owners obtain certain level of experience, and founding was geared at seeking independence, self-employment and satisfaction. CEOs also stated that their satisfaction centered on following their chosen path and remaining the same size. Furthermore, not many CEOs expressed desire to grow beyond their current size, only in broader service range and more quality offer.

General statistics showed and can be interpreted as, firm CEO are educated with female owners being largely more educated, and a business factor that helps to succeed. Statistically, only education and experience (the higher the level the higher the success attained) before firm founding probed to be significant in this profile. However, referring to the self-expressed market positioning, while observing firms in general, there are significant differences in the positioning of firms of different size (measured by the number of

employees) and gender.

A2). In terms of the demographic traits of the business, society is the predominant way of forming firms and ownership for local firms; even if the firm is a joint investment, it is placed mostly under the male's name. Firm's origin is mixed because of a mixed population. Initial investment for most firms, especially those in the service sector, tends to be a mix of personal capital, family and friends money. In the case of women owned firms, their initial investment was lower than males, a trend that might trigger lower levels of success. Locally, most firms tended to be smaller, by Small Business Administration standards (a firm is considered small up to 500 employees). With few exceptions, a small percentage of local firms have more than 100 hundred employees (about a 13% of the 100,000 existent small and micro enterprises are in this rank, as certified by government leaders June 17, 2002, Caribbean Business, newspaper). Analyzing by sectors shows no distinctive difference across gender; however, there is a pervasive identification and correlation of women to choosing lower earning sector.

Self-rating of business competencies varies; women rated themselves higher in their perceived competencies to run a firm. Further, statistical tests illustrate that demographic traits of the firm are not significantly different across gender, except on size (represented by the number of employees). This means that most women-owned firms are small compared to men, tend to have fewer employees, and as a result might achieve less success in quantitative terms or rough accounts. These results occurred longitudinally across the three years studied. Regarding demographic traits, CEOs perceive their firms achievement much more than planned, and their performance was better than other firms founded at the same time. In addition, they expect an improved performance, in spite of economic problems. By June, 2002, as the researcher writes these conclusions their prediction regarding performance have

come true with the exception of two firms that have done worse.

Results also show that for profiling firms, women-owned enterprises can be identified as a sector that possesses less experience at firm founding than males, a factor that might considerably affect further investment opportunities; also as firms of smaller size and level of success reached by the sector being lower. In general, results show that men-owned firms appear to be better positioned than females and, that when evaluating size, male owned firms appear to have more employees and have reached a much larger size than women-owned firms. This indicates that when analyzed, we can profile firms in the sense that firms owned by female could be identified as smaller, have well educated owners, possess fewer employees, tends to grow less, and belongs more to retail, service, and mix sectors than with sectors identified as larger, like construction and wholesaling, and mostly originated as new businesses.

A3) In terms of the general strategies used, most successful firms tied their strategies to achieving success in the areas they initiated be it service or products sales. Clearly, most firms did not delineate strategies, what this firms CEOs did was drafting business plans and preparing budgets, rather than delineating strategies. “Plans” were oriented at providing customer value and services, and choosing a competitive sector to operate. Break-even for most firms was reached between 2-3 years period. Overall, all firms did analyze the environment and ensured sustained advantage by updating plans. In terms of the strategy designed, though firms’ owned/or founded by women cannot be identified as not performing well. The sector firms appear smaller, planned less, and many operate in sectors without business plans. Nonetheless, lately, and there is an increasing occurrence for family firms, to position women into top managerial positions; this is occurring in the island and elsewhere. Unfortunately, for this thesis this group does not qualify since they are not

registered as owners, mostly firms are registered to the name of their father or brothers.

Across the board, paradoxically, focus on human capital was not the most relevant spotlight for firms' improvement. It could be that by focusing on customer value all basic aspects required to succeed could change, i.e., human capital and quality of products and services. Statistically, the only near significant a difference across gender was drafting a business plan. Thus, no significant differences were found either on the strategy designed the sector or area. Neither statistical difference was found in the area of growth plans or where those plans were focused. As such, the success found in the firms interviewed might be due to other circumstances.

## **8.2 Part B). Addressing the main objectives, findings can be summarized as:**

B1) Regarding the factors that have given CA, only for firms owned by men, there is significant association between the factor that has given them CA and the size of the enterprise. This is not the case for women-owned firms. Across the board, all firms' executives expressed that resources possessed initially and those presently owned provided the competitive advantages required succeeding. Specifically, the line of business where the firm currently serves appears to be significantly tied to the success level attained and the size of firms reached. It appears, when combining all sectors that there is a significant association between the main CA obtained during the three years researched and gender. Moreover, tests showed that there are statistical differences among the competitive advantages held across gender. Males show higher advantages in their performance than women. In sum, evaluating aspects that have given the firm CA or resources usage shows that also there are significant differences between genders regarding the main competitive advantage.

B2). Furthermore, when analyzing resource usage and competitive advantages, throughout all firms, findings show that the most appreciated resource was financial

soundness, knowledge of the market, and reputation; no other significant specific response came across. Answers on the subject varied broadly. Nevertheless, when analyzing this aspect, across gender, all CEOs perceived the exploitation of resources as terribly important. Statistically, a significant correlation exists and differences are shown on the usage of these resources. Yet, in the case of technological, financial and physical resources answers were almost unanimous in claiming their importance by large percentage differences. Summing up, statistically, no significant differences were exhibited. What is clear is a correlation between available resources and the size the firms reached. Thus, the competitive advantages firms possessed were held in the chosen market(s). As such, continued success could have been due to continued development of innovation in services and quality product offer, among others.

B3). The success determinants for local firms appear to be the same attributes that provided competitive advantages. In terms of strategy, success is a main component and recompense to a well conceived strategy. For respondents, success is based on hard work, perseverance, reaching a solid financial stature and soundness, goal orientation, and good management skills, while being client and/or customer oriented. Though most questions were framed around concrete financial responses, CEOs believe success is emotionally tied. That is success is achieving set goals, obtaining recognition, and self-satisfaction. Thus, because of the competitive nature of business, it is also based on offering excellent personalized services, maintaining a reputation and remaining in business. Likewise, reaching a “decent” size, sustained performance, and financial stature was more a measure of success for males was more significant than for females. Furthermore, to firms oriented toward small manufacturing, market orientation, research, and constant update was considered a necessary step to succeed. The latest sector also used more sophisticated types of analysis than the majority of respondents, including SWOT, matrix analysis, and scenario analysis, among others.



Statistical analysis show that the level of success attained varied across gender. Firms in retailing and wholesaling appear as the most successful, compared to those in the service sector (success as defined by sales and ROA). Similarly, most firm owners replied that the size of their firm was determined by choice. In addition, in the case of females, as statistics and the model of success shows, their firms seem less successful than men's in monetary terms. Correspondingly, firms that considered themselves successful now, were also successful three years ago, and expect to continue in the same pattern in the immediate future. Furthermore, comparing areas of success, there is a positive association between what firms believe is their success and the size of the enterprise. Thus, also across firms, responses vary as to what CEO's consider their reason to succeed. Too most success is not only monetary but emotionally and ego satisfaction.

B4). Weaknesses were perceived the same manner across groups; most recognized that a need exists to improve the quality of their labor force, and to improve training and incentives. Most employees are paid minimum wages and receive no medical insurance, as such as the opportunity arises they shift employer. Additionally, most firms did foresee a need to improve their environmental scanning; in addition, a perceived weakness in databases and innovativeness was reported, though in lower earning firms. The weaknesses reported by non-successful firms interviewed were the same yet; their answers emphasized other aspects. To these firms, their worst weakness is the lack of cash, finances, government debt and problems with government. Likewise, owners also reported market problems and declining sales. This is natural response since their firms are failing.

B5). Regarding what caused success direct interviews adduced the same reasons as the firms surveyed. In the case of the expert interviews, this sector replied that successful firms in the island are those that manage carefully, control expenses, constantly innovate, and

make sure to satisfy their clients and keep customers happy. Likewise, what causes success to them is exactly what on the opposite extreme causes demise. Summarizing, success is highly associated with the line of business and size reached by the firms and is tied to self-perceived notion of success. Though this variable was not statistically significant, there is definitely a significant market positioning of firms of different size. Results show that men-owned firms appear to be better positioned than women owned. In the case of women owned firms, the non-significance is explained by the smaller size of their firms. In addition, there is abroad distribution in what firms owners perceive as success, which also appears to be related with the size of the firm. Furthermore, when considering all firms, no significant correlation was found between the line of business and the success attained though there is close association. Thus, gender posits the most significant difference. No significant differences were found on how each gender perceived success. Weaknesses did not show any statistical significance either.

B6). Measuring performance was done in quantitative terms expressed in sales across three years, and in financial rough measures. This factor did show statistical significance, specifically when it referred to the line of business chosen. However, statistics did show special correlations. Thus, results show that firms owned by women reached lower levels of sales and were in sectors that were less prone to high sales. Sales three years ago followed the same pattern; that is women-owned firms reached a lower sales level. Consequently, this allow for profiling, as explained before, that if you encountered a firm owned by a woman it could be said that it would be less successful (size and monetary terms) than those male – owned, tend to sell less, and tend to have less employees than one owned by men. Accordingly, this is partly explained by women being mostly in small services and often being type of mom and pop stores. In addition, even though all firms did well, also, male-

owned firms rough performance was more solid. However, regarding failure, women-owned firms failed less.

Analyzing performance in terms of overall profit shows that for firms whose owners are male there is a significant correlation between performances obtained both this year and last year in relation to objectives set and earnings. Analyzing performance in terms of overall profit reported, for firms whose owners are male there is a significant correlation between performance last year in relation to objectives and earnings. Neither result occurred in the case of women-owned firms.

B7). Regarding what differentiates successful from non-successful firms, no statistical significance was found. However, replies to specific questions on the subject indicate that firms that were successful once lost their advantage because of lack of: managerial vision, capacity to incorporate change, to innovate, and mismanagement. Often managerial and operative events create a negative circle that inhibits decision-making. Direct interviewee and expert's opinion also provided these replies. Replies obtained across the different methodologies of this triangulation study centered on the same responses.

Replies on the subject from non-successful firms were about the same. These CEOs blame their malady and demise on not finding help by government agencies mostly. About 60% of the owners expressed being in fields that were not competitive anymore, to not having skills to cope with changes and to lack of managerial skills to cope with time. Furthermore, the entrance of multinationals and high levels of competition was a common response. As such, management capacity appears to be a strong determinant for success and demise prevention. In general, success or non-success did not appear gendered; it occurred across sector, gender and size. No direct statistical significance was found even though common problems and replies were given. In the same venue, successful CEO's expressed

that to prevent demise firms need to enter the market with sufficient resources so as not to hinder day-to-day operations with the constant worries of where to find financial resources. Controlling the above-mentioned factors and selecting capable human capital, as well as establishing measures to control expenses might render differences in performance.

B8). Are the problems and barriers faced by SMEs gendered?

Problems and barriers to succeed were equated with weaknesses yet, no statistically significant barriers or weaknesses were found for either sector. Of course, since the sample and number of women-owned firms was smaller, this might be a potential reason for the non-statistical significance. Adding together, three of the female-owned firms are well established and reported none of the problems of smaller firms. Results definitely evidence the existence of barriers, and it is acknowledged that it leans more towards females. Specifically, women-owned firms found more barriers and problems accessing bank credit and with the cost of credit than males. Likewise, these sector perceived gender barriers in recognizing their capability, trusting their managerial capacity, and commitment. Across the board, all firms complained of high cost of capital and difficulty accessing it as well as problems with government permits.

A lesser-reported barrier was tied to high levels of competition for a small island, and to the existence of too many malls. However, these barriers were expressed across gender and size. Statistically, the answers were rather spread and the degrees of confidence too high for meaningfulness or significance. In addition, the complaints expressed decreased as the size of the firm became larger; thus, smallness was a determinant factor for the barrier perceptions. Thus, though differences were expressed across sector, when asked directly if differences across gender existed on forming, running and making sure their firms performed, no statistical significance was found nor differences were expressed by the majority. The

only significant statistical found was that women assigned more importance to family relation than men.

When analyzing barriers to entry across firms and size, there is an almost significant correlation between barriers to entry and size. As such, the smaller firms find more barriers than larger firms. Moreover, medium sized firms reported only as barrier capital requirement while much larger firms find product differentiation. Results are similar for most firms owned by men, yet not by those owned by women. The correlation among problems and women-owned firms is not significant. The reason could be that their firms are smaller. In terms of the analysis by line of business, it shows that between firms in general; there is also a significant association between barriers to entry and the line of business the firm is in. This dependence is significant in the case of firms owned by men not for those owned by women.

### **8.3). Why businesses fail?**

Trying to specifically find out both successful and non-successful firms as well as Expert's opinions on the reasons why businesses fail, brought the following responses: there are differences that are almost significant across gender. Women do not mention lack of adequate market analysis or lack of cost control, a reason most often quoted by males as the first reason for failures. Failure is also attached to distribution of the barriers to entry and the significance of this dependency yet these are not observed when the firms are analyzed by gender. Mostly, and here this study coincides with literature, failures are due to lack of planning, administrative skills, lack of adequate capital and innovative capabilities. When analyzing barriers to entry, across firm size there is a correlation almost significant between barriers to entry and size. As such, the smaller firms find more barriers than larger firms. Medium sized firms reported only as barrier capital requirement while much larger firms find product differentiation. Results are similar for most firms owned by men yet not by those

owned by women. The correlations among problems and women -owned firms are not significant. The reason could be that their firms are smaller. In terms of the analysis by line of business, it shows that between firms, in general, there is a significant association between barriers to entry and the line of business the firm is in. This dependence is significant in the case of firms owned by men not for those owned by women.

### **8.3.1. Are local firms feel threatened by foreign firms?.**

70% of the firms interviewed responded negatively while only 30% was affirmative. Thus, this reflects no perceived threat. Successful local firms believe they have advantages in flexibility of decision making, of knowing the market, as well as having business contacts. To them, if information is used correctly all firms should do well. Explanations repeatedly pointed out those local firms that do not perform well are mostly because they are in the wrong market and because of excessive expenditures.

### **8.3.2. Is failure related to the smallness of the local market or is it to other factors?**

Though 51.3% of respondents replied negatively to failure being due to the smallness of the Island, 48.7% was affirmative, meaning they do not tie failure to population density. Because of the closeness of responses and smallness of the sample, conclusive remarks cannot be expressed yet this also implies that problems do exist and are perceived across gender. In sum, neither aspects, if firms felt threatened nor the smallness of the island appear to reduce demand nor gave statistically significant replies. Interestingly, private studies done previously by the Puerto Rico Retailer Association reported the same grievances of smallness though no statistical significance was found. Likewise, the same results were found in a study implemented in the Dominican Republic by the German Foundation (2001) and in a study done in the Caribbean, including Barbados (2001).

No statistical significance was found about the problems inherent to firms in Puerto Rico. Since part of this thesis sought to determine if the problems found in the island were due to inherent barriers like the island smallness or if they differ significantly from those possessed by firms elsewhere, the answer is they are not inherent to the island and these are found in SMEs located elsewhere. Regarding how firms respond to challenges, it appears that firms tend to be less proactive than is desirable. Also, changes are slow and firms tend to operate in a traditional manner. Yet, when facing the constant competition firms believe that their reputation and local base have allowed them to remain in business. Furthermore, in addition to the problems explained, problems are not gendered. Statistically, there is significance and correlation that shows that the smaller the firm the more abundant is the level of problems faced.

#### **8.4. Does the resource-based view of the firm allowed for firms to be more successful than others.**

No statistical significance was found, even though this perspective was found to provide a conceptually well-grounded framework for studying strengths and weaknesses, and how this can be criterion for sustained competitive advantages. This view also provides value as well as durability of resulting advantages. Moreover, since the essence of the view is precisely on how firms utilize resources, assigns, and exploits them to achieve competitive advantages, then this view definitely contributes to success. An answer could be that the managerial role, in this researcher's opinion, ascribes efficient allocation of resources and development of capabilities that provide efficient and valued outputs, though not statistically confirmed. Especially, for this study, when relating and comparing firm's actual position to those in existence at founding, differences in levels of success are found to exist. The only plausible response is the capability management/or ownership has exerted in planning, executing, and reaching goals.

### **8.5. How does the model created for this thesis contributes to the research effort in studying SMEs?**

Part of this thesis component was the generation of empirical evidence that could assist in creating a guideline/model those SMEs and policy-makers could used to induce success and deter failure. With this objective in respect, results were achieved on a limited basis. On the one hand, this study contributes to an understanding of how local SMEs are, their problems, and how they face the challenges posited by the environment on which they operate. On another hand, the role of management was definitely found to play a substantial and remarkable role that cannot be contested. Surely, firms were found to succeed not just because resources exist, but also because firm directors exploit them to its maximum. More than this, results of this thesis, from this researcher perspective, did provide the tool for the creation of a model than can identify the traits that identify with a potentially successful entrepreneur. Indeed, this could potentially be used as a failure preventive mechanism. This goal was accomplished within the limitation of a narrow but significant sample. Results from this index show that for firms to succeed in the island market the most significant traits firms CEOs and the firms need to possess are:

- The more educated and innovative the CEO the higher the performance
- Firms with less than 24 employees do not perform as well as those with larger numbers.
- Firms that have reached the 7 or more years of operation have a larger potential to succeed.
- Previous experience in the sector and/or in other businesses is highly correlated to success.
- Age of founder appears to contribute; thus, owners with over 30 years appear to be more successful than younger ones. Likewise is the level of commitment and limited risk-taking, specially investing his or her own capital.
- Preparing formal business plans; budgets or designing a strategy contributes to success.



- The existence of financial resources necessary to at least cover operations and take care of opportunities is a must.
- Selection of the sector to operate and analyzing the saturation level will increase chances of success.
- Self-confidence and entering in niches contributes immensely to potential success.

Thus, from the point of view of lenders and policy-makers this might be area of revision before granting loans or credit. In terms of a model, firms that possess most of these traits could reach higher levels of success than those firms that do not possess these traits. On the other hand, to increase firm's capability and ability to respond to challenges, policy makers can habilitate a database center geared to provide information on issues concerning firms such as market information, trends, etc. Likewise, training programs could be devised to strengthen analytic ability and opportunity seeking. Moreover, programs oriented at credit facilitating such as the Small Business Administration can be programmed making sure that prospective borrowers possess as many as these traits before they establish their firms thus, reducing failure possibilities.

**8.6. How this dissertation in general contributes to the scientific debate in Entrepreneurship research, specifically regarding what determines and sustains competitive advantages.**

1) Entrepreneurship researchers generally state the non existence of empirical studies geared to analyze SMEs and more than that to sample both successful and non-successful firms jointly. This study accomplishes all statements within limitations.

2) Research comparing information requesting the same data longitudinally is scarce. Typically, the studies that generate large samples are extracted from databases that often come from grant providers, that is, captive information. This study is a solo effort with freshly provided data gathered longitudinally.

3) No studies of the nature existed within the framework of Puerto Rico, less those oriented to understand potential differences existent across line of business, size or gender.

4) This study provided a clear understanding of what triggers success and which Factors are success inhibitors.

5) The input received provided information to allow determining if businesses are gendered. Businesses are not gendered but when analyzing firms across gender there are profiles, as this study showed, that clearly identifies firms owned by females. Though the law abolishes discriminations, including gender, social issues, traditional, and ascribed roles either on a personal side or on the family side, tag women in business in a non-advantageous position. As such, women tend to have “too many hats to handle for one person, besides the guilty trip that is blamed and attached to the mother if kids come out wrong”. It is this researcher viewpoint that genders issues will cease to exist when women claim and demand the same rights of the male counterpart in all spheres, when women protect each other as males do, are self-reliant and create substantial networks, keep their finances separate or on equal terms, and act as males mostly do in business, a no nonsense action.

From this thesis, it can be inferred that, the problems posited by firms and female owned businesses in Puerto Rico are not isolated cases. These exist elsewhere as the literature and studies presented has shown. One of the similarities found is financing the businesses via family loans. However, this type of business formation does not attract investment and does not allow the income necessary to guarantee loans. Moreover, the level of education appears to be higher in Puerto Rico than in other countries, but business formation by women is not as high. Table 8.1 in the appendix section shows that Barbados has the highest women owned businesses in the Caribbean. In addition, results from qualitative interviews and from direct interviews and newspaper success stories validate these results.

6) Responses for this study combined a triangulation method not often seen in many many studies. In addition, the Case study, Survey, and Direct Interviews combined with Expert's opinion provide a reliable source of information for this study. Moreover, this study contributes to literature with the richness of data obtained, the literature reviews offered, as well as the understanding it exhibits regarding traits identifying local SMEs and their profile, among others. The experiences obtained, in consequence, are immeasurable in term of the learning process, but mostly for the sharing obtained in gathering added qualitative and quantitative responses by the study participants. More importantly, reaching set goals provided added satisfaction.

7). Taken the word from the mouth of the doers or from the right source the CEOs owners, the entrepreneurs, the experts, as well as from literature, it can be expressed without doubt that success determinants for local firms are not different to those existent elsewhere. In addition, the way local firms respond to challenges, plan, and react to opportunities is quite similar to firms elsewhere. The study also provided a deep clarification of the existence of gender differences and a clear profile of local firms. Thus, it can be stated that within the constraints of the island, definitely, there are differences on businesses run across gender. And, though differences existed in the level of experience brought in by women, and women business showed lower levels of success and generated less income, than firms owned by men, this differences appear to exist out of choice.

8) This investigation, contributes to literature by bringing to light the current situation in entrepreneurship on the island and the kind of problems that exist for women-owned firms. A further contribution is the possibility of using these findings as counterbalance for problems found and to improve the understanding of the problems and gains women have reached in businesses. Definitely, more research on the subject has to be

implemented and financing studies of this nature is paramount. Moreover, creating a mechanism for stimuli to increase responses to studies is needed. Unquestionably, more research is needed on the attitudes toward business foundation, growth, and business size, as well as on how the female sector can overcome problems. This study does suggest that differences across gender are not so large, what does occur is that women-owned businesses deliberately choose to define their limit to growth as a trade off.

9) Lastly, the study provided the input for the creation of a model contributes substantially to this profile of what causes success and prevents failures. Thus, success, as is commonly said, is not just accidental or taught and this is similar to entrepreneurship, it comes from within, from dedication, commitment, and hard work. Entrepreneurial and /or managerial choices grasps opportunities at the right time and add value to consumers increase the success attained.

#### **8.6.1. Is the entrepreneur crucial to business success?**

Tying together findings to literature, there is no doubt that traits of successful firms as seen in public reports, have efficient and dedicated CEOs/managers, irrelevant of gender. The resource-based view of the firm has acknowledged the position taken by this researcher regarding the role of manager. This view also sees as crucial how resources are converted into positions of sustainable competitive advantages, which ultimately lead to superior performance in the marketplace. Since as Penrose (1959) and Day and Wensley (1988) expressed, not all resources are of equal importance in terms of achieving sustained competitive advantage, it is the managerial role, which is critical in the process of attainment. Thus, resources have value when well applied and brought to the market; the manager/owner converts them into value (Williams, 1992). Moreover, these research findings relate to literature and empirical studies on competitive advantages and competencies or capabilities

done elsewhere in different angles.

Regarding this resource selection and conversion, studies by Hart (1995) examined the importance of resources found that almost all entrepreneurs acknowledged this importance in new venture creation, but focused instead on strategic choices relegated resource decisions to a supporting role. Moreover, a survey of MIT University entrepreneurs revealed that in retrospect, entrepreneurs considered the initial resource choices to be far more important than was believed initially (Hart, Green and Brush, 1997). The same authors reported that resource choices outweigh strategic choices in determining long-term success or failure. Thus, findings reflect a similarity with research. Entrepreneur traits, firm traits and the strategy the firm delineated explained in terms of criterion like prior experience, education, age, years been founded, innovativeness, planning, long working hours, communication skills, customer service, and risk reduction, among others, has been found are most important for success..

Since this thesis evaluates how the managers role is determinant on the competitive advantages attained, a concept that has been studied amply in strategic management and marketing literature, this study provided and sustained explanations as to how successful firms kept advantageous position. Though some researchers assert that small firms do not plan, the growth of the sector, and the economic impact SMEs provide worldwide is more than enough reason to believe some planning is done, even if it is mental and not shared, as it mostly occurs in micro enterprises. Thus the managerial role is paramount in this planning and leadership role as well as in the position reached by the firm.

### **8.6.2. How this dissertation relates to literature**

In reference to firm s success and performance, studies have shown that successful firms use among others: advisors, plan, choose non saturated markets, scan the environment,

have knowledgeable management, keep good records, have industry experience, economic timing, partners, which all combined become critical success factors( Lussier, 1995-1999; Lussier and Corman, 1995). Studies on failure done by Lussier (1995-1999) and Cochran (1981) recommended that to study failures it was better to implement small regional studies rather than large samples. The former found that reasons for success were about the same as those for failure, the difference being that failing firms lack the traits that successful firm possess, this is precisely the position taken by this researcher.

In addition, empirical studies reports show that firms do have problems to compete. Likewise it occur island wide yet, this do not appear to be due only to the island smallness, or inherent barriers, as is usually said, but to many other factors, including inability of the CEO to analyze, administer and respond to the challenges posited as well as the starting up of so many firms as satellites without planning. Also, while some firms are finding trouble, many of the mid-sized and large firms are competing extremely well. Studies by Sing and Lumsden (1990) have precisely studied liability of newness which refers to the propensity of new firms to fail, and smallness which explains how the size of the organization influences mortality or success. Success or failure to most authors is triggered by many factors like the one found in this study, which includes, lack of experience (Dyke, Fisher and Reuber, 1992), and saturated markets. These authors reinforce these researcher findings.

This study also suggests that differences across gender are not so large, what does occur is that women-owned businesses deliberately choose to define their limit to growth as a trade off. In sum, regarding the traits of CEOs, and analyzing if women entrepreneurs, their goals and responses to challenges differ from those of men. Several conclusions can be inferred from this study: First, the traits that distinguish female from male-owned firms do not differ. Second, the characteristics of entrepreneurs are similar in terms of level of

education, and work experience prior to founding business; they were high across sector. Across gender, business was established because of a desire to own their business, be their own boss, and for self-satisfaction, thus confirming Hisrich (1997) findings. A second choice reported was flexibility and having had unpleasant relations in the workplace. Both sector's reported strong family support and founded their businesses from money loaned by relatives. These resemble other studies including Singapore's and UK. Male did access and used bank loans.

Findings also support the idea purported by Aldrich, Brickman, and Reese (1997) who point out that difference across gender exist in some dimensions. In this, study women-owned businesses focus is in recruiting (mostly relatives) and training quality employees and customer satisfaction while Male-owned businesses focused toward customer orientation and marketing. This concurs with Kallerberg and Leitch (1991) studies. The problems and challenges women-owned businesses face the most are access to capital and financial structure, reducing the problems of credit financing and obtaining training and information at manageable costs thus reducing growth. Males attest to the same problem, but not on the same scale. This coincides also with studies presented by Filion (2002) and Orser (2002) implemented in Canada with two different institution and interviewing minority owners of SME's .

Whilst literature contradicts itself when relating the reasons underlying female-owned businesses success and growth, this study did not find significant differences, except on experience, and education levels. In the specific case of Puerto Rico, growth is a matter of personal choice, not size or sales. Success is definitely measured in financial terms, but also satisfaction on the job is highly relevant to both sexes. Success for women-owned businesses is hindered by traditional roles that still regard men as breadwinners. Moreover, and

responding to question number five, to analyze and determine if there are intrinsic or inherent factors that inhibit the growth of women-owned businesses when compared to those owned by men, the reply is negative. The only factor that inhibits success is choice. This follows Kallerberg and Leitch (1991) study that found similar response.

Though Rosa et al. (1994) found that systemic gender differences in owners' previous business-related experiences may result in differences in both vision and ability, this study couldn't attest, without doubt, to the same findings nor contradict them. Differences found were on the levels of success and growth by sector. What is clear is that the level of education reached is higher in women than in men. More importantly, both genders possessed business experience before starting, though women did possess less. No statistical differences exist in the industry sector chosen, a finding that contradicts some literature that posits that women-owned businesses do not grow because of the sector chosen. On the island, choice appears to be the determinant. Yet, though no statistical significance was found, there is a statistical correlation identifying sector and lines of business. Similar responses exist on the competitive advantages; both genders find competitive advantages reside in the service sector and market they have chosen.

Growth intentions exist in sexes but men show more intention on expanding their businesses by adding more units than women. Regarding what determine business formation and growth plans, both genders had specific growth plans though not always in the same direction, as Brush in 1992 found. Reasons for starting businesses were the same across genders, i.e., self-fulfillment, having something to do after child rearing, supplementation of family income and lack of satisfaction with the job environment, but women firms were smaller. This supports Cliff (1998) findings that women-owned businesses tend to be smaller than men. This however, cannot be interpreted as poor performance but different motivations.



From these results it can be inferred that, the problems posited by female owned businesses in Puerto Rico are not isolated cases. These exist elsewhere as the literature and studies presented has shown. One of the similarities found is financing the businesses via family loans. However, this type of business formation does not attract investment and does not allow the income necessary to guarantee loans. Moreover, business formation by women is not as high in the island as elsewhere. Also, results from qualitative interviews and from direct interviews and newspaper success stories validate these results.

#### **8.7. Implications for policy makers and economic development. Concluding remarks:**

This study contributes to theory development by providing insights on the extent to which views apply in the context of entrepreneurship. Implications suggest that a though the "model" designed is applicable to businesses founded regardless of gender. The model also showed how women owned businesses are smaller than those of men and sees growth from a different angle. The fact that most women line of business tends to gravitate towards services and retailing, rather than towards manufacturing suggests a potential answer. Moreover, in lieu of tradition, women once married, with rare exception, accept their imposed role creating as such natural barriers to growth.

For a future analytic and research perspective, it is the feeling of this researcher that analyzing the context of women in businesses should be seen from their status and current preferences. Once we focus on these preferences, performance in terms of growth in size across gender could be analyzed more objectively. As such, the role of the ever growing perceived gender gap in pay, growth, and education rather than increase is somewhat diminishing daily. Finally, it is the expectation of this researcher that entrepreneurship itself and women-owned firms will become more significant to the economy, in general, and to Puerto Rico's present and future business environment, in particular.

Research findings suggest the need for the creation of remedial programs and policies conducive to create incentives that would increase the creation of well-analyzed businesses in niche and higher added value areas like exports. Since SMEs and women-owned firms are characterized as less likely to either undertake growth or enter into collaborative relationships, such as joint venturing and exporting, creating specific programs would induce higher economic growth. Innovative managerial traits are identified mostly with high growth firms. The programs created should focus on the benefits and practices associated with internal and external development. Specially on the Island of Puerto Rico where unemployment and business exodus is occurring, activities such as export management, joint venturing, angel investors, and research and development not only have to be instilled but enforced. The case of Puerto Rico is relatively different to other countries.

Moreover, general access programs and regional forums should be created to educate entrepreneurs towards structuring business plans, and in approaching venture capitalists and establishing networks. Likewise, universities should create more programs oriented at reinforcing and training entrepreneur's capability through professional developments handing out certificates adapted to the sector needs. In addition, laws should be made clearer as to the obligation banks have to ease the process of accessing funds via loan guarantees. The programs still appear to be discriminating. Moreover, statistics and firm's census should be implemented and published so that programs for improvement enticements could be created.

Not least, more research on SMEs and statistics exhibiting the reality of their existence has to be conducted, in a collaborative manner, across public and private sector. Result from this thesis suggests that many SMEs have entered their sector because of family tradition and seeking self-satisfaction yet lacking experience. Other countries report similar findings. Canadian studies have shown that because women tend to bring less management

experience to their enterprises, it makes sense for training agencies to use methods that, as much as possible, focus on simulating experience. Currently more cases are being published distinguishing the role of women on business; this should be used as mentoring examples. Furthermore, given social issues like the increased divorce rate will force the policy to Programs aimed at matching women business owners with more "established" firms, and those businesses that demonstrate high internal and external development, will also continue to help address gender differences. Furthermore, training materials and dissemination of existent programs should be made available at specific centers. These should also incorporate decision- making and strategies aimed at helping to alleviate the pressures from family and business obligations.

This study and publicly published research has documented systemic differences in the amount and types of experience, which men and women bring to their enterprises. Thus, agencies and women groups need to work on reinforcing these weaknesses. An avenue could be joint collaborations with universities and private donors on the creation of programs aimed at reinforcing these gaps and weaknesses. Also, banks, start-ups agencies, financiers need to encourage the type of business formation required for larger growth as well as accounting practices conducive to private investment.

The descriptive analysis of data and results from this thesis is consistent with earlier findings that women-owned businesses tend to be smaller and grow more slowly than those of men; are concentrated in the service and retail sectors; and, tend to be younger than those owned by men. Businesses in these sectors typically have less growth potential, and face intense competition. In addition, it is known that women business owners were more likely to engage in planning tasks than men.

### **8.8. Limitations- to the research approach and to choices made along the study.**

Limitations to inferences made by this study might be narrowed in several respects, which are described as follows:

1) The study was limited to analyzing SMEs or firms established on the island of Puerto Rico for at least 3 years and of native origin. No multinationals or franchises of foreign origin were included. Thus, the study limited and excluded information from a service sector that mostly have successfully grown and penetrated the market. This allowed only for experienced firms and excluded the survival rate, which according to most literature review occurs the first three years of gestation.

2) Seeking to keep the study within the contextual aspect of Puerto Rico could be a limitation when inferences are stated. However, the cultural mix, varied sizes and nature of existent firms might overcome these potential shortcomings.

3) Another limitations in terms of the generalizations of results are the limited size of the response rate. However, the sample was adequately selected and was larger than required even though responses did not match expectations. However, this shortcoming was remedied by analyzing inputs obtained via the triangulation method utilized.

4) Not including the multinational and large local manufactures limited explaining the performance of firms that have proved to be successful. However, this inclusion would have provided unfair comparisons and maybe to some point would have created chaos, unless data would have been classified by size.

5) External constraints were provided by the political and environmental situation prevailing during the data administration. This was a crucial diminishing factor in the replies obtained.

6) Though richness of responses was obtained in some cases, when the owners did not want to provide the information or thought it too private, this added a further limitation for

statistical analysis. Unanswered or empty cells, thus forced the researcher to require extra care in the final analysis, limit processing statistical analysis typically.

7) The margin of error of 12%-14% obtained means that all responses need to be expressed and interpreted within such constraints. For this study, this allocation was done. Moreover, results are compared to other results obtained from the triangulation system used. This methodology served to further validate results. In addition, literature and studies done in the Caribbean, for the Retailers Association, and by the German foundation in Dominican Republic provided similar findings to those presented in this thesis.

8) Though this study provides generalizations as to which are the traits that determine success in local firms, these conclusions cannot be taken as absolute. It is very important to remember that this is a well-balanced and statistically extracted sample, which from an inferential standpoint represents the population of local firms. Moreover, studies done by “Infopyme” (2000) in the Dominican Republic, those published in the newspaper “El Nuevo Dia” (April, 2000) about how women-owned firms feel emarginated, as well as studies done by the Retailer Association in 1998, indicate similar findings, across sectors and countries.

## **8.9. Prospects for future research**

The original idea presented by this researcher and the methodology chosen for the dissertation goals, aimed at potentially gathering the information sought after and obtains the desired results. This was achieved with small limitations, which were already specified. The researcher also expected that by the end of the study she would be able to probe the assumptions posited, as well as the research aims regarding determinants of success for firms established in the Puerto Rican market. This was also accomplished. Moreover, results were expected to establish if cultural and gender factor determined differences on performance across firms. This was sustained. It is was also the researcher’s desire to use the research results as evidence that could support or refute the main research questions, and, that

potentially, research findings could be used to elaborate into further studies or issues in the field. This was also accomplished within limitations.

Nevertheless, some questions remained unanswered. As such, future research should be the avenue that needs to be done to resolve unsatisfactory results and unanswered issues on the reasons why some firms succeed where other fail and how to prevent failure. This of course will require a different mechanism to obtain responses. On the other hand, a need exist still to investigate further why so many business managed by females have chosen to remain small, to have ownership under someone else's name, and why still so many females do not venture to seek capital early and deter from less profitable trade or line of business. Lastly, studies should also be oriented to why SMEs in general remain passive when giant firms enter their market thus, not even allowing firms to compete in their terrain.

Potentially, maybe the answer to implement studies of this nature could be the utilization of deep interviews and more case analysis, thus giving the participants the secrecy they apparently desire. More studies, stimulus and forcefulness should be used regarding public and private sector. There is an increasing need to gather and disseminate information in terms of accurate statistics might facilitate other researchers to analyze data banks, to know more profoundly trends and scenarios of different business and to possess statistics that could be used to seek funding and grants to assist entrepreneurs, regardless of size, sector or gender.

Finally, more collaborative efforts should be directed toward gathering information from other countries with similar cultural and economically similarities in order to create a system that could empower small and medium size firms into more networks to improve communication, cooperation and solidarity that could lead to profitable new market and niches.

## **9. BIBLIOGRAPHY**

AAKER, D. (1992). Strategic Market Management, New York, NY.

ACAR, A. (1993). The impact of key internal factors on firm performance: An Of Credit to Female Owners of Small Businesses, Unpublished Masters of Management Studies Thesis, Carleton University, Ottawa, Canada. Extracted from <http://www.Laurentiaian.ca.Commerce> 98-5b.

AHLBRANDT, R.S., SLEVIN, D.P. (1992). Total competitiveness Audit (TCA), Pittsburg, PA 15260: University of Pittsburg.

ALDRICH, H. E., AND AUSTER, E. (1986). Even dwarfs started small: Liabilities of age and size their strategic implications. In B. M. Staw And I. L. Cummings (Eds.), *Research in organizational behavior*, vol.8: 165-198. Greenwich, CT: JAI Press.

ALDRICH, H.E. (1989). Networking among women entrepreneurs. In Hagan, O., Rivhum, C, & Sexton, D. (Eds.), *Women-Owned Businesses*, New York Praeger: 103-32.

ALDRICH, H.E., BRICKMAN, A.E., and REESE, P.R., (1997). Strong weak ties, and strangers. *Entrepreneurship in a global enterprise*, Routledge Publishers. Edited by Sue Birley and Ian McMillan, London.

ALDRICH, H.E., ROSEN, B. and WOODWARD, W. (1987). The impact of social network on business founding and profits. In N. Churchill , J. Hornaday, O.J. Krasner and K. Vesper (eds.) *Frontiers of Entrepreneurship Research 1987*, Wellesley, MA: Babson College for Entrepreneurial Studies: 154-68.

ALVAREZ, S. A., BUSENITZ, L.W. (2001). The entrepreneurship of resource-based theory. *Journal of Management*, 27, (6), 755-775.

AMERICAN BANKRUPTCY INSTITUTE. (1998). Bankruptcy Statistics. Available at: <http://www.abiworld.org/stats/>.

AMIT, R. & SCHOEMAKER, P.J. (1993). “ Strategic assets and organizational rent”, *Strategic Management Journal*, Vol. 14 (1), 33-46.

ANDREWS, K. (1971). The concept of corporate strategy. Homewood, Ill: Richard D. Irwin.

IBID., (1987). The concept of corporate strategy, 3rd ed. Homewood, IL: Richard D. Irwin.

ANSOFF, I. (1965). Corporate Strategy, McGraw-Hill , New York, NY.

ARGENTI, J. (1976). Corporate collapse: The causes and symptoms. Wiley: New York.

ARMSTRONG, J. S., and OVERTON, T.S., (1977). Estimating non-response bias in

mail survey. *Journal of Marketing Research*, Vol. XIV (August), 396-402.

AROGYASWAMY, K. BARKER III.V.L., & YASAI-ARDEKANI, M. (1995). An Integrative two-stage model. *Journal of Management Studies*. 320- 331.

ASUNDI, R.K. (1996). Globalization and its effect of small and medium enterprises, in Sachdeva, S. K. *Proceedings of the International Conference on Globalization and the Market Economy: The Challenges of Change*, Management Science Association and Global Business and Marketing Association, New Delhi, 339-58.

BAIN, J.S. (1968). Industrial Organization, New York, John Wiley.

“Banco de Fomento”, (2000: 3). Official informational newsletter from the government promotion office.

BANKRUPTCY COURT STATISTICS: FOMENTO’S OFFICE OF PUERTO RICO. (2000, 1999, 1998). Statistics on bankruptcy. Government of Puerto Rico official office for filing and reporting failures.

BARNEY, J.B.(1986, 1986a).Strategic Factor Markets: Expectation, luck, and business strategy. *Management Science*, 32, 1231-1241.

IBID., (1986a). “ Strategic factor markets: expectations, luck and business strategy”, *Management Science*, Vol. 11, 656-665.

IBID., (1986b). Organizational culture: Can it be a Source of Sustained competitive Advantage? *Academy of Management Review*, Vol. 11, 3, 655.

IBID., (1991). Firm and sustained competitive advantage. *Journal of Management*, 17 (1), 99-120.

IBID., (1995). Looking inside for competitive advantage. *Academy of Management Executive*, Vol. 11, 95, 49-61.

IBID., (2001). Is the resource-based view a useful perspective for strategic management research? Yes. *Academy of Management Review*, 26, 41-56.

BARNEY, J. B. (2001). Resource-based theories of competitive advantage: A ten year retrospective on the resource-based view. *Journal of Management*, Vol. 27, 643-650.

BARNEY, J. B, GRIFFIN, R. (1992). The management of Organizations: Strategy, Structure, and Behavior. Houghton Mifflin: Boston, MA.

BARNEY, J.B., McWILLIAMS, A., and TURK, T. (1989). On the relevance of the concept of entry barriers in the theory of competitive strategy. Paper presented at Frontiers of Entrepreneurship Research, 187-189, Wellesley, MA: Babson College.

BARNEY, J.B., OUCHI, W.G. (1986). *Organizational Economics*, Jossey-Bass Publishers , London.



BARNEY, J.B., & ZAJAC, E. (1994). Competitive organizational behaviour: toward an organizational-based theory of competitive advantage. *Strategic Management Journal*, Winter Special Issue 15:5-9.

BART, C.K., and BAETZ, M.C.(1998). The relationship between mission statements and firm performance: An exploratory study. *Journal of Management Studies*, 35(6), 823-853.

BARTLETT, C.A., GHOSHAL, S. (2000). Going global lessons from late movers, *Harvard Business Review*. March –April.

BELCOURT, M. (1991). "From the Frying Pan into the Fire: Exploring Entrepreneurship as a Solution to the Glass Ceiling," *Journal of Small Business and Entrepreneurship*, Volume 8, Number 3, April-June: 49-55.

BELCOURT, M., R. BURKE, H. LEE-GOSSELIN, (1991) The Glass Box: Women Business Owners in Canada, Canadian Advisory Council on the Status of Women, Ottawa, Ontario.

BELLU, R., SHERMAN, H. (1995). Predicting firm success from task motivation and attributional style. A longitudinal study. *Entrepreneurship and Regional Development*, 7, 349-363.

BERNSTEIN, P.L. (1996). Are Networks Driving the New Economy? *Harvard Business Review*. November-December. 159-166.

BERRY, S. (1998). An exploratory study of U.S. business failures and the influence of relevant experience and planning. Doctoral dissertation available through UMI Dissertation Services.

BHARADWAJ, S.G., MENON, A. (1993). Determinants of success in service industries. A Pims-based empirical investigation. *Journal of Service Marketing*, Vol. 7, 4 19-40.

BIANCHI, G. (1998). Requiem for the third Italy? Rise and fall of a too successful concepts. *Entrepreneurship & regional Development* (EPN) paper no. 10096.

BIRCH (1979). The Job Generation Process. MIT Program on Neighborhood and Regional Change. Cambridge, MA:MIT Press

BIRLEY, S. (1989). Female entrepreneurs: Are they really different? *Journal of Small Business Management*, 27(1): 32-37.

BIRLEY, S., MCMILLAN, I.(1995). *International Entrepreneurship*. Routledge, London.

BOYNTON, A., ZMUD, R. (1984). An Assessment of Critical Success Factors. *Sloan Management Review*.

BRADLEY, D., RUBACK, M.J. (1999). Small business bankruptcies: A comparison of causes from 1981 and 1995. *Journal of Business & Entrepreneurship*, Vol. 11, 1, March.

BRAECKER, J.S., PEARSON, J.N.(1986 ). Planning and Financial Performance of Small, Mature Firms. *Strategic Management Journal*, 7:503-522.

BRICKAU, R. (1994). Responding to the single market: A comparative study of UK and German food firms. Extract from a Ph.D. Dissertation. University of Plymouth , P, UK.

BROCKHAUS, R., and TAYLOR, D. (2000). Marketing: The state of the art in small and medium sized enterprises in New Zealand, 1992-1997. <http://www.sbaer.uca.edu/DOS/98icsb/v001.htm>.

BROCKHAUS, R., KIRBY, A., TAYLOR, D., AND JONES-EVANS, D. (2000). Marketing in medium-sized manufacturing firms. The state-of-the-art in Britain, 1987-1992. <http://www.emerald-library.com/brev/00733ae1.htm>.

BROCKHAUS, R.H. (1982). The Psychology of the Entrepreneur, Encyclopedia of Entrepreneurship, Published by Sexton, D.L. & Vesper, K.H. (editors) Cambridge, Massachusetts.

BROOKSBANK, R., KIRBY, D., and WRIGHT, G. (1992). Marketing and company performance: an examination of medium sized manufacturing firms in Britain. *Small Business Economics* 4: 221-236.

BROWN, K. (2000). Female Entrepreneurship : A comparative study of gender and work in the Caribbean. Commissioned by the National Science Foundation. EL NUEVO DIA, newspaper, August 19, 2001: 11.

BROWN, S. L. & EISENHARDT, K. M. (1997): "The Art of Continuous Change: Linking Complexity Theory and Time-paced Evolution in Relentlessly Shifting Organizations". *Administrative Science Quarterly*, 42, Marzo, p. 1-34.

BRUNO, A, LEIDECKER, J. (1988). Causes of New Venture Failure: 1960's vs. 1980s. *Business Horizons*, pp. 51-56.

BRUNO, A.V., LEIDECKER, J., and HARDER, J.W, (1987). Why firms fail. *Business Horizons*, Vol. 30 2, 50-58.

BRUNO, A.V., TYEBJEE, T. (1985). The entrepreneurs. Search for capital. *Journal of Business Venturing*, 1: 61-74.

BRUSH, C. G., (1992). Research on women business owners: Past trends, a new perspective and future directions. *Entrepreneurship Theory and Practice*, 16(4), 5-30.

BRUSH, C., CHAGANTI, R. (1998). Business Without Glamour? An Analysis of

Resources on Performance by Size and Age in Small Service and Retail Firms. *Journal of Business Venturing*, 14, 233-257.

BRUSH, G., GREENE, P.G. AND HART, M. M. (1998). From planning to growth and beyond: A Cross industry analysis of entrepreneurial priorities. Babson Educational Proceedings, Babson College. Extracted from Babson Entrepreneurial Papers, 98. At <http://www.babson.edu/entrep/fer/papers98>.

BUREAU OF THE CENSUS OF THE UNITED STATES, (2000, 1996,1992,). A United States government publication.

BURNS, P. (1994). Keynote Address. Proceedings of the 17<sup>th</sup> ISBA Sheffield Conference, ISBA, Leeds, U.k.

BUSENITZ, L., BARNEY, J., (1997). Differences between entrepreneurs and managers in large organizations: Biases and heuristics in strategic decision-making. *Journal of Business Venturing*, 12, 9-30.

BUSENITZ, L., LAU, C. (1996). Entrepreneurship in emergence: fifteen years of entrepreneurship research in management journals. Paper presented at the Academy of Management meetings, Washington, D.C. *Business Management*, 24(4), 18-29.

BUSENITZ, L; WEST, G.P.;SHEPHERD, D;CHANDLER, G.N, ET AL. (2001). Entrepreneurship in emergence :Fifteen years of entrepreneurship research in management journals. Paper; presented at the Academy of Management Meetings, Washington, D.C.

BUSINESS WEEK, (1997:44).

BUTT, A., and KHAN, W. (1998). Effects of transferability of learning from pre-start-up Experiences. Lahore University of Management Sciences.

BUTTNER, H.& MOORE, D. (1997, 1993). Women's Organizational Exodus to Entrepreneurship: Self-reported motivations and correlates with success. US. Study. *Journal of Small Business Management*, Vol. 35 (1), 35- 46.

CANADIAN FEDERATION OF INDEPENDENT BUSINESS (1998). Myths and realities: An empirical study of banks and gender of small business clients. Extracted from <http://www.cfib.ca/english/research/reports/financin.htm>. "Financing Double Standard", August 28.

CANADIAN FEDERATION OF INDEPENDENT BUSINESS, CFIB, (1995), Double Standard: Financing Problems Faced by Women Business Owners, CFIB, Toronto. Relationship Between Attitudes Towards Growth, Gender, and Business Size. *Journal of Business Venturing*, 13, 523-542.

CARIBBEAN BUSINESS. (1999). Southwest region files 30% bankruptcy cases. English language business newspaper, September 23: 22.

IBID., (2001). Economic aftershock: temporary and marginal. *Economy*. September 20.

IBID., (2001). Luis Garratón, Inc. An impressive feat. "El Nuevo Dia" newspaper. Top 300 locally owned companies, September 20.

CARROLL, G.R. (1983). A stochastic model of business mortality: Review and reanalysis. *Social Science Research*, 12: 303-329.

CARSON, D., CROMIE, S., MCGOWAN, P., HILL, J. (1995). *Marketing and Entrepreneurship in SME*, Prentice Hall, London.

CARTER, N.M., ALLEN, K.R. (1997). Size determinants of Women-Owned Businesses: Choice or Barriers to Resources? *Entrepreneurship and Regional Development*, 9(3):211-220.

CASTANIAS, R.P. AND HELFAT, C.E. (1991). "Managerial resources and rents", *Journal of Management*, Vol. 17, 155-171.

CASTROGIOVANNI, G.J. & BRUTON, G.D. (2000). Business Turnaround and Acquisitions: Reconsidering the Role of retrenchment, *Journal of Business*, 48 (1), 25-34.

CASTROGIOVANNI, G. (1996, 1991). Pre-start up planning and survival of new small businesses: Theoretical linkages. *Journal of Management*, 22 (6), 801-823.

CATALYST. "Catalyst Perspective," (Fall 1995 & 2000). Affirmative Action Programs Help Women Shatter The Glass Ceiling published in NATIONAL PARTNERSHIP FOR WOMEN AND FAMILIES, 1998.

CATLEY S., AND HAMILTON. T. R., (1998). Small business development and gender of owner. *Journal of Management Development*, Vol. 17, Issue 1. Retrieved from: <http://emerald-library.com/bre/02617ag1.htm>.

CERTO S, DAILY C. M. . T., AND DALTON D. R. (1999). A decade of corporate women: Some progress in the boardroom, none in the executive suite. *Strategic Management Journal*, . Vol. 20: 93-99.

CHAGANTI, R. (1986). Management in women-owned enterprises. *Journal of Small Business Management*, 24 (4), 18-29.

CHAGANTI, R., and PARASURAMAN, S. (2000). More alike than different? A comparative study of goals, strategies, management practices, and performance of small business owned by women and men. <http://www.sbaer.uca.edu/Docs/procesingIII/99sbi188.htm>.

CHAGANTI, R., and PARASURAMAN, S. (1999). More alike than different? A comparative study of goals, strategies, Management practices, and performance of small business owned by women and men. Retrieved from: <http://www.sbaer.uca.edu/Docs/procesingIII/99sbi188.htm>. 5/2/2001.

CHAGANTI, R., AND PARASURAMAN, S. (1996). A study of the impacts of gender on business performance and management patterns in small business. *Entrepreneurship Theory and Practice*, 21(2), 73-75.

CHAKRAVARTHY, B., and DOZ, Y., (1992). The process research: focusing on corporate self-renewal. *Strategic Management Journal*, Vol. 13, 5-14.

CHAMBERLAIN D. S. (2002). Women Entrepreneurs Catalysts for Transformation. Retrieved form: <Http://A:\Women Entrepreneurs.htm>. 1/27/2002.

CHANDLER, G. and HANKS, S.H. (1994). Market attractiveness, resource-based capabilities, venture strategies and venture performance. *Journal of Business* 9 (4): 331-349.

CHARBONEAU, F.J. (1981). The woman entrepreneur. *American Demographics*, 3, (6): 21-23.

CHASTON, MANGLES (1997). Core Capabilities as predictors of growth potential in small manufacturing firms. *Journal of Small Business Management*. Vol. 35, 1, 47-57.

CHAWLA, S.K.; PULLIG, C.; ALEXANDER, M. (1997). Critical Success Factors from an Organizational Life Cycle Perspective: Perceptions of Small Business Owners from Different Business Environments. *Journal of Business and Entrepreneurship*, Vol. 9, 1. 47-57.

CHELL, E., (1998). Critical Incident Technique, Qualitative Methods and Analysis in Organizational Research. ( Ed. G. Symon and C. Cassell) Sage, 1998, ch 4.

CHELL, E., AND BAINES, S. (1998) Does gender affect business “performance”? A study of micro-businesses in business services in the UK. *Entrepreneurship and Regional Development*, 10:117-135.

“CLAVES ECONOMICAS DE PUERTO RICO”, (2002). Puerto Rico : Perfil de la recuperación. Newsletter published by the Banco Bilbao Vizcaya. Second trimester/2002.

CLIFF J. E. (1998). Does one size fit all? Exploring between attitudes towards growth, gender and business size. *Journal of Business Venturing*.13, 523-542.

COCHRAN, A. (1981). Small business mortality rates: A review of the literature. *Journal of Small Business Management*, 19(4), 50-59.

COLLINS, O. F., MOORE, D.G., AND UNWALLA, D.B., (1994). The Enterprising Man, Library of Congress, East Lansing, Michigan.

COLLIS, D.J. (1994). Research note: How valuable are organization capabilities? *Strategic Management Journal*, 15, 143-152,

IBID., (1991). “ A resource –based analysis of global competition: the case of the bearings industry”, *Strategic Management Journal*, Vol. 12, 49-68.

COLLIS, D.J., AND MONTGOMERY, C. (1995). Competing for resources: Strategy in the 1990s. *Harvard Business Review*, July-August, 1995. 118-128.

CONNANT, J.S., SMART, D.T., and SOLANO-MENDES. (1993). Generic retailing types, Distinctive competencies, and competitive advantage. *Journal of Retailing*, 69 (3), 254-279.

CONNOR, K. R. (1991). A historical comparison of resource-based theory and five schools of thought within industrial organization economics: do we have a new theory of the firm?. *Journal of Management*. Vol. 17, 1, 121-153.

COOPER, A.,C., (1994). Challenges in Predicting New Firm Performance. *Journal of Business Venturing*, 8, 241-253.

IBID., (1993). Challenges in predicting new firm performance. *Journal of Business Venturing*. Vol. 8, 241-253.

COOPER, A., DUNKLEBERG, W., WOO, C., (1989). Entrepreneurship and the initial size of the firms. *Journal of Business Venturing*, 4, 317-332.

COOPER, A., GASCON, G., WOO, C., (1991). "A Resource-Based Prediction of New venture Survival and Growth," Proceedings Academy of Management (Summer), 113-119.

COOPER, A.,C., (1994). Challenges in Predicting New Firm Performance. *Journal of Business Venturing*, 8, 241-253.

COOPER AND LYBRAND (1998). A US market survey. Reports on businesses.

IBID.,(1994). Made in the US: The Middle market survey. Reports on business failures.

IBID., (1994). Made in the UK: The Middle Market Survey, Coopers and Lybrand, London.

CORMAN, J., LUSSIER, R.N. (1991). Reasons Businesses Fail in New England: A Survey Study. *Business Journal*, 8 (1), 21-27.

COSTA. (1994). 100 years and counting. *Management Review*, 83 (12), 32-34.

COVIN ,J., SLEVIN, D., and HEELEY, M, (1999). Pioneers and Followers: Competitive tactics , environment, and firm growth. *Journal of Business Venturing* 15, 175-210.

COVIN , J., SLEVIN, D.P (1988). "The influence of organizational structure on the utility of an entrepreneurial top management style", *Journal of Management Studies*. Vol.25, 217-237.

CROMIE, S., & HAYS, J. (1988). Towards a typology of female entrepreneurs. *Sociological Review*, 36: 87-113.

CUBA, R., DECENZO, D., and ANISH, A. (1983). Management practices of successful female business owners. *American Journal of Small Business*, 8(2), 40-45.

CUNNINGHAM, M.T., AND HOMSE, E. (1986). Controlling the Marketing-purchasing Interface: Resource Development and Organizational Implications. *Industrial Marketing and Purchasing*, Vol. 1, 2, Pp. 3-27.

CUPBBIN, J., TZNIDAKIS, G. (1998). Techniques for analyzing company performance. *Business Strategy Review*. Vol. 9, Issue 4, 37-46.

CURTIS, D.D. (1983). Strategic planning for smaller businesses, Lexington, MA: Lexington Books.

CYERT, R.M, MARCH, .G.J. (1963). A Behavioral Theory of the Firm. Englewood Cliffs: Prentice Hall. P65.

DAFOE, S. (2001). The financial dilemma of women entrepreneurs. [http://www.laurentian.ca/commerce/SBRG/00\\_1.html](http://www.laurentian.ca/commerce/SBRG/00_1.html).

DAVIDSSON, P. (1991). Continued Entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of Business Venturing*, 6: 405-429.

IBID., (1989). Entrepreneurship and After? A study of growth willingness in small firms. *Journal of Business Venturing*, 4, 211-226.

DAVIS, D. (2000). Business Research: For Decision Making. 5<sup>th</sup> edition. Duxbury. Thomson Learning. 266-306.

DAY, G.S. (1994). The capabilities of market driven organizations. *Journal of Marketing*, 58 (October), 37-52.

DAY, G.S., WENSLEY, R. (1988,1983). Marketing theory with an strategic orientation, *Journal of Marketing*, Vol. , 47, Fall, 79-89.

DENNIS, W. J. (1993). Small business problems and priorities. Washington, C.C. The NFIB Foundation.

DENZIN ,N. & LINCOLN, Y. (1994) Handbook of Qualitative Research . Sage Publication, pp. 1515-1543.

DIERICK, I. and COOL, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science*, 35 (12), 1504-1511.

DILLMAN, D.A. (1978). Mail and telephone surveys: The total design method. New

York, NY: John Wiley and Sons.

DOYLE, P., and WONG, V. (1997, 1996). Marketing and competitive performance: an empirical study. *European Journal of Marketing*, 32, 5/6. 514-535. Received 1996, revised 1997.

DREW, S.A.W., and SMITH, P.A.C. (1999). The learning organization: "Change proofing" and strategy, <http://www.mcb.co.uk/topman/visitors/articles/tlo21.htm>. 1999-05-10.

DRUCKER, P. (1999, 1973). Reflections of a knowledge worker: Management Challenges for the 21<sup>st</sup> Century. Harper and Row. Series Article appearing in the Financial Times, April 27, 1999.

IBID., (1986). Innovation and Entrepreneurship: Practice and Principles. New York: Harper 7 Row.

DUNN and BRADSTREET. (1993, 1989, 1999). Business failure records. New York.: Dun and Bradstreet.

DYKE, L., FISCHER E., and REUBEN, A. (1992). An inter-industry examination of the impact of owner experience on firm performance. *Journal of Small Business Management*. Vol. 30, 4, 72-87.

EL NUEVO DIA (1996) "De Generación en Generación. Empresas Familiares": April 30.

IBID.,(March 15, 2001). Más y más se acogen a la quiebra. Spanish language newspaper in Puerto Rico. Page 75.

EISENHARDT, K. M. (1989): "Building Theories from Case Study Research". *Academy of Management Review*, Vol. 14, No. 4, p. 532-550.

ENCAOUA, D., GEROSKI, P and JACQUEMIS, A. (1986). Strategic competition and the persistence of dominant firms: a survey. In Stiglitz, J.E. and Mathewson, F. (Eds.), New Development in the Analysis of Market Structure. London: Macmillan.

FABOWALE, L (1995). Gender, Structural Factors, and Credit terms Between Canadian Small Businesses and Financial Institutions. *Entrepreneurship Theory and Practice*. Extracted from <http://www.Laurentiaian.ca>. Commerce 98-5b.

IBID., (1992, 1991). An Empirical Investigation of Financial Institutions' Terms of Credit to Female Owners of Small Businesses, Unpublished Masters of Management Studies Thesis, Carleton University, Ottawa, Canada.

FAHY, J. (2000). Strategic marketing and the resource- based view of the firm. Copywrite 1999. Academy of Marketing Science. Extracted from [www.Amsreview.org/amsrev/theory/fahy10-99.html](http://www.Amsreview.org/amsrev/theory/fahy10-99.html).



IBID., (1999, Revised. 2000) The resource-based view of the firm: some stumbling blocks on the road to understanding sustainable competitive advantage. *Journal of European Industrial Training*. 2, 3, 4. 494-104.

FAHY, J., SMITHEE, A. (2000). Strategic Marketing and the resource based view of the firm. *Academy of Marketing Science Review*. Copyright 1999. Online. Extracted on 02-24-2000 from :[www.Amsreview.org/amsrev/theory/fahy10-99.html](http://www.Amsreview.org/amsrev/theory/fahy10-99.html)

FASCI, M.A., VALDEZ, J. (1998). A Performance Contrast of Male and Female Owner Small Accounting Practices. *Journal of Small Business Management*. Extracted from Laurentian,. Commerce 98-5b.

FERNÁNDEZ-RODRIGUEZ, SUÁREZ-GONZÁLEZ, (1996). “La estrategia de la empresa desde una perspectiva basada en los recursos”. *Revista Europea de Dirección y Economía de la Empresa*, Vol. 5, num. 3. 79-92.

FERNÁNDEZ SÁNCHEZ, E., MONTES PEÓN, J.M. (1997). “La teoría de la ventaja competitiva basada en los recursos: Síntesis y estructura conceptual”. *Revista Europea de Dirección de Empresa*, Vol.6, (3), 11-32.

FERGUSON, C.R., AND DICKINSON, R. (1982). Critical success factors for director in the eighties. *Business Horizons*, May-June.

FILION, L.J.(1997). From Entrepreneurship to Entreprenology. Presented at SBAER proceedings. Extracted from: [www.sbaer.uca.edu/docs/proceedings/97ics006.txt](http://www.sbaer.uca.edu/docs/proceedings/97ics006.txt). Extracted 1999-05-10.

FILION, L.J.; MENZIES, T.; RAMANGALAGHY, C.; BRENNER, G. (2002). Ethnic Entrepreneurs in Canada: Problems encountered, as defined by differences in ethnic origin and sex. Paper presented at the 47<sup>th</sup> International Council for Small Business Conference, June 16-19, San Juan, Puerto Rico.

FISCHER, E. M., REUBER, A.R., DYKE, L.S. (1993). "A Theoretical Overview and Extension of Research on Sex, Gender, and Entrepreneurship", *Journal of Business Venturing*, Vol. 8, No. 2, 151-168.

FISHBEIN, M. AND AJZEN, I. (1975). Beliefs, Attitudes, Intention and Behaviour. Reading, MA: Addison-Wesley.

IBID., (1981) "On Construct Validity: A critique of Miniard and Cohen's paper" *Journal of Social Psychology* 17, 340-350.

FLADMOE-LINQUIST, K. & TALLMAN, S. , (1994) Resource- Based Strategy and Competitive Advantage Among Multinationals. *Advances in Strategic Management*, Edited by\_Srivastava, Huff and Dutton. Vol. 10A. pp. 45-72.

FORTUNE. (1991, April). Greyhound ignores Wall Street and thrives. 48-52.

FOSS, N. (2000,). The resource-based view: fresh perspectives on some original concepts. Copenhagen Business School. Denmark. Extracted from: [www.csbs.co.uk/articles/rbvstrategy.html](http://www.csbs.co.uk/articles/rbvstrategy.html). ISBN 0-19-878179-2.

IBID., (1997). Resources, firms, and strategies: A reader in the resource-based perspective. Oxford, UK: Oxford University Press.

IBID., (1996). Strategy, economics and Michael Porter, *Journal of Management Studies*, Vol. 33, 1-24.

IBID.,(1996). Knowledge –based approaches to the theory of the firm: Some critical comments. *Organization Science*, 7(5),470-476.

GADENNE, D. (1998). Critical success factors for small business: An inter-industry comparison. *International Small Business Journal*. Vol. 17. 1, 36- 51.

GADISH, O., GILBERT, J. L. (1999). Profit Pools: a fresh look at strategy. *Harvard Business Review*. January-February. 139-180.

GARNSEY, E. (1996). A new theory of the growth of the firm, prepared for the 41<sup>st</sup> world conference of the international council for small business, Stockholm, June, 1996. <http://www.sbaer,uca.edu/docs/Proceedings/96tics121.txt>.

GARTNER, W. (1985 ). “ A conceptual framework for describing the phenomenon of new venture creation”. *Academy of Management Review*,10 ( 4), 696-706.

GASKILL, L., VAN AUKEN, H., MANNING, R. (1993). A factor analytic study of the perceived causes of small business failure. *Journal of Small Business Management*, 31(4), 18-31.

GHEMAWAT, P. (1986). Sustainable Advantage. *Harvard Business Review*. 64. (September-October): 53-58.

GIBBS, A.A., DAVIES, L.(1992,1990). “In pursuit of a framework for the development of growth models of the small business”, *International Small Business Journal*. Vol. 9 (1). 15-31.

GRAHAM, P. G. (1999). (Electronic version). Small business participation in the global economy. *European Journal of Marketing*, Vol. 33. [http](http://www.ejournals.org/).

GRANT, R.M. (1990). The resource-based theory of competitive advantage: Implications for strategy formulation. *California Management Review*, Spring, 115-135.

IBID., (1991). *Contemporary Strategy Analysis*. Blackwell: Oxford.

IBID., (2002). Contemporary Strategy Analysis: Concepts, techniques, applications. Fourth edition. Blackwell Business: Oxford. 11, 32, 175, 250.

GREENE, P. AND BROWN, T. (1997). Resource Needs and the Dynamic Capitalism Typology? *Journal of Business Venturing*, 7(1): 8-17.

GREENE, P. G., BRUSH C.G., HART M.M. and SAPARITO P. (1999). Exploration of the venture capital: Is gender an issue? Retrieved from [Http://www.babson.edu/entrep/fer/papers99/IV/IV\\_A/IVA%20Text.htm](http://www.babson.edu/entrep/fer/papers99/IV/IV_A/IVA%20Text.htm).

GIBBS, A., DAVIES, L. (1992). In pursuit of a framework for the development of growth models of the small business. *International Small Business Journal*. 9 (1), 15-31.

GRIFFITH, D.A., AND PALMER, J. W. (1999). Leveraging the Web for Corporate Success. *Business Horizons*. January-February.

HALL, R. (1992). "The strategic analysis of intangible resources." *Strategic Management Journal*. 13 (February). 135-144.

IBID., (1989). The management of intellectual assets: A new corporate perspective. *Journal of General Management*. 15 (Autumn): 53-68.

HAMEL, G., PRAHALAD, C.K. (1994, 1990). *Competing for the Future*. Cambridge, MA: Harvard Business School Press. 79-91.

IBID., (1989). "Collaborate with your competitors and win," *Harvard Business Review* (January-February, 1989), 133-139.

HAMEL, J. et al. (1993): Case Study Methods. Sage Publications, Newbury Park.

HAMILTON, J.B., SMITH, M., HEADY, R.B., and CARSON, P.P. (1997). Using open-ended questions on senior exit surveys to evaluate and improve faculty performance: Results from a school of business administration. *Journal of Excellence in College Teaching*, 8 (1), 23-48.

HAMILTON, L. (2000). Competitive advantage and the SMEs: The role of distinctive competences as determinants of success, the case of Puerto Rico. Unpublished empirical research presented at the University of Barcelona, Spain, in partial fulfillment of Doctoral Program.

IBID., (2001). Are there differences on success and size across gender?. Paper presented at the Conference for Small Business, Mayaguez, Puerto Rico. May, 01.

HAMILTON, L., AND LAITINEN, T. (1999). Research paper on: Business strategy as a scientific research programmed. Unpublished paper, European Doctoral Programme in Entrepreneurship, Barcelona.

HANNAN, M. T., AND FREEMAN, J. 1977. The population ecology of organizations. *American Journal of Sociology*, 82:929-964.

HARDILL, I., FLETCHER, D. & MONTAGNE-VILLETTE, S., (1995). Case studies: Le Choletais (France) and East Midlands, (UK). *Entrepreneurship and Regional Development: An International Journal*. Vol. 7, 2, April -June 167-185.

HART, M., GREENE, P., AND BRUSH, C.G.(1997). Leveraging resources: Building and organization on an entrepreneurial resource base. Presented at the Babson Entrepreneurial Research Conference, April, Babson College.

HART, M.M. (1995). Founding resource choices: Influences and effects. Doctoral dissertation , Harvard Graduate School of Business.

HASWELL, S. & HOLMES, S. (1989 ). Estimating the small business failure rate: A reappraisal. *Journal of Small Business Management*, 27 (July) , 68-74.

HAYNES, G.H., AND HAYNES, D., (1999). The Debt Structure of Small Businesses Owned by Women in 1987 and 1993. *Journal of Small Business Management*. April: 1-19.

HAYNES, G.H., ORSER, B.J., RIDING, A.L. (1998). Myths and realities: An empirical study of banks and gender of small business clients. Extracted from <http://www.cfib.ca/english.research/reports/financin.htm>.

HILLS, G., NARAYAMA, C. (1990). "Profile characteristics, success factors and marketing in highly successful firms", *Frontiers of Entrepreneurship Research*. Wellesley, MA: Babson College, 69-80.

HINES T, (2000). An evaluation of two qualitative methods (focus group interviews and cognitive maps) for conducting research into entrepreneurial decision-making. *International Journal*. Vol. 03. Issue 1. Copyright 2000.

HISRICH, R., and BRUSH, C. (1997, 1987, 1983). The women entrepreneur: Implications of family, educational, and occupational experience. *Frontiers of Entrepreneurship Research*, Wellesley, MA: Babson College, pp. 643-653.

IBID., (1984). The women entrepreneur: Management skills and business problems. *Journal of Small Business Management*, 22 (1), 30-37.

HISRICH, R. AND BRUSH, C.G., GOOD, D., AND DeSOUZA, G. (1997). Performance in entrepreneurial ventures: does gender matter? Performance in entrepreneurial ventures: Does gender matter? *Frontiers of Entrepreneurship* 1997 edition. Babson College. Retrieved from: <http://www.babson.edu/entrep/fer/paper97/sum97/hisb.htm>.

HISRICH, R. D. AND DESOUZA, G. (1994). More alike than different? A Comparative Study of Goals, Strategies, Management Practices, and Performance of Small Businesses Owned by Women and Men. Extracted from the worldwide web. May, 2002.

HITT, and IRELAND (1985). Corporate distinctive competence: strategy, industry and performance. *Strategic Management Journal*, Vol. 6, 273-293.

HITT, M.A.; IRELAND,R.D.,& HOSKISON, R.E. (2000). Strategic Management: Competitiveness and Globalization. South Western- Thomson International . 4<sup>th</sup> edition.

HODGETTS, R.M., KURATKO, D.F. (1998). Effective Small Business Management (6<sup>th</sup> Ed). Fort Worth, Texas: Dryden Press.

HOFER, C.W. (1980). Turnaround Strategies. *Journal of Business Strategy*, 1, 19-31.

HOFER, C.W., BYGRAVE, W.D. (1992). Researching entrepreneurship. Entrepreneurship theory and practice. Copyright Baylor University.

HOFER, C.W., SCHENDEL, D. (1978). Strategy formulation: Analytical concepts. St Paul, MN: West. 172-174.

HOLMQUIST, C., (1997). Entrepreneurship as a complement or an alternative? The other side of the coin or another coin? *Entrepreneurship and Regional Development*.

HONIG, B. (1998). What determines success? Examining the human, financial, and social capital of Jamaican micro entrepreneurs. *Journal of Business Venturing* 13: 371-394.

HORNABY, J. A. (1995). Research about living entrepreneurs, *Entrepreneurship and Regional Development: an International Journal*. Vol. 7, 2. April-June.

HORNSBY, J.S., KURATKO, D.F., LAFOLLETE, W.R., HODGETTS, R.M., AND COX, L.R. (2000). A study of human resource practices and trends in U.S. Small Businesses. <http://www.sbaer.uca.edu/Docs/proceedingsIII/99usa355.htm>. Extracted 8/28/00. 1-15.

HOSKISSON, R. HITT, M. LAU, C., & WRIGHT, M. (2000). Theory and research in strategic management: Swings of a pendulum. *Journal of Management*, 25(3), 417-456.

HUNT, S., MORGAN, R. (1995). The comparative advantage theory of competition. *Journal of Marketing*. Vol. 59, April , 1-15.

IBID. (1989). Entrepreneurship and after? Growth willingness in small firms. *Journal of Business Venturing*, 4, 211-226.

IBID. (1996). A business success versus failure prediction model for young firms. *Journal of Small Business Strategy*, 6 (1), 21-23.

IBID., (1991). Research notes and communications. strategy content and the research process: A reply. *Strategic Management Journal*. Vol. 12 , 83-84.

IBID., (1994) . Reconsidering the basic premises of strategic management. The fall and rise of strategic planning. *Strategic Management Journal*, vol. 11.

IBID., (1994). That's not "turbulence" chicken little, it's really opportunity. *Planning Review*. Vol. 22, 6, 7-9.

IBID., (1994). The fall and rise of Strategic Management. *Harvard Business Review*, Jan-Feb. 107-114.

IBID., (1999). Reasons why small businesses fail: And how to avoid failure. Extracted from <http://www.alliedacademies.org/archive/aej/ee-2/paper2.html>.

IBRAHIM, A.B., GOODWIN, J.R. (1986). Perceived causes of success in small business. *American Journal of Small Business*. Vol. 11, Fall. 41-50.

INFOPYME, (2000). "Que esperan los pequeños y medianos empresarios del nuevo gobierno?". Difundido por Codopyme. Revista Num. 5, julio-octubre. Santo. Domingo, RD. 11-15.

INTERNATIONAL NOTES. (1998). Relationship between small business growth and personal characteristics of owner/managers in Australia. *Journal of Small Business Management*. Vol. 26, 2, April, 76-79.

ITAMI, H. (1987). Mobilizing Invisible Assets, Harvard University Press, Cambridge, MA.

JACQUES, L.F. (1999). From entrepreneurship to entreprenology. <http://www.sbaer.uca.edu/docs/proceedingII/97ics006.txt>.

JOHANNISSON, B. (1998). Personal Networks in Emerging Knowledge-based firms: spatial and functional patterns. *Entrepreneurship and Regional Development*, Vol. 10 (4), Oct-Dec. 297-311.

IBID. (1992). Entrepreneurship- the Management of Ambiguity in T & Johansson, I-I (Eds.) Responsibility and Accounting- the Regulation of Boundary Conditions. Lund: Studentlitteratur 155-179. *Entrepreneurship and regional development* Vol. 10, 4, October-December 298-311.

JOHANNISSON, B., PETERSON, R. (1984). The Personal Networks of Entrepreneurs. Paper presented at the Third Canadian Conference, International Council for Small Businesses -Canada, The Ryerson Polytechnical Institute, Toronto, Canada, May. 1984.

JOHANNISSON, B., (1987). " Beyond Process and Structure: social exchange networks" , *International Studies of Management and Organisation*, XVII:1. 3-25.

JONES (1992). On Competitive Advantages Organizational Development. *Journal of Small Business Management*. April: 33-39. July 21

KALLEBERG L. A., AND LEITCH T. K. (1991). Gender and organizational performance: Determinants of small business survival and success. *Academy of Management Journal*. Vol. 34, 136-161.

KARGAR, J., PARNELL, J.A.,(1996). Strategic planning emphasis and planning satisfaction in small firms; An empirical investigation. *The Journal of Business Strategies*. .  
Extracted from: [//coba.su.edu/jbs/vol13/no1/13-1-1.htm](http://coba.su.edu/jbs/vol13/no1/13-1-1.htm).

KATS, J.A., and GREEN II, R.P. (1999). Educational resources for the field of entrepreneurship. Extracted from <http://www.sbaer.uca.edu/docs/proceedings/96ICSS189.txt>.

- KAY, J. (1993, 2001). “ Foundations of Corporate Success”, published on 25 March, by Oxford University Press.
- KESSLER, KOLDSTADT and CLARKE. (1993). Third Generation R&D. *Columbia Journal of World Business*. Fall.
- KETS DE VRIES, M. (1985). The dark side of entrepreneurship. *Harvard Business Review*. Nov.-Dec. 161-167.
- KIRZNER I. M., (1997). Pattern in Corporate Evolution. Oxford University Press.
- IBID., (1985, 1973). Competition and Entrepreneurship. Chicago: University of Chicago Press.
- IBID., (1979). The Theory of entrepreneurship in economic growth. *Encyclopaedia of Entrepreneurship*.
- KNIGHT, G.A. (1997). Cross cultural reliability and validity of a scale to measure entrepreneurial orientation. *Journal of Business Venturing* , 12, 213-225.
- KORETZ, G. (1998). Economic trends. *Business Week*, December 28: 16.
- KOTLER, P. (1994). Marketing Management: Analysis, Planning, Implementation and Control, 8th ed., Prentice-Hall, Englewoods, Cliffs, NJ.
- KURATKO, D.E., IRELAND, R.D., & HORNBY, J.S. (2001). The Power of Entrepreneurial Actions: Insights from Acordia, Inc. *Academy of Management Executive* (Press).
- HURATKO, D.E., HONSBY, J.S., NAFFZIGER, J.W. (1997). An Examination of Owners Goals in Sustaining Entrepreneurship. *Journal of Small Business Management*, Vol.35 (1) January. 11-
- LADO BOYD AND WRIGHT (1992). A competency-based model of sustainable competitive advantage: toward a conceptual integration. *Journal of Management*, Vol. 18, 77-91.
- LAURENTIAN. Retrieved from: . Extracted from <http://www.Laurentiaian.ca.Commerce> 98-5b.  
2/1/2002 <http://google.com/u/Laurentian?q=papers+women+entrepreneurs&sa=Search>.
- LAWRENCE, W.W., JONES, J.P. (2001). Business turnaround: Resolving financial distress. *The Journal of Applied Management and Entrepreneurship*, Vol. 6 (1). 105-120.
- LAYLES, M.A., BAIRD, I.S., ORRIS, J.B. AND KURATKO, D.F. (1993). Formalized planning in small business: Increasing strategic choices. *Journal of Small Business Management*, 35 (2): 37-64.

LEARNED, E.P., CHRISTENSEN, C.R., ANDREWS, K.R., AND GUTH, W., (1969). Business Policy. Homewood, II: Irwin.

LIPPMAN, S.A., RUMELT, R.P., (1982). Uncertain Imitability: An analysis of interfirm differences in efficiency under competition., *Bell Journal of Economics*, 23: 418-438.

LONGENECKER, J.G., MOORE, C.W., & PETTY, J.W. (2003). Small Business Management: An Entrepreneurial Emphasis. 12<sup>th</sup> edition. Thompson/south-Western. 9, 16,17,21.

LOSCOCO, K., ROBINSON, J., HALL, I. R., AND ALLEN, J. (1991). Gender and small business: An inquiry into women's relative disadvantage. *Social Forces*, 70, 65-85.

LOVE, L.G., and McGEE, J.E. (1999). Distinctive competences and competitive advantage: A study of small independent retailers. Extracted from the Proceedings: <http://www.Sbaer.uca.edu/Docs/proceedingsIII/99usa459.htm>.

LOW, M.B., MacMILLAN, I. (1988). Entrepreneurship: Past research and future challenges. *Journal Management*, Vol. 14, 2:139-161.

LUSSIER, R.N. (1999). Reasons why small business fail: and how to avoid failure. EE Vol. 1, Num 2. Extracted from [www.Alliedacademies.org/archive/aej/eel-2/paper2.html](http://www.Alliedacademies.org/archive/aej/eel-2/paper2.html). on 18/12/01.

LUSSIER, R.N. (1995). A non-financial business success versus failure prediction model for young firms. *Journal of Small Business Management*. Vol. 33, 1, 8-20.

IBID., (1996). A business success versus failure prediction model for service industries. *Journal of Business and Entrepreneurship*, 8(1), 23-37.

LUSSIER, R.N., AND CORMAN, J. (1995). Gender differences in strategic decision-making: An empirical study of the entrepreneurial strategy matrix. *Journal of Small Business Strategy*.

LUSSIER, R., AND CORMAN, J., (1995, 1994). There are few differences between successful and failed small businesses. *Journal of Small Business Strategy*, 6 (1), 21-33.

LUSSIER, R., SONFIELD, M., FRAZAR, J., GREENE, F., and CORMAN, J. (1998). The entrepreneurial strategy mix and venture performance: An empirical analysis. Proceedings of the 22<sup>nd</sup> National Small Business Consulting Conference (SBIDA).

MAHONEY, J.T., and PANDIAN, R. (1992) The resource-based view within the Conversation of Strategic Management. *Strategic Management Journal*, Vol. 13, 363-380.

MAN, T. W., LAU, T., and CHAN, K.F. (1998). Conceptualization of SME'S Competitiveness: A focus on entrepreneurial competencies. Extracted from: <http://www.sbaer.uca.edu/Docs/98icsb/y004.htm>



MATHEWS, C.H., MOSER, S.B. (1995). Family Background and Gender. Implications for interest in small firm ownership. *Entrepreneurship and Regional development*, 7, 65.

MAXWELL, J. A. (1998): "Designing a Qualitative Study". En Bickman, L. y Rog, D. J. (Eds.): Handbook of Applied Social Research Methods. Sage Publications, Thousand Oaks, p. 69-100.

IBID., (1996): Qualitative Research Design: An Interactive Approach. Sage Publications, Thousand Oaks.

MAYZAMI, R., and GOBY, P. (1999). Female Business Owners in Singapore and Elsewhere: A Review of Studies. *Journal of Small Business Management*. Vol. 37, 2, April: 96-105.

MAZZAROL, T, (1999). Case studies of small business success: Exploration of a four factor success model. Extracted from, <http://www.sbaer,uca.edu/Research/1999/ICSB/99ics021.htm>.

McCLELLAND, D.C. (1986). Characteristics of successful entrepreneurs. In *Keys to the future of American Business*, Proceedings of the third creativity, innovation, and entrepreneurship symposium (Addendum, pp. 1-14). Framingham, MA: U.S. Small Business Administration and the National Center for Research in Vocational Education.

McGEE, J.E. (1996). When Wal-Mart comes to town: A look at how local merchants respond to the retailing giant's arrival. *Journal of Business and Entrepreneurship*, 8(1), 43-52.

McGEE, J.E., and FINNEY, B.J. (1997). Competing against retailing giants: A look at the importance of distinctive marketing competencies. *Journal of Business and Entrepreneurship*, 9(1), 59-70.

McGEE, J.E., LOVE, L.G. (1999). Competitive advantage and the small independent retailer: The role of distinctive competencies. *Journal of Business & Entrepreneurship*, Vol. 11, 1, March.

McGEE, J.E., LOVE, L.G., AND RUBACH, M.J., (1999). Sources of competitive advantage for small independent retailers: Lesson from the neighborhood drugstore. <http://www.sbaer.uca.edu/Docs/proceedingsIII/99asb119.htm>.

McGEE, J.E, PETERSON, M. (2000). Toward the Development of Measures of Distinctive Competencies Among Small Independent Retailers. *Journal of Business Venturing* Vol. 38 (2), April. 19-33.

McMILLAN, I.C., SIEGEL, R. and SUBBA-NARASIMHA, P.N. (1985). Criteria used by venture capitalists to evaluate new venture proposals. *Journal of Business Venturing* 1, 119-128.

MCMILLAN, I.C., SIEGEL, R., AND SUBBANARASIMHA (1987). Venture

Capitalist Performance Rating. *Journal of Business Venturing*, 1 (1),119-128.

MERRIFIED, D. B., (1988). Industrial survival via management technology. Executive Forum. *Journal of Business Venturing* 3, 171-185.

MILES, R.E., SNOW, C.C., (1987,1978). Organizational strategy, structure, and process. New York: West.

MILLER, D., SHAMSIE, J. (1996). The resource-based view of the firm in two environments: The Hollywood film studios from 1936-1965. *Academy of Management Journal*, 18 (9), 697-713.

MINTZBERG, H. (1994). That's not turbulence, it's really opportunity. *Planning Review*, 22 (6), 7-9.

IBID., (1994). The fall and rise of Strategic Planning. *Harvard Business Review*, Jan-Feb, 1994. 107-114.

IBID., (1989, 1985). Of Strategies, Deliberate and Emergent," *Strategic Management Journal*, 6, 257.

IBID.,(1987). Another look at why organizations need strategies. *California Management Review*, 30(1):25-32.

IBID., (1978). Patterns in Strategy Formation. *Management Science*. Vol. 24,(9), May. 934-948.

MONTAGNO, R.V., KURATKO, D.F., and SCARCELLA, J.H. (1986). Perception of entrepreneurial success characteristics. *American Journal of Small Business*. Vol. 10, Winter, 25-43.

MONTGOMERY, C., WERNERFELT, B., and BALAKRISHNAN, S. (1989). Research notes and communications. strategy content and the research process: A critique and commentary. *Strategic Management Journal*. Vol. 10,189-197.

IBID., (1991). Research notes and communications. strategy and the research process: A reply. *Strategic Management Journal*. Vol. 12, 83-84.

MUNRO, M.C., & WHEELER, B.R. (1983). An opinion ...comment on critical success factors at work, *MIS Quarterly*, 675-68.

IBID., (1983). Planning Critical Success Factors and Management Information Requirements", *MIS Quarterly*, 27-38.

NAFFZIGER, D.W. and KURATKO, D. F. (1991). An investigation into the prevalence of planning in small business. *Journal of Business and Entrepreneurship*, 3 (2): 99-110.

NAFFZIGER, D.W., AND MUELLER, C.B. (1999, 1994) Strategy planning is small businesses: Process and content realities. *Babson College Proceeding*. dnaffzig@gw.bsu.edu

cmuelle@gw.bsu.edu.

NATIONAL FOUNDATION FOR WOMEN BUSINESS OWNERS AND CATALYST. (1998). *Paths to Entrepreneurship: New Directions for women in Business*. Silver Spring, MD: NFWBO.

NATIONAL PARTNERSHIP WORK & FAMILY. (2000,2001). Affirmative action programs help women shatter the glass ceiling.

NELSON, R. R. (1991). Why do firm differ, and how does it matter? *Strategic Management Journal*, 12 (Winter), 61-74.

NELSON, R.R., WINTER, S.G. (1982). An evolutionary theory of economic change. Cambridge, MA. Belknap Press.

NOHRIA, N. (1991). Is Network perspective a useful way of studying organizations? *Journal of Regional Development*.

OFFICE OF ADVOCACY, U.S. SMALL BUSINESS ADMINISTRATION. (1997) Women in Business, APEC. Women Entrepreneurs Report. Washington, D.C., page 15.

ORSER, B. (1997). The Influence of Intention, Managerial Experience and Gender on Small Firm Growth, Unpublished Ph.D. Thesis, University Of Bradford, Bradford, UK.

ORSER, B., HOGARTH-SCOTT, S., and WRIGHT, P. (1998). On the growth of small enterprises: The role of intentions, gender and experience 1. Updated version. Babson College Entrepreneurial Proceedings.

ORSER, B., RIDING, A., & TOWNSEND, J. (2002). Supporting Exporting-A means of Growth for Women-Owned Canadians SMEs. Presented at the 47<sup>th</sup> International Council for Small Business in San Juan, Puerto Rico.

OTT, L., (1977). An Introduction to statistical methods and analysis . Duxbury Press. Mass. P. 70-93; 100-137; 306-335.

PARNELL, J.A., CRANDALL, W., and MENEFEE, M. (1999). Examining the impact of culture on entrepreneurial propensity: An empirical study of prospective American and Egyptian entrepreneurs.<http://www.alliedacademies.org/archive/aej1-1/paper4.html>.

PEARCE, J.A., and DAVID, F. (1987). Corporate mission statements: The bottom line. *Academy of Management Executive*, 1 (2), 109-116.

PEARCE, J.A.II, and ROBINS JR. D.K. (1994). Retrenchment remains the foundation of business turnaround?. *Strategic Management Journal*, 15, 407-417.

PEARCE, J.A., and ROBINSON, JR. R.B. (2000). Formulation, implementation, and control of competitive strategy. Boston.

PENROSE, E. (1957) The Theory of the Growth of the Firm, London: Basil Blackwell Publisher.

PENROSE, E.T, (1959). The Theory of Growth of the Firm. Third edition, New York, John Wiley.

IBID., (1995). The Theory of Growth of the Firm. Third edition, New York, Sharpe. xi-xxi; 33-41.

IBID., (1960). The growth of the firm: A case study. The Hercules Power Corporation. *Business History Review*, 34 (1), 1-23.

PERRY, S. (2001). The relationship between written business plans and the failure of small businesses in the U.S. *Journal of Small Business Management* 39 (3), pp.201-208.

PERRY, C., MEREDITH, G.G., & CUMMINGS, H.J. (1988). "Relationship Between Small Business Growth and Personal Characteristics of Owner/Managers in Australia", *Journal of Small Business Management*, Vol. 26 (2). April. 76-79.

PETERAF, M.A., (1993). The cornerstones of competitive advantage: A resource-base view. *Strategy Management Journal*, Vol. 14, 179-191.

PETERS, T. (1990). Get Innovative or Get Dead. *California Management Review*, Fall. 9-16.

PETERS, T.J., AND WATERMAN, R.H. (1982). In search for excellence. New York: Harper & Row.

PETTIGREW, A.M. (1979). On studying organizational cultures. *Administrative Science Quarterly*, 24, 570-581.

PETTS, N. (1997). Building growth on core competencies - a practical approach, *Long Range Planning*, Vol. 30, No. 4, 551-561.

PIERCE, J., ROBINSON, R. (2000). Formulation, implementation, and control of competitive strategy. Seventh Edition. Irwin and McGraw-Hill. Chapter 6.

PLASCHKA, G. (1993). Characteristics of successful and unsuccessful entrepreneur. A theoretical guided empirical investigation of person related and micro social factors. Published by: University of Economics and Business Administration, Vienna. Dept. of Small Business.

PONTHIEU, L. and INSLEY, R. (1996, 1994) Rethinking The Effects of Small Business Failure. *Journal of Business & Entrepreneurship*, Vol. 8, (1), 32-42.

PORTER, M.E. (1980). Competitive strategy: Techniques for analyzing industries and competitors. The Free Press. Collier & Macmillan Publishers, London.

PORTER, M.E. (1985, 1987). *Competitive advantage: Creating and sustaining superior performance*. New York: the Free Press.

PORTER, M.E. (1990). The Competitive Advantage of Nations (New York), N Y, Free Press.

IBID., (1991). Towards a dynamic theory of strategy. *Strategic Management Journal*, Vol. 12, 95-117.

POWELL, M. AND ANSIC, D. (1997). Gender differences in risk behaviour in financial decision-making: An experimental analysis. *Journal of Economic Psychology*, 18, 605-628.

PRAHALAD, C.K., HAMEL, G. (1990). The core competence of the corporation. *Harvard Business Review*, May-June, 79-91.

PUBLICATION MANUAL: of the American Psychological Association. (2001). Fifth Edition. APA, Washington, D.C.

PUERTO RICO INDUSTRIAL DEVELOPMENT CORPORATION (1999-2000). Commonwealth of Puerto Rico, San Juan.

PUERTO RICO IN FIGURES. (1999). A Publication of the Government Development Bank of Puerto Rico.

PUERTO RICO PLANNING BOARD (2001). Economic Report to the Governor. Commonwealth of Puerto Rico, San Juan.

PUERTO RICO'S STATISTICS (1999,1998) . The *El Nuevo Día Newspaper*. <http://www.endi.com/negocios/html/p106a09.html>.

PUERTO RICO'S SMALL BUSINESS STATISTICS. (1998). Small Business Profile. Office of Advocacy. <http://www.sba.gov./ADVO/stats/profiles/98pr.ans>.

PULLIG, C., CHAWLA, S.K. (1998). A multinational comparison of critical success factors and perception of small business owners over the organizational life Cycle. <http://www.sbaer.uca.edu/docs/proceedingsII/98sri166.txt>.

REUBER, A. Z., and FISHER, E.M. (1993). The learning experiences of entrepreneurs. *Frontiers of Entrepreneurship Research*, 234.

REUBER, R. and FISCHER, E. (1995). "Reconceptualizing entrepreneurs' experience". A paper presentation to the *Academy of Management*, Vancouver, May.

RIALP, A. C, (1998). "El Método del Caso como técnica de investigación y su aplicación al estudio de la función directiva." Unpublished paper financed by the Dirección General de Enseñanza Superior, DGES (PB-95-0616). Barcelona, Spain.

- RICARDO, D. (1966). *Economic Essays*. New York: A.M. Kelly.
- IBID., (1819). The Principles of Political Economy and Taxation. Random Publishing House.
- ROBBINS, D.K., PEARCE, II, J.A. (1992). Turnaround: Retrenchment and recovery. *Strategic Management Journal*, 18 (4), 599-620.
- ROBINSON, R.B. and PEARCE, J.A. (1984). Research thrusts in small firm strategic planning. *Academy of Management review*, 9,128-137.
- IBID., (1983). “The impact of formalized strategic planning on financial performance in small organizations.” *Strategic Management Journal*. 4 ; 197-207.
- ROBINSON, R.B.(1982 ). The Importance of Outsiders in Small Firm Planning. *Journal of Small Business Management*, 19 (3),45-48.
- ROCHART, J. (1982). The changing role of the information systems executive: A critical success factors perspective. *Sloan Management Review*, Fall.
- IBID., (1979). Chief executive defines their own data needs *Harvard Business Review*, 81-93.
- ROSA, P. CARTER, S. AND HAMILTON, D. (1994) “Gender and small business performance”. Conference proceedings from the 20th Anguila Institute of Small Business Affairs, Sheffield University, Sheffield, UK.
- ROSA, P., SCOTT, M. (1999). Entrepreneurial diversification, business-cluster formation, and growth. *Environment and Planning C: Government and Policy*, 527-547.
- RUMELT, R.P (1987). Theory, strategy, and entrepreneurship. In D. Teece (Ed.), *The competitive challenge*. 137-158. Cambridge: Ballinger.
- RUMELT, R.P (1991). How much does industry matter? *Strategic Management Journal*, 12, 167-185. Revised paper version, approved in 1984 but submitted in 1982.
- RUSSO, M.V., AND FOUTS, P. A. (1997). A Resource-based perspective on corporate environmental performance and profitability. *Academy of Management Journal*, Vol. 40, No. 3, 534-559.
- RUMELT, R.P (1984). Towards a strategic theory of the firm. In R.B. Lamb (Ed.), *Competitive Strategic Management*, Englewood Cliffs, NJ: Prentice Hall, pp. 556-570.
- RUMELT, R.P. (1987). Theory, strategy, and entrepreneurship, in D.J. Teece (ed.). *The Competitive Challenge* . pp. 137-158. New York: Harper and Row.
- SABEL,C.F., PIORE, M.J.(1984). The Second Industrial Divide, New York: Basic Books.

SCHENDELL, D.E., PATTON, G.R., & RIGGS, J. (1976). Corporate Turnaround Strategies: A study of profit decline and recovery. *Journal of General Management*, 3-11. Spring.

SCHUMPETER, J. (1950). Capitalism, Socialism, and Democracy (3rd Ed.). New York: Harper.

IBID., (1934). The theory of economy development. Harvard University Press. Cambridge, MA:

SELZNIC, P., (1957). Leadership in Administration: A sociological Interpretation (New York: Harper and Row).

SEKARAN, U. (2000). Research Methods for Business: A skill building approach. John Willey & Sons. 114-117.

SLEVIN, D.P., COVIN, J.G. (1995). New ventures and total competitiveness: A conceptual model, empirical results, and case examples. *Frontiers of Entrepreneurship Research*, 1995 edition. Extracted from [www.Babson.edu/entrep/fer/ferform.html](http://www.Babson.edu/entrep/fer/ferform.html).

SETH, A. & ZINKHAN, G. (1991) Research Notes and Communications Strategy and the Research Process: A comment. *Strategic Management Journal*, Vol. 12, 75-82.

SETH, A., AND THOMAS, H. (1994). Theories of the firm: Implications for strategy research, *Journal of Management*, March, 31:2.

SETTON, D. (1999, July). Crash? *Forbes*. 164 (2), 266.

SEURAT, R., (1999). Sustained and Profitable Growth. *Business Strategy Review*, Vol. 10, (1), Spring.

SEXTON and VAN AUKEN (1982). Prevalence of Strategic Planning in Small Business. *Journal of Small Business Management*, 20(1): 20-26.

SEXTON, D. (1989b). Research on Women-Owned Businesses: Current status and future directions. In O. Hagan, C. Rivchun, and D. Sexton, Eds. *Women-Owned Businesses*. New York: Praeger, pp. 183-193.

SEXTON, D. & BOWMAN-UPTON, N. (1990). Female and male entrepreneurs: Psychological characteristics and their role in gender related discrimination. *Journal of Business Venturing*, 5(1), 29-36.

SEWELL V., (2000). Non-traditional Occupations of Employee. [http://www.dol.gov/dol/wb/public/wb\\_pubs/nontra99.htm](http://www.dol.gov/dol/wb/public/wb_pubs/nontra99.htm).

SHAPIRO, C. (1989). The theory of Business Strategy. *Rand Journal of Economics*, 20, 1, 125-37.

SHEPPARD, J.P. (1994). Strategy and Bankruptcy: An exploration of organizational death. *Journal of Management*, 20(4), 795-833.

SHETTY, Y.K. (1982). Key elements of productivity improvement programs.

SHONESY, L., GULBRO, R.D., (1998). Small business success: A review of the literature. <http://www.sbaer.uca.edu/docs/proceedingsII/98asb040.txt>.

SINGH, J.V. and LUNSDEN, C. J. (1990). Theory and research in organizational Ecology, *Annual Review of Sociology*, Vol. 16, 161-195.

SINGH, P. S., REYNOLDS, G. R., AND MUHAMMAD, S. (2001). A gender-based performance analysis of micro and small enterprises in Java, Indonesia. *Journal of Small Business Management*. 39(2), 174-182.

SIU, A.S., KIRBY, D.A., (1998). Approaches to small firm marketing: a critique. *European Journal of Marketing*. Vol. 32, 40-60.

IBID., (1996). " Marketing practices in small firms in Hong Kong". UIC/AMA Research Symposia on Marketing and Entrepreneurship: Proceedings, Vol. 2, 114-121.

SMALL BUSINESS ADMINISTRATION, (1998). *Statistics on Small Businesses in Puerto Rico*. <http://www.sba.gov/ADVO/stats/profiles/98prans>.

SMALL BUSINESS. (1988). Heart of the Puerto Rico economy, from <http://www.sba.gov/advo/stats/profile/98prans>.

SMART, D.T., and CONNANT, J.S. (1994). Entrepreneurial orientation, distinctive marketing competencies and organizational performance. *Journal of Applied Business Research*, 10 (3): 28-38.

SMART, D.T., and SOLANO, M. (1993). Generic Retailing Types, distinctive Competencies. *Journal of Retailing*, 69 (3): 254-279.

SMITH, M., HEADY, R.B., HAMILTON, J.B., & CARSON, P.P. (1996). SWIFT: A software program for the analysis of written comments. *Journal of Education for Business*, 71(6), 354-358.

SNOW, C.C., and HREBRINIAK, L. (1980). Strategy, distinctive competencies, and organisational performance, *Administrative Science Quarterly*, 25, 307-335.

SONFIELD, M.C., LUSSIER, R.N., CORMAN, J. (2000). Gender differences in strategic decision-making: An empirical study of the entrepreneurial strategy Matrix. <http://www.sbaer.uca.edu/Docs/proceedingsIII/99sbi203.htm>.

SONFIELD, M.C., LUSSIER, R.N., CORMAN, J., and MCKINNEY, M. (2001). Gender comparisons in strategic decision-making: An empirical analysis of the entrepreneurial strategy matrix, *Journal of Small Business Management*, Vol. 39, No. 2 April.



SPANOS , Y. ; LIOUKAS, S. (2001, 2000). An examination into the causal logic of rent generation: Contrasting Porter's competitive strategy framework and the resource based perspective. *Strategic Management Journal*, Vol. 22, 907-934.

STALK, G., EVANS, P., SCHULMAN, L.E., (1992). Competing on Capabilities: The new rules of corporate strategy. *Harvard Business Review*. March-April 1992. 57-69.

STEINER, G. (1979). "Contingent themes of strategy and strategic management", in Schendel and Hofer (eds), *Strategic Management*, Little Brown, 403-416.

STEVENSON, L (1986), "Against all odds: The entrepreneurship of women" , *Journal of Small Business Management*, vol. 24 (3) : 30-36.

STINCHCOMBE, A. L., (1965). Social structure of organizations, In J.G. March (Ed.), *Handbook of Organizations*: 142-193. Chicago: Rand McNally Publishers.

STOKES, D., (2000). Entrepreneurial marketing: a conceptualisation from qualitative research. Extracted from [www.emerald-library.com/brev/21603ael.htm](http://www.emerald-library.com/brev/21603ael.htm).

STONE, K.E. (1994). *Competing with retail giants: How to survive in the new retail landscape*. New York, NY: John Wiley and Sons.

STOREY, D., KEASEY, K., WATSON, R., & WYNARCZYK, P., (1987). *Performance of Small Firms: Profits, jobs, and Failure*. London: Croom Helm.

SWAN, J., NEWELL, S., SCARBROUGH, H., HISLOP, D. (1999). Knowledge management and innovation: Networks and networking. *Journal of Knowledge Management*, Vol. 03, 4, 1367-3270.

TAGGART, J H; TAGGART, J., (1997). Company Specific Factors and International Competitiveness, *Business Strategy Review*. Autumn 1997.

TEECE, D. .J., PISANO, G. and SHUEN, A. (1997,1986). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, Vol. 18:7, 509-537.

TEECE, D.J., PISANO, G., SHUEN, A. (1990). Firm capabilities, resources and the concept of strategy. Consortium in competitiveness and cooperation, Working paper at The University of California.

TEECE, D.J. (1980). Economies of Scope and the Scope of the Enterprise. *Journal of Economic Behaviour and Organisation*, Vol. 1.

TEECE, D.J. (1997). Dynamic capabilities and strategic Management. *Strategic Management Journal*, Vol. 18:7, 509-533.

THE HOUSE SMALL BUSINESS COMMITTEE. (1999. Updated version, January).

Small Business Facts. Data Collected by Cox, Larry; Florida International University, College of Business Administration. Reserved rights. Babson College, 1998.

THE HOUSE SMALL BUSINESS COMMITTEE. (1999. Updated version, January). Small Business Facts. Data Collected by Cox, Larry; Florida International University, College of Business Administration. Reserved rights. Babson College, 1998.

THOMPSON, JR, A.A., and STRICKLAND III, A.J. (2001). Strategic management concepts and cases. 114-147.

TIESEN, J.H., (1997). Individualism, Collectivism, and Entrepreneurship : A Framework for International Comparative Research. *Journal of Business Venturing*, Vol. 12, 5: 341-422. Shils, J.A. Timmons, and K.H. Vesper (Eds.). Frontiers of entrepreneurship research (pp. 281-320). Wellesley, MA: Babson College Center for Entrepreneurial Studies.

TIMMONS, J.A. (1990, 1994). New Venture Creation: Entrepreneurship in the 1990's. Homewood, IL: Irwin.

TRADENZ (1990). Export manufacturing –framework for success: New Zealand Trade Development Board.

TYEBJEE, T.T., and BRUNO, A.V. (1981). Venture capital decision-making: Preliminary results from three empirical studies. In J.A Hornaday, E.B.

U.S. SMALL BUSINESS ADMINISTRATION. (1998, 1996) Women in Business. Office of Advocacy, APEC. Women Entrepreneurs Report: United States/First Draft: 28 December 1998, Washington, D.C.

UNITED STATES CENSUS OF POPULATION. U.S. GOVERNMENT REPORT. 2000.

UNITED NATIONS (2000). The UNDP report is a United Nations Demographics and Population Report. Geneve, Switzerland.

VECIANA, J. Ma. (1999). Attributes of Entrepreneurs and Scientific Research Programme Methodology. Unpublished Research Guide.

VENKATRAMAN, N., and RAMANUJAM, V. (1987). Measurement of business economic performance: An examination of method convergence. *Journal of Management*, 13, 109-122.

VENKATRAMAN, S., and VAN DE VEN, A.H., (1998). Hostile environmental jolts, transaction set, and new business. *Journal of Business Venturing* , 13, 231-255.

VESPER, K. H. (1980). New Venture Strategies. Prentice-Hall, Englewood, Cliff, N J.

IBID.,(1990). New Venture Strategies. Englewoods Cliffs, NJ.: Prentice Hall.

WERNERFELT, B. (1989). From critical resources to corporate strategy. *Journal of General Management*. Vol. 14, 4-12.

IBID., (1984). A Resource Based View of the Firm. *Strategic Management Journal*. Vol. 5 (2), 171-180. Edited by Dan Schendel, Ansoff, and Channon.

IBID., (1984). A Resource-based View of the Firm. *Strategic Management Journal*, 5, 171-180.

IBID., (1997). On the nature and scope of the firm: an adjustment-cost story. *Journal of Business*, Vol. 70. 489-514.

WILLIAMS, J. R. (1992). "How sustainable is your competitive advantage", *California Management Review*, Spring 29-51.

IBID., (1992). "Strategy and the search for rents: The evolution of diversity among firms," Working Paper, Carnegie Mellon University.

WILLIAMSON, O.E. (1975). Markets and hierarchies: analysis and antitrust implications. New York. :Free press.

IBID., (1994). Strategizing, economizing, and economic organization. In Rumelt, R.P., Schendel, D.E. and Teece, D.J. (Eds), *Fundamental Issues in Strategy*. Boston, MA: Harvard Business School Press.

IBID., (1999). Strategy research: Governance and competence perspectives. *Strategic Management Journal*, 20, 1087-1108.

WRIGHT, G., OBIS, T. (1999). Research Techniques for Statistics: notes. A compilation of articles for statistical analysis.

YANG, N., CHEN, C.C., CHOI, J., ZOU, Y., (2000). Sources of work-family conflict: A Sino-U.S. comparison of the effects of work and family demands. *Academy of Management Journal*. Vol. 43, 1, 113-123.

YIN, R. K. (1998): "The Abridged Version of Case Study Research". En Bickman, L. y Rog, D. J. (Eds.): *Handbook of Applied Social Research Methods*. Sage Publications, Thousand Oaks, p. 229-259.

IBID., (1989): *Case Study Research. Design and Methods*. Sage Publications, Newbury Park.

YOUNG, TAKANE & DE LEUW (1978); YOUNG (1981); AND WINSBERG & RAMSAY (1983). *Nonparametric Statistics*. NY.

ZETLIN, M. , (1994). Off the beaten path: What must new age entrepreneurs do to succeed . *Management Review*, 83 (12), 28-31.

## APPENDIX 1

|           |   |            |
|-----------|---|------------|
| <b>A.</b> | <b>Questionnaires for successful firms</b>                    | <b>365</b> |
| <b>B.</b> | <b>Questionnaire for unsuccessful firms</b>                   | <b>373</b> |
| <b>C.</b> | <b>Others:</b>  |            |
|           | <b>Regression analysis</b>                                    | <b>379</b> |
|           | <b>Linear correlations pre-index</b>                          | <b>380</b> |
|           | <b>Lineal models calculated</b>                               | <b>380</b> |
|           | <b>Prinqual MTV iteration history &amp; simple statistics</b> | <b>381</b> |
|           | <b>Anova statistics</b>                                       | <b>383</b> |

## Appendix A.:

### CUESTIONARIO SOBRE LAS CAPACIDADES INTERNAS, VENTAJA COMPETITIVA Y COMPETENCIAS POSEÍDAS POR LAS EMPRESAS NATIVAS ESTABLECIDAS EN PUERTO RICO

¡Buenos días! Solicito se sirva usted responder las preguntas que aparecen a continuación, las cuales tienen como propósito estudiar y profundizar acerca de los factores que determinan el éxito en las empresas establecidas en Puerto Rico. Las primeras dos preguntas sirven únicamente para obtener información sobre usted y la formación de su empresa. Las demás preguntas, y el foco principal de este estudio, buscan determinar cuáles son los recursos que las empresas consideran importantes, cuáles capacidades han desarrollado y cómo han convertido estas capacidades en competencias distintivas y/o ventajas competitivas. Finalmente, los resultados también se usarán para comparar las pequeñas y medianas empresas o PYMEs en Puerto Rico con la problemática mundial que tienen los negocios para competir. Solicito encarecidamente su respuesta, en lo posible, para fin de octubre ya que la base de datos es parte íntegra de mi tesis de grado.

Su participación en este estudio será confidencial. Su nombre es solicitado sólo con el propósito de identificar que quien responda el estudio sea el dueño, gerente general o el CEO de la empresa seleccionada. También le comunico que si desea saber los resultados del estudio, puede anejarse su tarjeta y con gusto, al terminar éste, le invitare a discutir las conclusiones o le enviaré un resumen. Agradezco toda la ayuda que se usted me prestará para lograr los propósitos descritos a la mayor brevedad posible. **SOLICITO ENCARECIDAMENTE SU RESPUESTA EN O ANTES DE FIN DE OCTUBRE.** ¡Muchísimas gracias!

**Instrucciones:** Por favor, lea cuidadosamente las preguntas y responda según las instrucciones provistas. Sólo seleccione aquellas respuestas que se adecuan y relacionan con usted y su empresa. Por favor, marque una X o haga una marca de cotejo     en el lugar correspondiente. Leonora C. Hamilton. Investigadora. Estudiante doctorado en Entrepreneurship.

#### A) INFORMACIÓN GENERAL SOBRE USTED Y SU EMPRESA:

##### COLUMNAS

Su nombre: \_\_\_\_\_ Posición que ocupa: \_\_\_\_\_ PARA USO  
Empresa: \_\_\_\_\_ Teléfono: \_\_\_\_\_ OFICIAL  
Dirección: \_\_\_\_\_ Fax: \_\_\_\_\_  
E-mail: \_\_\_\_\_

##### CODIGOS PARA DATA ENTRY:

001= NUM. CUESTIONARIO

TRES LETRAS =PROCEDENCIA

3) Numero de empleados en su empresa: \_\_\_\_\_ 4) Años en ese tipo de negocio \_\_\_\_\_ 5) Línea de negocio en que esta  
\_\_\_\_\_ 0 - 24 \_\_\_\_\_ 125-149 \_\_\_\_\_ 0 - 3 \_\_\_\_\_ Menudeo (ventas detal) \_\_\_\_\_ Construcción  
\_\_\_\_\_ 25 - 49 \_\_\_\_\_ 150- 199 \_\_\_\_\_ 4 - 6 \_\_\_\_\_ Manufactura \_\_\_\_\_ Banca  
\_\_\_\_\_ 50- 99 \_\_\_\_\_ 125 - 149 \_\_\_\_\_ 7-10 \_\_\_\_\_ Transporte \_\_\_\_\_ Agricultura  
\_\_\_\_\_ 100-124 \_\_\_\_\_ Más de 200 \_\_\_\_\_ Más de 10 \_\_\_\_\_ Construcción \_\_\_\_\_ Servicios  
\_\_\_\_\_ Mayoreo \_\_\_\_\_ Otros  
(10-12)

\_\_\_\_\_ área \_\_\_\_\_

##### 6) Perfil del dueño:

Sexo: M \_\_\_\_\_ F \_\_\_\_\_

##### 7) Años de escolaridad completados:

Educación:

\_\_\_\_\_ Educación Universitaria

8)

Nacido y criado en la isla \_\_\_\_\_

\_\_\_\_\_ Estudios técnicos (13-18)

Nacido en la isla y criado fuera \_\_\_\_\_

\_\_\_\_\_ Educación post-graduada  
especifique \_\_\_\_\_

##### 9) Rango de edad:

\_\_\_\_\_ Menos de 21 años \_\_\_\_\_ 22- 26 \_\_\_\_\_ 27-35 \_\_\_\_\_ 36-45 \_\_\_\_\_ 46-50 \_\_\_\_\_ 51-60 \_\_\_\_\_ Más de 60 años

##### 10) Experiencia:

Gerencial \_\_\_\_\_ Experiencia en otros negocios \_\_\_\_\_ Experiencia en creación de empresas \_\_\_\_\_ Otras \_\_\_\_\_

11) ¿En que año fundó(montó) usted este negocio? \_\_\_\_\_ 12) ¿Ha estado siempre en el mismo lugar? Sí \_\_\_\_\_ No \_\_\_\_\_

(19-22)

**B) INFORMACION SOBRE EL ORIGEN DE SU NEGOCIO Y SOBRE SU EXPERIENCIA EN NEGOCIOS ANTES DE ESTABLECER ESTA EMPRESA:**

13) ¿Tenía experiencia previa en negocios? \_\_\_\_\_ Sí \_\_\_\_\_ No (23-24)

14) Tenía experiencia relacionada con el tipo de negocio que estableció? \_\_\_\_\_ Sí \_\_\_\_\_ No

15) Relacionado a cómo fundó su negocio:

¿Cuánto fue, aproximadamente, el monto de inversión inicial?

\_\_\_\_\_ Menos de \$20,000 \_\_\_\_\_ \$40,001-50,000 \_\_\_\_\_ Mas de \$100,000

\_\_\_\_\_ \$20,001-\$30,000 \_\_\_\_\_ \$50,001-75,000

\_\_\_\_\_ \$30,001-\$40,000 \_\_\_\_\_ \$75,001-100,000

16) ¿Cómo obtuvo los recursos financieros para iniciar su negocio? (25-28)

\_\_\_\_\_ Préstamo de la familia: Cuánto? \_\_\_\_\_

\_\_\_\_\_ Préstamo(s) bancario(s): Cuánto? \_\_\_\_\_

\_\_\_\_\_ otros medios o combinación de medios, por favor, especifique \_\_\_\_\_

17) cuándo inicio su negocio, ¿Utilizó usted algún tipo de consejería profesional?

\_\_\_\_\_ Sí (Si responde sí, de quién?) \_\_\_\_\_ No (continúe con la próxima pregunta)

18) Utilicé consejos de: \_\_\_\_\_ Contable \_\_\_\_\_ Abogados \_\_\_\_\_ SBA \_\_\_\_\_ Consultores \_\_\_\_\_ Bancos \_\_\_\_\_

Otras fuentes especifique, por favor \_\_\_\_\_

19) Cuándo fundó su empresa, ¿cuánto tiempo pensó usted que le tomaría recuperar su inversión (lograr break- even)?

\_\_\_\_\_ Un año \_\_\_\_\_ 2-3 años \_\_\_\_\_ 5 años \_\_\_\_\_ Más de 5 años.

Relacionado, al número de empleados que usted tiene?

|                         | ¿Cuántos empleados tiene ahora? | ¿Cuántos espera tener en los próximos 3 años? |           |
|-------------------------|---------------------------------|---|-----------|
| 20) ¿A tiempo completo? | _____                           | 22) _____                                     | 1         |
| 21) ¿A tiempo parcial?  | _____                           | 23) _____                                     | 2 (29-35) |

24) Forma de organización usada para establecer su negocio:

\_\_\_\_\_ Negocio individual \_\_\_\_\_ Sociedad \_\_\_\_\_ Corporación \_\_\_\_\_ Sociedad Especial \_\_\_\_\_ Otros

25) ¿Cuál fue el total de ventas aproximado de su empresa

A) el año pasado (turnover)?

\_\_\_\_\_ Menos de \$100,000 (1) \_\_\_\_\_ \$500,001-750,000 (4)

\_\_\_\_\_ \$100,001-\$250,000 (2) \_\_\_\_\_ \$750,001-1000,000 (5)

\_\_\_\_\_ \$250,001-\$500,000 (3) \_\_\_\_\_ Mas de \$1000,000 (6)

26) ¿Tres años atrás? \$ \_\_\_\_\_ (ANOTE EL NÚMERO)

27) Cuánto espero en “ turnover en los próximos 3 años? \_\_\_\_\_ (ANOTE NÚMERO)  
(36-39)

28) Origen de su negocio: Sólo marque una respuesta.

\_\_\_\_\_ Inició como un negocio nuevo \_\_\_\_\_ Comenzó comprando un negocio existente

\_\_\_\_\_ Heredó el negocio, \_\_\_\_\_ Otras formas de iniciar, especifique \_\_\_\_\_

29) En término a su posición en el mercado, ¿cómo se considera usted? Marque sólo una respuesta.

\_\_\_\_\_ Líder en el mercado en todos los aspectos (con la mayor participación de mercado) 1

\_\_\_\_\_ No líder pero el mejor retador en todo (aproximadamente el segundo en participación de mercado) 2

\_\_\_\_\_ Una empresa como cualquier otra luchando por sobrevivir, sigue las tendencias 3

\_\_\_\_\_ Una empresa con problemas para operar 4

\_\_\_\_\_ Una empresa casi fracasando 5

\_\_\_\_\_ Una empresa que se ha re-estructurado y funciona bien 6

\_\_\_\_\_ Una empresa con un nicho de mercado en mercados específicos 7

(40-41)

30) ¿CUÁL (ES) FUE ( FUERON), EN ORDEN DE IMPORTANCIA, SU PRINCIPAL RAZÓN (ES) O

**MOTIVO PARA INICIAR ESTE NEGOCIO? (SÓLO MARQUE 3 (TRES). ASIGNE VALOR DÉ 1 A LA PRINCIPAL RAZÓN.**

- |   |   |   |    |
|---|---|---|----|
| <input type="checkbox"/> Tener mayor independencia personal | 1 | <input type="checkbox"/> Mejorar la situación económica           | 7  |
| <input type="checkbox"/> Ser mi propio jefe                 | 2 | <input type="checkbox"/> Por tradición familiar                   | 8  |
| <input type="checkbox"/> Heredado de la familia             | 3 | <input type="checkbox"/> Estaba desempleado y no conseguía empleo | 9  |
| <input type="checkbox"/> Lo consideré un reto               | 4 | <input type="checkbox"/> Como pasatiempo                          | 10 |
| <input type="checkbox"/> Estudié para esto                  | 5 | <input type="checkbox"/> Otras razones, especifique _____         |    |
| <input type="checkbox"/> Tener algo que hacer al retirarme  | 6 |   |    |

**LAS SIGUIENTES PREGUNTAS ESTÁN RELACIONADAS CON LA ESTRATEGIA TRAZADA PARA SU EMPRESA, SU MISIÓN Y LOGRO DE METAS**

**Sobre su estrategia y áreas de fortalezas:**

31) Al iniciar su negocio, ¿hizo usted algún plan formal de negocios?  Sí (continúe)  No (continúe pero no responda la preg. 29))

32) Haya hecho o no planes, por favor, explique brevemente qué hizo para asegurarse que lograría sus deseos o metas

33) ¿Definió usted al inicio algún tipo de estrategia? En qué área s)

34) Ha actualizado o cambiado su estrategia a través de los años?  Sí  No

35) CONSIDERA USTED A SU EMPRESA COMO UNA FIRMA EXITOSA O NO?

Sí, (Si usted respondió sí) , por que? \_\_\_\_\_

Por favor, continúe respondiendo

No, (Si usted respondió no) , por que? \_\_\_\_\_

**CON RELACION A LOS PUNTOS FUERTES Y DEBILES DE SU EMPRESA, NOMBRE SOLO TRES (3) ASPECTOS QUE HAYAN REFORZADO O DEBILITADO A SU EMPRESA. POR FAVOR, ESCRIBA PRIMERO EL ASPECTO MAS RELEVANTE Y CONTINUE ASI HASTA DAR LA POSICION 3 AL MENOS RELEVANTE:**

36) ¿Cuáles son, según su criterio y el de sus socios o asesores, los 3 puntos fuertes más importantes para su empresa? \_\_\_\_\_, \_\_\_\_\_ y \_\_\_\_\_

37) ¿Cuáles son, según su criterio y el de sus socios y asesores, los puntos débiles que más han afectado a su empresa? \_\_\_\_\_, \_\_\_\_\_ y \_\_\_\_\_

**CUALES FACTORES USTED CONSIDERA HAN HECHO A SU EMPRESA EXITOSA, EVALÚE PRIMERO CÓMO (A) LA UTILIZACIÓN DE ESTOS CRITERIOS BENEFICIAN O HAN DADO EXITO A SU EMPRESA AHORA. (SELECCIONE UN MÁXIMO DE 10). LUEGO EVALÚE (B) CUALES DE ESTOS FACTORES ESPERA QUE LE AYUDEN A CONTINUAR SIENDO EXITOSO EN EL FUTURO. POR FAVOR, ASIGNE VALOR DE 1 AL FACTOR QUE MÁS LE AYUDÓ A HACER SU EMPRESA UNA DE ÉXITO AHORA. SÓLO SELECCIONE UN MÁXIMO DE 10 FACTORES.**

**FACTORES QUE HAN HECHO EXITOSA A SU EMPRESA.**

38)Factores que han dado éxito 39)Cuáles espera le ayudaron su empresa(hasta 10)

|   | Ahora (A) | En el futuro (B) (MARQUE X) |   |
|---|-----------|-----------------------------|---|
| FACTORES:                                     |           |                             |   |
| Mezcla y calidad de los productos o servicios | _____     | _____                       | 1 |
| Competencia y capacidad general               | _____     | _____                       | 2 |
| Solvencia financiera/ económica               | _____     | _____                       | 3 |
| Conocimiento de mi clientela                  | _____     | _____                       | 4 |
| Relaciones con suplidores                     | _____     | _____                       | 5 |
| Relaciones con la comunidad                   | _____     | _____                       | 6 |
| La capacidad y calidad de sus empleados       | _____     | _____                       | 7 |
| Las leyes y su empresa                        | _____     | _____                       | 8 |

|  |       |       |    |    |
|--|-------|-------|----|----|
| El ambiente de negocios                  | _____ | _____ | 9  |    |
| Localización                             | _____ | _____ | 10 |    |
| Experiencia gerencial previa             | _____ | _____ | 11 |    |
| La existencia de planes formales         | _____ | _____ | 12 |    |
| Nivel y capacidad de innovación          | _____ | _____ | 13 |    |
| Sistema gerencial establecido            | _____ | _____ | 14 |    |
| Políticas de personal                    | _____ | _____ | 15 |    |
| Enfoque de mercadeo                      | _____ | _____ | 16 |    |
| Tamaño del negocio                       | _____ | _____ | 17 |    |
| Control de costos                        | _____ | _____ | 18 |    |
| Ampliar la estructura física del negocio | _____ | _____ | 19 |    |
| Analizar y conocer la competencia        | _____ | _____ |    | 20 |
| Manufactura eficiente                    | _____ | _____ | 21 |    |
| Calidad del servicio                     | _____ | _____ | 22 |    |
| Habilidad para obtener fondos            | _____ | _____ | 23 |    |
| Investigar y conocer el mercado          | _____ | _____ | 24 |    |
| Reputación de los productos o servicios  | _____ | _____ | 25 |    |
| Reputación con suplidores                | _____ | _____ | 26 |    |
| Reputación con clientes y en general     | _____ | _____ | 27 |    |
| Continua implementación de mejoras       | _____ | _____ | 28 |    |
| Introducir nuevas maquinarias            | _____ | _____ | 29 |    |
| Distribución                             | _____ | _____ | 30 |    |
| Aumentar líneas de productos             | _____ | _____ | 31 |    |
| Otras razones, por favor, especifique    | _____ | _____ |    |    |

(55-64)

CON MIRAS A ANALIZAR ADECUADAMENTE EL MERCADO Y EL AMBIENTE DE NEGOCIO PARA AUMENTAR LA COMPETITIVIDAD Y ÉXITO DE SU EMPRESA, NECESITO QUE EXPRESE CUAN IMPORTANTE SON PARA SU EMPRESA EL IMPLANTAR LOS SIGUIENTES ANÁLISIS. POR FAVOR, HAGA UNA MARCA DE COTEJO Y ANALIZE CADA RENGLÓN SEGÚN LA IMPORTANCIA QUE USTEDES DAN A ESTOS ASPECTOS EN SU EMPRESA. NO ELECCIONE MÁS DE 10. Haga una X en su respuesta.

En la práctica, qué importancia da usted a estos análisis en su investigación de mercado?

|  | Muy importante | Bastante importante | Relativamente importante | No es importante |
|--|----------------|---------------------|--------------------------|------------------|
|  | 1              | 2                   | 3                        | 4                |
| 40)Análisis interno de la empresa          | _____          | _____               | _____                    | _____ 1          |
| 41)Análisis de la competencia              | _____          | _____               | _____                    | _____ 2          |
| 42)Conocimiento y análisis de la clientela | _____          | _____               | _____                    | _____ 3          |
| 43)Análisis del ambiente de negocios       | _____          | _____               | _____                    | _____ 4          |
| 44)Técnicas desarrollo de personal         | _____          | _____               | _____                    | _____ 5          |
| 45)Lograr satisfacción de sus empleados    | _____          | _____               | _____                    | _____ 6          |
| 46)Seguimiento quejas de su clientela      | _____          | _____               | _____                    | _____ 7          |
| 47)Elaborar presupuestos pro-forma         | _____          | _____               | _____                    | _____ 8          |
| 48)Análisis de SWOT( fuerzas, debilidades) | _____          | _____               | _____                    | _____ 9          |
| 49) Curva de experiencia                   | _____          | _____               | _____                    | _____ 10         |
| 50)Estudio del ciclo de vida de productos  | _____          | _____               | _____                    | _____ 11         |
| 51)Análisis portafolio producto/ matrices  | _____          | _____               | _____                    | _____ 12         |
| 52)Estudios de impactos PIMS               | _____          | _____               | _____                    | _____ 13         |
| 53)Auditoría de mercado                    | _____          | _____               | _____                    | _____ 14         |

(65-74)

54) ¿Con cuanta frecuencia lleva a cabo su empresa, por lo general, los análisis nombrados anteriormente?

\_\_\_\_\_ 2 veces por año \_\_\_\_\_ 1 vez al año \_\_\_\_\_ cada 2 - 3 anos \_\_\_\_\_ Nunca

PREGUNTAS RELACIONADAS CON EL USO DE SUS RECURSOS Y LA HABILIDAD DE SU EMPRESA EN DESARROLLAR ESTOS AL MAXIMO AL IMPLANTAR SU PROCESO DE PLANEACION:

En la utilización de los recursos para desarrollar capacidades que se conviertan en ventaja competitiva, cuáles



percibe son los recursos más importantes de su empresa y en qué nivel le han ayudado a lograr sus planes.

55) Mencione sólo tres (3) recursos en orden de importancia. Escriba primero el más importante y continúe así: \_\_\_\_\_,

y \_\_\_\_\_,

56) Cuales tres (3) factores le han dado a su empresa la mayor ventaja competitiva? \_\_\_\_\_

, \_\_\_\_\_ y \_\_\_\_\_

57) Existe alguna ventaja competitiva que su empresa haya mantenido por mas de 5 años? \_\_\_\_\_

(52-58)

58) A la luz de la realidad del ambiente de negocios en la isla, ¿visualiza usted algún cambio que pueda afectar los planes inmediatos y futuros de su empresa? ¿Relaciona estos cambios con algún área específica en su negocio? \_\_\_\_\_

AL PENSAR EN LA UTILIZACIÓN QUE SU EMPRESA HACE DE SUS RECURSOS, ¿CUÁL CONSIDERA USTED ES EL ÁREA QUE SU EMPRESA DEBE:

59) Desarrollar con mayor prioridad? \_\_\_\_\_

60) El área menos prioritaria (s)? \_\_\_\_\_ (59-60)

EN QUÉ ÁREA CREE USTED ESTÁ SU PRINCIPAL VENTAJA COMPETITIVA? MARQUE CINCO (5) DE VALOR DE 1 AL FACTOR QUE CONSIDERE MÁS IMPORTANTE HASTA ASIGNAR VALOR DE 5 AL MENOS IMPORTANTE. competencias distintivas y/o ventajas competitivas son aquellos aspectos que al desarrollar al maximo dan a su empresa ventaja difícil de imitar o copiar.

| <u>Ventaja competitiva:</u>         | <u>61)Ahora</u> | <u>62)3 años atrás</u> | <u>63)En 3 años</u> |         |
|-------------------------------------|-----------------|------------------------|---------------------|---------|
| Mercado actual (es) en que opera    | _____           | _____                  | _____               | 1       |
| Exclusividad en servicios           | _____           | _____                  | _____               | 2       |
| Oferta de productos únicos          | _____           | _____                  | _____               | 3       |
| Calidad del producto/ servicios     | _____           | _____                  | _____               | 4       |
| Reputación general/calidad          | _____           | _____                  | _____               | 5       |
| Relación empresa /suplidor          | _____           | _____                  | _____               | 6       |
| Control del mercado                 | _____           | _____                  | _____               | 7       |
| Precios ofrecidos                   | _____           | _____                  | _____               | 8       |
| Calidad del personal                | _____           | _____                  | _____               | 9       |
| Localización                        | _____           | _____                  | _____               | 10      |
| Solidez financiera                  | _____           | _____                  | _____               | 11      |
| Nivel de innovación                 | _____           | _____                  | _____               | 12      |
| Nivel de flujo de efectivo          | _____           | _____                  | _____               | 13      |
| Experiencia administrativa          | _____           | _____                  | _____               | 14      |
| Controles administrativos           | _____           | _____                  | _____               | 15      |
| Servicio y orientación al cliente   | _____           | _____                  | _____               | 16      |
| Respaldo a su(s) productos          | _____           | _____                  | _____               | 17      |
| Superioridad técnica                | _____           | _____                  | _____               | 18      |
| Otros, por favor, especifique _____ | _____           | _____                  | _____               | (61-65) |

¿CUÁN IMPORTANTE PARA SU EMPRESA SON LAS SIGUIENTES MEDIDAS DE FUNCIONAMIENTO (ÉXITO O FRACASO)? ASIGNE VALOR 1 AL FACTOR (FACTORES) QUE CONSIDERA MÁS IMPORTANTE HASTA ASIGNAR VALOR 6 AL MENOS IMPORTANTE.

Importancia para el éxito 64) Cuán importante son estas medidas 65) ¿Cómo funcionará y cuán importante ve éstas medidas los

para medir éxito ahora? Valor 1 a lo más importante próximos años, ¿espera lo mismo?

|  |       |         |
|--|-------|---------|
| _____ Ganancias globales                         | _____ |         |
| _____ Volumen de ventas                          | _____ |         |
| _____ Participación de mercado                   | _____ | (66-71) |
| _____ Flujo de efectivo                          | _____ |         |
| _____ Devolución a la inversión (ROI)            | _____ |         |
| _____ Otras medidas, especifique por favor _____ | _____ |         |

66) El pasado año financiero como funcionó su empresa en relación a los objetivos trazados en cada uno de los

criterios que siguen? Haga un círculo en la respuesta, (sólo uno por línea).

|                                 | Según lo |           |      |       |   |
|---------------------------------|----------|-----------|------|-------|---|
|                                 | Mejor    | planeamos | Peor | No sé |   |
| Ganancias globales              | 1        | 2         | 3    | 4     | 1 |
| Volumen de ventas               | 1        | 2         | 3    | 4     | 2 |
| Participación de mercado        | 1        | 2         | 3    | 4     | 3 |
| Flujo de efectivo               | 1        | 2         | 3    | 4     | 4 |
| Devolución a la inversión (ROI) | 1        | 2         | 3    | 4     | 5 |

(72-75)

67) ¿QUÉ ES ÉXITO PARA USTED?

EN LAS SIGUIENTES PREGUNTAS, HAGA UN CIRCULO ALREDEDOR DE LA RESPUESTA QUE REPRESENTA SU CRITERIO:

68) Ha variado su percepción de lo que es éxito desde que fundó su negocio?  Sí  No

Por que? \_\_\_\_\_

69) ¿ En término a como funcionaba su empresa 5 años atrás, la consideraba usted exitoso

(a)?  Sí  No

70) ¿Cómo espera que esté su empresa en los próximos 5 años?  Mejor  Peor  Igual

71) Con frecuencia se dice que el éxito de una empresa depende de factores fuera de su entorno y que esta regido por muchas variantes. Qué tres aspectos cree usted han influido mayormente en el éxito de su empresa? \_\_\_\_\_ y \_\_\_\_\_

72) ¿ Si piensa en los recursos que su empresa poseía cuando inició el negocio, cómo cree que le ha ido a su empresa?  Mejor de lo esperado  peor a lo esperado  igual a lo esperado

73) Si compara su negocio con empresas que estaban en operación en la época que usted inició, ¿cómo evalúa o compara a \_\_\_\_\_ su empresa con estas?

Estoy mejor que éstas  estoy peor que estas empresas  estoy igual a estas empresas.

74) En algún momento ha obtenido usted ayudas externas?  Sí  no

75) Cuáles? \_\_\_\_\_

76) Relacionado a sus planes de crecimiento, tiene usted planes de que su empresa crezca?

Sí  No

77) ÁREAS \_\_\_\_\_ (Por ejemplo: expansión en productos, tamaño, servicios, etc.)

78) En término a sus finanzas, como considera le va a su empresa ahora con relación a 1 año atrás? ?

estoy mejor  estoy peor  estoy igual

79) En término a los resultados en ventas anuales, ¿cómo considera que su empresa ha cumplido con las metas trazadas?  he cumplido bien mis metas  no he cumplido metas  he sobrepasado metas

80)Cuál es su relación con su competencia?  Mejorando  empeorando  igual

(84-96)

SE DICE QUE LOS PEQUENOS NEGOCIOS EN LA ISLA TIENEN MUCHOS PROBLEMAS. CUALES FACTORES, ENTRE LOS SIGUIENTES HAN AFECTADO A SU EMPRESA. POR FAVOR, HAGA UNA MARCA DE COTEJO EN LA LINEA CORRESPONDIENTE.

|  | (0)       | (1)       | (2)           | (3)      | (4)     |
|--|-----------|-----------|---------------|----------|---------|
|  | No aplica | Pobre     | Satisfactorio | Meha     | Normal  |
|  | no me ha  | Me afecto |               | Afectado | para mi |
|  | afectado  | muchísimo |               | un poco  | para    |
|  | mi        |           |               |          |         |

81) Características del negocio:

Nivel bajo (Deficiencias)

Potencial flujos de cash \_\_\_\_\_ 1

Localización \_\_\_\_\_ 2

Productos- diferenciados \_\_\_\_\_ 3

82) Habilidad gerencial:

Conocimientos del- mercado \_\_\_\_\_ 1

Experiencia \_\_\_\_\_ 2

Capacidad de decisión \_\_\_\_\_ 3

|                          |       |       |       |       |       |   |
|--------------------------|-------|-------|-------|-------|-------|---|
| Nivel de riesgo          | _____ | _____ | _____ | _____ | _____ | 4 |
| Compromiso gerencial     | _____ | _____ | _____ | _____ | _____ | 5 |
| Participación en firma   | _____ | _____ | _____ | _____ | _____ | 6 |
| Atención a detalles      | _____ | _____ | _____ | _____ | _____ | 7 |
| Liderazgo demostrado     | _____ | _____ | _____ | _____ | _____ | 8 |
| Capacidad administrativa | _____ | _____ | _____ | _____ | _____ | 9 |

83)Característica de los productos /servicios:

|                                |       |       |       |       |       |   |
|--------------------------------|-------|-------|-------|-------|-------|---|
| Opera en mercado de nicho      | _____ | _____ | _____ | _____ | _____ | 1 |
| Ofrece productos diferenciados | _____ | _____ | _____ | _____ | _____ | 2 |
| Productos aceptados en mercad  | _____ | _____ | _____ | _____ | _____ | 3 |
| Productos innovadores          | _____ | _____ | _____ | _____ | _____ | 4 |

84)Características del mercado:

|                              |       |       |       |       |       |   |
|------------------------------|-------|-------|-------|-------|-------|---|
| Mercado en crecimiento       | _____ | _____ | _____ | _____ | _____ | 1 |
| Conocimiento de la industria | _____ | _____ | _____ | _____ | _____ | 2 |
| Buenos sistemas de venta     | _____ | _____ | _____ | _____ | _____ | 3 |

85) Finanzas:

|  |       |       |       |       |       |   |
|--|-------|-------|-------|-------|-------|---|
| Riesgo de mercado                      | _____ | _____ | _____ | _____ | _____ | 1 |
| Recuperación de inversión              | _____ | _____ | _____ | _____ | _____ | 2 |
| Equity/share- participación de mercado | _____ | _____ | _____ | _____ | _____ | 3 |
| Beneficios netos                       | _____ | _____ | _____ | _____ | _____ | 4 |
| Necesidad de capital                   | _____ | _____ | _____ | _____ | _____ | 5 |

86)Ambiente económico:

|                       |       |       |       |       |       |   |
|-----------------------|-------|-------|-------|-------|-------|---|
| Atractivo del mercado | _____ | _____ | _____ | _____ | _____ | 1 |
| Mercado potencial     | _____ | _____ | _____ | _____ | _____ | 2 |
| Avances tecnológicos  | _____ | _____ | _____ | _____ | _____ | 3 |
| Resistencia a riesgo  | _____ | _____ | _____ | _____ | _____ | 4 |
| Resistencia a cambios | _____ | _____ | _____ | _____ | _____ | 5 |
| Mercadeo              | _____ | _____ | _____ | _____ | _____ | 6 |

RELACIONADO A SU ACCESO A LOS RECURSOS NECESARIOS PARA CORRER SU EMPRESA:

87) Ha tenido usted en algún momento problemas obteniendo información de entidades privadas o gubernamentales?  Sí  No ( De responder si, que tipo de problemas ha tenido?) \_\_\_\_\_

88) Cree usted que el no haber obtenido estos servicios le hizo daño en alguna manera?  Sí  No, Explique \_\_\_\_\_

\_\_\_\_\_ (información, crédito, productos o servicios, redes de comunicación y contactos, suplidores) -5-

89) Tiene usted y/ o su empresa relaciones sociales, personales con grupos en su comunidad y asociaciones que cree pueda ayudarle a mejorar su funcionamiento y a acceder más recursos? \_\_\_\_\_

Sí  No.

90) ¿ Cuáles relaciones o tiene o a qué grupo (s) pertenece? YES NO  
 Cámara de Comercio  Asociación Detallistas  Asociación Manufactureros  otros

91) En algunos sectores se dice que las relaciones de negocios a través de países varían. En el caso de su empresa y de otros empresarios que usted conoce, como o en que se basan las relaciones de negocios, en general (ejemplo, prestamos, envió de facturas, contratos, nuevos empleados).

¿Qué predomina?  Relaciones familiares,  puro negocio según el mejor postor,  el nivel de confianza existente en el otro lado,  otras razones, explique \_\_\_\_\_

92) ¿ Cree usted que en su industria hay barreras para que nuevas empresas se instalen o entren al mercado, o es sistema abierto?  Si hay barreras (si responde si a esta pregunta, lea mas abajo)  No, no hay barreras.

93) WHICH BARRIERS?

Cuáles de las siguientes considera usted como barreras. Haga un círculo en las que considere importante: (Economías de

escala; diferenciación de producto; requerimiento de capital; , obtención de financiamiento; problemas en los canales de distribución; desventajas en costos en general; políticas del gobierno; impedimentos con permisos; demanda baja, etc.)

(97-102)

94) ¿MENCIONE TRES (3) FACTORES CREE USTED QUE DEBE POSEER O CONTROLAR CUALQUIER EMPRESA QUE DESEE ENTRAR A COMPETIR EN SU MERCADO? \_\_\_\_\_,

Y

(103-105)

95) PROBLEMAS COMPITIENDO:

A) Se Dice que uno de los problemas que tiene Puerto Rico para que sus empresas compitan es la pequeñez del mercado. Cree usted que su negocio se ha afectado por esto? Qué factores cree usted son los que realmente han afectado su negocio, si alguno?

96) Se dice que la entrada de empresas y/o productos del exterior casi siempre, se dice, afecta las firmas locales. Cree usted que en su área, algún producto de su empresa se ha visto afectado en sus operaciones por estas razones?  Sí  No.

(108)

97) LAS MUJERES SE ESTÁN ADENTRANDO MÁS CADA DÍA EN EL MUNDO DE LOS NEGOCIOS. A SU ENTENDER, ¿ POR QUÉ LOS NEGOCIOS FUNDADOS /ADMINISTRADOS POR MUJERES CRECEN /PROGRESAN A NIVELES DIFERENTES A LOS ALCANZADOS POR HOMBRES? PUEDE MARCAR HASTA CINCO (5). DE VALOR DE 1 AL FACTOR QUE MAS SE IDENTIFIQUE CON SU FORMA DE PENSAR Y CONTINUE HASTA 5.

- El crecimiento de negocios es un proceso de decisión personal 1
- Aunque les vaya bien, las mujeres tienden a preferir las relaciones familiares a las de la profesión 2
- La tradición hace que las mujeres tiendan más al cuidado de la familia que a crecer en negocios 3
- No percibo diferencia alguna en el tamaño de negocios corrido por mujeres al corrido por hombres 4
- He conocido muy buenos negocios corrido por mujeres 5
- La decisión del tamaño del negocio no tiene nada que ver con el sexo 6
- La relación del tamaño del negocio hasta ahora esta relacionada con las obligaciones no el sexo del dueño 7
- El éxito de muchas mujeres de empresa no es mayor por sus muchos roles 8
- Existen fuertes dificultades al otorgarle créditos a mujeres por buenas administradoras que sean 9
- No existen diferencias entre los negocios dirigidos por mujeres a aquellos dirigidos por hombres 10

(109-113)

98) EN RELACION AL AUMENTO DE NEGOCIOS FRACASADOS, ¿ POR QUÉ CREE USTED FRACASAN TANTOS NEGOCIOS EN LA ISLA EN LA ACTUALIDAD? ANOTE EN LA RAYA EL VALOR QUE ASIGNA. DÉ VALOR DE 1 AL FACTOR QUE CREE MÁS AFECTA Y CONTINÚE ASI. Sólo tres (3) respuestas.

- Carecer de un análisis de mercado adecuado (1)  Muchos negocios para una demanda pequeña (6)
- Demasiados negocios iguales (2)  Falta de capacidad administrativa (7)
- Poco control de costos (3)  No estar preparado ni poseer la experiencia en el área (8)
- Falta de capital desde el inicio (4)  Incapacidad creativa para servir como debe ser (9)
- Problemas de la economía (5)  Competencia está fuerte (10)

(114-116)

99) ASIGNE VALOR A LOS RECURSOS QUE APARECEN A CONTINUACIÓN. EVALÚELOS EN TERMINO DE LA IMPORTANCIA QUE REPRESENTAN PARA SU EMPRESA. MARQUE CON UNA X.

|  | (1)                | (2)                | (3)                  | (4)             |
|--|--------------------|--------------------|----------------------|-----------------|
|  | Muy significativos | Un poco importante | Muy poco importantes | Nada importante |
| <u>Nivel de importancia:</u>                 |                    |                    |                      |                 |
| Recursos físicos (local, atractivo, espacio) | _____              | _____              | _____                | _____           |
| Recursos financieros (acceso a \$, solidez)  | _____              | _____              | _____                | _____           |
| Recursos humanos (calidad de empleados)      | _____              | _____              | _____                | _____           |
| Recursos tecnológicos(s. computadorizado)    | _____              | _____              | _____                | _____           |



8) Experiencia funcional:

Contabilidad \_\_\_\_ Finanzas \_\_\_\_ Mercadeo \_\_\_\_ Economía \_\_\_\_ Otras \_\_\_\_

9) ¿En que año montó ( fundó) usted este negocio? \_\_\_\_\_ 10) ¿Ha estado siempre en el mismo sitio? \_\_\_\_ Sí \_\_\_\_ No  
(Cuantas veces se ha mudado (mudó) de local? \_\_\_\_\_)

(13-

21)

B) INFORMACION SOBRE EL ORIGEN DE SU NEGOCIO Y SOBRE SU EXPERIENCIA EN NEGOCIOS

ANTES DE ESTABLECER ESTA EMPRESA:

11) ¿Tenía experiencia previa en negocios? \_\_\_\_\_ Sí \_\_\_\_\_ No

12) ¿Poseía negocio antes de formar esta empresa? \_\_\_\_\_ Sí \_\_\_\_\_ No

13) ¿Tenía experiencia relacionada con el tipo de negocio que estableció? \_\_\_\_\_ Sí \_\_\_\_\_ No

14) Relacionado a cómo montó o fundó su negocio:

¿Cuánto fue, aproximadamente, el monto de inversión inicial?

\_\_\_\_ Menos de \$20,000 \_\_\_\_\_ \$40,001-50,000 \_\_\_\_\_ Mas de \$100,000 especifique \_\_\_\_\_

\_\_\_\_ \$20,001-\$30,000 \_\_\_\_\_ \$50,001-75,000

\_\_\_\_ \$30,001-\$40,000 \_\_\_\_\_ \$75,001-100,000

15) ¿Cómo obtuvo los recursos financieros para iniciar su negocio?

\_\_\_\_ Préstamo de la familia: Cuánto? \_\_\_\_\_

\_\_\_\_ Préstamo(s) bancario(s): Cuánto? \_\_\_\_\_

\_\_\_\_ otros medios o combinación de medios, por favor, especifique \_\_\_\_\_

16) Cuándo inicio su negocio, ¿Utilizó usted algún tipo de consejería profesional?

\_\_\_\_ Sí (Si responde sí, de quién?) \_\_\_\_\_ No (continúe con la próxima pregunta)

17) Utilicé consejos de: \_\_\_\_\_ Contable \_\_\_\_\_ Abogados \_\_\_\_\_ SBA \_\_\_\_\_ Consultores \_\_\_\_\_ Bancos

\_\_\_\_ Otras fuentes especifique, por \_\_\_\_\_

favor \_\_\_\_\_

18) Cuándo montó (fundó) su empresa, ¿cuánto tiempo pensó usted que le tomaría recuperar su inversión o lograr break- even?? \_\_\_\_\_ Un año \_\_\_\_\_ 2-3 años \_\_\_\_\_ 3-4 años \_\_\_\_\_ Más de 5 años.

(25-29)

-1-

Relacionado, al número de empleados que usted tiene?

19) ¿Cuántos empleados tiene ahora?. 20) ¿Hace 3 años? 21) ¿Cuántos espera tener en los próximos 3 años? O cuando cerró (Caso de empresas reestructuradas)

¿A tiempo completo? \_\_\_\_\_

¿A tiempo parcial? \_\_\_\_\_

22) ¿Año en que cerró su negocio? \_\_\_\_\_

23) Forma de organización usada para establecer su negocio:

\_\_\_\_ Negocio individual \_\_\_\_\_ Sociedad \_\_\_\_\_ Corporación \_\_\_\_\_ Sociedad Especial

\_\_\_\_ Otros

(30-35)

24) ¿Cuál fue el total de ventas de su empresa el año pasado (turnover) o su último año de operación?

\_\_\_\_

25) ¿Tres años antes? \_\_\_\_\_

Si ha reestructurado su empresa, qué cambios espera en los próximos 3 años? \_\_\_\_\_

26) Origen de su negocio: Sólo marque una respuesta.

\_\_\_\_ Inició como un negocio nuevo \_\_\_\_\_ Comenzó comprando un negocio existente

\_\_\_\_ Heredó el negocio, \_\_\_\_\_ Otras formas de iniciar, especifique \_\_\_\_\_

(36-38)

27) ¿CUÁL (ES) FUE ( RON), EN ORDEN DE IMPORTANCIA, SU PRINCIPAL RAZÓN (ES) O MOTIVO PARA INICIAR ESTE NEGOCIO? (SÓLO MARQUE 3 (TRES). ASIGNE VALOR DE 1 A LA PRINCIPAL RAZÓN.

\_\_\_\_ Tener mayor independencia personal (1) \_\_\_\_\_ Mejorar la situación económica

(7)

- Ser mi propio jefe (2)  Por tradición familiar (8)  
 Heredado de la familia (3)  Estaba desempleado y no conseguía empleo  
 (9)  
 Lo consideré un reto (4)  Como pasatiempo (10)  
 Estudié para esto (5)  Oras razones, especifique \_\_\_\_\_  
 Tener algo que hacer al retirarme (6)

LAS SIGUIENTES PREGUNTAS ESTAN RELACIONADAS CON LA ESTRATEGIA TRAZADA PARA SU EMPRESA, SU MISION Y LOGRO DE METAS

Sobre su estrategia y áreas de fortalezas:

28) Al iniciar su negocio, ¿hizo usted algún plan formal de negocios?  Sí (continúe)  No (continúe en la pregunta No. 5)

Haya hecho o no planes, por favor, explique brevemente qué hizo para asegurarse que lograría sus deseos o metas

29) CONSIDERA USTED A SU EMPRESA COMO UNA FIRMA QUE FUNCIONA FINANCIERAMENTE BIEN?

Sí, (Si usted respondió sí) , por que? \_\_\_\_\_  
 No, (Si usted respondió no) , por que? \_\_\_\_\_  
 (40-41)

CON RELACION A LOS PUNTOS FUERTES Y DEBILES DE SU EMPRESA, NOMBRE SÓLO TRES (3) ASPECTOS QUE HAYAN REFORZADO O DEBILITADO A SU EMPRESA. POR FAVOR, ESCRIBA PRIMERO EL ASPECTO MAS RELEVANTE Y CONTINUE ASI HASTA DAR LA POSICION 3 AL MENOS RELEVANTE:

30) Para empresas reestructuradas ¿Cuáles son, según su criterio y el de sus socios o asesores, los 3 puntos fuertes (si los tiene) más importantes para su empresa? \_\_\_\_\_ y \_\_\_\_\_

31) ¿Cuáles son, según su criterio y el de sus socios y asesores, los puntos débiles que más han afectado (afectaron) a su empresa? \_\_\_\_\_ y \_\_\_\_\_  
 (42-47)

32) CON MIRAS A ANALIZAR ADECUADAMENTE EL MERCADO Y EL AMBIENTE DE NEGOCIO, NECESITO QUE EXPRESE CUÁLES ANALISIS LLEVÓ USTED A CABO REGULARMENTE PARA MEJORAR SU NEGOCIO. POR FAVOR, ESCRIBA 1 EN EL ANÁLISIS QUE MÁS HIZO HASTA EL NÚMERO MÁS ALTO AL TIPO DE ANÁLISIS QUE MENOS HIZO. NO MARQUE MÁS DE 5.

|  | <u>ANÁLISIS QUE HIZO EN SU EMPRESA</u> |    |
|--|--|----|
| Análisis interno de la empresa   | _____                                  | 1  |
| Análisis de la competencia   | _____                                  | 2  |
| Conocimiento y análisis de la clientela  | _____                                  | 3  |
| Análisis del ambiente de negocios  | _____                                  | 4  |
| Técnicas desarrollo de personal  | _____                                  | 5  |
| Lograr satisfacción de sus empleados   | _____                                  | 6  |
| Seguimiento quejas de su clientela   | _____                                  | 7  |
| Elaborar presupuestos pro-forma  | _____                                  | 8  |
| Análisis de SWOT( fuerzas, debilidades, oportunidades y riesgos para la firma) | _____                                  | 9  |
| Curva de experiencia   | _____                                  | 10 |
| Estudio del ciclo de vida de productos   | _____                                  | 11 |
| Análisis portafolio producto/ matrices   | _____                                  | 12 |
| Estudios de impactos PIMS  | _____                                  | 13 |
| Auditoría de mercado   | _____                                  | 14 |

2- (48-52)  
 33) ¿CUÁN IMPORTANTE PARA SU EMPRESA SON (FUERON) LAS SIGUIENTES MEDIDAS DE FUNCIONAMIENTO (ÉXITO O FRACASO)? ASIGNE VALOR 1 AL FACTOR (RES) QUE CONSIDERA MAS IMPORTANTE HASTA ASIGNAR VALOR 5 AL MENOS IMPORTANTE.

Importancia para éxito

- a) como funciona      b) Como funcionó      c) Como espero

|                                     | mi empresa ahora | antes o hace 3 años | funcionará los próximos años |
|-------------------------------------|------------------|---------------------|------------------------------|
| 1) Ganancias generales              | _____            | _____               | _____                        |
| 2) Volumen de ventas                | _____            | _____               | _____                        |
| 3) Participación de Mercado         | _____            | _____               | _____                        |
| 4) Devolución a la inversión (ROI)  | _____            | _____               | _____                        |
| 5) Flujo de efectivo                | _____            | _____               | _____                        |
| Otras medidas, especifique porfavor | _____            |                     |                              |

(53-57)

RELACIONADO A SU ACCESO A LOS RECURSOS NECESARIOS PARA CORRER SU EMPRESA. EN LAS SIGUIENTES PREGUNTAS HAGA UNA MARCA DE COTEJO EN LA RESPUESTA QUE REPRESENTA SU CRITERIO:

34) ¿ Si piensa en los recursos que su empresa poseía cuando inició el negocio, ¿ cómo cree que le ha ido a su empresa? \_\_\_\_\_ Mejor de lo esperado \_\_\_\_\_ peor a lo esperado \_\_\_\_\_ igual a lo esperado

35) Si compara su negocio con empresas que estaban en operación en la época que usted inició, ¿cómo evalúa o compara su empresa con estas? \_\_\_\_\_ Estoy mejor que estas \_\_\_\_\_ estoy peor que estas empresas \_\_\_\_\_ estoy igual a estas empresas.

36) En término a sus finanzas, como considera le va a su empresa ahora con relación a 1 año atrás? ? \_\_\_\_\_ estoy mejor \_\_\_\_\_ estoy peor \_\_\_\_\_ estoy igual

37) En término a los resultados en ventas anuales, ¿cómo considera que su empresa ha cumplido (cumplió) con las metas trazadas? \_\_\_\_\_ he cumplido bien mis metas \_\_\_\_\_ no he cumplido metas \_\_\_\_\_ he sobrepasado metas

(58-60)

38) En algún momento ha obtenido usted ayudas externas? \_\_\_\_\_ Sí \_\_\_\_\_ no  
¿Cuáles? \_\_\_\_\_

39) Ha tenido (tuvo) en algún momento problemas obteniendo información o recursos de entidades privadas o gubernamentales? \_\_\_\_\_ Sí \_\_\_\_\_ No ( De responder si, que tipo de problemas ha tenido?) \_\_\_\_\_

40) Cree usted que el no haber obtenido estos servicios le hizo daño en alguna manera? \_\_\_\_\_ Sí \_\_\_\_\_ No,  
Explique \_\_\_\_\_

(información, crédito, productos o servicios, redes, suplidores)

41) ¿ Cree usted que en su industria hay barreras para que nuevas empresas se instalen o entren al mercado, o es sistema abierto? \_\_\_\_\_ Sí, hay barreras (De responder sí a esta pregunta, continúe)

\_\_\_\_\_ No, no hay barreras. Continúe con la pregunta 45.

(61-63)

42) ¿CUALES SON LOS CINCO (5) FACTORES MÁS IMPORTANTES QUE USTED PIENSA AFECTA A LAS EMPRESAS EN PUERTO RICO QUE LAS EMPRESAS DEBEN CONTROLAR ANTES DE ENTRAR PARA COMPETIR EN SU MERCADO?

|  |       |    |
|--|-------|----|
| Funcionamiento de los productos (performance)    | _____ | 1  |
| Calidad del o los productos(diseños)             | _____ | 2  |
| Economías de costo/ escala                       | _____ | 3  |
| Capacidad de investigación (al entrar y siempre) | _____ | 4  |
| Requerimiento de capital                         | _____ | 5  |
| Manufactura eficiente                            | _____ | 6  |
| Ventas personales                                | _____ |    |
| 7  |       |    |
| Gastos de promoción y anuncios                   | _____ | 8  |
| Acceso a canales y buena distribución            | _____ | 9  |
| Facilidades de obtener capital/ crédito          | _____ | 10 |
| Reputación de la empresa o productos             | _____ | 11 |
| Precios  | _____ | 12 |
| Recursos humanos de calidad                      | _____ | 13 |
| Capacidad gerencial                              | _____ | 14 |
| Otros _____                                      |       |    |

(64-68)

43) EL PASADO AÑO FINANCIERO COMO FUNCIONÓ SU EMPRESA EN RELACIÓN A LOS



OBJETIVOS TRAZADOS EN CADA UNO DE LOS CRITERIOS QUE SIGUEN? Haga un circulo en la respuesta, (sólo uno por línea).

|                                 | Mejor | Según lo planeamos | Peor | No se |
|---------------------------------|-------|--------------------|------|-------|
| Ganancias globales              | 1     | 2                  | 3    | 4     |
| Volumen de ventas               | 1     | 2                  | 3    | 4     |
| Participación de mercado        | 1     | 2                  | 3    | 4     |
| Flujo de efectivo               | 1     | 2                  | 3    | 4     |
| Devolución a la inversión (ROI) | 1     | 2                  | 3    | 4     |

(68-72)

44) En relación al año anterior cómo funcionó Su empresa año en cada una de la medidas de funcionamiento

45) Cómo funcionó su empresa en relación a sus principales competidores?

|                                 | Según |          |      |       | Según |        |      |    |
|---------------------------------|-------|----------|------|-------|-------|--------|------|----|
|                                 | Mejor | planeado | Peor | No sé | Mejor | Planes | Peor | No |
| sé                              |       |          |      |       |       |        |      |    |
| Ganancias globales              | 1     | 2        | 3    | 4     | 1     | 2      | 3    | 4  |
| Volumen de ventas               | 1     | 2        | 3    | 4     | 1     | 2      | 3    | 4  |
| Participación de mercado        | 1     | 2        | 3    | 4     | 1     | 2      | 3    | 4  |
| Flujo de efectivo               | 1     | 2        | 3    | 4     | 1     | 2      | 3    | 4  |
| Devolución a la inversión (ROI) | 1     | 2        | 3    | 4     | 1     | 2      | 3    | 4  |

(73-82)

46) LAS SIGUIENTE PREGUNTA CONDUCEN SÓLO A OBTENER SU OPINIÓN PERSONAL. EN EL MERCADO DE PUERTO RICO Y DEL MUNDO LAS MUJERES ESTÁN ADENTRANDOSE FUERTEMENTE EN EL MUNDO DE LOS NEGOCIOS. A su entender ¿ por qué los negocios fundados /administrados por mujeres crecen /progresan a niveles diferentes a los alcanzados por hombres? Puede marcar más de una. Dé valor de Uno (1) lo que mejor refleja su punto de vista y continúe hasta el valor de 5 máximo.

- El crecimiento de negocios es un proceso de decisión personal 1
- Aunque les vaya bien, las mujeres tienden a preferir las relaciones familiares a las de la profesión 2
- La tradición hace que las mujeres tiendan más al cuidado de la familia que a crecer en negocios 3
- No percibo diferencia alguna en el tamaño de negocios corrido por mujeres al corrido por hombres 4
- He conocido muy buenos negocios corrido por mujeres 5
- La decisión del tamaño del negocio no tiene nada que ver con el sexo 6
- El éxito de muchas mujeres de empresa no es mayor por sus muchos roles 8
- Existen fuertes dificultades al otorgarle créditos a mujeres por buenas administradoras que sean 9
- No existen diferencias entre los negocios dirigidos por mujeres a aquellos dirigidos por hombres 10

(83-

87)PROBLEMAS COMPITIENDO:

Se Dice que uno de los problemas que tiene Puerto Rico para que sus empresas compitan es la pequeñez del mercado. Cree usted que su negocio se ha afectado por esto? Qué factores cree usted son los que realmente han afectado su negocio, si alguno?

47) Se dice que la entrada de empresas y/o productos del exterior casi siempre, se dice, afecta las firmas locales. Cree usted que en su área, algún producto de su empresa se ha visto afectado en sus operaciones por estas razones?

Sí  No. De responder si, por favor, explique \_\_\_\_\_

(88)

PENSANDO EN EL PRODUCTO O SERVICIO QUE USTED VENDIÓ O ELABORÓ. PUEDE DECIRME, CUÁNDO USTED ESTABLECIÓ SU EMPRESA, QUÉ HIZO RESPECTO A LOS SIGUIENTES TEMAS? Responda directamente con una marca de cotejo o escriba la respuesta, según corresponda.

- 48) Llevó usted a acabo algún análisis de la competencia  Sí  No
- 49) Llevo usted a acabo algún análisis del (los) productos o servicios a ofrecer?  Si  No
- 50) Llevó usted a acabo algún análisis del demanda antes de entrar al mercado?  Sí  No

- 51) Mantenía sus "records" al día o no?  Sí  No
- 52) Poseía usted experiencia de negocios previo a establecer su empresa?  Sí  No (89-93)
- 53) ¿Quién llevaba a cabo la contabilidad del negocio?  Yo  el contable  personal directo contratado (94)
- 54) Alrededor de cuantos competidores directos piensa usted que su empresa poseía? \_\_\_\_\_ (95-95)
- 55)Cuál de las siguientes razones piensa usted que influyó mayormente para que su negocio cerrara? Si hubo más de una razón, por favor de valor de 1 a la razón que mas influyo y así sucesivamente.
- Ventas insuficientes
- Falta de capital de trabajo u operación
- Gastos excesivos
- Cuentas incobrables excesivas
- Problemas de mercado
- Otras razones. Por favor, especifique \_\_\_\_\_ (96-100)
- 56) En término a su posición legal, en qué etapa se encuentra su empresa ahora? Mi empresa esta: \_\_\_\_\_ re-estructuración, \_\_\_\_\_ en liquidación, \_\_\_\_\_ bajo administración externa \_\_\_\_\_ otras, por favor, especifique. \_\_\_\_\_
- 57) Una vez termine el proceso en el cual usted se encuentra, ¿qué piensa hacer? Marque sólo una.
- Continuar con en el mismo tipo de negocio
- Re-estructurar y reanudar con otro tipo de negocio
- Hacer liquidaciones a acreedores y continuar como pueda (101)
- Otras opciones. Por favor, especifique \_\_\_\_\_
- 58) SI TUVIESE LA OPORTUNIDAD DE RE-INICIAR EN CUENTA CERO, QUE ACCIONES DE LAS GERENCIALES O PERSONALES QUE ANTES NO TOMO HARÍA O TOMARÍA AHORA? \_\_\_\_\_

---

**Gracias por su cooperación!**

---

## Appendix C: Insert Case Study Guideline

### APPENDIX C: OTHERS

---

#### Regression Analysis:

This regression analysis looks for the relationship and significance of all variables but is presented here with the 5 most significant variables that exhibit a significant correlation. If we look at Anova, the significance is 0.0000, meaning a perfect correlation. P-values are all under 0.05 and each of the variables has a lower value. The most significant variables are: p3 number of employees, pp7 education , p4 years in business and p9 age . The others, though significant, have a lower level of significance. The coefficient of all variables are positive, except p1 years of business foundation. Positive coefficients, taking each variable by itself , means that the higher the coefficient the more influence the value on the index and the correlation. The opposite occurs with p1. Though caution calls for with this variable, since it has negative coefficient and positive correlation.

| Regression Statistics |       |
|-----------------------|-------|
| Multiple R            | 0.91  |
| R Square              | 0.82  |
| Adjusted R Square     | 0.68  |
| Standard Error        | 4.97  |
| Observations          | 35.00 |

#### ANOVA

|            | Df    | SS      | MS     | F    | Significance F |
|------------|-------|---------|--------|------|----------------|
| Regression | 15.00 | 2140.24 | 142.68 | 5.78 | 0.0003         |
| Residual   | 19.00 | 469.25  | 24.70  |      |                |
| Total      | 34.00 | 2609.49 |        |      |                |

|           | Coefficients | Standard Error | t Stat | P-value |
|-----------|--------------|----------------|--------|---------|
| Intercept | -8.83        | 11.70          | -0.75  | 0.460   |
| P3        | 6.57         | 2.08           | 3.17   | 0.005   |
| P4        | 3.51         | 1.34           | 2.61   | 0.017   |
| P5        | 2.68         | 0.89           | 3.02   | 0.007   |
| P6        | 3.02         | 2.29           | 1.32   | 0.203   |
| PP7       | 4.18         | 1.02           | 4.11   | 0.001   |
| P9        | 2.44         | 1.16           | 2.10   | 0.050   |
| P10       | 0.11         | 1.10           | 0.10   | 0.922   |
| P11       | -3.40        | 1.51           | -2.25  | 0.037   |
| P12       | -3.31        | 2.15           | -1.54  | 0.140   |
| P13       | 10.77        | 2.98           | 3.62   | 0.002   |
| P14       | -4.20        | 2.63           | -1.59  | 0.128   |
| P15       | -0.38        | 1.12           | -0.33  | 0.742   |
| P16       | 1.82         | 1.48           | 1.23   | 0.234   |
| P17       | 0.20         | 1.15           | 0.18   | 0.861   |
| P18       | -2.18        | 2.07           | -1.06  | 0.305   |

This regression includes more variables and specifically those used for the index. Both some

highly correlated and others not so related are presented here. P10,p16,p17 are excluded since their value exceeds the 0.05 level of significance. Only ten variables are used for the index.

### Linear correlations

|       | P3    | P4    | P5    | P6    | P7    | PP7   | P8    | P9    | P10   | P11   | P12   | P13   | P14   | P15   | P16   | P17   | PP17  | P18   | P19   | INDEX |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| P3    | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P4    | 0.32  | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P5    | -0.03 | -0.15 | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P6    | -0.20 | -0.02 | -0.01 | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P7    | -0.03 | 0.04  | -0.09 | 0.00  | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| PP7   | 0.23  | 0.08  | -0.20 | 0.00  | -0.09 | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P8    | 0.30  | 0.30  | 0.09  | -0.04 | -0.07 | -0.04 | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |       |
| P9    | 0.29  | 0.55  | -0.06 | 0.03  | 0.00  | 0.24  | 0.28  | 1.00  |       |       |       |       |       |       |       |       |       |       |       |       |
| P10   | -0.29 | -0.33 | 0.13  | 0.22  | -0.05 | 0.05  | -0.30 | -0.42 | 1.00  |       |       |       |       |       |       |       |       |       |       |       |
| P11   | 0.40  | 0.65  | 0.13  | 0.10  | 0.03  | 0.19  | 0.17  | 0.71  | -0.22 | 1.00  |       |       |       |       |       |       |       |       |       |       |
| P12   | -0.12 | -0.40 | 0.08  | 0.12  | -0.01 | 0.08  | -0.23 | -0.25 | 0.35  | -0.27 | 1.00  |       |       |       |       |       |       |       |       |       |
| P13   | -0.22 | -0.27 | -0.01 | -0.30 | 0.00  | -0.18 | -0.17 | 0.01  | -0.04 | -0.27 | 0.06  | 1.00  |       |       |       |       |       |       |       |       |
| P14   | -0.19 | -0.04 | 0.12  | -0.16 | 0.05  | -0.14 | -0.13 | -0.02 | 0.11  | -0.23 | -0.02 | 0.55  | 1.00  |       |       |       |       |       |       |       |
| P15   | 0.13  | 0.21  | -0.19 | -0.14 | -0.19 | 0.22  | 0.16  | 0.00  | -0.22 | -0.04 | -0.13 | 0.06  | -0.04 | 1.00  |       |       |       |       |       |       |
| P16   | 0.10  | 0.03  | -0.27 | -0.05 | 0.03  | 0.18  | -0.19 | 0.10  | -0.20 | 0.07  | 0.15  | -0.07 | 0.01  | 0.13  | 1.00  |       |       |       |       |       |
| P17   | -0.06 | 0.00  | -0.21 | -0.03 | -0.06 | -0.01 | 0.07  | 0.09  | -0.27 | -0.06 | -0.28 | 0.03  | 0.03  | 0.34  | -0.18 | 1.00  |       |       |       |       |
| PP17  | 0.08  | 0.13  | -0.08 | -0.15 | -0.32 | 0.03  | 0.08  | -0.02 | -0.19 | 0.00  | -0.26 | -0.15 | -0.09 | 0.78  | -0.05 | 0.78  | 1.00  |       |       |       |
| P18   | -0.22 | -0.18 | 0.01  | -0.10 | 0.13  | -0.05 | -0.02 | -0.25 | 0.26  | -0.28 | 0.18  | 0.01  | 0.02  | 0.03  | 0.05  | -0.01 | 0.00  | 1.00  |       |       |
| P19   | -0.08 | -0.03 | 0.13  | -0.10 | -0.20 | 0.01  | -0.02 | -0.15 | 0.10  | 0.01  | 0.32  | 0.11  | 0.09  | -0.08 | -0.05 | -0.19 | -0.18 | -0.17 | 1.00  |       |
| INDEX | 0.49  | 0.40  | -0.06 | -0.15 | -0.25 | 0.49  | 0.25  | 0.54  | -0.31 | 0.32  | -0.22 | 0.24  | 0.10  | 0.24  | 0.09  | 0.04  | 0.04  | -0.18 | -0.04 | 1.00  |

was

### Linear models calculated

TABLE Linear Models Calculated from the Index

| Duncan Grouping                                  | Mean   | N  |                       | df | MSE      |
|--|--------|----|-----------------------|----|----------|
| (P3) Number of Employments                       | 52.153 | 3  | More than 10          | 43 | 63.12069 |
| (P4) Years in Business                           | 44.409 | 24 | More than 10          | 42 | 65.65628 |
| (P7) Education                                   | 48.294 | 9  | Post graduate         | 42 | 56.02067 |
| (P9)Age  | 47.723 | 5  | More than 60 year     | 41 | 60.60684 |
| (P9)Age  | 47.337 | 9  | 51 - 60               | 41 | 60.60684 |
| (P21) Full Time Employess-Now                    | 50.303 | 3  | 51 - 100              | 41 | 62.09714 |
| (P23) How Many Employess In 3 Years - Full Time  | 52.713 | 2  | 51 - 100              | 37 | 66.07924 |
| (P26) Average Sales Last Year                    | 46.822 | 13 | More than 10          | 41 | 63.81418 |
| (P27) Sales 3 Years Ago                          | 45.818 | 10 | More than \$1.000.000 | 38 | 70.03876 |
| (P28) Expected Sales Next 3 Years                | 47.770 | 11 | More than \$10        | 31 | 70.77320 |
| (P30) Self - Rated Market Positioning            | 47.622 | 17 | Market Leader         | 37 | 35.30114 |
| (P34) Formal Bussines Plan                       | 44.801 | 20 | Yes                   | 44 | 66.86054 |
| (P38) In Which Area (s)?                         | 52.583 | 1  | Production growth     | 23 | 53.26297 |
| (P60) Factor That Will Make the Firms Successful | 47.247 | 6  | Competition           | 37 | 70.67761 |

|  |        |    |                      |    |          |
|--|--------|----|----------------------|----|----------|
| (P68) Factor That Will Make the Firms Successful       | 62.813 | 1  | Financial soundn     | 41 | 68.89882 |
| (P84) Most Important Resources                         | 46.009 | 13 | Competition          | 36 | 68.23144 |
| (P 101) Main Competitive Advantage NOW                 | 48.356 | 9  | Quality product      | 32 | 52.88969 |
| (P 111) Importance of Financial Measures Now           | 62.813 | 1  | Overall profit first | 38 | 67.53253 |
| (P 117) Importance of Financial Measures in the Future | 62.813 | 1  | ROI                  | 34 | 78.31292 |
| (P 138) Whose Assistance?                              | 52.583 | 1  | Consultants          | 28 | 66.56368 |
| (P 143) Financially Compared to Last Year?             | 44.353 | 7  | Same                 | 41 | 70.33141 |
| (P 144) Reached Your Planned Sales Level               | 42.725 | 26 | Reached              | 41 | 69.23745 |
| P (190) Which Factors Have Affected Your Business?     | 55.732 | 1  | Financing            | 2  | 1.691871 |

Dependent Variable Success. Alpha = 0.1

**PRINQUAL MTV Iteration History**

| Iteration Number | Average Change | Maximum Change | Proportion of Variance | Variance Change |
|------------------|----------------|----------------|------------------------|-----------------|
| 1                | 0.14621        | 2.54269        | 0.39311                | .               |
| 2                | 0.07108        | 1.18028        | 0.44364                | 0.05053         |
| 3                | 0.04524        | 0.58429        | 0.46110                | 0.01746         |

Principal Component Analysis is used for grouping variables and averaging them out. See details on how the principal component is used. The eigenvalues used for the correlation is used for the calculations 46 Observations and 10 Variables considered. The Eigenvectors are: p3,74, tpp7, tp13, tpp30, tpp27, tp34, tp40, tpp135, and tpp143,

Principal Component Analysis

Eigenvalues of the Correlation Matrix

|       | Eigenvalue | Difference | Proportion | Cumulative |
|-------|------------|------------|------------|------------|
| PRIN1 | 2.63400    | 0.475883   | 0.263400   | 0.263400   |
| PRIN2 | 2.15812    | .          | 0.215812   | 0.479212   |

**Histogram of Index Values:**

The SAS System

Correlation Analysis

11 'VAR' Variables: P3 P4 PP7 P13 PP30 P34 P40  
P35 PP143 PP27 INDEX

Simple Statistics

| Variable     | N         | Mean             | Std Dev         | Sum                |
|--------------|-----------|------------------|-----------------|--------------------|
| P3           | 48        | 1.270833         | 0.609834        | 61.000000          |
| P4           | 48        | 3.041667         | 1.147770        | 146.000000         |
| PP7          | 48        | 2.312500         | 1.055003        | 111.000000         |
| P13          | 48        | 1.625000         | 0.489246        | 78.000000          |
| PP30         | 44        | 5.750000         | 1.601235        | 253.000000         |
| P34          | 48        | 1.437500         | 0.501328        | 69.000000          |
| P40          | 46        | 1.913043         | 0.284885        | 88.000000          |
| P35          | 40        | 2.700000         | 1.343551        | 108.000000         |
| PP143        | 44        | 2.704545         | 0.593748        | 119.000000         |
| PP27         | 45        | 2750622          | 8008979         | 123778000          |
| <b>INDEX</b> | <b>46</b> | <b>40.342968</b> | <b>8.999932</b> | <b>1855.776519</b> |

Simple Statistics

| Variable | Minimum   | Maximum   | Label                                    |
|----------|-----------|-----------|--|
| P3       | 1.000000  | 3.000000  | Number of Employees                      |
| P4       | 1.000000  | 4.000000  | Years in Business                        |
| PP7      | 1.000000  | 4.000000  | PP7                                      |
| P13      | 1.000000  | 2.000000  | Previous Business Experience             |
| PP30     | 1.000000  | 7.000000  | PP30                                     |
| P34      | 1.000000  | 2.000000  | Did you draft a formal business plan at  |
| P40      | 1.000000  | 2.000000  | Is your firm successful?                 |
| P35      | 1.000000  | 5.000000  | How did you ensure plans materialized?(1 |
| PP143    | 1.000000  | 3.000000  | PP143                                    |
| PP27     | 45000     | 40000000  | PP27                                     |
| INDEX    | 13.929722 | 62.812897 | INDEX                                    |

The basic idea of the index is to use the variables selected and calculate the weight it has on determining success. Each variable weight on the index appears as scaled value. As such, and based on the objectives of the thesis, literature review and the relationship this variables have on performance, variables for the index were chosen. Among the 10 variables chosen interpretation is exemplified as follows: the number of employees a firm has and the scaled options provided have a weight of almost 6% (5.82%) on the total index.

## Anova analysis ran, pre Index

---

### SUMMARY OUTPUT

---

#### Regression Statistics

|                   |       |
|-------------------|-------|
| Multiple R        | 0.87  |
| R Square          | 0.75  |
| Adjusted R Square | 0.70  |
| Standard Error    | 4.97  |
| Observations      | 44.00 |

#### ANOVA

|            | Df    | SS      | MS     | F     | Significance F |
|------------|-------|---------|--------|-------|----------------|
| Regression | 7.00  | 2670.29 | 381.47 | 15.46 | 0.0000         |
| Residual   | 36.00 | 888.12  | 24.67  |       |                |
| Total      | 43.00 | 3558.42 |        |       |                |

#### Coefficients

|           | Coefficients | Standard Error | t Stat | P-value |
|-----------|--------------|----------------|--------|---------|
| Intercept | -6.85        | 5.28           | -1.30  | 0.203   |
| P3        | 6.28         | 1.43           | 4.40   | 0.000   |
| P4        | 3.05         | 0.91           | 3.35   | 0.002   |
| P5        | 1.24         | 0.71           | 1.76   | 0.087   |
| PP7       | 4.30         | 0.80           | 5.36   | 0.000   |
| P9        | 2.35         | 0.93           | 2.52   | 0.016   |
| P11       | -2.56        | 1.14           | -2.24  | 0.031   |
| P13       | 7.37         | 1.76           | 4.18   | 0.000   |

---

#### APPENDIX 4 HOW THE MODEL WAS OBTAINED:

A) The PRINQUAL procedure obtains linear and nonlinear transformations of variables by using the method of alternating least squares to optimize properties of the transformed variables' covariance or correlation matrix. Nonoptimal transformations for logarithm, rank, exponentiation, inverse sine, and logit are also available with PROC PRINQUAL.

The PRINQUAL (principal components of qualitative data) procedure is a data transformation procedure that is based on the work of Kruskal and Shepard (1974); Young, Takane, and de Leeuw (1978); Young (1981); and Winsberg and Ramsay (1983). You can use PROC PRINQUAL to

- generalize ordinary principal component analysis to a method capable of analyzing data that are not quantitative
- perform metric and nonmetric multidimensional preference (MDPREF) analyses (Carroll 1972)
- preprocess data, transforming variables prior to their use in other data analyses
- summarize mixed quantitative and qualitative data and detect nonlinear relationships
- reduce the number of variables for subsequent use in regression analyses, cluster analyses, and other analyses

This research used MTV.

The PRINQUAL procedure provides three methods of transforming a set of qualitative and quantitative variables to optimize the transformed variables' covariance or correlation matrix. These methods are

- maximum total variance (MTV)
- minimum generalized variance (MGV)
- maximum average correlation (MAC)

All three methods attempt to find transformations that decrease the rank of the covariance matrix computed from the transformed variables. Transforming the variables to maximize the variance accounted for by a few linear combinations (using the MTV method) locates the observations in a space with dimensionality that approximates the stated number of linear combinations as much as possible, given the transformation constraints. Transforming the variables to minimize their generalized variance or maximize the sum of correlations also reduces the dimensionality. The transformed qualitative (nominal and ordinal) variables can be thought of as quantified by the analysis, with the quantification done in the context set by the algorithm. The data are quantified so that the proportion of variance accounted for by a stated number of principal components is locally maximal, the generalized variance of the variables is locally minimal, or the average of the correlations is locally maximal.

The PRINCOMP procedure performs principal component analysis. As input you can use raw data, a correlation matrix, a covariance matrix, or a sums of squares and crossproducts (SSCP) matrix. You can create output data sets containing eigenvalues, eigenvectors, and standardized or unstandardized principal component scores.

Principal component analysis is a multivariate technique for examining relationships among several quantitative variables. The choice between using factor analysis and principal component analysis depends in part upon your research objectives. You should use the PRINCOMP procedure if you are interested in summarizing



data and detecting linear relationships. Plots of principal components are especially valuable tools in exploratory data analysis. You can use principal components to reduce the number of variables in regression, clustering, and so on.

Given a data set with  $p$  numeric variables, you can compute  $p$  principal components. Each principal component is a linear combination of the original variables, with coefficients equal to the eigenvectors of the correlation or covariance matrix. The eigenvectors are customarily taken with unit length. The principal components are sorted by descending order of the eigenvalues, which are equal to the variances of the components.

Principal components have a variety of useful properties (Rao 1964; Kshirsagar 1972):

The eigenvectors are orthogonal, so the principal components represent jointly perpendicular directions through the space of the original variables.

The principal component scores are jointly uncorrelated. Note that this property is quite distinct from the previous one.

The first principal component has the largest variance of any unit-length linear combination of the observed variables. The  $j$ th principal component has the

largest variance of any unit-length linear combination orthogonal to the first  $j-1$  principal components. The last principal component has the smallest variance of

any linear combination of the original variables.

```

DATA L.EXITOC;
SET L.EXITOC;
PP30=8-P30;
PP122=5-P122;
PP123=5-P123;
PP124=5-P124;
PP125=5-P125;
PP126=5-P126;
    IF P135=1 THEN PP135=3;
ELSE IF P135=2 THEN PP135=1;
ELSE IF P135=3 THEN PP135=2;
    IF P136=1 THEN PP136=3;
ELSE IF P136=2 THEN PP136=1;
ELSE IF P136=3 THEN PP136=2;
    IF P143=1 THEN PP143=3;
ELSE IF P143=2 THEN PP143=1;
ELSE IF P143=3 THEN PP143=2;
    IF P144=1 THEN PP144=2;
ELSE IF P144=2 THEN PP144=1;
ELSE IF P144=3 THEN PP144=3;

RUN;

OPTIONS NOCENTER NODATE NONUMBER;
PROC FREQ DATA=L.EXITOC;
TABLES P4 P17 P26 P27 P30 P122 P126 P135 P136 P143 P144;
%MISFOR3;
RUN;

PROC FREQ DATA=L.EXITOC;
TABLES P4 PP17 P26 PP27 PP30--PP144;
RUN;

PROC PRINQUAL DATA=L.EXITOC OUT=SALIDA1 TSTANDARD=Z MAXITER=50 NOMISS;
TRANSFORM MONOTONE(P4 P26 PP30--PP144) LINEAR(PP17 PP27);
rUN;
QUIT;

PROC FREQ DATA=SALIDA1;
TABLES TP4 TPP17 TP26 TPP27 TPP30--TPP144;
RUN;

%MACRO YY (VAR) ;
PROC TABULATE DATA=SALIDA1;
CLASS &VAR;
VAR T&VAR;
TABLE &VAR, (T&VAR) * (MEAN) ;
RUN;
%MEND YY;
%YY (P4) ;
%YY (PP17) ;
%YY (P26) ;
%YY (PP27) ;
%YY (PP30) ;
%YY (PP122) ;
%YY (PP123) ;
%YY (PP124) ;
%YY (PP125) ;
%YY (PP126) ;
%YY (PP135) ;
%YY (PP136) ;
%YY (PP143) ;
%YY (PP144) ;

%MACRO XXX (VAR, MIN) ;
DATA SALIDA1;
SET SALIDA1;
IF &VAR=. THEN T&VAR=&MIN;
RUN;
%MEND XXX;

```

```

%XXX(P4,-1.03);
%XXX(PP17,-0.84);
%XXX(P26,-0.68);
%XXX(PP27,-0.32);
%XXX(PP30,0.103);
%XXX(PP122,-2.42);
%XXX(PP123,-2.59);
%XXX(PP124,-0.68);
%XXX(PP125,-1.78);
%XXX(PP126,-1.34);
%XXX(PP135,-2.78);
%XXX(PP136,-3.48);
%XXX(PP143,-3.51);
%XXX(PP144,-1.93);

DATA SALIDA2(KEEP=P1 INDICE INDC );
SET SALIDA1;
RETAIN P1 0;
P1=P1+1;
INDICE=(TP4+TPP17+TP26+TPP27+TPP30+TPP122+TPP123+TPP124+TPP125+TPP126+TPP135+TPP136
+TPP143+TPP144+24.41)*100/37.22;

Decision factors:
      IF INDICE>75 THEN INDC=1;
ELSE   IF 75>=INDICE>65 THEN INDC=2;
ELSE   IF 65>=INDICE>55 THEN INDC=3;
ELSE   IF 55>=INDICE>40 THEN INDC=4;
ELSE   INDC=5;
RUN;

PROC FREQ;
TABLE INDICE INDC;
RUN;

DATA L.EXITOC;
MERGE L.EXITOC SALIDA2;
BY P1;
RUN;

/*****/
PROC FORMAT;
VALUE INDCN      1='Highly Successful'
                 2='Very Successful'
                 3='Successful'
                 4='Not Well'
                 5='Failing';

run;

OPTIONS NODATE NOCENTER NONUMBER;
PROC FREQ DATA=L.EXITOC;
TABLES INDC*(P2--P9 P12--P24 P26--P207)/EXACT NOCOL NOROW NOPERCENT;
%MISFOR3 indc indcn.;
RUN;

PROC FREQ DATA=L.EXITO2;
TABLES (P59 P60 P84--P86 P200--P207)*
      (P122--P126 P129--P131 P135 P136 P143--P145)/EXACT NOCOL NOROW NOPERCENT;
      /* DA8 */
TABLES (P96--P100)*P6/EXACT NOCOL NOROW NOPERCENT;
      /* DA9 */
TABLES (P43--P45 P49--P58)*P6/EXACT NOCOL NOROW NOPERCENT;
      /* DA11 */
TABLES (P30 P70 P71 P74 P75 P79 P82 P124 P204 P206)*P6/EXACT NOCOL NOROW NOPERCENT;
      /* DA12 */
TABLES (P59 P60 P84--P86 P200--P207)*P6/EXACT NOCOL NOROW NOPERCENT;
      /* DA13 */

%MISFOR2;
RUN;

/*****/
DATA L.EXCONT(KEEP= PP: P1);
SET L.EXCONT;

```

```

PP17=P17;
PP27=P27;
PP28=P28;
RUN;

```

```

DATA L.EXITOC;
MERGE L.EXITOC L.EXCONT;
BY P1;
RUN;

```

```

PROC SORT DATA=L.EXF2;
BY P6;
RUN;

```

```

PROC UNIVARIATE DATA=L.EXF2;
VAR PP17;
by p6;
RUN;

```

```

proc corresp data=l.exf2;
var pp17 pp27 pp28;
run;

```

PRINQUAL MTV Iteration History

| Iteration<br>Number | Average<br>Change | Maximum<br>Change | Proportion<br>of Variance | Variance<br>Change |
|---------------------|-------------------|-------------------|---------------------------|--------------------|
| 1                   | 0.14621           | 2.54269           | 0.39311                   | .                  |
| 2                   | 0.07108           | 1.18028           | 0.44364                   | 0.05053            |
| 3                   | 0.04524           | 0.58429           | 0.46110                   | 0.01746            |
| 4                   | 0.03303           | 0.48603           | 0.46990                   | 0.00881            |
| 5                   | 0.02093           | 0.40769           | 0.47489                   | 0.00498            |
| 6                   | 0.01408           | 0.31522           | 0.47691                   | 0.00203            |
| 7                   | 0.00986           | 0.25217           | 0.47787                   | 0.00096            |
| 8                   | 0.00613           | 0.20299           | 0.47838                   | 0.00051            |
| 9                   | 0.00480           | 0.16174           | 0.47866                   | 0.00027            |
| 10                  | 0.00392           | 0.13115           | 0.47883                   | 0.00018            |
| 11                  | 0.00329           | 0.10691           | 0.47895                   | 0.00012            |
| 12                  | 0.00278           | 0.08745           | 0.47903                   | 0.00008            |
| 13                  | 0.00234           | 0.07172           | 0.47909                   | 0.00006            |
| 14                  | 0.00198           | 0.05895           | 0.47912                   | 0.00004            |
| 15                  | 0.00166           | 0.04854           | 0.47915                   | 0.00003            |
| 16                  | 0.00140           | 0.04004           | 0.47917                   | 0.00002            |
| 17                  | 0.00117           | 0.03306           | 0.47918                   | 0.00001            |
| 18                  | 0.00098           | 0.02734           | 0.47919                   | 0.00001            |
| 19                  | 0.00082           | 0.02262           | 0.47920                   | 0.00001            |
| 20                  | 0.00069           | 0.01874           | 0.47920                   | 0.00000            |
| 21                  | 0.00057           | 0.01553           | 0.47920                   | 0.00000            |
| 22                  | 0.00048           | 0.01288           | 0.47921                   | 0.00000            |
| 23                  | 0.00040           | 0.01069           | 0.47921                   | 0.00000            |
| 24                  | 0.00033           | 0.00887           | 0.47921                   | 0.00000            |
| 25                  | 0.00028           | 0.00736           | 0.47921                   | 0.00000            |
| 26                  | 0.00023           | 0.00612           | 0.47921                   | 0.00000            |
| 27                  | 0.00019           | 0.00508           | 0.47921                   | 0.00000            |
| 28                  | 0.00016           | 0.00422           | 0.47921                   | 0.00000            |
| 29                  | 0.00013           | 0.00351           | 0.47921                   | 0.00000            |
| 30                  | 0.00011           | 0.00292           | 0.47921                   | 0.00000            |
| 31                  | 0.00009           | 0.00243           | 0.47921                   | 0.00000            |
| 32                  | 0.00008           | 0.00202           | 0.47921                   | 0.00000            |

|    |         |         |         |         |
|----|---------|---------|---------|---------|
| 33 | 0.00006 | 0.00168 | 0.47921 | 0.00000 |
| 34 | 0.00005 | 0.00139 | 0.47921 | 0.00000 |
| 35 | 0.00004 | 0.00116 | 0.47921 | 0.00000 |
| 36 | 0.00004 | 0.00096 | 0.47921 | 0.00000 |
| 37 | 0.00003 | 0.00080 | 0.47921 | 0.00000 |
| 38 | 0.00003 | 0.00067 | 0.47921 | 0.00000 |
| 39 | 0.00002 | 0.00056 | 0.47921 | 0.00000 |
| 40 | 0.00002 | 0.00046 | 0.47921 | 0.00000 |
| 41 | 0.00001 | 0.00038 | 0.47921 | 0.00000 |
| 42 | 0.00001 | 0.00032 | 0.47921 | 0.00000 |
| 43 | 0.00001 | 0.00027 | 0.47921 | 0.00000 |
| 44 | 0.00001 | 0.00022 | 0.47921 | 0.00000 |

NOTE: Algorithm converged.

## Principal Component Analysis

46 Observations

10 Variables

Principal Component Analysis

Eigenvalues of the Correlation Matrix

|       | Eigenvalue | Difference | Proportion | Cumulative |
|-------|------------|------------|------------|------------|
| PRIN1 | 2.63400    | 0.475883   | 0.263400   | 0.263400   |
| PRIN2 | 2.15812    | .          | 0.215812   | 0.479212   |

Eigenvectors

|        | PRIN1    | PRIN2    |                      |
|--------|----------|----------|----------------------|
| TP3    | 0.307712 | -.253827 | P3 Transformation    |
| TP4    | 0.286475 | -.370097 | P4 Transformation    |
| TPP7   | 0.354389 | -.059008 | PP7 Transformation   |
| TP13   | 0.148175 | 0.451119 | P13 Transformation   |
| TPP30  | 0.491447 | -.050532 | PP30 Transformation  |
| TP34   | 0.270613 | 0.076764 | P34 Transformation   |
| TP40   | 0.254011 | 0.017087 | P40 Transformation   |
| TPP135 | 0.195956 | 0.531799 | PP135 Transformation |
| TPP143 | 0.253131 | 0.504489 | PP143 Transformation |
| TPP27  | 0.440399 | -.213431 | PP27 Transformation  |

## Histogram of Index Values:

The SAS System

Correlation Analysis

11 'VAR' Variables: P3 P4 PP7 P13 PP30 P34  
P40 P35 PP143 PP27 INDEX

### Simple Statistics

| Variable    | N  | Mean      | Std Dev  |
|-------------|----|-----------|----------|
| Sum         |    |           |          |
| P3          | 48 | 1.270833  | 0.609834 |
| 61.000000   |    |           |          |
| P4          | 48 | 3.041667  | 1.147770 |
| 146.000000  |    |           |          |
| PP7         | 48 | 2.312500  | 1.055003 |
| 111.000000  |    |           |          |
| P13         | 48 | 1.625000  | 0.489246 |
| 78.000000   |    |           |          |
| PP30        | 44 | 5.750000  | 1.601235 |
| 253.000000  |    |           |          |
| P34         | 48 | 1.437500  | 0.501328 |
| 69.000000   |    |           |          |
| P40         | 46 | 1.913043  | 0.284885 |
| 88.000000   |    |           |          |
| P35         | 40 | 2.700000  | 1.343551 |
| 108.000000  |    |           |          |
| PP143       | 44 | 2.704545  | 0.593748 |
| 119.000000  |    |           |          |
| PP27        | 45 | 2750622   | 8008979  |
| 123778000   |    |           |          |
| INDEX       | 46 | 40.342968 | 8.999932 |
| 1855.776519 |    |           |          |

### Simple Statistics

| Variable | Minimum | Maximum | Label |
|----------|---------|---------|-------|
|----------|---------|---------|-------|

|                  |           |           |                              |
|------------------|-----------|-----------|------------------------------|
| P3               | 1.000000  | 3.000000  | Number of Employees          |
| P4               | 1.000000  | 4.000000  | Years in Business            |
| PP7              | 1.000000  | 4.000000  | PP7                          |
| P13              | 1.000000  | 2.000000  | Previous Business Experience |
| PP30             | 1.000000  | 7.000000  | PP30                         |
| P34              | 1.000000  | 2.000000  | Did you draft a formal       |
| business plan at |           |           |                              |
| P40              | 1.000000  | 2.000000  | Is your firm successful?     |
| P35              | 1.000000  | 5.000000  | How did you ensure plans     |
| materialized?(1  |           |           |                              |
| PP143            | 1.000000  | 3.000000  | PP143                        |
| PP27             | 45000     | 40000000  | PP27                         |
| INDEX            | 13.929722 | 62.812897 | INDEX                        |
| The SAS System   |           |           |                              |

#### **APPENDIX 4:**

##### APPENDIX 4: A      Further statistical analysis and descriptions.

To measure the reliability of data the Cronbachs's alpha will be used. This test summarises the extent to which a set of items, per example statements measuring Entrepreneurship are interrelated to each other.

Validity will be measured as both convergent and discriminant, the researcher will attempt to use the "Entrescale" at the firm level. According to a few authors it has been found to be highly reliable (Knight, 1997). To ensure results, the same questions will be asked to cross-groups of male vs. female entrepreneurs<sup>1</sup>. The search for the overall fit of the model to be measured ,as cited in Knight, (1997) will be attempted. In addition to validity and reliability, the dimensionality of scales in each of the cultures, if any are found, will be used. Consistency in the factor loading will be emphasised to prevent lack of validity.

Chi square and t-test will be used to determine if significant differences exist between the firms at a 5% level of significance for any variable involved in the study. Manova analysis of variance determine the differences between male and females. Multiple regression analysis will be used to look for commonalties and influence among dependent and independent variables. Correlation and relationship between variables will be done via factor analysis. Finally, all information will be analysed in order to build a model based on the literature framework and research findings that could be used as a planning and preventing tool for SME's.

Process of selecting a sample.- Sampled firms will be identified and selected at random from a cross-sectional listing of SBA and Puerto Rico's Retailing and Manufacturers Association and/or Chambers of Commerce. Potential sample size. Select the sample out of the number of SME's from the 86,000 approximate registered and active businesses. Contacts will be made with representatives of associations in order to obtain sponsorship. The initial sample selection will be selected first at random and then stratified and of systematic manner at the gender and size selection. The population of firms should be from the private sector and across gender and culture.

#### **e).Encoding, editing, analysis and interpretation of instrument will be done using**

---

<sup>1</sup> Convergent validity is the degree to which multiple independent attempts to measure the same construct are in agreement while discriminant validity the extent to which measures of two or more different constructs are distinct, Bagozzi, Yi, and fiske, 1959).

**computer packages Minitab, SPSS and Excel in diverse phases. Standard operating procedures based on generally accepted statistical principles will be followed. Tables, graphs and charts will be construed according to the statistical analysis pertaining the particular situation. Enumeration, classification, relationships will be established and searched for across variables.**