The academic and popular business press are flush with recurring articles on the factors associated with business success. Examples of business successes and failures abound, thus articles abound discussing the various causes and trends. Two decades ago, for example, the Yugo was introduced in the United States. It had as the lowest price automobile on the market, but the carmaker's American division was bankrupted only four years later due to perceptions of quality problems and poor dealer service. The same entrepreneur also brought the Subaru line of cars from Japan and is now developing plans to import cheap cars from China (Rerup, 2005). Will the organizational factors that plagued the Yugo be repeated? Perhaps consumers now overlook the lack of service and the disposable nature of many contemporary products because of their (always) low price.

Similar examples abound. During the 1990s, PepsiCo acquired the California Pizza Kitchen restaurant chain and launched an aggressive growth campaign, opening sixty new stores. Quality and service management problems resulted in the closure of seventeen stores; however, and PepsiCo divested the pizza chain only five years later (Parnell, Von Bergen & Soper, 2005). More recently, the success of Internet icons Google and Yahoo has been attributed to a number of factors, including technical acumen and executive prowess (Effron, Gandossy, & Goldsmith, 2003). On the other hand, there are also examples of firms with technological marvels that have turned into major management blunders, as was the case with Iridium Satellite communications (Finkelstein & Sanford, 2000).

Factors associated with business success have been pervasive topics in the entrepreneurship literature for decades and have addressed all functional areas of business, such as marketing, finance, and production (Bruno, Leidecker, & Harder, 1987; Terpstra & Olson, 1993). Business Resources are usually categorized in three groups: physical, organizational, and human (Koch & Kok 1999). The human resource has long been identified as critical, and in particular the experience of management, by affecting the other resources and functions to achieve success (Penrose, 1959, p. 5). Therefore, this paper considers specific factors in one functional area-human resources (HR) - and examines relationships to several key organizational attributes. This paper is based on a survey of firms involved in technology environments because new businesses in this sector are often seen as the engines in the so-called new economy and their distinctive human capital needs and composition may help determine their growth or failure.

Review of the Literature

More than 600,000 new businesses are launched in the United States each year (Dennis, 1999). Carter, Gartner, and Reynolds (1996) described successful entrepreneurs as aggressive in starting
their businesses, making their business tangible to others, finding the most suitable facilities and equipment, getting financial support, forming a legal entity, managing their resources, and devoting full time to the business. Lussier (1995) found that successful firms had good resources in terms of managerial advice and financial support as well as having a detailed and developed business plan. Cooper (1993) constructed a model of the elements affecting new venture performance that included the entrepreneur's characteristics including goals, founding process including reasons for start up, initial firm characteristics, and the environment including risks. This research led to the conclusion that both the characteristics of the entrepreneur and some skill set should be explored.

Success and failure is not only linked to characteristics of the entrepreneur, however, but also to emphasis on key strategic factors (Frese, Brantjes, & Hoorn, 2002; Parnell, Lester, & Menefee, 2000). For example, Reynolds and Miller (1992) describe a fully developed new firm as one that requires the full time commitment of one or more individuals, is selling a product or service, has formal financial support and has hired one or more individuals. Vesper (1990) created a new venture idea checklist. His list includes the basic feasibility of the business, competitive advantages of the business, buyer decisions in the venture, marketing of the goods and services, production of the goods and services, staffing decisions in the venture, control of the venture, and financing the venture. In Pratt's Guide to Venture Capital Sources (1999), they identified seven areas in which to evaluate new ventures. These areas were marketing and sales; operations; research, development, and engineering; financial management; general management and administration; personnel management; and legal and tax aspects.

In a similar vein, researchers have also focused on why firms fail. In an early work by Levitt (1960) and a later work by Karatko and Hodgetts (2003), they cite lack of objective evaluation of the business venture, no real insight into the market, inadequate understanding of technical requirements, poor financial understanding, lack of business uniqueness, and ignorance of legal issues as leading to business failures. Bruno, Leidecker, and Harder (1987) in analyzing business failures cited the following factors: poor timing, product design problems, inappropriate distribution strategy, unclear business definition, over reliance on one customer, assuming debt too early, venture capital relationship problems, concept of teamwork, and human resource problems. Zacharakis, Meyer, and DeCastro (1999) cited poor external marketing conditions, poor management strategy, lack of management skill, and lack of capitalization as the leading causes of business failure.

A number of studies have noted importance of human resource activities in the success or failure of a firm (Terpstra & Olson, 1993). Human resource factors form one of the most significant areas for success of a company (Itami & Roehl, 1987; Castanias & Helfat, 1991; Spender, 1993; Lei & Hitt, 1995; Conner & Prahalad, 1996). Cooper, Gimeno-Gascon, & Woo (1994), Carter, et al. (1994), as well as Nucci (1999) wrote that business survival and success is related to human resource as well as the financial factors at the initial start-up stage. A study of new businesses by Bamford, Dean, & McDougall (1996) identified acquiring competent human resources was critical for a venture's success or failure because HR practices (also called personnel in the literature) influence and may determine if a firm does well in developing its product/service offer.
There are differences between large and small companies, but Hornsby and Kuratko (1990) found that concern for the most important future human resource issues is not affected by firm size. However, Chandler & McEvoy (2000) point out that there are few studies identifying and validating HR practices in small firms, and even less research focusing on the relationship between strategy, HR management, and the success of small businesses. A study of small companies by Chandler & McEvoy (2000) identified the positive effects of HR practices. These included practices that increased employee skills and motivation, which resulted in improving productivity. Size and resource capacities make an impact as Hornsby and Kuratko (1990) found that recruiting, motivating, and retaining employees is one of the biggest problems for small firms.

There is evidence to suggest that firms in high technology environments face other concerns as well (Parnell, Carraher & Odom, 2000). Researchers and practitioners have debated the influence of technology developments on organizational performance ever since the first wave of information technology (IT) investments occurred about three decades ago (Dedrick, Gurbaxani, & Kraemer, 2003). Early studies conducted during the 1980s revealed no direct connection between IT investment and productivity (Roach, 1991; Solow, 1987; Strassman, 1990). During the mid-1990s, however, more comprehensive studies began to reveal greater links between IT utilization and productivity (Dedrick, et al., 2003), but not necessarily profitability (Hitt & Brynjolfsson, 1996), some of which credited IT investment with the economic boom experienced during the later part of that decade. Nevertheless, the influence of new management practices, shifts in industry structure, as well as investment in human capital (knowledge, experience, or skills) cannot be discounted as contributing factors (Dewan & Kraemer, 2000; Melville, 2001). Moreover, researchers such as Cadbury (1987), Henderson (1982), Kuratko and Hodgetts (2003), have also made a strong case for the inclusion of a key concern related to human resources - ethics and social responsibility - as a factor in the success or failure of a business. This issue has now highlighted because of the cases of top executive lapses in ethics or social responsibility that have resulted in business collapses of historical proportions.

Research Questions and Hypotheses

Research in the areas of business success and of business failure indicates several common threads for evaluation. These include the characteristics of entrepreneurs, their ethics, and their goals. There also needs to be an assessment of skills that involve risk taking, resources management, legal issues including protection of intellectual property and business formation, making a business plan, financing the business, accounting for the business, team building, human resource management), structuring the business, critical thinking including problem solving, sales, marketing, ethics, leadership, project management, and business assessment. Another area that should be examined is whether these traditional factors associated with the so-called old economy business also apply to new technology commercialization businesses. Moreover, the focus seems to be on the experience and skills of the start-up entrepreneur, yet the experience of technology businesses indicates a need to examine the human capital of all employees in a venture as an indicator of potential success or failure.

H0: There is no effect of HR on the success and growth of a company.
Independent of each firm's individual peculiarity, all organizations need effective HR management. For example, low turnover and the retention of employees, good levels of satisfaction and morale, as well as the presence of employee development opportunities play important roles in the success of companies. Thus, the first conjecture is

H1: The degree of a firm's overall HR performance is positively associated with success and growth.

The approaches to employee recruitment and selection are many. Larger firms often have greater resources to filter potential workers, yet smaller companies may have greater insight regarding a potential recruit at the individual level. Regardless of the types of recruitment, tests, interviews, and measures of potential performance, recruitment and selection of the right people for company positions affects the probability of success. Thus, the second conjecture is

H2: Effective recruitment and selection is positively associated with success and growth.

Designing and implementing adequate work environments, reward systems, benefits packages (among others) are part of HR function. These are often critical to retain the highest performing quality employees. Organizations sometimes have difficulties in keeping their best people from accepting posts that are more attractive. This is particularly true in the sectors of high demand for particular human capital. There must exist adequate levels of satisfaction by the employees with their job and the company. Thus, the next two conjectures are

H3: Retention of quality employees by the company is positively associated with success and growth.

H4: Employee Satisfaction is positively associated with success and growth.

Companies provide enhancement of human capital by education, training, mentoring and other programs as a means to improving business outcomes. These programs not only increasing the skills of employees, but also motivate individuals and inspire new ideas. There are positive effects in the interrelation between knowledge-structures (such as development and training) with the growth of organizations. Thus, the fifth conjecture is

H5: Employee training and development is positively associated with success and growth.

Lastly, proper ethical behavior and social responsibility would seem to be expected modes. However, there continue to be problems in this area. Companies that do good deeds are often the ones that also do very well. Thus, the last conjecture is

H6: Ethical and socially responsible behavior is positively associated with success and growth.

Methods

A survey instrument was developed to elicit responses regarding the major factors associated with business success and business failure. A five-point Likert scale (1 = lowest importance, 5 =
highest importance) was utilized with each item in the questionnaire. Respondents were asked to assess the extent to which each factor was instrumental in the success of a new organization in the respondent's industry. A summary of the items is shown in Table 1.

Six items related to human resources as a critical success factor. One was based on Terpstra and Olson's (1993) work. An item associated with the perceived importance of ethics and social responsibility following the example of Kuratko and Hodgetts (2003). Four specific items were directly related to HR practices.

Three items asked about innovation, changes in products and processes, as well as changes in technology. These were used to assess the level of technological influence and threats in the environment. Several short questions were for classification purposes. Respondents asked to select the environment of their organizations as high, moderate, or low technology. Items addressing firm size and age were also included.

Members of rural and urban chambers of commerce in southeastern North Carolina were invited to participate in the survey, which was administered through an Internet web page. A total of 107 usable responses were obtained, including 24 whose businesses were self-identified as high technology, 57 moderate technology, and 24 low technology. The mean firm age was 32.4 years, with a range from one to 139 years. Organizations of various sizes were represented, with 20.6 percent of the respondents reporting annual sales of less than $500,000, 12.1 percent reporting sales in excess of $25 million, and the remainder in between the two extremes. In addition, 33.6 percent reported fewer than ten employees, 24.3 percent more than 100 employees, with the remainder in between. Hence, by common standards, most of the firms represented in this survey would be considered small or medium sized enterprises (SMEs).

Findings & Discussion

The survey and its analysis reveal interesting similarities among small and large organizations regarding their rankings of the HR success factors. Management approaches to HR issues is apparently not related by firm size is similar to the findings of Hornsby and Kuratko (1990). A parallel is also shown in the evaluation of HR area items among the companies that self-reported in either high or low technology. This seems deviation from traditional thinking. A summary of the statistics and correlations are reported in Tables 2, 3, and 4. The rankings of HR success factors in both small and large organizations-with comparisons based upon revenue-are summarized in Table 2. Rankings of HR success factors, when contrasting high-tech and lowtech organizations, is shown in Table 3. It also compares the means, but the results are based on the type of technology environment of the organization. Table 3 shows the correlation between the main variables. Only one, innovation, has a significant relationship.

The survey results appear inconclusive in indicating significance among most of the variables. In general, no single HR factor seems to impact business success, perhaps because the items measured are not really the major factors that determine success among the surveyed SMEs. However, the innovation variable has some pronounced impact across most of the HR factors. It has significance in both the t tests and in the correlation analysis. The findings do not reject HO.
This does not mean that HR does not contribute to the success and growth of a company. Although there is not sufficient evidence, the alternatives may be true.

A larger data set might have resulted in more significant relationships. The way the data was collected and the cross section or sample space of the population may also have incorporated some bias. Another issue could be with the perceptions within the technology businesses themselves. A conjecture could be that some managers within these organizations are linear in their mode of thinking because that is the way they operate. This may color the results, particularly on the scale used in the questionnaire. Associations of the 0 and 1 mindset may result that the survey items were answered as either on or off, and nothing in between. As a consequence, some of the measures might be biased by the perceptions of the responders.

Terpstra and Olson (1993) in classifying first year problems cited obtaining external financing, internal financial management, sales and marketing, product development, production and operations management, general management, human resource management, economic environment, and regulatory environment. Later, business success or failure may be the result of problems with the leadership and/or human resource management. In technology related businesses, firms face greater HR issues. For example, they most often need demand for highly trained employees in labor markets that are often characterized by a shortage of qualified labor. Moreover, procedures and routines that are intended to make various processes and the organization more efficient as it grows and ages often hold back potential innovation and creativity of employees.

Another problem with some HR strategies is the limited opportunities to give employees' talents full capacity. This is a significant issue among technology focused companies because they often fall into the SME category. In some companies, expenditures on HR are still treated as a cost factor. Yet, development of proper HR application helps facilitate business success.

Human resources are more important, and enlightened managers view it as an investment for future business potential. Lack of effective HR management can force the most productive employees to leave, taking with them crucial knowledge and experience. Consequently, benefits from wisdom accumulated over time should be combined with the energy gained from openness to innovation and change.

**Conclusions & Future Research**

The research presented contributes to HR development and utilization by attempting to analyze the role it contributes to business performance. Further research is required in order to obtain a better picture of the HR practices of firms that are doing well, as well as to identify the specific practices that may contribute to organizational success or failure. Practical implications of these findings include developing an HR strategy designed to achieve organizational survival and success.

Given factors associated with success and failure differ among organizations in high technology environments, it seems plausible similar differences could be found when other environmental
factors are considered, such as the degree of governmental regulation, the level of competitive intensity, and global influences on the firm.

It is likely critical success factors associated with human resources vary by industry. This factor was not considered in the study, however, and could be assessed in future studies.

References


Porter (1985) emphasized the role of Human resources (hereinafter referred to as the HR) as creator of competitive advantages at any firm. In recent years, management schools have begun to appreciate the importance of human resources as a source of competitive advantage. According to this perspective, which is known as resource-based view, firms recruit critical HR and then establish HR systems that increase their potential. In contemporary Strategic Management of Human Resource human capital concept is more often encountered. This concept was first developed by Beer et al. Today, the main goal of most businesses is to achieve competitive advantage. Competitive advantage is defined in different ways by different authors. As a small-business owner, you may find that human resources sometimes gets pushed to the side of your business plan or organizational management strategy. The planning involved in effective human resources can, however, help your small business create a talented, effective and efficient employee base, which can lead ... If so, you'll probably need to take on new staff to help meet this demand. The point is that the financial success of your business is intimately tied to its human resources planning. If you don't have enough employees, you can't meet demand, and not meeting demand means you turn away otherwise happy customers. Being Proactive. Every small-business owner does well to adopt a simple mantra: "I am proactive!"